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Recognition and Importance of Ethical Factors in Accountants' Decision Making

by

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ABSTRACT

Professional accountants in business are expected to not only fulfill legitimate organizational objectives, but also to recognize and deal with the ethical impact of their decisions on a diverse set of stakeholders. Prior research has investigated accountants' ethical reasoning, but little is known about their ethical sensitivity (i.e. their ability to detect the ethical component of their decisions), which is necessary for ethical reasoning to begin. This study builds on the observation that in situations of ambiguous decisions and competing objectives, decision makers do not process all relevant information; thus, they perceive or attend to only a selected subset that is guided by their view of organizational success. It explores the possibility that when professional accountants' view of organizational success does not include an explicit ethical component, they may fail to perceive the ethical implications of their decision. A common decision for many of them is whether (and, if so, how) to manage earnings. I conduct an experiment where accounting students and professional accountants in business face different organizational objectives (non-financial objectives present vs. non-financial objectives absent) and recommend whether and how the company should manage earnings to meet benchmarks. I provide evidence that practicing accountants have a lower level of ethical sensitivity than students and their level of ethical sensitive is higher at higher levels of years of accounting experience. Ethical sensitivity levels of practicing accountants and students are higher when organizational objectives include non-financial objectives. Through increased ethical sensitivity, the decision maker identifies a greater number of ethical issues in their decision, allowing for these elements of the decision to have a greater impact on the intended action.

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1. Introduction

On a daily basis, professional accountants in business[1] encounter complex business decisions that are intertwined with ethical implications. While accountants must make decisions that fulfill legitimate organizational objectives, they must also consider the impact of these decisions on stakeholder well-being and the integrity of the financial reporting process. The ethical reasoning of accountants has been questioned in light of the demise of Arthur Anderson and high profile financial failures. Research on ethical action has focused on moral judgment, neglecting ethical sensitivity, the initial step (Jordan 2007). Ethical sensitivity --the recognition that an ethical situation exists--is the first of four components that comprise Rest's (1979, 1986) seminal Four-Component Model of ethical decision making and behaviour. As Hall (1992 p. 37) notes, "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." Common organizational goals can reduce ethical sensitivity by focusing the professional accountant's attention on these goals to the exclusion of ethical issues (Bazerman and Tenbrunsel 2011). Through an experiment, I examine the ethical sensitivity of professional accountants confronted with a complex decision task and explore the efficacy of non-financial organizational objectives in increasing ethical sensitivity.

The importance of ethical sensitivity is highlighted in Gioia's (1992) discussion of his experience as recall coordinator during Ford Motor Company's recall decision on the Ford Pinto

[1] Professional accountants in business include individuals who work in an accounting capacity within an organization outside of public accounting. IFAC defines a professional accountant in business as "A professional accountant employed or engaged in an executive or non-executive capacity in such areas as commerce, industry, service, the public sector, education, the not for profit sector, regulatory bodies or professional bodies, or a professional accountant contracted by such entities." (IFAC code of conduct 2012, pg. 150)

in the early 1970s. Gioia attributes his failure to initiate an early recall of defective vehicles to the use of pre-established cognitive scripts, which resulted in a failure to recognize the ethical implications of the decision. Professional accountants develop scripts or "templates" to guide their judgment process in previously experienced situations (Gibbins 1984). These scripts direct the attention and direction of professional accountants' focus, which may result in a failure to recognize the ethical considerations of decisions. If professional accountants fail to recognize the ethical considerations of their decisions then how can they make ethically informed decisions?

One specific feature of professional accountants' decision environment is that they routinely confront ill-structured, complex problems that challenge their cognitive capabilities. As there is often a significant amount of information present and a number of decision considerations, professional accountants tend to attend to information that is relevant to current plans, intentions, and goals, while ignoring other information even though it may be decision relevant (Kahneman 1973; Jordan 2009). This cognitive phenomenon is labelled selective perception (Dearborn and Simon 1958). Organizational objectives, because of their importance and link to compensation and job performance, serve to focus accountants' attention and guide perceptions of the information environment. Short-term financial objectives can narrow accountants' focus to the need to meet short-term benchmarks, obscuring the ethical components of the decision and minimizing ethical sensitivity. This focus can cause accountants to overlook important ethical failures and fail to take appropriate actions (Bazerman and Tenbrunsel 2011). I hypothesize that the inclusion of non-financial corporate objectives could expand accountants' focus and increase awareness of the ethical considerations of their decisions. Consistent with

this prediction, I find higher ethical sensitivity levels when non-financial objectives are included in the corporations' financial objectives.

Evidence that experience increases sensitivity to ethical issues has been found for dental practitioners (Bebeau, Rest and Yamoor 1985; Bebeau 1994) and marketing practitioners (Sparks and Hunt 1998), but not for accounting practitioners (Karcher 1996; Shaub 1989). The absence of an effect of experience on ethical sensitivity in the accounting domain may be attributable to accountants' selective perception of the decision environment and to the organization of accountants' prior knowledge in memory (schema). Unlike the dental and marketing professionals, accountants have a dual role: to serve the interests of the users' of the financial statements and to serve the interest of the corporation, their employer (Westra 1986). The salience of the interests of the corporation may overshadow those of the users of the financial statements, thus reducing their ethical sensitivity. Experienced professionals may incorporate strategic and technical issues into their memory (schema) at the expense of ethical issues, causing a decreased awareness of ethical issues in future decisions. To this end, my study provides evidence on the difference in ethical sensitivity between professional accountants, who have had experience to develop their decision schemas, and accounting university students, who have not. I also examine the effect of years of accounting experience on ethical sensitivity. I find evidence that professional accountants have a lower level of ethical sensitivity than students, but that their level of ethical sensitivity is higher at higher levels of years of accounting experience. Professional accountants' ethical sensitivity levels are affected more by the inclusion of explicit non-financial objectives than students' ethical sensitivity levels.

To explore professional accountants' ethical sensitivity, I investigate the decision to manage earnings. "Earnings management occurs when accountants use judgment in financial

reporting and in structuring transactions to alter financial reports to either mislead some stakeholders about the underlying economic performance of the company or to influence contractual outcomes that depend on reported accounting numbers" (Healy and Wahlen 1999, p. 368). When accountants encounter a decision of whether or not to manage earnings, the organization's goals are of central importance to the decision. Earnings management may threaten the neutrality[2] of the financial statements and the integrity[3] of the accounting professional and may significantly affect the financial statement user's decisions. Researchers find that earnings management is judged to be ethically unacceptable (Merchant and Rockness 1994; Kaplan 2001; Belski, Beams and Brozovsky 2008; Guffey, McIntyre and McMillon 2009; Fischer and Rosenzweig 1995); yet extensive research reveals that it is ubiquitous in practice (Graham, Harvey and Rajgopal 2005; Jensen 2005). This failure to act in accordance with ethical judgments may be the result of a failure to recognize the ethical component of these decisions, making earnings management an interesting and relevant issue for the study of ethical sensitivity. In this experiment accountants face pressure to meet the organization's targets by managing earnings.

Accountants judge earnings management that has been achieved through alterations of the accounting (AM) to be less ethically acceptable than through transaction structuring (RTM) (Merchant and Rockness 1994; Kaplan 2001; Belski, Beams and Brozovsky 2008; Guffey, McIntyre and McMillon 2009), yet RTM can be economically costly[4] and hard to detect

[2] "A neutral depiction is without bias in the selection or presentation of financial information. A neutral depiction is not slanted, weighted, emphasized, deemphasized, or otherwise manipulated to increase the probability that financial information will be received favorably or unfavorable by users." (Financial Accounting Standards Board (FASB) 2010, Statement of Financial Accounting Concepts (SFAC) No. 8, Section QC14, pg. 18.

[3] Integrity is defined by the IFAC (2012) code of ethics as "to be straightforward and honest in all professional and business relationships." (IFAC 2012, Section 100.5, p.14)

[4] AM choices are attractive because they do not affect the cash flow of the firm and are therefore less likely to destroy long-term firm value. They can be done within the boundaries of GAAP and the detection costs are relatively low. (Badertscher 2011). RTM is the purposeful alteration of earnings by changing the timing or

(Badertscher 2011). The cause of the differences in ethical acceptability levels between RTM and AM has not been previously explored. I use the decision model of Jones (1991) to explore how these alternative methods of managing earnings affect the ethical decision making process. I examine the moral intensity (Jones 1991) of AM and RTM alternatives to explore whether this contributes to their differential ethical treatment. I add to the economic literature on the choice of earnings management method (ex. Badertscher 2011; Cohen, Dey and Lys 2008; Pincus and Rajgopal 2002) by exploring the use of the ethical decision making process on this choice. In general, I find that the level of moral intensity is higher for AM than for RTM, influencing earnings management moral judgements and the intentions to manage earnings. I also find that AM is considered to be a deception and a GAAP violation more frequently than RTM, which influences the earnings management moral judgements and the intentions to manage earnings.

I conduct an experiment where experienced professional accountants in business and accounting students encounter a complex decision about whether and how to manage earnings to meet various financial benchmarks. Through a 2x2 between-participant design, the study examines the effect of group (student/professional) and non-financial organizational objectives (present/absent) on accountants' awareness of the ethical considerations of their decision.

I find that professional accountants have lower ethical sensitivity than students. At higher levels of accounting experience, as measured by number of accounting years of experience, I find that professional accountants ethical sensitivity is higher, which Karcher (1996) and Shaub (1989) failed to find. I provide the first evidence of the effect of corporate

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structuring of an operating, investing or financing decision. Detection is lower for RTM than AM because transaction structuring is not subject to auditor or governance constraints to the same degree as AM. (Badertscher 2011) For example, the movement of a sale to an early period, in order to recognize the revenue early will not be scrutinized by the regulators or the auditors. However, RTM is seen as more costly than AM as it affects the cash flow of the organization directly and may have an adverse impact on optimal business decisions and potentially destroy long-term firm value. (Badertscher 2011)

objectives on ethical sensitivity levels, using selective perception as the theoretical foundation for the investigation. I find that ethical sensitivity levels are lower when organizational objective focus on financial organizational objectives alone, as opposed to including non-financial objectives. This starts to address the call from O'Fallon and Butterfield's (2005) for increased research into the area of ethical sensitivity with a focus on understanding the factors that affect individual's scanning or perception of information.

The remainder of this paper is organized as follows. Section 2 details the theoretical foundation of ethical decision making and behavior. Section 3 presents the ethical sensitivity hypothesis development. Section 4 details the issue of earnings management, the context of my study. Section 5 presents the moral sensitivity and moral judgment hypotheses development. Section 6 describes the experimental method and introduces the conceptual variables. Finally, Section 7 presents the results and Section 8 concludes with a discussion of results and a description of further work.

2. Models of Ethical Decision Making and Behaviour

The purpose of this section is to detail the theoretical underpinnings of my study. I apply Rest's (1979, 1986) model of ethical decision making and behavior to examine professional accountants' and accounting students' ethical thought processes and behaviour, with an emphasis on ethical sensitivity (model Component 1). The Jones model (1991) is examined to explore the effect of the moral intensity of an issue on the ethical decision making process.

2.1 Rest's (1979, 1986) Four-Component Model

Rest's (1979, 1986) Four-Component Model relies on a foundational assumption of the rational basis of the moral judgement process. This assumption has been challenged by Haidt (2001), who asserts an "intuitionist" view of the moral judgement process by which moral

evaluations are made quickly and largely intuitively with rationalizations done *ex post*. Moral intuition has been defined as "the sudden appearance in consciousness, or at the fringe of consciousness, of an evaluative feeling (like-dislike, good-bad) about the character or actions of a person, without any conscious awareness of having gone through steps of search, weighing evidence, or inferring a conclusion" (Haidt and Bjorklund, 2008, p. 188). Moral intuition represents a shift in moral psychology from the deliberate processing of Rest, to intuitive processing influenced by immediate feelings and social context (Haidt and Kesebir, 2010).

Rest's four-component model of ethical reasoning attempts to answer the question "What must we suppose happens psychologically in order for moral behaviour to take place?" (Rest and Narváez 1994, p. 23). Rest (1986) argues that for moral behaviour to take place:

> (Component 1) People must be able to perceive that a situation has ethical components (ethical sensitivity),
> (Component 2) People must make a moral judgment about the situation (moral judgment),
> (Component 3) People must weigh their moral values against competing values (moral intention), and
> (Component 4) People must take moral action (moral behaviour).

A person can fail to act ethically due to a failure at any one of these components.

The first component, ethical sensitivity occurs when a person recognizes that a decision or action will have consequences for other human beings (Jones 1991). According to Rest (1986; Rest and Narváez 1994), ethical sensitivity is the logical first step[5] in the ethical reasoning process.

[5] Some scholars have argued that moral sensitivity is a necessary first step in the ethical reasoning process (e.g. Clarkeburn 2002; Sparks and Hunt 1998), although the linear progression from Component 1 to 4 has not been demonstrated (Jordan 2007; Rest 1986).

Unlike Rest's model, moral intuition does not involve steps of reasoning. Moral judgements are the automatic and effortless result of moral intuition, with ethical reasoning occurring post hoc to justify the intuitive judgement (Haidt, 2001). Social intuitive studies have focused on intuitive ethical evaluations by individuals (for example, Haidt, 2001), where individuals have an intuitive feeling of good or bad with regards to the presented issue. If the automatic and unconscious (Haidt, 2001) evaluation deems the issue to be acceptable or void of ethical considerations, then no post hoc moral reasoning would be called for. In this way, the ethical implications of the issue will not be recognized or incorporated into the individual's decision. This lack of incorporation of the decisions ethical implication is similar to a lack of recognition of the ethical issue (component one) in Rest's model.

I use Rest's model to focus my theoretical discussion. Rest's model has been highly used in the business ethics literature (Bailey, Scott and Thoma 2010) and represents an intuitive step by step process for ethical reasoning which allows for exploration of the various dimensions of the ethical reasoning process. In addition, the use of Rest's model allows me to explore the effect of the moral intensity of the issue on the ethical reasoning process.

Although I use Rest's rational judgment model as the foundation of my study, the results are not contingent on rational judgement. I recognize that ethical reasoning is not based solely on rational processes by examining the effect of the phenomena of selective perception, a non-conscious bias. Individuals' unconscious failure to perceive ethical issues when confronted with a decision may be caused by a lack of an ethically unacceptable intuitive evaluation or by a lack of recognition of the ethical issue. The study's methodology addresses the possibility that individuals are not conscious of their initial ethical evaluation by using a funnel questioning

technique. This technique addresses multiple layers of their perception from possible initial intuitive evaluations, to any post hoc rationalization and conscious deliberation.

Moral judgment[6] is the main focus of the research on ethical decision making (Jordan 2007), with a paucity of research on ethical sensitivity. O'Fallon and Butterfield's (2005) review of the empirical ethical decision making literature documents only 28 studies measuring ethical sensitivity, but 185 studies measuring moral judgement and reasoning. Research on Rest's component 2, moral reasoning and judgement, has explored the moral reasoning of individuals through several reliable measures (e.g., the Defining Issues Test [DIT], Rest 1979, and the Moral Judgment Interview [MJI], Colby and Kohlberg 1987). Judgment research has provided insight into accounting students' and professionals' levels of moral reasoning. The moral reasoning research using DIT finds that the level of accounting students' and accounting professionals' reasoning appears comparatively lower than other adults (Bailey, Scott and Thoma 2010). Although reasoning and judgment are important, focusing only on Component 2 leaves a significant amount of moral behaviour unexplained. Prior research has found that moral judgment explains only about 10-15% of the variance in moral-related behaviour (Blasi 1980; Thoma, Rest and Davison 1991). Accounting decisions are often complex, have extensive information available and involve competing ethical and economic objectives. Given this environment, the ability of accountants to identify ethical considerations as part of their decisions may be more important than a deficiency in the moral judgment process and ethical reasoning levels.

Accounting research on moral intent (Component 3) and moral behaviour (Component 4) is limited. Once individuals determine their moral judgment of what is the right course of action, they must decide whether they intend to behave consistently. This is a major issue, as seen

[6] Moral judgement is the judgment of what potential decision is most moral or just (Rest 1986).

through the many headlines filled with examples of people knowing what they ought to do, but instead acting in some other way. There may be significant organizational and personal barriers to acting on our values that need to be further explored (Gentile 2010). Accountants' determination of the intention to act ethically has provided some insight into the role of ethical development and character (Jones, Massey and Thorne 2003), but little is known about how certain contextual variables affect accountants' intention to act ethically or not. This study increases our understanding of the factors affecting accountants' ethical intention (Component 3) by examining moral intensity.

The culmination of accountants' ethical reasoning process is their ethical action/ behaviour. Per Jones, Massey and Thorne's (2003) review of the literature on auditor's ethical decision making, there were only two studies that consider the moral behaviour component; Ponemon (1992) and Falk et al. (1999). These two studies find that auditors underreport time more (Ponemon 1992) and compromise their independence assessments more (Falk et al. 1999) when faced with time and peer pressure.

To fully understand and to improve ethical decision making, research attention needs to focus on the neglected components of Rest's model. These are ethical sensitivity (Component 1), moral intent (Component 3) and moral action (Component 4). The first segment of this study focuses on the level of ethical sensitivity of professional accountants in business and of accounting students (Component 1); the remainder focuses on the situational factors that may affect the ethical decision making process, moral intensity, and the link among the first three components of Rest's model (ethical sensitivity, moral judgement and moral intent).

2.2 Jones Model: Moral Intensity

Business issues are inherently entangled with matters of ethics and matters of economics (Sen, 1987). The extent to which ethical matters are incorporated into professional accountants' and students' decisions is contingent on their perceived level of importance.

Jones' (1991) model of ethical decision making builds on Rest's (1979, 1986) four-component model by introducing a multi-dimensional construct to capture the issue-related components of ethical decision making. Jones (1991) observed that the existing ethical decision making models failed to include the characteristics of the decision itself. Without consideration of the nature of the ethical issue within the model, it can be presumed that the ethical decision making process of individuals would be identical for any given issue. "For example, people will decide and behave in the same manner whether the issue is the theft of a few supplies from the organization or the release of a dangerous product to the market." (Jones 1991, p. 371). Jones proposes a multi-dimensional construct, moral intensity, which "captures the extent of issue-related moral imperative in a situation" (Jones 1991, p. 372).

Moral intensity measures the perceived moral importance of the issue. Jones theorizes that there are six component parts to moral intensity:

- the "sum of the harms or benefits done to the victims" (magnitude of consequences) (Jones 1991, p. 374),
- the "degree of social agreement that a proposed act is evil or good" (Social Consensus) (Jones 1991, p. 375),
- the "probability that the act in question will actually take place and the act in question will actually cause the harm or benefit predicted" (Probability of Effect) (Jones 1991, p. 375),

- the "length of time between the present and the onset of consequences of the moral act in question" (Temporal Immediacy) (Jones 1991, p. 376),
- the "feeling of nearness (social, cultural, psychological, or physical) that the moral agent has for victims (beneficiaries) of the evil (beneficial) act in question" (Proximity) (Jones 1991, P. 376), and
- the "inverse function of the number of people affected by an act of a given magnitude" (Concentration of Effects) (Jones 1991, p. 377)[7].

Jones has aggregated these components into one multi-dimensional construct (moral intensity) for two reasons: (a) the components are all characteristics of the ethical issue and (b) the construct is expected to increase if there is an increase in any one (or more) of the components, assuming the other components remain constant.

Moral intensity will directly affect all four components of Rest's ethical decision making model. Figure 2, Jones' (1991) model of ethical decision making, shows the direct relationship between moral intensity and the first three components of Rest's model. Moral intensity is also directly related to component four, ethical action, which is not tested in my study. Ethical issues that are high in moral intensity will be recognized (Rest's component 1) more than those of low intensity, due to the perceived importance of the consequences of these issues (Figure 2, link 1). Jones proposes that issues of high moral intensity will elicit more sophisticated moral reasoning (Rest's component 2) than issues of low moral intensity (Figure 2, link 2). The level of moral intensity directly relates to moral intentions (Rest's component 3) through the desire to avoid adverse consequences (Figure 2, link 3). At higher levels of moral intensity, there is a higher

[7] Concentration of effects was not tested in the current study due to the lack of significance of this dimension on ethical decision making found in prior studies (ex. May and Pauli 2002)

likelihood to intend to act in accordance with ethical judgements. Individuals are more likely to act ethically (Rest's component 4) when moral intensity is higher.

Much of the existing moral intensity research has examined either individuals' judgments of moral intensity levels in different managerial problem settings, or the effect of varying one of the moral intensity dimensions on the various components of the ethical reasoning process. Moral intensity represents the felt consequences of the issue under consideration. The level of moral intensity will vary based on the normative level of ethical consequences for the issue and based on the salience of the ethical consequences to the individual. Prior research has focused on changes in the level of consequences, while ignoring the effect of the level of salience of these consequences to the individual. When the ethical consequences for two issues are equal, moral reasoning may differ if the consequences are less salient for one issue over the other. This could be argued to be the case for accounting versus real transaction earnings management. The consequence of both accounting and real transaction earnings management could be argued to be equal or similar, yet the moral intensity levels assessed by participants differ for these methods of management. The current moral intensity instrument cannot isolate the effect of the salience of consequences on ethical reasoning, but this would be fruitful for future research.

May and Pauli (2002) is the first study to simultaneously address the effects of moral intensity on the first three components of the ethical decision making model: moral recognition[8], moral evaluation, and moral intention. They explore the interaction of moral intensity and the first three components of Rest's model (ethical sensitivity, moral reasoning and moral intention). They find that when an ethical issue is not recognized by the individual, then moral intensity has a lower effect on moral reasoning and moral intention. I extend their study by testing the direct

[8] Moral recognition was measured as participants response on a 1-to-7 Likert-type scale (1 = *disagree strongly*, 7 = *agree strongly*) to the question; "The scenario presented an ethical dilemma".

effects of moral intensity on the first three components of Rest's model using experienced accounting professionals in business and accounting students faced with a complex decision task. I further test the interaction of ethical sensitivity, moral reasoning and moral intensity in this decision context.

Moral intensity was developed by Jones through intuitive, observational and empirical examination. It was derived, in part, from normative arguments of moral responsibility based on proportionality (Jones 1991). The six components of moral intensity all focus on the consequences of the ethical issue. Moral intensity recognizes the magnitude of these consequences, the probability of the consequences occurring, the timing of these consequences, the proximity of these consequences to the decision maker and the concentration of these consequences. However, consequences and consequential theories of ethicality[9] are only one group of normative ethical theory. Moral intensity cannot be considered a comprehensive measure of an issue's effect on ethical reasoning, since it excludes any measurement of the importance of non-consequential elements of the ethical issue.

When confronted with an ethical issue, professional accountants may bring to bear several normative ethical principles (Rest et al. 1999, Cohen, Pant and Sharp 1996). Kohlberg's (1969) moral stages of cognitive development set out six stages of moral development that he proposes are relatively stable for the individual. Yet, Rest et al. (1999) argue that individuals use a range of moral reasoning approaches depending on the context of the situation. Individuals operate at different levels of the Kohlberg hierarchy of moral development (Stage 1: obedience and punishment, Stage 2: naively egoistic orientation, Stage 3: good-boy orientation, Stage 4: authority and social order, Stage 5: contractual legalistic, and Stage 6: conscience or principle)

[9] Consequentialist theory espouses the view that morality of an action is derived from its consequences (Sinnott-Armstrong 2011).

depending on the situation they are faced with. Professional accountants and students can thus apply alternative modes of moral reasoning when confronted with an ethical decision. Cohen et al. (1996) find that accountants' ethical judgements are sensitive to moral equity and contractual judgements, in addition to consequential assessments (Cohen et al. 1996).

Under theories of justice, such as Rawls' theory of justice, decisions are guided by the principles of formal justice in which equals should be treated equally (Wenar 2008). To recognize the possible application justice theory, respondents' judgements of justice (how just (unjust) is the practice?) and of fairness (how fair (unfair) is the practice?) were collected (Cohen et al., 1996). Deontological theories use logic to identify the duties and implied contracts which individuals have towards each other. Accountants have a duty to their employer, as well as to the public (Westra, 1986), which can affect their ethical judgment process. Consistent with their professional duty, accountants must adhere to ethical rules of conduct and formal financial reporting standards (such as Generally Accepted Accounting Principles – GAAP). To capture the relevance of deontological reasoning, respondents were asked whether the practice violated any formal rules (GAAP) and whether it constituted a deception.

Ethical issues in accounting are diverse, often morally ambiguous and often contain both code and standard violations. Gaining an understanding of professional accountants' and accounting students' assessed moral intensity levels across different accounting transactions adds to our understanding of their choice among alternative courses of action. I provide a more complete picture of professional accountants' and accounting students' ethical decision making process by measuring additional variables beyond those that capture the components of moral intensity, beyond Jones's (1991) focus on consequences.

3. Hypothesis Development: Ethical Sensitivity

The purpose of this section is to develop the research hypotheses on ethical sensitivity. The prior literature on the ethical sensitivity of accountants will be discussed and inform the development of the factors of interest to the current investigation: selective perception and experience.

Ethical sensitivity has seen limited research in general, especially in accounting (Bailey, Scott and Thoma 2010). However, this lack of research does not speak to its importance. For example, if accounting managers are to maintain the highest ethical and technical standards expected of the profession, they must be able to identify the ethical nature of their decisions. This must stay true in spite of the fact that organizational objectives, such as increased profitability, may be in direct competition. The importance of organizational goals (as demonstrated by the weight placed on meeting analyst expectations, etc.) puts accountants at risk of focusing on the financial implications of their decision and neglecting the ethical implications (selective perception).

Definitions of ethical sensitivity fall into three categories (Jordan 2007, p. 326): "(a) a combination of recognition of a moral issue and an affective response concerning it (Rest 1979, 1986), (b) solely the recognition of a moral issue and (c) a combination of recognition of a moral issue and the ascription of importance to the moral issue (Robin, Reidenbach and Forrest 1996)". Consistent with the definition used in prior accounting studies (Shaub, Finn and Munter 1993; Karcher 1996), I focus my examination on definition (b), recognition of a moral issue.[10]

The recognition of an ethical issue is a binary construct, either one recognizes the issue or one does not. However, ethical sensitivity can be thought of as an individual's overall awareness

[10] I collect additional measures of ethical sensitivity aligned with definition (a) and (c) to corroborate the main results through supplemental analysis.

of the ethical issues in their environment. In this sense ethical sensitivity is continuous, as an individual may recognize few ethical issues or many ethical issues within the decision environment. I focus my examination on the continuous construct, the level of ethical sensitivity of respondents within their decision environment, and not the binary construct, repondents ability to recognize a single ethical issue.

3.1 Selective Perception

Since moral situations often involve highly ambiguous environmental events, and individuals are not passive receivers of information, the attention that individuals pay to ethical information in the environment may be critical to their ethical sensitivity. Hastorf and Cantril's (1954) classic study of selective perception suggests that a person perceives only the stimuli that are significant to their own egocentric position from all the stimuli available in the environment. In their study, students from Dartmouth and Princeton answer a questionnaire based on the viewing of a film of a football game between the two schools. They find that the students' selective perception and memory of the event are skewed to their alumni school. This suggests that the focus of observers can direct them to selectively perceive their environment and obscure details that do not match this focus.

Previous research has suggested several mechanisms that cause selective perception. Goal framing, schema development, scripts, decision framing and templates have all been argued to contribute to selective perception. Script, template and decision framing researchers argue that in the interest of cognitive economy, individuals use templates (Gibbins 1984) or knowledge structures – schemas - (Walsh 1988; Tenbrunsel and Messick 1999) to simplify the problem and focus their decision making process. Goal framing researchers (Kunda 1990) argue that the goal of the individual directs their perception of their environment. The result of these mechanisms is

the selective perception of the decision environment that causes some features or information to be recognized by the decision maker, while other relevant features are ignored. I focus on the effect of selective perception on accountants' ability to recognize the ethical issues within the decision and am, therefore, indifferent to the mechanism that causes selective perception

Dearborn and Simon (1958) examine the effects of selective perception and argue that the manager faced with a complex or ambiguous decision environment perceives in this environment only what he or she is "ready" to perceive. They find evidence that managers selectively perceive their environment in relation to their notion of organizational success. Thus, selective perception can cause accountants to focus on a subset of information within the decision problem while obscuring other relevant information (Waller, Huber and Glick 1995).

Jordan (2009) applies selective perception to the identification of ethical issues. In her study, business managers identify fewer ethical issues than non-business academics, even when presented with the same ambiguous decision. She contends that "this may be a product of non-conscious cognitive processes" (p. 237) caused by these two groups having different definitions of organizational success. Jordan uses knowledge structure (schema) memory development to theoretically predict that managers' schemas will focus their attention on strategic issues, instead of ethical issues. A schema helps to organize and focus the manager's memory, aiding if future decision making. Issues consistent with a person's schema are recognized over those not in their memory. Managers' schemas contain significant strategic information due to their professional responsibility to contribute to shareholder wealth and increase profits. She contends that business managers therefore focus on the profitability objective, while academics take a more holistic approach, which includes considerations of fairness. This focus on profitability as a definition of organizational success reduces business managers' ability to identify ethical issues

in the future, reducing the level of ethical information in their schema and reducing their ethical sensitivity level relative to non-business academics.

Professional accountants' incentives and decision focus of may be similar to that of the business managers in Jordan's (2009) study. Accounting issues are a mix of technical, economic and ethical issues and practising accountants must employ technical, economic and ethical knowledge to resolve problems appropriately (Oxner 2006; Rest and Narváez 1994). As accountants gain experience in resolving issues and seeing others resolve them, they build their knowledge and their ability to identify issues (i.e. Bédard and Mock 1992; Bonner 1990; Bonner and Lewis 1990; Bédard 1989). Competition between economic, technical and ethical elements of decisions will remain and may be heightened as the professional gains experience. When economic and technical elements of the decision are repeatedly highlighted and recognized by the professional accountant, the ethical elements of the decision may fade into the background.

Accountants often define success via the organization's objectives. These objectives are often tied to short-term financial targets (such as prior year earnings or analysts' forecasts of earnings per share). Therefore, accountants have personal incentives to focus on short-term profitability as a definition of success (Graham et al. 2005). Consistent with Jordan's managers, accountants' schemas may have been developed through a focus on a profitability definition of success, and through experience working towards this goal. The decision schema held by these accountants may be dominated by strategic and technical knowledge leaving little room for ethical information. This will create a filter through which accountants view their decision environment. Accountants' will recognize features of the decision that are contained in their schema, those relevant to the organization's short-term profitability, and fail to recognize those that are not, like ethical issues.

In contrast, broadening the corporation's objectives to include longer-term or socially and ethically relevant organizational elements can help expand professional accountants' definition of success. Expanding the definition of success beyond simply short-term targets may cause professional accountants to stop relying on their dominant schema to make their decision and cause them to use more deliberate processing of the decision information. The inclusion of non-financial goals for the organization may present an unusual decision context for accountants, since corporate social responsibility may not be the central focus of accountants' routine decisions. Professional accountants can no longer rely on their decision schema and must look to the corporations' objectives to determine what is relevant to the decision. Non-financial objectives, such as corporate social responsibility objectives, recognize the organization's responsibilities relating to their carbon footprint, treatment of employees and other social responsibility targets. Ethical issues are then seen as decision relevant. In this way, the inclusion of non-financial objectives ties social and ethical objectives to accountants' personal incentives and their definition of decision success and reduces their reliance on pre-existing decision schemas and scripts. Through this expanded lens, accountants are better able to recognize the ethical and social issues concerning their decisions.

> **H1**: Ethical sensitivity is higher when stated corporate objectives include non-financial objectives than when they are not included.

3.2 Group and Experience

Experience has been found to increase ethical sensitivity in dentistry and marketing. Bebeau et al. (1985) find that professions that require more education (dentists versus hygienists) and participants with more experience (dentists versus students) have a higher level of ethical sensitivity. Sparks and Hunt (1998) compare students and professional marketers, and find

evidence that experience increases ethical sensitivity in the field of marketing. These studies measure experience based on respondents' group membership (for example student vs. professional or dentist vs. hygienists) and fail to examine the effect of the level of experience within a professional group on ethical sensitivity. Members of different groups will vary on more than their level of experience. They may hold different roles, which lead to different responsibilities and different duties.

In contrast, Karcher (1996) and Shaub (1989) focus on auditing professionals within the same professional group and present conflicting findings. Karcher (1996) does not find evidence that experience or education increase ethical sensitivity. In addition, Shaub (1989) is unable to find any significant difference between auditors' experience levels and their ability to identify ethical issues contained in a complex and ambiguous audit case.

Researchers examining ethical reasoning and ethical judgments (Rest's component 2) in accounting do find effects attributable to increased experience. For example, Larkin (2000) finds significant differences in internal auditors' judgments of unethical behaviour across experience levels. His results suggest that more experienced internal auditors are more adept at identifying what behaviour is ethically acceptable. Cohen, Pant and Sharp (2001) compare accounting professionals to graduate students and find that professionals view certain vignette actions as significantly less ethically acceptable. Therefore, I question why the increased experience effects found in the judgment studies have not corresponded to increases in the area of ethical sensitivity. I address this discrepancy in results through examining the effect of accounting experience and group membership (student vs. professional) on ethical sensitivity.

Experience increases exposure to ethical issues. This prior exposure may enhance the development of individuals' knowledge of ethical situations (ethical knowledge) (Gautschi and

Jones 1998). In turn, the prior knowledge of the ethical situation may heighten our awareness of and attention to similar ethical situations in the future. However, when prior exposure to an issue does not effectively highlight the issue as ethical, but instead as common practice or as a strategic issue, then ethical issues may not be recognized and ethical knowledge will not be enhanced. When an issue becomes a common practice used to meet corporate objectives, which a large amount of evidence shows has occurred with earnings management (Jensen 2005; Graham, Harvey and Rajgopal 2005), the practices ethical considerations may not be recognized. Manager may focus on meeting corporate objectives and incorporate primarily strategic issues and considerations into their schema.

Knowledge structures are developed through both experience in a domain (Fiske and Taylor, 1991) and through the socialization of individuals into a group (Jordan, 2009). "Socialization is the process by which individuals acquire norms for appropriate conduct in specialized areas" (Jordan, 2009, p. 242-243). Jordan finds a decrease in the ethical sensitivity levels of individuals who have had a greater degree of socialization into the business profession. These individuals have incorporated an increased number of business issues and strategic knowledge into their memory (schema) and use this schema in future decision making. Accounting professionals would be expected to have more fully developed decision knowledge and schemas than students. If their prior decision making highlighted the strategic elements of the decisions, similar to the managers and MBA students in Jordan's study, then we would expect accounting professionals to have incorporate primarily strategic information into their memories at the expense of ethical knowledge. The use of this schema in future decision making would results in accounting professionals having lower ethical sensitivity than students.

However, accounting professionals' decision making may not be focused on the profitability objective to the same degree as the business managers in Jordan's (2009) study. Accounting professionals have a professional responsibility to protect the public and to uphold ethical standards of integrity and due care, as dictated by their codes of professional conduct. Fischer and Rosenzweig (1995) contend that professionals have a lower tolerance of ethical misconduct than students, due to their professional duty. As individual's take on the role and responsibilities of a professional they must ensure that they are acting in accordance with the rules of the profession. As a professional, accountants are required to incorporate ethical factors into their decision making and should not focus solely on the profitability objectives. Accordingly, the accountant may incorporate both ethical issues and strategic and technical issues into their schema and decision scripts. This development of decision knowledge should lead to greater ethical sensitivity levels for accounting professionals over students.

The prior evidence and theory does not provide a clear directional prediction for the difference between accounting professionals and accounting students ethical sensitivity and leads to the following non-directional hypothesis:

> H2: The level of ethical sensitivity differs between professional accountants in business and accounting students.

3.3 Interaction of Selective Perception and Accounting Experience

Accounting professionals in business have made decisions to meet profitability objectives in the past and have dealt with the consequences and results of failures to meet financial targets. These professionals can be expected to have better developed schemas than students, who lack significant experience and exposure to corporate objectives. The inclusion of non-financial organizational objectives in the organization's objectives may not be consistent with professional accountants' existing schemas. The expansion of the definition of organizational success caused

by the inclusion of non-financial objectives may make professionals question the validity of their schema and reducing their reliance on their prior knowledge. I expect that the addition of non-financial objectives to have a greater effect on the perception of professionals than on the perception of students, since the schema of professionals is more extensive than students. The addition of non-financial objectives will increase the ethical sensitivity of professionals to a greater degree than students due to professionals decreased reliance on their existing schema. This discussion leads to the following hypothesis:

> **H3**: The inclusion of stated non-financial corporate objectives vs. their absence has a greater impact on the ethical sensitivity of professional accountants in business than on the ethical sensitivity of accounting students.

4. The Context and Setting: Earnings Management

The alchemy of earnings management
Diane Roberts (2007)

Dawn of Autumnal Equinox, the fiscal year-end beckons.
Time to atone for goals unaccomplished, profits unearned.
Another year's alchemy, subtle blend of art and artifice,
Annual ritual of woven deception and disclosure.

The consensus forecast resounds as a Siren's call
Conjuring visions of plump stock options yet to vest.
Nature's equality of night and light foreshadows winter's gloom.
Financial reporting mirrors the Earth's descent into darkness.

Advent of the smoothing season, the accurate versus the imagined.
Scales suspended justly, balanced on the fulcrum of truth,
Transparency's featherweight touch would yield no imbalance.
Expectations unfulfilled trigger avalanche towards invention.

Dross transformed to gilt, the accountant is alchemist.
Echoing Pandora's box cookie jar reserves are released.
Customers gifted with inventory unsought and unwanted.
Surrender to the seduction of managed earnings is complete.

Avarice fulfilled, remuneration achieved by design.
Bonuses so earned, merit pay without merit.
Real results hover at ledger's edge, faint memories of ethical past
Consigned to a netherworld between disclosure and oblivion.

The purpose of this section is to detail the underlying issue in my study, earnings management, and provide an understanding of why it provides an ideal decision task in which to examine ethical sensitivity.

Earnings management is an ideal setting to examine the ethical sensitivity levels of accountants. Earnings management is a complex decision, involving not only whether to manage earnings, but also how to manage earnings. This type of complex decision is reflective of the types of decisions professional accountants face on a daily basis. Earnings management decisions elicit both economic and ethical issues, and its prevalence in practice has caused concern for whether the ethical side is being considered (Jensen 2005).

A primary concern of professional accountants in business is that they face increasing pressure to meet financial market expectations (e.g., analysts forecasted EPS and the prior year's EPS) (Graham et al. 2005). Professional accountants in business can choose to use earnings management to meet the benchmarks, when unaltered results are not sufficient to meet expectations. They have various methods available to alter the reported financial numbers in the direction they desire. Badertscher (2011) identifies three principal ways in which accountants can choose to purposefully alter reports:

1) alter accounting through accruals in a particular direction, by using discretion allowed under Generally Accepted Accounting Policies (GAAP) (Accounting Management - AM). (For example, increasing current income through the reduction in the estimated allowance for doubtful accounts),
2) structure transactions to alter the financial reports by changing the timing or structure of an operating, investing or financing decision (Real Transaction Management -

RTM) (For example, increasing current income through restructuring a transaction and providing a discount to change the date of a sale from the beginning of the next period to the end of the current period), or

3) alter the accruals in a particular direction, outside the boundaries of GAAP (non-GAAP) (For example, increasing current income through intentionally failing to record an expense for which the services have already been received).

The non-GAAP alterations are a clear violation of the principles of accounting and, when done intentionally, could be classified as fraud. Although there are no specific standards within the accounting profession prohibiting AM and RTM, the professional codes and standards are not completely silent. Professional codes of conduct dictate that professional accountants in business are responsible for the financial reports of the company and must act with integrity (International Federation of Accountants (IFAC) 2012). Professional codes also stipulate that accountants are not to associate with information they know or ought to know is misleading, whether by statement or omission (e.g., CGA Alberta 2010, Principle 4; ICAA Code of Conduct 2011, Rule 205; CMA Alberta Code 2004).

Overall, the decision to manage earnings is both complex and ethically unacceptable. On the one hand, it may produce misleading information (e.g. earnings management can cause the economic health of a company to appear stronger than it actually is) that goes against the principles set out in the professional code. On the other hand, there are no direct rules, such as do not manage earnings, prohibiting accountants from determining that the practice is unacceptable. The accountant must assess the motivation and potential bias that earnings management causes in the financial statements to fully address the practices acceptability.

Researchers have found that earnings management practices are used to benefit both managers and current shareholders, often at the expense of creditors and future shareholders. For example, Bartov and Mohanram (2004) find evidence of this behaviour in top-level executives' exercising of stock options. Graham et al.'s (2005) survey of executives finds that "most executives feel they are making an appropriate choice when sacrificing economic value to smooth earnings or hit a target" (Graham et al. 2005, p. 5)[11]. The executives argue that financial market pressures and market overreactions encourage decisions that at times, sacrifice long-term value to meet earnings targets. "Many executives feel that they are choosing the lesser evil by sacrificing long-term value to avoid short-term turmoil." (Graham et al. 2005, p. 5) Furthermore, Jensen (2005) suggests that the ability to manage earnings has become a necessary qualification for top managers and questions the extent to which they consider all relevant factors when making this decision.

I focus the study on self-interested corporate motivation for earnings management. More specifically, the study focuses on the use of earnings management to meet financial targets and objectives. Research focused on the informational motivation of earnings management has argued that managers smooth income to signal private information (that would otherwise be absent from the market) on the organization's expected earnings pattern (Barnea, Ronen and Sadan 1976; Tucker and Zarowin 2006). Management of earnings to meet targets, as opposed to management of earnings to provide information, clearly presents numerous ethical issues and concerns and has been judged to be ethically unacceptable in prior earnings management studies

[11] Graham et al. (2005) use a survey instrument and interviews with executives to better understand the factors that drive their earnings management decisions. Although they find evidence of managers need for smooth earnings to ease analysts' task of predicting earnings, executives stated that the need to meet benchmarks as critically important for their own welfare via career concerns and external reputation. The costs of missing a target in the equity and debt markets are seen as costly, and 78% of the surveyed executives stated their willingness to give up economic value of the firm in exchange for smooth earnings.

(Merchant and Rockness 1994; Belski, Beams & Brozovsky 2008; Cohen, Pant & Sharp 2000; Kaplan 2001; Kaplan et al. 2007; Kaplan and Ravenscroft 2004).

The literature examining the ethical acceptability of earnings management provides evidence that users and observers of earnings management believe the issue merits ethical examination. Earnings management practices were judged to be ethically unacceptable by observers (Merchant and Rockness, 1994; Belski, Beams and Brozovsky 2008; Cohen, Pant and Sharp 2000; Kaplan 2001; Kaplan et al. 2007; Kaplan and Ravenscroft 2004), although the method, timing, and motivation of the practices affected these judgments. This literature has focused on moral judgment (Component 2 of Rest's model) leaving the ethical sensitivity of accountants in this decision context unexplored.

The need to further examine the ethical nature of earnings management is articulated by Jensen (2005) who equates the practice of earnings management to lying: "When numbers are manipulated to tell the markets what they want to hear ... rather than the true status of the firm – it is lying" (Jensen 2005, p 8). Jensen and Erhard (2012) also call into question the integrity of professional accountants. "A lie is the communication of a message (by the deceiver) to others (the deceived) with the intention of misleading them, causing them to either believe what the deceiver does not believe or act in ways they would not have acted, had they not been deceived" (Bok 1989, p 13-14). Through the intentional alteration of the financial records, accountants are acting as the deceivers, with the users of the financial statements cast as the deceived. This deception is not costless from either an ethical or an economic perspective. If accountants do not take into consideration the perspective of the deceived with regards to this alteration, then they may be deficient in their assessment of the consequences of earnings management (Bok 1989).

Again, the current literature is deficient with respect to what accountants consider when they make earnings management decisions.

Overall, the literature indicates that earnings management is seen as prevalent and sacrificing of long-term value and has been judged to be ethically unacceptable by observers. Yet, the question remains as to whether this means that accountants performing earnings management consider all of the relevant decision factors (including ethical issues) or whether short-term benchmarks such as earnings targets, supersede all considerations (even the ethical ones). This study seeks to address this question.

5. Hypothesis Development: Moral Intensity, Moral Judgement and Moral Intention

In this section I use Jones's (1991) model of ethical decision making and the construct, moral intensity, to develop hypotheses exploring differential moral judgements of earnings management. I also detail additional measures of morally relevant criteria explored to understand the bases for differences in ethical judgments of earnings management options.

Merchant and Rockness (1994) find evidence that various factors affect observers' ethical judgments of earnings management (EM) practices. They find that accountants classify EM methods as less ethically acceptable when the methods are higher in materiality, are adjusted at year end, are motivated by self-interest and use AM instead of RTM. Economic models of earnings management decisions explore the costs and benefits of earnings management alternatives: AM vs. RTM (Badertscher 2011). I contribute to this literature by investigating the ethical influences on the decision to manage earnings.

Extensions of Merchant and Rockness' study (1994) indicate that accounting earnings management (AM) is judged to be less ethically acceptable than real transaction management

(RTM) (Kaplan 2001; Belski et al. 2008; Guffey, McIntyre and McMillon 2009). Karcher (1996) speculates, but does not test directly, that the differences between acceptability judgments for AM and RTM come from differences in the moral intensity of these methods. Actions are judged to be less ethically acceptable at higher levels of moral intensity (theorized by Jones (1991) and successfully tested by May and Pauli (2002))[12].

Earnings management methods may vary in moral intensity due to individual differences in knowledge of and familiarity with the method. Professionals may place more importance on deviations in accounting, than on more costly manipulations of transactions due to their focus and training in accounting standards. This focus by accounting professionals and accounting students may lead to higher salience of the consequences for AM than for RTM leading to higher assessed moral intensity for AM. Exploring differences in the moral intensity levels of AM and RTM, as predicted by Karcher (1996), contributes to the explanation of the differential moral judgements of these two categories of EM methods found in Merchant and Rockness (1994). An initial examination of the moral intensity levels of these alternative earnings management methods will allow future research to explore the causes of these differences and possible interventions to reduce the differences.

Karcher's (1996) predictions and the results found in Merchant and Rockness (1994) on earnings management ethical judgements lead to the following hypothesis:

> H4: Moral intensity is higher for accounting management (AM) than for real transaction management (RTM).

Experience differences in ethical judgments of earnings management were found by Fischer and Rosenzweig's (1995) comparison of students' and accounting practitioners' moral

[12]). Due to the complexity of earnings management decisions and the need to look beyond stated rules to access the ethical acceptability of the practice, a higher level of unacceptability of the practice would be expected when a higher level of moral reasoning is employed.

judgements. They find that accounting practitioners judge accounting management to be much more ethically objectionable than do students. I explore whether differences in moral intensity levels between professional accountants and accounting students help explain the differential judgements found in the Fischer and Rosenzweig (1995).

> H5: Moral intensity of EM is higher for professional accountants in business with experience than for students without experience.

When accounting professionals and students make ethical judgements they may use alternative normative ethical models, instead of focusing solely on the consequences of the issue. I examine additional variables to explore whether AM and RTM is judged differently in terms of whether it is a deception and a GAAP violation. Responses are taken on whether the earnings management practice is a deception[13] (deception) and whether it is a GAAP violation (GAAP violation). AM is likely to be judged to be a GAAP violation, since it is directly tied to accounting standards. RTM is not directly tied to accounting standards, as it not done through accounting, but it does introduces bias into the financial statements. Both RTM and AM can be seen as deceptive (Jensen 2005). If deception and GAAP violation contribute to the differential ethical judgements of RTM and AM, then it can be expected that AM will be judged to be a deception and GAAP violation to a greater extent than RTM, leading to the following hypotheses:

> H6a: Accounting management (AM) has a higher likelihood of being judged to be a GAAP violation and to be a deception than real transaction management (RTM).

[13] A scale question is used to capture whether the practice is a deception and whether it is a GAAP violation. The response was captured as a continuous variable between 0 – 100, where 0 represented no deception (does not violate GAAP) and 100 represented deception (violates GAAP). Values of 100 and 0 are easily interpreted as either a deception (GAAP violation) or no deception (no GAAP violation). Values along the continuous scale capture uncertainty with regards to this decision on the part of participants. This uncertainty may be caused by either a lack of confidence in this decision or an attempt to designate a value judgment. For example, a participant may believe it is a GAAP violation, but not be confident in this assessment and provide a rating of 20. Alternatively, a participant may believe that it violates GAAP, but only slightly and provide a rating of 20. High ratings in either example would indicate a greater belief that the earnings management practice is a GAAP violation. The current instrument does not allow for testing of these two alternate explanations, but future research may benefit from exploring this.

H6b: Accounting management (AM) has a higher likelihood of being judged to be a deception than real transaction management (RTM).

The remaining hypotheses test the predictions of the Jones (1991) model. May and Pauli (2002) test the predictions on students using vignettes. I validate and extend their findings using a case study in an accounting setting with both professional and student participants. Figure 2, diagrams the theoretical framework and ties it to the hypotheses.

The Jones model predicts that "issue that are high in moral intensity will elicit more sophisticated moral reasoning than will issues of low moral intensity." (Jones 1991, p. 385). At higher levels of moral development individuals go beyond obedience and punishment and take into consideration their role, contractual obligations and principles (Kohlberg 1969). Earnings management has been judged by observers to be ethically unacceptable (Kaplan 2001, Belski et al. 2008, and Guffey, McIntyre and McMillon 2009), but the level of unacceptability varies by method of manipulation. Since earnings management is a complex issue, where principles of integrity and external stakeholders may be important, higher levels of reasoning may produce harsher ethical judgements.

H7: Moral intensity is positively related to negative ethical evaluations of earnings management practices. When moral intensity is high, the practice is judged to be more ethically unacceptable.

When evaluating the ethicality of a practice, professional accountants and accounting students look beyond simply the consequences of the practice. Value judgments as to whether the practice is a deception or whether the practice violates a rule are relevant to their ethical evaluations.

H8a: Whether the earnings management practice is judged to be a GAAP violation is positively related to negative ethical evaluations of earnings management practices. When the earnings management act is assessed to be a GAAP violation, then the practice is judged to be more ethically unacceptable.

H8b: Whether the earnings management practice is judged to be a deception is positively related to negative ethical evaluations of earnings management practices. When the earnings management act is assessed to be a deception, then the practice is judged to be more ethically unacceptable.

May and Pauli (2002) found that ethical sensitivity was positively related to ethical judgements. When ethical sensitivity is higher, the issue is judged to be less ethically acceptable. Applying their results to earnings management provides the following prediction:

H9: Ethical sensitivity is positively related to negative ethical evaluations of earnings management. At higher levels of ethical sensitivity, the earnings management practice is judged to be more ethically unacceptable.

Ng, White, Lee and Moneta (2009) theorize that managers will have a lower propensity to manage earnings when the earnings management methods available are higher in moral intensity. Consistent with this prediction, the Jones' (1991) model predicts a direct relationship between moral intensity and moral intention (component 3). A similar relationship can be expected between assessments of the practice being a GAAP violation and the intended behaviour and assessments of the practice being a deception and the intended behavior.

H10: Moral intensity is negatively related to the intention to manage earnings. The higher the moral intensity, the less likely individuals are to propose to manage earnings.

H11a: Intentions to manage earnings are lower when practices are judged to be a GAAP violation. Individuals are less likely to propose to manage earnings when the practice is judged to be a GAAP violation.

H11b: Intentions to manage earnings are lower when practices are judged to be a deception. Individuals are less likely to propose to manage earnings when the practice is judged to be a deception.

Jones' model predicts a direct link between moral judgement and ethical intention. That is, there is less (more) inclination to take an action when that action is judged to be more (less) ethically unacceptable.

H12: Negative moral judgements are negatively related to intentions to manage earnings. The less ethically acceptable the earnings management option is judged to be, the less likely individuals are to propose to manage earnings.

Consistent with Rest (1979, 1986), Jones predicts no direct relationship between moral recognition and intention. This follows from the step-by-step nature of the model. Moral intention is directly influenced by moral judgement, but moral recognition does not affect moral intention directly. Thus, we expect moral judgement to fully mediate the relationship between ethical sensitivity and the intention to manage earnings.

H13a: Moral judgement fully mediates the relationship between ethical sensitivity and the intention to manage earnings.

Finally Jones proposes that moral judgement moderates the relationship between moral intention and moral intensity. The level of moral intensity of the earnings management option will affect the intention to manage earnings, as measured by their choice to undertake an earnings management option[14]. Professional accountants in business and accounting students will be less likely to manage earnings when earnings management practices are higher in moral intensity, are judged to be a GAAP violation and are judged to be a deception. Professional accountants and students will judge these alternatives to be more ethically unacceptable, mediating the relationship between moral intensity and intentions to manage earnings.

H13b: Moral judgement partially mediates the relationship between moral intensity and intention to manage earnings.

6. Experimental Design and Method

The purpose of this section is to detail the experimental method and conceptual variables used to test my hypotheses.

[14] This study investigates the intention to manage earnings, as the actual actions performed by the manager in practice cannot be observed. The act of choosing to proceed with an earnings management alternative is used as a measure of their intention to manager earnings.

6.1 Experimental design

I employ a 2x2 between-participant full factorial design with organization objectives [non-financial objectives: present and absent] and group [professional and student] as independent variables. Participants are presented with a case containing the description of a company and a dialogue between the CEO and VP of finance concerning the finalization of the year-end financial statements. Participants are provided with four earnings management options and are asked to indicate if they would proceed with each option.

Corporate social responsibility was chosen as my non-financial variable because it reflects a culturally and ethically significant corporate objective. Corporate social responsibility encompasses the corporations' responsibility to society, in addition to their economic responsibilities to shareholders (Taneja, Taneja and Gupta 2011). Organizational objectives are manipulated through the use of the organization's budgetary focus, allowing for participants to gain a clear view of the organizations goals and objectives (Kaplan et al. 2007). Under the non-financial objectives absent condition, the case describes a budgetary control system with a heavy emphasis on meeting short-term targets. The case reads, in part:

> Wheaton's reward structure is primarily oriented towards meeting short-term performance targets in order to maintain its "growth" status. The focus on meeting short-term targets permeates all levels of the organization. To illustrate, executives keep a close eye on analysts' earnings expectations. They receive favourable performance evaluations and substantial bonuses for achieving these targets.

Under the non-financial objectives present conditions, the case describes a budgetary control system that emphasizes a balance between social responsibility objectives and financial objectives. A description of the company's leadership in social responsibility and a list of relevant social responsibility criteria are provided. The case reads, in part:

Historically, Wheaton has been recognized as a leader in corporate social responsibility. For a second year, the company ranked among the Canadian Top 50 Most Socially Responsible Corporations published by Maclean's Magazine (partnered with Jantzi-Sustainalytic).

Wheaton's reward structure balances financial objectives with corporate social responsibility objectives. The focus on social responsibility targets permeates all levels of the organization. To illustrate, executives track and evaluate a broad range of criteria, which includes areas such as environmental initiatives, impact on local communities, treatment of employees and supply chain management. They receive favourable performance evaluations and substantial bonuses for achieving targets in these areas.

6.2 Participants

Professionals are professional accountants who have experience in an accounting role in business (a non-audit role). Students are accounting undergraduate students at a large public university. All professionals either hold a professional designation or are working towards a professional designation. Whether the participants have a designation is relevant since professional bodies stipulate members' and member students' professional duty to the public, as dictated by their ethical codes of professional conduct.

6.3 Experimental Procedure

Task

The experimental material is a narrative case developed by the researcher based on various educational and actual earnings management cases. The case does not use material directly from any sources, but was developed with the guidance of existing case material. [15]

The case includes multiple issues presented as a form of dialogue between the chief executive officer and the vice president of finance. The case introduction describes the company and its structure, including the company's primary objective.

[15] The setting and dialogue form were based on Hawkins (2010). Two of the earnings management options presented in the case were adapted from the vignettes used in prior earnings management studies (Merchant and Rockness 1994). The project costs option included in the case was adapted from Cohen et al. (2000) and the pension adjustment option was informed by Moehrle and Reynolds (2005).

While brief vignettes have been used to test ethical judgments of earnings management practices and have been used in moral intensity studies in the past (Hébert et al. 1990), this study uses a more vivid case study, thus increasing the engagement of participants and adding to the external validity of the ethical sensitivity measurement. Pilot test participants rated the case to be realistic (0 = not very realistic, 100 = very realistic; *mean* = 78.33), understandable (0 = not very understandable, 100 = very understandable; *mean* = 82.67) and moderately difficult (0 = very easy, 100 = very difficult; *mean* = 55.67).

Participants are given a decision role, allowing the ethical and the non-ethical issues of the decision to compete for recognition. Participants are asked to contemplate whether and how to manage the organization's earnings. Subsequent to making the decision, participants are asked detailed questions with regard to their decision. Prior studies of ethical sensitivity have presented participants with a written case and have asked them to identify the issues within the case[16]. These issues are then coded as ethical or non-ethical in nature to present a score of ethical sensitivity, for example, Shaub (1989)[17]. In contrast, the use of a decision task explores professional accountants' use and interpretation of the information as they actively make a decision, which allows for the examination of the effect of selective perception on the decision makers. Organizational goals are of central importance to decision makers, but may not be as important to the perception of observers.

The experiment procedures are detailed in Table 1: Experimental Procedures.

Earnings Management Alternatives

[16] Jordan (2007) provides a detailed review of the methods of measurement for research in the field of moral sensitivity.

[17] Shaub (1989) presents auditors with a case including ten personal or professional issues that might be of concern to an auditor. In addition to these issues, three ethical issues are imbedded in the case. Ethical sensitivity is measured based on the number of ethical issues identified.

Participants are presented with four earnings management options (methods of earnings management) and the order is randomized. The use of a Latin Square design for randomization produced four distinct orders, which were randomly distributed to participants. The company is close to their year end and are below the analysts' forecasted EPS by $0.04. Any single earnings management option will allow the company to meet the EPS target.

Two within GAAP accounting based alternatives of earnings management (AM) and two real transaction based (RTM) alternatives are used in the case. Two alternatives were chosen for each method to mitigate the possibility of one method of manipulation dominating the other methods due to complexity, familiarity or other features not of direct interest to the study. The alternatives were developed based on the vignettes of prior earnings management research (Fischer and Rosenzweig 1995). The two AM alternatives consist of:

1) Reallocating capital costs from a project that has been written off to one that is capitalized, increasing the EPS by $0.04 (Project Costs), and
2) Changing the estimate for the expected return on pension plan assets, increasing the EPS by $0.04 (Pension Liability).

The two RTM alternatives consist of:

1) Selling productions assets that are idle in the current year, to be leased back in the next year when needed for production, increasing the EPS by $0.04 (Production Assets), and
2) Moving a sale from the first quarter of the upcoming year to the current year, through lowering the contract price, increasing the EPS by $0.04 (Sales Contract).

Dependent Variable: Ethical Sensitivity

A funnel questioning technique is used to measure ethical recognition, the main measure of ethical sensitivity and the main dependent variable. The funnel technique addresses possible demand effect concerns from the use of leading questions (Schlachter 1990)[18]. The funnel technique begins with questions containing no ethical reference and progresses to detailed inquiries pertaining to ethics.

This section of the instrument is divided into five segments that are answered sequentially, as shown in Table 2: Ethical Sensitivity Score.

The questionnaire begins with initial questions on the case issues, *Step A*, which contains no prompting on ethics. *Step B* starts to more specifically address the moral aspects of the situation, although participants are not directly asked if they perceive ethical issues in the situation. *Step C* contains directed questions that collect detailed information on the participants' assessment on the type of decision being made. *Step D* includes directed questions prompting the participants to detail any ethical issues with regards to the decision and *Step E* asks participants to identify the relevant stakeholders to the decision.

Participants' qualitative responses to the funnel interview questions were independently coded by two graduate accounting students who were blind to the experimental condition[19]. The procedures for the development of the coding scheme are included in appendix E. Twenty-three distinct ethical issues were identified. Examples of ethical issues include the following: concerns that the actions may mislead financial statement users (both shareholders and other stakeholders) and concerns about the trustworthiness of the courses of action. The identified distinct ethical issues are included in Table 4: Ethical Issues Categories.

[18] Researchers who seek to study the ethical sensitivity of their participants and also use questions that include words alluding to ethics tend to prejudge the outcomes. It is desirable for professionals to act ethically, and participants in this setting will very likely claim that they weigh moral criteria when their choices have explicit moral overtones (Schlachter 1990).

[19] Both coders are Chartered Accountants and have extensive accounting experience.

These ethical issues were then used to calculate an ethical sensitivity score[20]. Consistent with Swenson-Lepper (2005), weighting is based on which step the issues is identified under. Table 2, Ethical Sensitivity Score, details the weighting used to calculate the ethical sensitivity scores. Participants' ethical sensitivity score reflects a greater weighting (a score of 2 per issue) for issues recognized in Step A, which contains no prompt on ethics. Participants' issues recognized in Step B reflect moderate weighting (a score of 1.5 per issue) and issues recognized in Step D reflect no weighting (a score of 1 per issue), due to the specific ethical prompt provided.

Scores are computed to ensure they are non-redundant in that participants only receive a score for category identification once. For example, if a participant mentions a specific issue in Step A, they do not receive credit for it in any later time. The ethical sensitivity score is the sum of the weighted scores.

To explore the robustness of the results, I employ a number of variables to capture the multiple dimensions of ethical sensitivity found in the literature. Responses to Step C questions are used to capture participant recognition of the importance of ethical issues. Responses in Step *E*, the number of identified internal and external stakeholders[21], are used to capture the affective element of ethical sensitivity. Consistent with Oxner (2006), the number of unique stakeholders identified is used to examine participants' awareness of how their actions could affect the welfare of others. A list of stakeholders identified by respondents by category is contained in appendix E. These responses were also independently coded by two graduate

[20]

[21] Internal stakeholders are defined broadly, based on the US Securities and Exchange Commission Securities Act definition of insider trading. Insiders are regarded as any party who is in possession of material nonpublic information.

students in accounting. The results from the robustness tests were consistent with the main results and are contained in the supplemental analysis.

Dependent Variable: Moral Judgement, Moral Intensity and Additional Variables

After the dependent variables relating to ethical sensitivity are collected, additional measures are collected for the earnings management options presented in the case. For each earnings management option, participants were asked how ethical they believe the option to be, moral judgement measure (0 Very Ethical and 100 Very Unethical). Participants were also asked how fair and how just[22] the options were. These measures are used examined as additional moral judgement measures in the additional analysis.

The moral intensity instrument found in May and Pauli (2002) is used to compute a score for Jones' (1991) moral intensity construct[23]. Moral intensity measures are provided for each of the four earnings management options. In order to limit the time required to respond to the instrument, each participant provides measures of moral intensity for two of the four earnings management options contained in the case, based on the latin square design. Appendix B contains the scale questions used for moral intensity. Respondents were also asked whether the practice was a GAAP violation and whether the practice was a deception.

Demographic questionnaire and validation questions

Participants are asked to provide the following demographic and organizational data about themselves, which have been found in prior studies to relate to ethical judgments and ethical sensitivity: age, gender, education, years in the organization, years of experience,

[22] Fairness and justice measures were adapted from Cohen, Pant and Sharp's (1996) study using the multidimensional ethics scale (MES) (Reidenbach and Robin 1988).

[23]Concentration of effect responses were not collected since prior research finding find no significant effects for this variable (McMahon and Harvey 2006; Arel, Beaudoin and Cianci 2011).

accounting designation, and role (level) in the organization[24] (Swenson-Lepper 2005, Cohen, Pant and Sharp 2001, Singhapakdi, Rao and Vitell 1996, Ameen, Guffey and McMillan 1996). Demographic data was tested for main effects and interaction with the independent variables for all hypotheses. The only significant variable found was the years of accounting experience which is detailed in the results. All other controls were dropped from the analysis due to insignificance. Information is collected on exposure to formal ethics courses for both participant types, since prior research has found that exposure to ethical training can impact both ethical knowledge structures and ethical sensitivity (Jordan 2009; Mayhew and Murphy 2009; Karcher 1996).

Participant Recruitment and Administration

Professional participants were identified through the researcher's contacts and through presentations at professional institute events. After learning about the study, each contact was provided with either a paper or electronic copy of the case. Case treatments were randomly assigned and the experimenter was blind to the condition sent to the specific participant.

Student participants were recruited from six senior undergraduate accounting classes at a large public university. Participants were paid a show up fee of twenty dollars for their participation and the case was administered in a lab setting.

7. Results

7.1 Participant characteristics and debriefing questions

A total of 80 participants completed the experiment. Five responses were excluded from analysis because the participants disclosed that they were recently exposed to the topic of

[24]

earnings management and its ethical consequences in a recent accounting course. An additional two respondents were excluded as they failed to answer one or more of the main dependent variable questions. This left 73 responses for analysis.

Of the 73 participants, 41 were students and 32 were professional participants. Professional participants consisted of 9 Certified General Accountants, 10 Certified Managerial Accountants, 10 Chartered Accountants, 1 multiple designated and 2 students in professional programs; they had an average of 19 years of work experience. Student participants were all undergraduate students with virtually no work experience (mean 0.6 years). Demographic results are shown in Table 3, Demographic Descriptive Statistics of Participants by Treatment Group.

7.2 Manipulation Check Question

Participants responded to one manipulation check question relating to the independent variables. Participants were asked which target (meeting long term strategic targets; meeting short-term targets, such as analysts' earnings expectations; meeting social responsibility targets) was directly tied to Wheaton executives' performance evaluations and bonuses. Since both conditions included short-term financial objectives to some extent, I used social responsibility targets (only present in the Non-financial Objectives Present condition) to measure success on the manipulation check. Participants in the Non-Financial Objectives Present condition chose social responsibility targets 33.3% of the time; whereas, those in the non-financial objectives absent condition never chose this alternative (0%). Overall, this indicates that participants in the non-financial objectives absent condition correctly concluded that social responsibility or non-financial targets were not central to the organizations' objectives.

7.3 Test of Hypotheses

Ethical Sensitivity (H1, H2 & H3)

Hypothesis 1 predicts that ethical sensitivity levels will be lower when corporate objectives do not include non-economic objectives, than when they do include non-economic objectives. Ethical sensitivity scores are calculated based on the number of issues[25] identified by participants per step, as follows:

> Ethical Sensitivity Score[26] = 2*Number of Issues identified in Step A + 1.5*Number of Issues identified in Step B + 1*Number of Issues identified in Step D

Table 4: Ethical Issues Categories, Panel A, provides the frequencies of each issue category by group. Participants failed to significantly recognize the duty of the accountant to provide information to market participants (categories 20, 21, 22 and 23) or the effect earnings management has on customers (category 6) and outside parties (category 7). Participants recognized the need to comply with Generally Accepted Accounting Practices (category 13), the motivation of managing earnings (category 2) and the effect that earnings management has on the truthfulness of financial reporting (category 12).

Table 5: Descriptive Statistics for Ethical Sensitivity Scores, provides the cell means and standard deviations for the ethical sensitivity score. I estimate a Poisson regression with the ethical sensitivity score as the dependent variable and organizational objectives (H1), group (H2), and their interaction (H3) as independent variables. The dependent variable, ethical sensitivity score, is based on a count of the number of issues identified and can take on only non-negative integer numbers and is not continuous (non-constant variance). Analysis of variance is not used because an assumption of the model is that the dependent variable is continuous and

[25] The intra-class correlation between the two coders is 0.94 for the total number of issues, 0.96 for issues identified in Step A, .87 for issues identified in Step B and .96 for issues identified in Step D.

[26] The number of issues identified in Step A was used to test the robustness of the results to alternative calculations of ethical sensitivity. Supplemental analysis shown in the appendix corroborates the main reported results.

normal. Since the number of ethical issues identified represents the frequency with which the individual identifies ethical issues the Poisson distribution is appropriate for the model. To explore the effect of the extent of experience on ethical sensitivity, the number of years of accounting experience and the squared term of the number of years of accounting experience were included as control variables. This analysis reveals a significant (or marginally significant at conventional significance levels) effect for organizational objectives ($\beta = 0.38$, p-value = 0.022), group ($\beta = -0.471$, p-value = 0.003) and their interaction ($\beta = 0.30$, p-value = .057). The control variables of years of accounting experience ($\beta = 0.08$, p-value = 0.009) and the square term of years of accounting experience ($\beta = -0.002$, p-value = .020) are both significant.

I ran simple effects tests to explore the marginally significant interaction effect found in the above model. I estimate separate Poisson regressions by group (student/professional) with the ethical sensitivity score as the dependent variable and organizational objectives (H1) as the independent variable. The analysis of the student group yielded no significant results (organizational objectives: $\beta = -1.42$, p-value = 0.217, years of accounting experience: $\beta = .089$, p-value = 0.572 and the square term of years of accounting experience: $\beta = .024$, p-value = 0.436). The analysis of the professional group yielded results in support of hypotheses 1 and 3. The inclusion of corporate social responsibility objectives increased ethical sensitivity for this group of respondents (organizational objectives: $\beta = 0.4453$, p-value = 0.026, years of accounting experience: $\beta = .078$, p-value = 0.029 and the square term of years of accounting experience: $\beta = -0.00154$, p-value = 0.0537). To further explore the marginal interaction of H3, I ran simple effects tests by organizational objective. I estimate separate Poisson regressions by organizational objective (CSR absent/ CSR present) with the ethical sensitivity score as the dependent variable and group (H2) as the independent variable. When non-financial objectives

are absent the ethical sensitivity of students is significantly higher than professionals (group: β = -0.768485, p-value = 0.004, years of accounting experience: β = .133, p-value = 0.010 and the square term of years of accounting experience: β = -0.0026, p-value = 0.01534). However, when non-financial objectives are present there is no significant difference in the ethical sensitivity levels of professional and student groups (group: β = -0.174, p-value = 0.297, years of accounting experience: β = .036, p-value = 0.361 and the square term of years of accounting experience: β = -0.001, p-value = 0.432).

The significant positive main effect for organizational objectives (presented in Figure 3) provides support for H1. When non-financial objectives are included in corporate objectives, ethical sensitivity levels are higher than when they are not included. The significant negative main effect for group (presented in Figure 3) provides support for H2. Professional accountants' ethical sensitivity levels are significantly different than students. The co-efficient (β = - 0.471) on group is negative indicating that students demonstrate a higher level of ethical sensitivity than experienced accountants. The marginally significant positive interaction provides weak support for H3. The simple effects show that the inclusion of non-financial objectives in corporate objectives results in higher ethical sensitivity levels of experienced professional accountants but does not significantly affect students' ethical sensitivity (presented in Figure 3). In fact, when corporate objectives include non-financial objectives there is no significant difference between experienced accountants' ethical sensitivity and students'. These results are robust to alternative definitions and calculations of ethical sensitivity, presented in the supplemental analysis section. In addition, those with higher levels of accounting experience, as measured by years of accounting experience, have a significantly higher level of ethical sensitivity (presented in Figure 4).

Moral Intensity and Type of Earnings Management (H4 – H6)

Pearson's correlation tests were run on the moral judgments of the four earnings management alternatives, presented in Table 6. Significant correlations are found between the two AM alternatives, Pension Liability and Project Costs (p-value = 0.010) and the two RTM alternatives, Production Assets and Sales Contract (p-value = 0.013). The significant correlations provide evidence supporting the combination of the alternatives into the categories of RTM and AM. Respondents judge the ethical acceptability of RTM alternatives similarly and the ethical acceptability of AM alternatives similarly.

Table 7, Moral Intensity and Additional Moral Criteria, Panel A provides the cell means and standard deviations for the moral intensity measures and the additional moral criteria. The ANOVA results for the moral intensity levels[27] (Table 7, Panel B) indicate a significant main effect for earnings management type on the social consensus component (F=4.237, p-value = 0.041) of moral intensity providing some support for H4. Respondents answers indicate a higher degree of agreement that earnings management options are not ethically acceptable when AM is used instead of RTM. I find no significant difference between the responses for AM versus RTM on the remaining moral intensity components (the temporal immediacy, the proximity, the probability of effects, the magnitude of consequences) or the overall moral intensity measure, indicating a lack of universal support for H4 over all dimensions of moral intensity.

[27] The moral intensity dimensional variables signs have been transformed to ensure conformity of direction. Increases in these variables indicate an increase in moral intensity.

H5 is not supported[28] due to the insignificant results for the main effect of group on the dimensions of moral intensity. No statistical difference is found between moral intensity levels of professional accountants and students.

The ANOVA results for the additional moral criteria GAAP violation (F= 43.896, p-value < 0.000) and deception[29] (F=16.819, p-value <0.000) (Table 7, Panel B) indicate significant main effects for earnings management type in support of H6. Accounting earnings management (AM) has a higher propensity to be considered a GAAP violation and a deception than real transaction management (RTM). The financial statements of the company have been altered in the same amount by both types of transactions, yet AM is still seen as a deception more frequently than RTM. This is troubling since RTM can sacrifice future economic value and cannot be as easily identified within the financial statements as AM can.

Moral Intensity and Moral Judgement (H7 – H9)

Table 8: Moral Judgements of Earnings Management by Type of Manipulation, Panel A provides the cell means and standard deviations for the ethical judgments[30]. Consistent with prior studies, I find that the type of earnings management activity affects the level of ethical

[28] Supplemental analysis was performed using years of accounting experience and the squared term of years accounting experience. Results from this analysis did not reveal any significant effect for experience on the moral intensity dimensions, consistent with the ANOVA results presented.

[29] The additional moral criteria variables have been transformed to provide conformity of direction. Increases in these variables indicate the option is a GAAP violation and a deception.
Alternative calculations of whether the practice was judged to be a GAAP violation and whether the practice was judged to be a deception support the robustness of these results. A binomial variable was analyzed for only respondents who answered with a 0 (not a GAAP violation/ not a deception) and 100 (GAAP violation/ deception). Binomial regression results on this variable found that there was a higher likelihood of AM practice being deemed a GAAP violation/ a deception (GAAP: $\beta = 3.961$, p-value = <.001, Deception: $\beta = 3.689$, p-value = .003), than RTM practices. A binomial variable was calculated by using a median split of the data, excluding any responses at the midpoint (50). Binomial regression results on this variable found that there was a higher likelihood of an AM practice being deemed a GAAP violation/ a deception (GAAP: $\beta = 1.900$, p-value = <.001, Deception: $\beta = .368$, p-value = <.001), than a RTM practice.

[30] Ethical judgments were collected in response to a scale question. The response was captured as a continuous variable between 0 – 100, where 0 represented very ethical and 100 represented very unethical, consistent with prior research (ex. Kaplan 2001; Belski, Beams and Brozovsky 2008). Values that are higher on this scale are judged to be less ethically acceptable.

acceptability of earnings management practices. The ANOVA results for the judgement of the degree to which the practice is ethically unacceptable (Panel B, Table 8) indicate a significant main effect for earnings management type ($F = 17.377$, p-value < 0.001), but no significant effect for group level[31] ($F = 0.729$, p-value $= 0.395$). AM is judged to be less ethically acceptable than RTM.

To test the effect of moral intensity on moral judgement (H7), I estimate a linear regression with the moral judgement as the dependent variable and moral intensity[32] as the independent variable. This analysis reveals a significant effect for moral intensity (moral intensity[33] $\beta = 0.788$, p-value < 0.001) providing support for H7. As the moral intensity level increases, earnings management is judged to be more ethically unacceptable. The social consensus component of moral intensity is identified as the primary driver of the results, when moral intensity is analysed by component. I find that social consensus is the only component of moral intensity that significantly influences ethical judgments ($\beta = 0.517$, p-value = < 0.000).

To investigate the effect of the additional moral criteria (i.e., whether respondents judge the practice to be a GAAP violation and a deception) on moral judgements (H8), I estimate a linear regression with the moral judgement as the dependent variable and deception and GAAP violation judgements as the independent variables. This analysis reveals a significant effect for both independent variables: Deception ($\beta = 0.471$, p-value = <0.001) and GAAP violation ($\beta = 0.172$, p-value = 0.005), providing support for H8. These results provide evidence that when

[31] This is in contrast to Fischer and Rosenzweig (1995) who found accounting practitioners' ethical judgments of earnings management to be more severe than student's judgments.

[32] All moral intensity dimensions and additional ethical criteria variables have been mean centered for inclusion as independent variables in order to minimize collinearity problems.

[33] Moral intensity level was calculated by aggregating the individual moral intensity measures. The overall moral intensity score was calculated as an average score of the five individual dimension scores. The use of a composite moral intensity score is supported by exploratory factor analysis, which indicated the need for only one factor.

options are judged to be deceptive or a GAAP violation, they are judged to be less ethically acceptable.

To test the direct link between ethical sensitivity and moral judgement (H9) diagrammed in Jones' (1991) model (Figure 2), I estimate a linear regression with moral judgement as the dependent variable and the level of ethical sensitivity (ethical sensitivity score) as the independent variable. This analysis reveals a significant effect for ethical sensitivity ($\beta = 1.307$, p-value = 0.023) providing support for H9. As ethical sensitivity increases, options are judged to be less ethically acceptable.

Moral Intensity and Moral Intention (H10 – H12)

To measure the participant's moral intention, the participants' decisions to act or not act on the earnings management option presented is used. Rest recognizes moral intention as the intended action of the individual after weighing their moral values against competing values. I estimate a binomial regression with the decision of whether or not to proceed with the earnings management option as the dependent variable and moral intensity as the independent variable. This analysis reveals a significant effect for moral intensity ($\beta = -.085$, p-value =< 0.001) providing support for H10. The likelihood of managing earnings decreases as moral intensity increases, showing the importance of moral intensity to their decision.

To investigate the effect of the additional moral criteria on ethical intention, I estimate a binomial regression with the decision of whether or not to proceed with the earnings management option as the dependent variable and whether participants judge the practice to be a deception and whether they judge it to be a GAAP violation as the independent variables. Controlling for moral intensity levels and ethical sensitivity, I find a significant effect for deception (deception $\beta = -.074$, p-value = < 0.001), but not for the GAAP violation, providing

support for H11a, but not for H11b. This suggests that the judgment that a report may be deceptive is salient, while the judgement that it may be a GAAP violation is not.

To test the direct link between moral judgement and ethical intention diagrammed in Jones' (1991) model, I estimate a binomial regression with the decision of whether or not to proceed with the earnings management option as the dependent variable and moral judgement as the independent variable. This analysis reveals a significant effect for moral judgement[34] (β = -.056, p-value = < 0.001) on the intention to manage earnings, providing support for H12. This analysis indicates that intentions to manage earnings decrease as earnings management is judged to be less ethically acceptable. Ethical evaluations appear to be relevant to the decision to manage earnings.

Following Baron and Kenny's (1986) recommended four-step process for mediation analysis, I estimate a series of hierarchical regressions to test the mediating effects of moral judgement on the relationship between the intention to manage earnings and ethical sensitivity (H13a). Each of the four step analysis must hold to support a conclusion of mediation:

(a) Ethical sensitivity has a significant influence on moral judgements.

H9 supported above.

(b) Ethical sensitivity significantly influences intention to manage earnings.

Binomial regression finds a significant effect for ethical sensitivity on the decision of whether or not to proceed with the earnings management option (ethical sensitivity β = -.127, p-value = 0.013). When ethical sensitivity is higher there is a lower likelihood that the professional accountant or student intends to manage earnings.

(c) Moral judgement is significantly related to the intention to manage earnings.

H12 supported above.

[34] Consistent with H12, moral judgements of fairness and justice are negatively related to intentions to manage earnings (fairness β = -.056, p-value = < 0.001; justice β = -.057, p-value = < 0.001).

(d) The effect of ethical sensitivity on the intention to manage earnings was reduced to non-significance after controlling for moral judgements.

> The effect of ethical sensitivity on the intention to manage earnings was reduced to non-significance after controlling for moral judgements (β = -.098, p-value = 0.080)[35].

The effect of ethical sensitivity was indeed reduced to non-significance (p=0.080). This provides evidence for full meditation of the relationship between ethical sensitivity and the intention to manage predicted in H13a. Controlling for moral judgement, ethical sensitivity does not significantly affect the intention to manage earnings.

To show that moral judgements partially mediate the relationship between moral intensity and the intention to manage earnings (H13b) the following step analysis must hold true:

(a) Moral intensity has a significant influence on moral judgements.

> H7 supported above.

(b) Moral intensity significantly influences intention to manage earnings.

> H10 supported above.

(c) Moral judgement is significantly related to the intention to manage earnings.

> H12 supported above.

(d) The effect of moral intensity on the intention to manage earnings was reduced after controlling for moral judgements.

> The effect of moral intensity on the intention to manage earnings was reduced after controlling for moral judgements and was still significant (after adding moral judgement: moral intensity β = -.071, p-value < 0.001; prior to adding moral judgement: β = -.085, p-value =< 0.001)[36].

[35] Binomial regression models were run using fairness and justice measures of ethical judgments to test the robustness of the results. These models support the full mediation of ethical judgments on the relationship between ethical sensitivity and the intention to manage earnings.

[36] Binomial regression models were run using fairness and justice measures of ethical judgments to test the robustness of the results. These models support the partial mediation of ethical judgments on the relationship between moral intensity and the intention to manage earnings.

All steps hold true indicating moral judgements' partial meditation of the relationship between moral intensity and the intention to manage earnings (H13b). The higher the level of moral intensity, the lower the intention to manage earnings, even controlling for moral evaluations.

I ran supplemental analysis on alternative measures of the main dependent variables to test the sensitivity of the reported results. The supplemental results support the presented results, although significance levels may vary.

7.4 Supplemental Analysis

Ethical Sensitivity and Intentions to Manage Earnings

Do higher levels of ethical sensitivity reduce accountants' intentions to manage earnings? The main analysis provides evidence of decrease in intentions to manage earnings at increased levels of ethical sensitivity (mediation analysis H13a Step (b)). These results use a measurement of the quantity or extent of earnings management and do not focus on the decision of whether or not to manage earnings. Table 9: Earnings Management Choices presents the frequencies of respondents' choices to manage earnings. In the majority of cases, both professional and student respondents chose to manage earnings to meet the analysts' forecast for the company (professionals: 78% manipulate earnings, students: 95% manipulate earnings).

Overall, respondents chose to manage earnings using AM alternatives more frequently than RTM alternatives, consistent with the moral judgement of AM and RTM. I estimate a binomial regression model with the intention to manage earnings (yes/no) as the dependent variable and earnings management method as the independent variable. The likelihood of choosing to manage earnings is higher for RTM than for AM ($\beta = .360$, p-value = 0.032). When

participants chose RTM they chose to move sales to the current period, more often than they chose to sell idle assets ($\beta = 1.27$, p-value < 0.000). When participants chose AM, they chose to move project expenses to a new project, more often than they chose to alter the pension accrual ($\beta = 0.928$, p-value = 0.002). This is consistent with how common they believe the practices to be. Participants judge the movement of sales as more common than the sale of idle assets ($\beta = 6.338$, p-value = 0.031) and judge the movement of expenses as more common than the change of pension estimate ($\beta = 7.273$, p-value =0.008).

I estimate a binomial regression model with the intention to manage earnings (yes/no) as the dependent variable and the ethical sensitivity score as the independent variable. Ethical sensitivity does not significantly influence the choice to manage earnings versus not manage earnings ($\beta = -.091$, p-value = 0.396). Although respondents overwhelmingly chose to manage earnings to the target presented, ethical sensitivity levels are significantly related to the magnitude of their earnings manipulation. I estimate a linear regression model with the magnitude of earnings manipulation (number of manipulations taken by respondent) as the dependent variable and the ethical sensitivity score as the independent variable. Ethical sensitivity level is significant and negative in this model ($\beta = -.10$, p-value = 0.001). At higher levels of ethical sensitivity the magnitude of earnings management is lower.

For those who chose to manage earnings, ANOVA results indicate that they have a lower sensitivity to external decision stakeholders, than those who chose not to manage earnings. Those who chose to manage earnings identify significantly fewer external parties affected by their decision (F statistic = 4.979, p-value = 0.029), indicating a lower sensitivity to ethical concerns.

Ethical Sensitivity – Alternative Measures

To test the robustness of the main results for ethical sensitivity (H1 – H3), I examine additional measures of ethical sensitivity (the number of stakeholders and whether the decision is an ethical issue) and alternative calculations of ethical sensitivity scores.

To recognize the affective element of ethical sensitivity, I estimate a Poisson regression with the number of stakeholders identified[37] as the dependent variable and organizational objectives, group, and their interaction as independent variables. Consistent with the main model, the number of years of accounting experience and the squared term of the number of years of accounting experience were included as control variables. This analysis supports the ethical sensitivity score model. The effect of the inclusion of non-financial objectives is in the predicted direction, but is not significant in the model (organizational objectives $\beta = 0.27$, p-value = 0.22). The significant negative co-efficient for group (group $\beta = -.55$, p-value = 0.007) provides further support for H2, students have a higher ethical sensitivity than professionals. The interaction is in the same direction as in the ethical sensitivity score model, but fails to attain significance (interaction $\beta = 0.17$, p-value = .389). The control variables of years of accounting experience ($\beta = 0.137$, p-value = 0.001) and the square term of years of accounting experience ($\beta = -0.003$, p-value = .002) are both significant.

Further analysis of the stakeholder model indicates that the results are driven primarily by the identification of external stakeholders. I estimate a Poisson regression with the number of external stakeholders identified as the dependent variable and organizational objectives, group, and their interaction as independent variables[38]. The results of this model parallel the total stakeholder model. The analysis reveals a significant effect for group ($\beta = -.76$, p-value =

[37] The intra-class correlation between the two coders is 0.99 for the total number of stakeholders identified, 0.98 for insider stakeholders identified and 0.99 for external stakeholders identified.

[38] Consistent with the prior models, the number of years of accounting experience ($\beta = 0.192$, p-value = 0.0003) and the squared term of the number of years of accounting experience ($\beta = -0.004$, p-value = .001) were included as significant control variables.

0.004), but no significant effect for organizational objectives (β = 0.07, p-value = 0.80) or the interaction (β = 0.13, p-value = .635). I estimate a similar Poisson regression model with the number of internal stakeholders identified as the dependent variable, producing no significant results[39].

To further support H2, I examine the likelihood that participants designated earnings management as an ethical decision. This provides an additional measure of the recognition element of ethical sensitivity. I estimate a binomial regression model with the binary response to the question "Is earnings management an ethical decision?" as the dependent variable and organizational objectives, group, and their interaction as independent variables. In support of H2, the effect of group is negative and significant (group: β = - 1.717, p-value = 0.035). Students have a higher likelihood than professional accountants of designative earnings management as an ethical issue, although the majority of respondents believed that earnings management is an ethical issue (60 respondents out of 73).

The examination of participants' assessments of the degree to which the decision was an ethical decision yielded no significant results (*ethical importance*). ANOVA results indicated no significant effect for group or objective. Analysis of the descriptive statistics for this variable indicate that the decision was considered to have ethical implications (mean rating as an ethical issue = 70.47, on a 100 point scale). The lack of variability in this assessment may be due, in part, to the demand effects associated with questions explicitly directing participants to the ethical relevance.

I use alternative calculations of ethical sensitivity scores to further test the robustness of the ethical sensitivity results. The number of identified ethical issues in Step A is used as additional support for H1- H3. Responses in Step A have the lowest demand effects due to a

[39] Due to the bounded nature of the number of internal stakeholders to the decision, this is expected.

lack of any ethical reference at this step. I estimate a Poisson regression with the number of ethical issues as the dependent variable and organizational objectives, group, and their interaction as independent variables[40]. Results are in the same direction as previously presented but significance levels are lower, group and years of accounting experience are still significant (organizational objectives $\beta = 0.157$, p-value = 0.12; group $\beta = -0.689$, p-value = 0.021; interaction $\beta = 0.443$, p-value = .139; years of accounting experience $\beta = 0.111$, p-value = 0.064; years of accounting ^2 $\beta = -0.002$, p-value = .093). The ethical sensitivity score presented in the main results is a more comprehensive measure. It provides greater insight into the decision process of accountants by exploring the issues they take into account at multiple levels, while still placing greater importance on issues identified in earlier steps.

The weighting used to calculate the main ethical sensitivity scores is based on Swenson-Lepper (2005). The identification of ethical issues prior to any ethical prompt by the researcher is scored higher, than subsequent stages of responses. I ran the poison model for ethical sensitivity scores calculated using the same weighting principle, but alternative weighting numbers, to test the robustness of the results to alternative values of weightings by stage. Ethical sensitivity was calculated as follows:

> Ethical Sensitivity Score (alternative weighting) = 3*Number of Issues identified in Step A + 2*Number of Issues identified in Step B + 1*Number of Issues identified in Step D

I estimate a Poisson regression with the new ethical sensitivity score as the dependent variable and organizational objectives, group, and their interaction as independent variables[41]. Results support those previously presented. The independent variable organizational objectives and group and the interaction are all in the same direction and all significant (organizational

[40] The same control variables are used for this regression as were used in the main results, number of years of accounting experience and the squared term of the number of years of accounting experience.
[41] The same control variables are used for this regression as were used in the main results, number of years of accounting experience and the squared term of the number of years of accounting experience.

objectives β = 0.157, p-value = 0.001; group β = - 0.512, p-value < 0.001; interaction β = 0.311, p-value = .022; years of accounting experience β = 0.085, p-value = 0.002; years of accounting ^2 β = - 0.002, p-value = .007). In addition, I ran an un-weighted model to further test the robustness of my results.

> Ethical Sensitivity Score (un-weighting) = Number of Issues identified in Step A + Number of Issues identified in Step B + Number of Issues identified in Step D

I estimate a Poisson regression with the un-weighted ethical sensitivity score as the dependent variable and organizational objectives, group, and their interaction as independent variables[42]. Results support those previously presented. Organizational objectives and experience are all in the same direction and all significant. The interaction is in the same direction as the previous results, but is no longer significant (organizational objectives β = 0.154, p-value = 0.025; group β = - 0.379, p-value = 0.050; interaction β = 0.265, p-value = 0.170; years of accounting experience β = 0.074, p-value = 0.068; years of accounting ^2 β = - 0.002, p-value = 0.100).

Category 15 of the identified ethical issues represents the "Recognition of the ethical dimension of the decision or the need to examine the decision from an ethical perspective." Responses from participants which indicated that "this is an ethical issue" or "ethical considerations must be taking into account" would fall into this category. Since these are an explicit indication that the respondent recognizes the ethical nature of the decision, they have been included in the ethical recognition score of the main results. The remaining categories speak to the existence of the ethical issue by stating the nature of the ethical issue, without explicitly indicating ethics is relevant. Since category 15 is a more direct statement of the ethical nature of the decision, but does not provide the nature of the ethical issue, I have

[42] The same control variables are used for this regression as were used in the main results, number of years of accounting experience and the squared term of the number of years of accounting experience.

performed an analysis of the ethical sensitivity score after removing this category[43]. I estimate a Poisson regression with the adjusted ethical sensitivity score as the dependent variable and organizational objectives, group, and their interaction as independent variables[44]. Group (β = - 0.462, p-value = 0.004), years of accounting experience (β = 0.0861, p-value = 0.011), and the squared term of years of accounting experience (β = - 0.002, p-value = 0.025) are all significant and organizational objectives is marginally significant (organizational objectives β = 0.329, p-value = 0.0573), while the interaction is not significant (interaction β = 0.23, p-value = .148) providing further support to H2 and weak support to H1 and H3.

The Poisson regression model is used to analyze ethical sensitivity due to the frequency nature of the data. One important basic assumption of the Poison model is that the mean and variance of the error distribution are equal. The variance of the ethical sensitivity scores is higher than the mean, which may result in over-dispersion of the Poisson model. I have run a quasi-Poisson model to compensate for the over-dispersion. I estimate a Quasi-Poisson regression with the ethical sensitivity score as the dependent variable and organizational objectives, group, and their interaction as independent variables. Results support those previously presented at marginally significant levels. The results are in the same direction and are of similar size to those previously reported (organizational objectives β = 0.158, p-value = 0.065; group β = - 0.3471, p-value = 0.053; interaction β = 0.297, p-value = 0.219; years of accounting experience β = 0.084, p-value = 0.094; years of accounting ^2 β = - 0.002, p-value = 0.133).

Ethical Judgments

[43] Respondents only received credit for category 15 issues in this analysis if it was the only issue they identified in the step or any prior step.

[44] The same control variables are used for this regression as were used in the main results, number of years of accounting experience and the squared term of the number of years of accounting experience.

Ethical judgments were collected from each respondent for the four earnings management options presented, although moral intensity measures were only collected for two options per respondents. The results presented previously on moral judgements were calculated based on the judgements for which moral intensity measures were also collected (two per respondent). ANOVA results (not tabulated) for the full set of judgment responses are consistent with the main results presented (Table 8: Moral Judgements on Earnings Management by Type of Manipulation), indicating that real transaction management was judged to be more ethically acceptable than accounting management.

I supplement my analysis of ethical evaluations to test the robustness of the support for H7 and H8 using two alternative measures of ethical evaluation, justice and fairness. To test the support for H7, I estimate a linear regression model with fairness (justice) as the dependent variable and the moral intensity as the independent variable. This analysis reveals a significant effect of moral intensity (fairness: moral intensity $\beta = 1.087$, p-value = 0.001; justice: $\beta = 1.011$, p-value = 0.001), indicating that the effect of moral intensity on ethical evaluations is robust to different moral judgement models. EM is judged to be less fair and less just when at higher levels of moral intensity.

I analyze the dependent variables fairness and justice and find further support for H8. When EM is judged to be a GAAP violation, then it is judged to be less fair (fairness: $\beta = 0.147$, p-value = 0.032), H8a. When EM is judged to be a deception, then it is judged to be less fair ($\beta = .625$, p-value < 0.001) and less just ($\beta = 0.668$, p-value < 0.000), H8b.

Consistent with Cohen, Pant & Sharp (1996), actions that are judged to be less fair or less just are also judged to be less ethically acceptable, indicting accountants' use of a diverse set of normative ethical theories. Linear regression results indicate overall judgements of ethical

acceptability are significantly related to moral judgements of fairness (β = 0.356, p-value = < 0.001) and justice (β = 0.339, p-value = < 0.001).

Ethical Intention

To investigate the effect of organizational objectives on the decision to manage earnings and whether students and accounting professionals differ in their ethical intentions to manage earnings, I perform a supplemental analysis. One would expect, based on rational economic theory, that when objectives focus solely on short-term performance and do not include a non-financial objective there would be a higher propensity to manage earnings. I have made no hypothesis with regards to this effect or with regards to whether students and professionals differ on this decision.

I estimate a binomial regression with the decision of whether or not to proceed with the earnings management option as the dependent variable and organizational objectives, group and their interaction as independent variables. This analysis reveals a significant effect for group (β = 0.656, p-value = 0.033), but no significant effect for objectives (β = 0.110, p-value = 0.567) or the interaction (β = 0.181, p-value = .795). The likelihood of choosing to manage earnings is higher for professionals than for students, consistent with the ethical sensitivity results.

8. Discussion and Conclusions

The public and the profession have questioned the ethical reasoning of professional accountants in business due to the discovery of accounting scandals perpetrated by top level management (ex. Enron, Tyco, and WorldCom). Failures to act ethically could instead be caused by professional accountant's inability to identify the ethical nature of their decisions (ethical sensitivity). I find evidence that professional accountants selectively perceive their decision environment based on the organization's objectives. Professional accountants' ethical sensitivity

is lower when they focus on organizational objectives that are based on current earnings targets as opposed to, when objectives include non-financial measures. Non-financial objectives highlight the relevance of ethical issues to professional accountants' decisions, allowing accountants to include these issues in their perception field. The addition of selective perception to the area of ethical decision-making, addresses the call from O'Fallon and Butterfield (2005) to increase research into the area of ethical sensitivity with a focus on understanding the factors that affect individual's scanning and perception of information.

This study provides evidence that the move from accounting student to professional accountant has a significant negative effect on ethical sensitivity. Ethical sensitivity of professional accountants in business is lower than accounting students when confronted with the complex decision of whether to manage earnings[45]. The results shed light on the lack of results found in Karcher's (1996) and Shaub's (1989) investigations of the relationship between accounting experience and ethical sensitivity. I find that professional with a higher number of years of experience have a higher level of ethical sensitivity, yet students' ethical sensitivity is higher on average than professionals. It appears that the socialization process for accounting professionals or work experience serves to focus perception to such a point that ethical issues have a lower degree of recognition. The research on dental practitioners (Bebeau et al. 1985) and marketing practitioners (Sparks and Hunt 1998) indicate the opposite effect in these professions. It would appear that the degree of focus on organizational goals and financial targets may be contributing to the difference between accounting professionals and these other groups, but further work should be done to explore these differential effects.

[45] Student participants had not currently undertaken any relevant ethical or earnings management training. Participants having recent courses in earnings management or business ethics were excluded from the analysis. There is no significant difference found between professional and student participants for the number of hours of ethics training and whether they have taken a formal ethics course.

The exploration of professional accountants' ethical sensitivity levels expands the research on accountants' ethical decision-making process by examining the first step of the process. The results indicate that professional accountants may fail to act in accordance with moral judgements not as a conscious act of unethical behaviour, but rather from a lower degree of ethical awareness. Experience appears to increase professional accountants' level of ethical sensitivity, but this level of ethical sensitivity is lower than that of individuals without any experience. How can professional accountants in business be expected to act in an ethical fashion if they fail to recognize encountered ethical issues?

Earnings management involves both the decision whether to manage earnings and the decision of how to manage earnings. Consistent with the prior research (Kaplan 2001; Belski et al. 2008; Guffey, McIntyre and McMillon 2009), I find that accounting management (AM) decisions were judged to be less ethically appropriate, less just and less fair than real transaction management (RTM). I explore the factors that contribute to these differential judgements and find that participants perceive a higher degree of agreement as to the ethical unacceptability of the consequences (social consensus) of AM as compared to RTM. In addition, AM is judged to be a GAAP violation and a deception more often than RTM leading to harsher judgements of ethical unacceptability. Accountants' intentions to manage earnings are directly tied to these factors adding additional decision relevant criteria to the existing model of earnings management choice. Consequently, there is a lower likelihood that accounting earnings management options will be chosen over real earning management options since they are considered deceptive. Ethical issues, such as when and why an action is deemed deceptive, need to be addressed in earnings management choice models to provide a more complete picture of these decisions.

I replicate May and Pauli's (2002) results and find support for the moral intensity predictions on the first three components of the Jones model. I extend their results, through the use of a rich accounting case setting, using both professional and student participants. I find the following:

> Moral intensity directly affects moral judgement and directly affects moral intention, with moral judgment partially mediating this relationship. As moral intensity increases, actions are judged as less ethically acceptable and the intention to manage earnings decreases.
>
> Ethical sensitivity directly affects moral judgement and directly affects the intention to manage earnings, with moral judgment mediating this relationship. When ethical sensitivity is higher, the earnings management action is judged as less ethically acceptable. Professional accountants and students are less likely to choose earnings manipulation options that are judged to be less ethically acceptable.

Respondents assessed the moral intensity of real transaction earnings management higher than the moral intensity of accounting management. It can be argued that the cost of real transaction earnings management to the users of the financial statements and the company are higher than the cost of accounting manipulation. Future work should explore the effect of the salience of consequences, not simply the magnitude of consequences, on assessed moral intensity.

Given that this study of professional accountants and students focuses on one accounting decision (earnings management) and two independent variables (Experience and Non-Financial Objectives), additional research on professional accountants' ethical sensitivity and ethical reasoning is necessary to further extend these findings. Since the current study uses an issue (earnings management) which is considered common practice by some (Jensen 2005) and beneficial by others (Barnea, Ronen and Sadan 1976; Tucker and Zarowin 2006), the examination of whether the same pattern of results occurs when the decision can be classified as primarily an ethical issue (such as the reporting of illegal acts) is worthy of study. Future work

should look at the effect of other organizational objectives and additional mechanisms to expand the professional accountant's perception frame and ethical sensitivity.

Other factors that may influence accountants' ethical sensitivity include the following: (1) level of professional commitment; (2) organization's commitment to ethical behaviour; (3) complexity of the decision environment; and (4) outcomes of prior ethical decisions. For example, with regard to reporting of information, professional accountants have a dual role: to provide information to interested users of the financial statements (professional responsibility) and to aid the organization in achieving organizational goals (organizational responsibility) (Westra 1986). Perhaps, through enhancing the relevance of users' interests via increased professional commitment, professional accountants' ethical sensitivity can be increased.

This study represents an initial investigation into the factors that influence professional accountants in business' ethical sensitivity by examining the issue of earnings management. Prior literature on earnings management has focused on examining evidence of the practice in capital markets and judgments of its acceptability by observers. Through the lens of ethical sensitivity, I enhance our understanding of how ethical issues and judgments factor into professional accountants' decisions. Interventions to enhance accountants' ethical decision process, like education and new standards, will not be effective when selective perception caused by narrow organizational objectives serves to decrease awareness of ethical issues. Thus, the public's cry for increased ethical standards and judgment in accounting that typically follow financial scandals may yield no effect on ethical action, unless short term targets are de-emphasized. Accountants can use their ability to recognize ethical issues when their perception is expanded through broadening the organizational focus beyond current year earnings. Levitt's (1998) highly quoted speech to the Securities and Exchange Commission on the economic crisis

addressed this need to curb corporations' short-term focus by stating, "To Wall Street, I say, look beyond the latest quarter." By expanding the organization's and professional accountants' view of success, accountants can truly see beyond the numbers and identify the ethical issues.

Table 1: Experimental Procedures

1	Participants are presented with a printed or electronic case to read. Printed copies of the case are provided for experienced participants to complete in their own environment[46], while student participants conduct the experiment in a lab setting[47]. All responses are collected using an internet based experimental questionnaire.
2	Participants are asked to select their course of action given the alternatives presented in the case.
3	Participants are asked to list the important considerations they took into account before making the decision.
4	Participants are asked to list the positive and negative factors or considerations relevant to their decision.
5	Participants are asked detailed questions with regards to their perception of the type of decision presented.
6	Participants are asked to list the ethical factors or considerations relevant to their decision.
7	Participants are asked to list the parties affected by the decision.
8	Participants complete moral judgments and familiarity judgments for the earnings management options presented in the case.
9	Participants complete the moral intensity scale for a subset of the earnings management options presented in the case.
10	Participants are asked demographic and debriefing questions.

[46] Professional participants access the questionnaire on the internet via the computer of their choice. The use of an on-line approach allows accountants to respond to the questions and scenarios in the context of their day's thoughts. Also, administering the questionnaire in the office or at home helps to assure an adequate response rate from professionals operating on tight schedules.

[47] Students are provided with the case by the experimenter and complete the questionnaire on the computer provided.

Table 2: Ethical Sensitivity Score

Step Segment	**Task for Participant**	**Ethical Sensitivity Score Weighting**
Step A	Please list the factors or consideration that you took into account when making your decision.[48]	2.0
Step B	Please state the positive and negative factors or considerations relevant to your decision.[49]	1.5
Step C	If you had to choose one description for this decision, how would you describe it? a) A personal decision b) An economic decision c) A legal decision d) Other _____[50] To what extent is the decision an ethical decision?[51] To what extent is the decision an economic decision?[52]	Not included in scoring
Step D	Please list the ethical factors or considerations relevant to your decision.[53]	1.0
Step E	Please list any and all parties whose interests should be considered by the CEO, Daniel Torrent, when making his decision on Wheaton's course of action, given the alternatives presented.	Not included in scoring

[48] Adapted from Swenson-Lepper (2005)
[49] Adapted from Swenson-Lepper (2005)
[50] Adapted from Tenbrunsel and Messick (1999) p. 695
[51] Adapted from Jordan (2009)
[52] Adapted from Jordan (2009)
[53] Adapted from Swenson-Lepper (2005)

Table 3: Demographic Descriptive Statistics of Participants by Treatment Group

Demographic		Non-Financial Objective Present		Non-Financial Objective Absent	
Variables	Category	Professional	Student	Professional	Student
N (73)		15	21	17	20
Gender	Male	10	12	8	9
	Female	5	9	9	11
Age	Under 25	0	19	0	18
	26 - 35	6	2	5	2
	36 - 45	3	0	5	0
	46 - 55	4	0	3	0
	56 - 65	1	0	3	0
	over 65	1	0	1	0
Formal Ethics Course (Taken)		7	6	5	7
Hours of Ethics Training (mean)		9.67	9.52	13.53	2.35
Years of Accounting Experience (mean)		18.27	0.6	19.24	0.11
	(range)	4-35	0-6	5-42	0-1

Table 4: Ethical Issue Categories

Panel A: Frequency Data for Ethical Issue Categories

Table 4: Frequency Data for Ethical Considerations Categories

Category	Level One			Level Two			Level Three			TOTAL
	Students	Professionals	Total	Students	Professionals	Total	Students	Professionals	Total	
1	3	3	6	1	-	1	2	-	2	9
2	15	10	25	5	1	6	2	1	3	34
3	-	-	-	1	2	3	-	1	1	4
4	4	-	4	3	3	6	3	4	7	17
5	1	-	1	-	1	1	6	2	8	10
6	-	-	-	1	-	1	1	-	1	2
7	5	1	6	-	-	-	2	4	6	12
8	8	4	12	3	-	3	2	2	4	19
9	1	1	2	3	1	4	1	5	6	12
10	3	-	3	2	2	4	-	3	3	10
11	-	1	1	-	-	-	-	-	-	1
12	14	4	18	3	2	5	5	9	14	37
13	22	17	39	1	2	3	3	-	3	45
14	-	-	-	1	-	1	-	1	1	2
15	11	6	17	5	1	6	4	4	8	31
16	4	5	9	-	2	2	2	1	3	14
17	-	2	2	-	-	-	-	-	-	2
18	-	-	-	1	-	1	2	-	2	3
19	-	1	1	-	-	-	-	-	-	1
20	-	-	-	-	-	-	-	1	1	1
21	-	1	1	-	1	1	-	-	-	2
22	-	-	-	-	-	-	-	-	-	-
23	-	-	-	1	-	1	1	-	1	2
TOTAL	91	56	147	31	18	49	36	38	74	270

Panel B: Ethical Categories

Although wording may vary, any conveyance of the following considerations would be recognized as identification of an ethical issue or factor.

	Category
1	Recognition of the decisions effect or inconsistency with the culture or tone at the top of the organization
2	Recognition of the appropriateness of the motivation for the decision
3	Recognition of the potential need to consider similar decisions in the future due to decisions taken in current year
4	Recognition of the effect the decision will have on the shareholders of the company
5	Recognition of the effect the decision will have on the employees of the company
6	Recognition of the effect the decision will have on the customers of the company
7	Recognition of the effect the decision will have on any outside parties
8	Recognition of the effect the decision will have on the fair representation of the financial statements
9	Recognition of the effect the decision will have on the integrity of management, the financial statements or the company
10	Recognition of the effect the decision will have on the objectivity of the financial statements
11	Recognition of the effect the decision will have on the completeness of the financial statements
12	Recognition of the effect the decision will have on the truthfulness or honesty of the financial statements
13	Recognition of the effect the decision will have on the accounting or GAAP compliance of the financial statements
14	Recognition of the possibility that the decision may not be in compliance with professional codes of conduct
15	Recognition of the ethical dimension of the decision or the need to examine the decision from an ethical perspective
16	Recognition of the possibility that the decision may not be in accordance with company policy
17	Recognition of the possibility that the decision may not be in accordance with their virtues or morals
18	Recognition of the possibility that the decision may not be in accordance with legal standards
19	Recognition of the effect the decision will have on the profession
20	Recognition of the possibility that the decision may not be in accordance with their duty to the public
21	Recognition of the possibility that the decision may not be in accordance with their duty to the shareholders
22	Recognition of the possibility that the decision may not be in accordance with the rights of the shareholders
23	Recognition of the possibility that the decision may not be in accordance with the rights of outside parties

Table 5: Descriptive Statistics for Ethical Sensitivity Scores

Organizational Objectives	Experience	Mean	Std. Deviation	N
Non-Financial Objectives Absent	Students	5.88	3.81	20
	Professionals	4.56	3.02	17
	Total	5.27	3.49	37
Non-Financial Objectives Present	Students	6.95	4.74	21
	Professionals	6.63	2.72	15
	Total	6.82	3.98	36
Total	Students	6.43	4.30	41
	Professionals	5.53	3.03	32
	Total	6.03	3.79	73

Table 6: Correlation of Ethical Judgements by Earnings Management Alternative

Correlations

		Pension Liability AM	Production Asset RTM	Project Costs AM	Sales Contract RTM
Pension Liability AM	Pearson Correlation	1	.018	.300**	-.033
	Sig. (2-tailed)		.878	.010	.782
	N	73	73	73	73
Production Asset RTM	Pearson Correlation	.018	1	.095	.291*
	Sig. (2-tailed)	.878		.423	.013
	N	73	73	73	73
Project Costs AM	Pearson Correlation	.300**	.095	1	.186
	Sig. (2-tailed)	.010	.423		.114
	N	73	73	73	73
Sales Contract RTM	Pearson Correlation	-.033	.291*	.186	1
	Sig. (2-tailed)	.782	.013	.114	
	N	73	73	73	73

**. Correlation is significant at the 0.01 level (2-tailed).

*. Correlation is significant at the 0.05 level (2-tailed).

Table 7: Moral Intensity and Additional Moral Criteria

Panel A: Descriptive Statistics

	Earnings Management Type					
	Accounting			**Real**		
Measure	**Mean**	**Std. Dev**	**N**	**Mean**	**Std. Dev**	**N**
Social Consensus	53.99	23.48	73	45.74	22.17	73
Temporal Immediacy	47.42	21.38	73	51.64	23.32	73
Proximity	54.38	22.08	73	51.28	19.65	73
Probability of Effects	53.70	27.13	73	55.10	25.80	73
Magnitude of Consequences	54.42	24.61	73	51.47	22.66	73
Overall Moral Intensity Measure	52.68	17.88	73	50.16	16.51	73
GAAP	59.82	32.59	73	26.78	26.68	73
Deception	64.66	29.21	73	43.58	29.59	73

Panel B: ANOVA Results for Moral Intensity Measures and Additional Moral Criteria

Source	df	Mean Square	F	Sig.
Social Consensus				
Experience	1	122.771	.234	.630
EM Type	1	2227.608	4.237	.041**
EM Type * experience	1	322.423	.613	.435
Error	141	525.779		
Temporal Immediacy				
Experience	1	240.474	.476	.491
EM Type	1	716.103	1.418	.236
EM Type * experience	1	149.089	.295	.588
Error	142	504.848		
Proximity				
Experience	1	326.060	.741	.391
EM Type	1	306.477	.696	.405
EM Type * experience	1	78.997	.179	.672
Error	142	440.223		
Probability of Effects				
Experience	1	286.185	.404	.526
EM Type	1	67.884	.096	.757
EM Type * experience	1	1.253	.002	.967
Error	142	708.945		
Magnitude of Consequences				
Experience	1	27.126	.048	.827
EM Type	1	233.894	.414	.521
EM Type * experience	1	380.607	.674	.413
Error	142	564.545		
Overall Moral Intensity Measure				
Experience	1	68.598	.230	.632
EM Type	1	175.629	.589	.444
EM Type * experience	1	231.162	.775	.380
Error	141	298.369		

** Significant at a p-value < .05

Source	df	Mean Square	F	Sig.
GAAP				
Experience	1	268.755	.300	.585
EM Type	1	39386.098	43.896	<.001**
EM Type * experience	1	8.701	.010	.922
Error	142	897.252		
Deception				
Experience	1	1623.176	1.937	.166
EM Type	1	14092.935	16.819	<.001**
EM Type * experience	1	3883.675	4.635	.033**
Error	142	837.940		

* Marginally significant at p-value < .10
** Significant at a p-value < .05

Table 8: Moral Judgments of Earning Management by Type of Manipulation

Panel A: Descriptive Statistics for Ethicality Judgments

Earnings Management Type	Experience	Mean	Std. Deviation	N
Real Transaction Earnings Management (RTM)	Student	41.49	21.840	41
	Professional	48.69	26.169	32
	Total	44.64	23.933	73
Accounting Earnings Management (AM)	Student	62.39	27.410	41
	Professional	62.25	23.325	32
	Total	62.33	25.527	73
Total	Student	51.94	26.780	82
	Professional	55.47	25.522	64
	Total	53.49	26.205	146

Panel B: ANOVA Results for Moral Judgments

Source	df	Mean Square	F	Sig.
EM Type	1	10674.217	17.377	<.001
Experience	1	447.840	.729	.395
EM Type * Experience	1	484.134	.788	.376
Error	142	614.274		

Table 9: Earnings Management Choices

Variables	Non-Financial Objective Present		Non-Financial Objective Absent	
	Professionals	Students	Professionals	Students
Manipulate Earnings	13	19	12	20
Don't Manipulate Earnings	2	2	5	0
Pension Liability (AM)				
Chosen	0	4	1	5
Not Chosen	15	17	16	15
Production Asset (RTM)				
Chosen	0	4	2	10
Not Chosen	15	17	15	10
Project Costs (AM)				
Chosen	6	12	4	9
Not Chosen	9	9	13	11
Sales Contract (RTM)				
Chosen	8	17	8	16
Not Chosen	7	4	9	4

Figure 1: Rest's (1979, 1986) Four Component Model of Moral Judgment and Behaviour

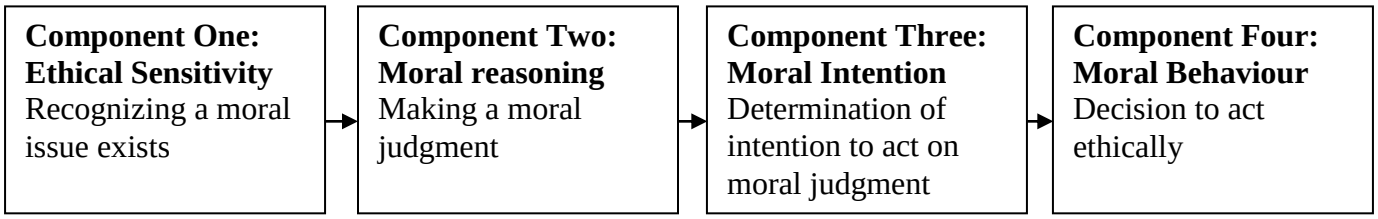
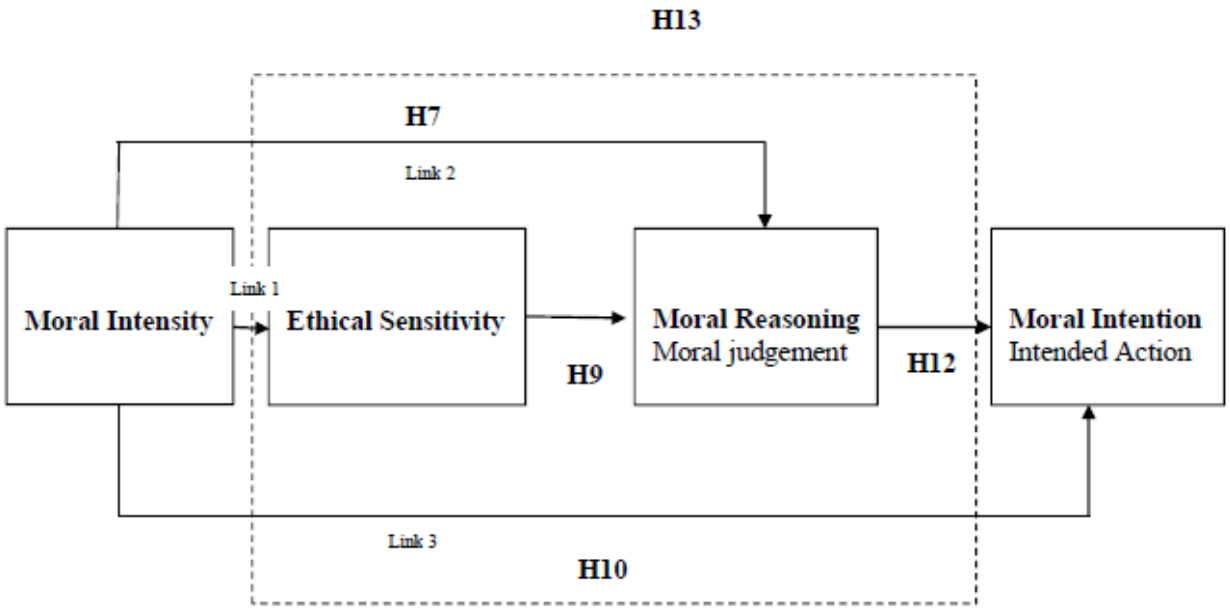


Figure 2: Jones' (1991) Model of Ethical Decision Making: A Theoretical Framework for the Role of Moral Intensity in Ethical Decision Making



Adapted from May and Pauli (2002, p. 89)

Figure 3: Ethical Sensitivity Scores

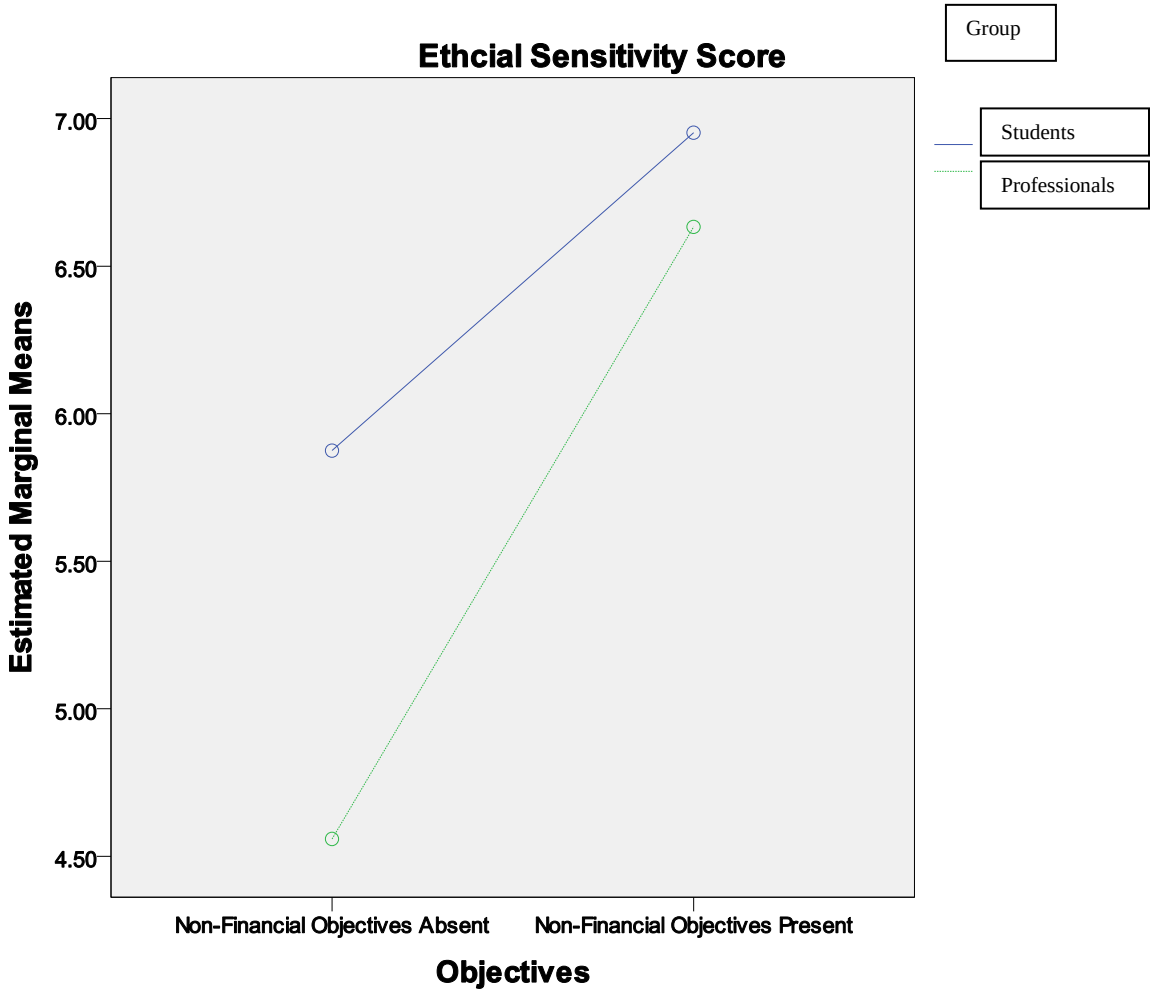


Figure 4: Ethical Sensitivity Score by Years Accounting Experience

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II. Appendix A: The Research Instrument

Experimental Case with Manipulations

Wheaton International

Wheaton International ("Wheaton"), a publicly traded, multinational technology products and services company, is preparing to issue its Q4 2010 earnings press release. It is now December 15, 2010, the earnings press release will be issued in 20 days and the audited financial statements for December 2010 will be filed with the capital market regulatory authority in 60 days.

The earnings press release will include the current year sales figures, net income, earnings per share and management comments on the year-end results. Comparative sales, net income, and earnings per share data for the prior two years will also be included. Wheaton International uses International Financial Reporting Standards (IFRS) to prepare its financial statements.

Over the past year, when Wheaton became known as a "growth" stock, a number of major institutional investors acquired large holdings. The stock price has risen rapidly on a stock exchange that highly values growth. The company has a strong analyst following. Wheaton faces debt covenants from significant lenders.

High Pressure Condition:

Wheaton's reward structure is primarily oriented towards meeting short-term performance targets in order to maintain its "growth" status. The focus on meeting short-term targets permeates all levels of the organization. To illustrate, executives keep a close eye on analysts' earnings expectations. They receive favourable performance evaluations and substantial bonuses for achieving these targets.

Ethical Frame:

Historically, Wheaton has been recognized as a leader in corporate social responsibility. For a second year, the company ranked among the Canadian Top 50 Most Socially Responsible Corporations published by Maclean's Magazine (partnered with Jantzi-Sustainalytic).

Wheaton's reward structure balances financial objectives with corporate social responsibility objectives. The focus on social responsibility targets permeates all levels of the organization. To illustrate, executives track and evaluate a broad range of criteria, which includes areas such as environmental initiatives, impact on local communities, treatment of employees and supply chain management. They receive favourable performance evaluations and substantial bonuses for achieving targets in these areas.

The Vice President of Finance, James Galvin, was hired earlier in the year. Since this is his first annual report with the company, he has held meetings with several company managers to finalize the financial statements in preparation for the press release.

While preparing the release, James Galvin met with Daniel Torrent, the Chief Executive Officer, to discuss the year end issues that need to be finalized. Part of the conversation between James Galvin and the CEO is detailed below:

Daniel Torrent (CEO): So, how are the financial numbers shaping up?

James Galvin (VP Finance): The preliminary figures for the year-end earnings release don't look good. However, I believe we could push them above the same period results for last year.

Daniel Torrent (CEO): What do you mean by that?

James Galvin (VP Finance): Let me explain. Last year, our earnings per share were the best we had to date. This year, with our current accounting practices, our earnings have reverted back to previously reported levels: we have only made $2.26 per share. Now, that's before recommending any adjustments to the accounting decisions.

I think it is imperative that we report a strong year. So, even though I favour our current accounting practices, in view of the disappointing $2.26 per share number, I decided to question my accounting staff as to what accounting alternatives they believe are available for our annual report.

I have brought with me a report that compiles the items provided by the various divisions with regards to current year's activities and resulting accounting treatments.

Daniel (CEO):

Well, here's our problem. The securities analysts are predicting we make $2.30 per share for the year. We don't have that kind of performance now, based on your initial figures.

If we don't report $2.30, our share price will drop.

Can we go through all of the items on the summary of alternative treatments now and come to a preliminary conclusion on each item?

SUMMARY OF ALTERNATIVE COURSES OF ACTION
DECEMBER 15, 2010

Project Costs:

In line with our focus on technological growth, we have evaluated our ongoing development projects. One of the projects, Project K, is no longer viable because we were beaten to the market by a competitor who recently introduced a similar product. In the current year, Wheaton incurred significant technological development costs for Project K. We had been capitalizing the R&D costs applicable to development projects under IAS 38. However, the Project K development costs have been written off.

Although company policy requires that all contract costs be assigned to the project for which they were initially incurred, the accountant for the development division has suggested that a portion of these costs could potentially be allocated to another project, Project M, for which production is to start in the Q1 of next year. These development costs had originally been authorized by the head of R&D as a requirement for Project K. However, it can be argued that Project M may experience some cost savings arising from similar technology development efforts. Costs of approximately $0.04 per share could be reallocated from Project K and capitalized to Project M.

Sales Contract:

The sales department engages in long-term purchase contracts for the majority of our sales. They have identified a current contract for which the finished products are available in current inventory. Hollingston Corporation has contracted to purchase ten thousand units of our main component, for delivery in Q1 of 2011. The sales department has suggested that we provide Hollingston with a 10% discount in their price and an extension of fifteen days in the payment terms, conditional on their purchase and receipt of the inventory in the current year. They anticipate that Hollingston will jump at this opportunity. By moving this sale into the current year the company's EPS for 2010 would increase by $0.04 per share.

Pension Liability:

We account for our defined benefit pension plan in accordance with IAS 19, which requires that the rates used for calculating the pension liability and assets, and pension expense are based on the finance department's and actuary's evaluation of the expected return on plan assets. Earlier this year, we moved a large portion of the pension assets from higher risk equity securities to more stable and secure bond holdings. Due to the change in the composition of the plan assets the expected return on plan assets, has been reduced from 8.2% in the prior year to 6.9% in the current year, as per both the actuarial report and the preliminary analysis by the finance department.

The finance department has stated that, although the 6.9% is their best estimate of the expected return on plan assets and has been accepted by the actuaries, a 7.1% rate of return would increase the current year's EPS by approximately $0.04 per share.

Production Assets:

The industrial systems division has identified idle assets currently in their department. These assets could be sold in the current period, which would result in a profit of approximately $0.04 per share. Although these assets are currently sitting idle, they have been maintained for expected use in the production of the new X-9 product line. The prototype was recently approved, and it is projected to commence full production in Q4 of the next year.

The division's development team projects that they could lease back these assets at the time of production, starting in 2011. This sale-leaseback arrangement would result in a higher present value of lease payments than the proceeds of the sale of the idle assets.

The division has drawn up two contracts with regards to this arrangement. The Sales Agreement for the disposal of these assets will be signed and dated December 20, 2010, to facilitate recording the gain on disposal of $0.04 per share in the current year. The lease contract for the lease of the equipment will be dated January 3, 2011 and will not commence until 2011.

The following table summarizes the possible accounting adjustments we could make.

Issue	**Summary of Proposed Change**	**Effect of Change on EPS**
Project Costs	Reallocate a portion of Project K's previously written off costs to Project M for capitalization.	Increase current EPS by $0.04
Sales Contract	Lower the contract price for Hollingston Corp.'s Q1 2011 delivery and move delivery and revenue to December 2010.	Increase current EPS by $0.04
Pension Liability	Change the estimate for expected return on plan assets from 6.9% to 7.1%.	Increase current EPS by $0.04
Production Assets	Sell production assets that are idle in the current period, to be leased back in 2011 when needed for production.	Increase current EPS by $0.04

Instrument:

"JUDGMENT IN FINANCIAL REPORTING DECISIONS"

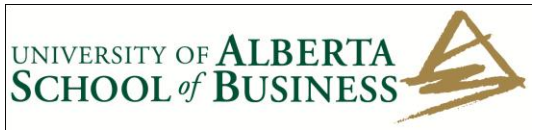
Please input the three digit code provided to you.

Are you a Student or a Practicing Accountant?

- ❍ Student (1)
- ❍ Practicing Accountant (2)

Please do not use the back button on your browser or refresh your screen while completing this questionnaire. Clicking the Back Button or refreshing the screen will invalidate your response. Thank you.

Student Consent Form



"JUDGEMENT IN FINANCIAL REPORTING DECISIONS": Student Informed Consent form

The purpose of this study is to examine how accounting students resolve important accounting judgments. Your educational experience makes you an excellent candidate to complete this study and to provide insights into this important process, and to help us learn more about it.

What you are asked to do:

During this session you will read a business case that describes a company's financial situation and accounting issues. After reading the business case, you will be asked a series of questions with regards to the issues presented in the case. You will also be asked to answer some follow-up questions. This study will take approximately 30 minutes to complete. You will receive payment of $20 for the completion of the study. If you chose to withdraw from the study, then you will receive a portion of the fee based on the proportion of the study you have completed.

Informed consent:

Your participation is completely voluntary and you may withdraw at any time without any consequences. While we hope you will be able to answer all questions, you are free to decline to answer any or all questions. You are assumed to have given consent to participate in this study by responding to the questions presented.

Protection of your personal information:

No record will exist of your identity and the quantitative results of the research will be reported only in aggregate form. Qualitative responses will be evaluated through the use of a coding scheme developed by the researchers to facilitate aggregate reporting. Individual qualitative responses may be quoted within the paper, but cannot be traced to the individual respondent. All responses will be saved electronically, backed up on an external hard drive, and kept in locked storage. The electronic data and any paper printouts of data will be kept for a period of five years. At no time will you be identifiable.

We and our research assistants, who will assist with our analysis, will have access to the data during the study. The results of the analysis will form part of a graduate thesis in accounting, which will be a public document. Other researchers (upon specific request) may view the data later, but they will not know your identity (since we will never know it) and will not be permitted to publish responses of specific individuals, even though these responses are anonymous.

If you would like further information about the study, please contact us separately from your responses. If you have any concerns about participating in this study, please contact the School of Business Research Ethics Board at researchethicsboard@bus.ualberta.ca or 780-492-8443.

THANK YOU IN ADVANCE FOR TAKING YOUR VALUABLE TIME.

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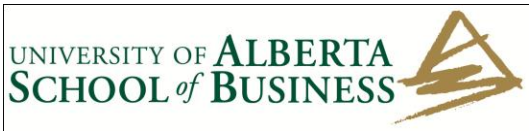
❍ I Consent (1)

Professional Informed Consent



"JUDGEMENT IN FINANCIAL REPORTING DECISIONS": Professional Informed Consent

The purpose of this study is to examine how accounting professionals resolve important accounting judgments. Your professional experience makes you an excellent candidate to complete this study and to provide insights into this important process, and to help us learn more about it.

What you are asked to do:

During this session you will read a business case that describes a company's financial situation and accounting issues. After reading the business case you will be asked a series of questions with regards to the issues presented in the case. You will also be asked to answer some follow-up questions. This study will take approximately 30 minutes to complete.

Informed consent:

Your participation is completely voluntary and you may withdraw at any time without any consequences. While we hope you will be able to answer all questions, you are free to decline to answer any or all questions. You are assumed to have given consent to participate in this study by responding to the questions presented.

Protection of your personal information:

No record will exist of your identity or of your employer, and the quantitative results of the research will be reported only in aggregate form. Qualitative responses will be evaluated through the use of a coding scheme developed by the researchers to facilitate aggregate reporting. Individual qualitative responses may be quoted in the study, but cannot be traced to the individual respondent. All responses will be saved electronically, backed up on an external hard drive, and kept in locked storage. The electronic data and any paper printouts of data will be kept for a period of five years. At no time will you or your employer be identifiable.

We and our research assistants, who will assist with our analysis, will have access to the data during the study. The results of the analysis will form part of a graduate thesis in accounting, which will be a public document. Other researchers (upon specific request) may view the data later, but they will not know your identity (since we will never know it) and will not be permitted to publish responses of specific individuals, even though these responses are anonymous.

If you would like further information about the study, please contact us separately from your responses. If you have any concerns about participating in this study, please contact the School of Business Research Ethics Board at researchethicsboard@bus.ualberta.ca or 780-492-8443.

THANK YOU IN ADVANCE FOR TAKING YOUR VALUABLE TIME.

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❍ I Consent (1)

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Please select your course of action for Wheaton, given each of the actions presented by James Galvin (Vice President of Finance)

Pension Liability

- ❍ Change the estimate for expected return on plan assets from 6.9% to 7.1% (1)
- ❍ Do not change the estimate for expected return on plan assets from 6.9% to 7.1% (2)

Production Assets

- ❍ Sell assets in current year and lease back in upcoming year (1)
- ❍ Retain assets in current period (2)

Project Costs

- ❍ Reallocate R & D expenditures to project M (1)
- ❍ Do not reallocate R & D expenditures to project M (2)

Sales Contract

- ❍ Provide sales discount to move revenue into 2010 (1)
- ❍ Do not provide sales discount to move revenue into 2010 (2)

Please list the factors or considerations that you took into account when making your decision.

Please state the positive and negative factors or considerations relevant to your decision.

Positive factors:

Negative factors:

If you had to choose one description for this decision, how would you describe it?

- ❍ A personal decision (1)
- ❍ An economic decision (2)
- ❍ An ethical decision (3)
- ❍ A legal decision (4)
- ❍ Other (5)

If answered “Other” above, then

Please indicate how you would describe the decision.

To use the slider provided, please click on the bar at the desired position. You can reposition the slider until it is in the position you desire. Once you place it in the desired position, please proceed to the next question.

To what extent is this decision an ethical decision?

Slider

0	50	100
Not at All		Very Much

To what extent is this decision an economic decision?

Slider

0	50	100
Not at All		Very Much

Please list the ethical factors or considerations relevant to your decision.

Please list any and all parties whose interests should be considered by the CEO, Daniel Torrent, when making his decision on Wheaton's course of action, given the alternatives presented.

Please answer the following questions about each practice described below.

Pension Liability:
How common do you believe it is for a company to change a significant estimate in order to alter the current year's financial results?

Slider

0	50	100
Not at All Common		Very Common

Production Assets:
How common do you believe it is for companies to enter into transactions to provide a current year gain while incurring a future economic cost, without any resulting affect to the business function of the assets of the company?

Slider

0	50	100
Not at All Common		Very Common

Project Costs:
How common do you believe it is for a company to redistribute costs in order to capitalize them in the current period?

Slider

0	50	100
Not at All Common		Very Common

Sales Contract:
How common do you believe it is for companies to pull revenue into the current year, from the first quarter of the next year?

Slider

0	50	100
Not at All Common		Very Common

Please indicate your agreement or disagreement with the following statements using the scale provided.

Pension Liability:

The following questions are based on the scenario that the CEO, Daniel Torrent, decides to change the estimate for the expected return on plan assets from 6.9% to 7.1%.

Others in your profession would support Torent's decision to change the estimate for the expected return on pension plan assets.

Slider

0	50	100
Disagree Strongly		**Agree Strongly**

Torrent's decision to change the estimate for the expected return on pension plan assets will not cause harm in the immediate future.

Slider

0	50	100
Disagree Strongly		**Agree Strongly**

Torrent's decision to change the estimate for the expected return on pension plan assets is unlikely to affect people in his local community.

Slider

0	50	100
Disagree Strongly		**Agree Strongly**

Other managers in the company would agree with Torrent's decision to change the estimate for the expected return on pension plan assets.

Slider

0	50	100
Disagree Strongly		**Agree Strongly**

There is a very small likelihood that Torrent's decision to change the estimate for the expected return on pension plan assets will actually cause any harm.

Slider

0	50	100
Disagree Strongly		**Agree Strongly**

The negative effect, if any, of Torrent's decision to change the estimate for the expected return on pension plan assets will be felt very quickly.

Slider

0	50	100
Disagree Strongly		**Agree Strongly**

The overall harm (if any) done as a result of Torrent making this decision to change the estimate for the expected return on pension plan assets will be small.

Slider

0	50	100
Disagree Strongly		**Agree Strongly**

The negative consequences related to Torrent making the decision to change the estimate for the expected return on pension plan assets will be very small.

Slider

0	50	100
Disagree Strongly		**Agree Strongly**

Torrent's decision to change the estimate for the expected return on pension plan assets will likely impact his co-workers.

Slider

0	50	100
Disagree Strongly		**Agree Strongly**

Please answer the following questions using the scales provided.

Pension Liability:

The following questions are based on the scenario that the CEO, Daniel Torrent, decides to change the estimate for the expected return on plan assets from 6.9% to 7.1%.

Torrent's decision to change the estimate for the expected return on pension plan assets is:

Slider

0	**50**	**100**
Fair		**Unfair**

Torrent's decision to change the estimate for the expected return on pension plan assets is:

Slider

0	**50**	**100**
Just		**Unjust**

Torrent's decision to change the estimate for the expected return on pension plan assets:

Slider

0	**50**	**100**
Violates GAAP		**Does Not Violate GAAP**

Torrent's decision to change the estimate for the expected return on pension plan assets results in:

Slider

0	**50**	**100**
Deception		**No Deception**

Please indicate your agreement or disagreement with the following statements using the scale provided.

Production Assets:

The following questions are based on the scenario that the CEO, Daniel Torrent, decides to sell the Industrial Systems Group idle assets and lease them back in 2011.

Others in your profession would support Torent's decision to sell the Industrial Systems Group idle assets.

Slider

0	**50**	**100**
Disagree Strongly		**Agree Strongly**

Torrent's decision to sell the Industrial Systems Group idle assets will not cause harm in the immediate future.

Slider

0	**50**	**100**
Disagree Strongly		**Agree Strongly**

Torrent's decision to sell the Industrial Systems Group idle assets is unlikely to affect people in his local community.

Slider

0	**50**	**100**
Disagree Strongly		**Agree Strongly**

Other managers in the company would agree with Torrent's decision to sell the Industrial Systems Group idle assets.

Slider

0	**50**	**100**
Disagree Strongly		**Agree Strongly**

There is a very small likelihood that Torrent's decision to sell the Industrial Systems Group idle assets will actually cause any harm.

Slider

0	50	100
Disagree Strongly		**Agree Strongly**

The negative effect, if any, of Torrent's decision to sell the Industrial Systems Group idle assets will be felt very quickly.

Slider

0	50	100
Disagree Strongly		**Agree Strongly**

The overall harm (if any) done as a result of Torrent making this decision to sell the Industrial Systems Group idle assets will be small.

Slider

0	50	100
Disagree Strongly		**Agree Strongly**

The negative consequences related to Torrent making the decision to sell the Industrial Systems Group idle assets will be very small.

Slider

0	50	100
Disagree Strongly		**Agree Strongly**

Torrent's decision to sell the Industrial Systems Group idle assets will likely impact his co-workers.

Slider

0	50	100
Disagree Strongly		**Agree Strongly**

Please answer the following questions using the scales provided.

Production Assets:

The following questions are based on the scenario that the CEO, Daniel Torrent, decides to sell the Industrial Systems Group idle assets and lease them back in 2011.

Torrent's decision to sell the Industrial Systems Group idle assets is:

Slider

0	**50**	**100**
Fair		**Unfair**

Torrent's decision to sell the Industrial Systems Group idle assets is:

Slider

0	**50**	**100**
Just		**Unjust**

Torrent's decision to sell the Industrial Systems Group idle assets:

Slider

0	**50**	**100**
Violates GAAP		**Does Not Violate GAAP**

Torrent's decision to sell the Industrial Systems Group idle assets results in:

Slider

0	**50**	**100**
Deception		**No Deception**

For each of the following actions, rate the actions using the scales provided.

Pension Liability:

The change in the estimate for the expected return on plan assets from 6.9% to 7.1%.

Slider

0	50	100
Very Ethical		Very Unethical

Production Assets:

The sale of the Industrial Systems Group idle assets to be leased back in 2011.

Slider

0	50	100
Very Ethical		Very Unethical

Project Costs:

The reallocation of a portion of R&D costs to the production project M from the abandoned project K.

Slider

0	50	100
Very Ethical		Very Unethical

Hollingston Corporation Sales Contract:

The provision of a sales discount to Hollingston Corporation in order to move this sale into the current year.

Slider

0	50	100
Very Ethical		Very Unethical

Which target is directly tied to the Wheaton executives' performance evaluations and bonuses?

- ❍ meeting long term strategic targets (1)
- ❍ meeting short term targets, such as analysts' earnings expectations (2)
- ❍ meeting social responsibility targets (3)

Would you classify the act of earnings manipulation as an ethical issue? For purposes of this question, earnings manipulation is defined as the act or practice of intentionally altering financial information by intervening or interfering in the neutral operation of the external financial reporting process in order to produce a predetermined result.

- ❍ Yes (1)
- ❍ No (2)

How many years have you worked in the accounting field?

What is your current position or job title (e.g. student, accounting manager, controller, financial accountant etc.)?

How many years have you worked in your current position?

Gender:
- ❍ Male (1)
- ❍ Female (2)

Please select your age:
- ❍ Under 25 (1)
- ❍ 26 to 35 (2)
- ❍ 36 to 45 (3)
- ❍ 46 to 55 (4)
- ❍ 56 to 65 (5)
- ❍ Over 65 (6)

Do you hold a professional accounting designation?
- ❍ Yes (1)
- ❍ No (2)

Which designation or designations do you hold?

What is the highest level of education you have obtained? (Eg. Business College, Undergraduate, Masters)

Have you taken any ethics professional development courses or training in the past two years?
- ❍ Yes (1)
- ❍ No (2)

Answer If Have you taken any ethics professional development course... Yes Is Selected

Approximately how many hours of training have you received in the past two years?

Are you a current or recent student (last 5 years) at the University XXXXX?
- ❍ Yes (1)
- ❍ No (2)

Answer If Are you a current or recent student at the University XX ... Yes Is Selected

Have you taken: Accounting Theory?
- ❍ Yes (1)
- ❍ No (2)

Answer If: Accounting Theory Yes Is Selected

Year: Accounting Theory Taken

Answer If Are you a current or recent student at the University XX... Yes Is Selected

: Ethics Course XXX
- ❍ Yes (1)
- ❍ No (2)
- ❍ N/A (3)

Answer If; Ethics Course XXX... Yes Is Selected

Year: Ethics Course XXX

Answer If Are you a current or recent student (last 5 years) at the... Yes Is Selected

Have you taken a course in Ethics, other than the ones noted above?
- ❍ Yes (1)
- ❍ No (2)

Answer If Have you taken a course in Ethics at the Yes Is Selected

Ethics Course Taken

Answer If Are you a current or recent student (last 5 years) at the... No Is Selected

Have you taken a Post Secondary course in Ethics?
- ❍ Yes (1)
- ❍ No (2)

Answer If Have you taken a University course in Ethics? Yes Is Selected

Ethics Course Taken

Please provide any additional comments you may have with regards to the case and/ or the issues presented in the case.

THANK YOU FOR PARTICIPATING IN
"JUDGMENT IN FINANCIAL REPORTING DECISIONS"

Thank you for completing this study. If you would like further details about this study, or you would like to receive a summary of the results of the investigation upon completion, or you would like to participate in an upcoming study, please email me at fiolleau@ualberta.ca.

III. Appendix B: Moral Intensity

Please utilize the scale provided to indicate your agreement or disagreement with the following statements.

Magnitude of Consequences:

1) The overall harm, in any, done as a result of the manager's decision will be small.

1 2 3 4 5 6 7
Disagree Strongly Agree Strongly

2) The overall harm (if any) done as a result of the manager's decision will be small.

Probability of Effects

3) There is a very small likelihood that the manager's decision will actually cause any harm.

Proximity

4) The manager's decision will affect people in the local community.
5) The manager's decision will impact his/her co-workers.

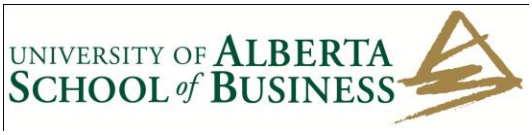
Temporal Immediacy

6) The manager's decision will not cause harm in the immediate future.
7) The consequences of the manager's decision will occur in the near future.

Social Consensus

8) Other managers in the company would agree with the manager's decision.
9) Others in the manager's profession would support his/her decision.

IV. Appendix C: Recruitment Letter for Potential Student Participants[54]



"JUDGEMENT IN FINANCIAL REPORTING DECISIONS"

Hello. My name is Krista Fiolleau. I am a current PhD Student at the University of Alberta, in the department of accounting. In conjunction with my supervisor, Professor James Gaa, we are seeking participation from accounting students to complete a business study in lab sessions. Your educational experience makes you an excellent candidate to complete this study. Participation in the study will provide valuable data for a research project aimed at examining the considerations taken into account when making accounting judgments. We would be grateful for your assistance.

We realize how busy you are. To ensure that the time you spend on this study is used effectively, we have thoroughly tested the research materials and focused them so that they can be completed in approximately 30 minutes. We will be conducting a few lab sessions for which you can sign up to participate. You will also receive a show up fee of $20 for completing the experiment. I will be sending around a sign up sheet for you to sign up for a lab session if you are interested.

Participation consists of reading a business case which presents several issues and decisions under consideration by management. You will then be asked for your recommendations with regard to these issues and answers to a series of follow up questions. The study is designed to be realistic and engaging.

Participation is voluntary and your responses will be entirely anonymous. Please sign up for a lab session if you are available and interested. If you have any questions with regards to the study I will be happy to answer them now or you can contact me at your convenience, Krista Fiolleau at fiolleau@ualberta.ca or Professor James Gaa at **james.gaa@ualberta.ca**.

[54] Orally presented at commencement of an undergraduate class with the consent of the professor.

V. Appendix D: Recruitment Letter for Potential Professional Participants

UNIVERSITY OF ALBERTA
SCHOOL of BUSINESS

"Judgment in Financial Reporting Decisions"

I, Krista Fiolleau, am a current PhD Student at the University of Alberta, in the department of accounting. In conjunction with my supervisor, Professor James Gaa, we are seeking participation from accounting professionals to complete an online business study. Your professional experience makes you an excellent candidate to complete this study. Participation in the study will provide valuable data for a research project aimed at examining the considerations professionals take into account when making accounting judgments. We would be grateful for your assistance.

We realize how busy you are. To ensure that the time you spend on this study is used effectively, we have thoroughly tested the research materials and focused them so that they can be completed online in 30 minutes. We will leave the study open until "**Date to be modified per email sent "(will be set at 12-14 days after initial contact, with one or two reminder emails in between)** to provide everyone an opportunity to participate.

Participation consists of reading a business case which presents several issues and decisions under consideration by management. You will then be asked for your recommendations with regard to these issues and answers to a series of follow up questions. The study is designed to be realistic and engaging.

Participation is voluntary and your responses will be entirely anonymous. Please visit **"link to study to be added"** today to access the online business study, or contact Krista Fiolleau at fiolleau@ualberta.ca if you have any additional questions on the study.

Yours sincerely,

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VI. Appendix E: Coding Development, Categorization and Instructions

Development of Coding Categories:

In order to develop the appropriate coding scheme to delineate ethical from non-ethical issues the criteria developed in Jordan (2009) is used. The dimensions of the decision identified as moral-related include concerns over the well-being of non-powerful individuals, legal culpability, and public reputation or image. The dimensions of the decision identified as strategic or non-moral related include concerns over; financial profitability, viability, longevity, competitive stance and the well-being of corporation itself. This distinction between moral and non-moral issues is used as the base of the coding scheme.

To further define and refine the coding scheme, the instrument was completed by two researchers, who specialize in ethical decision making. Their responses with regards to the ethical issues of the decision are used to further formulate the moral related dimension of the coding scheme and provide a benchmark on which to evaluate ethical sensitivity levels. These responses, along with the application of relevant ethical principles, were used to establish twenty-three distinct issues to be coded as ethical issues, found in Table 4: Ethical Issue Categories (b).

Coding Instructions

Dependant Variable – the considerations participants take into account when making their decision.

The primary dependent variable is the number of ethical issues the individual identifies as relevant to their management decision. Participants were asked to make a decision on whether and how to manage earnings; four options for increasing earnings per share were provided. Participants are then asked to provide the considerations they took into account when making their decision. A funnel interview technique is employed to probe their awareness of the ethical issues (considerations) and implications of their actions.

The case materials describe a publicly traded (Wheaton), multinational technology products and services company that is preparing to issue their Q4 earnings press release. Over the past year Wheaton has become known as a "growth" stock with large institutional ownership, significant lenders and a strong analyst following. As the Vice President of Finance, James Galvin, finalizes the financial statements he has held meetings with several company managers. A discussion between James Galvin (VP Finance) and Daniel Torrent (CEO) is detailed. This conversation reveals that the company will not meet the analysts prediction of earnings ($2.30 per share), but under the current accounting policies are projecting earnings of $2.26. James presents four options that the company can take, each of which will increase the earnings per share figure by $0.04.

After reading the case information, participants are asked to provide their recommended course of action for Wheaton with regards to each of the four options available. Participants are then asked to list the factors or considerations they took into account when making the decision. No reference to ethics is made at this point. Participants are then asked to state the positive and negative factors or considerations relevant to their decision. Participants are then asked to list the ethical factors or considerations relevant to their decision. Finally, they are asked to list any and all parties whose interests should be considered by the CEO, when making his decision on Wheaton's course of action, given the alternatives presented.

Participants' responses are to be evaluated by measuring the number of total and weighted ethical issues they identify. The total number of ethical issues is measured by counting all the ethical factors/considerations participants generated over all three levels of questioning. These considerations are coded as ethical issues if they are on the list of ethical issues provided.

All response coding is to be non-redundant; participants only get one mark for the issue from the list, and cannot receive a subsequent (additional) mark for this same issue (or a consideration falling under this category). If a participant mentions a specific consideration in a prior question, they do not receive credit for it in any further time.

Issue or Factor:

- One point will be provided for each consideration or factor identified.
- Each consideration must be able to stand alone as a thought or a reason in favour or against the options provided to be considered a consideration.
- Ex. Of a consideration "One of the major factors was the reasoning for the change to the current accounting practices."
  → speaks to the motivation, ethical issue (#2)
- Ex. "If Mr. Galvin approached each transaction and provided support on why the policy should change versus focusing on the results to earnings per share, I would have been more open to the accounting suggestions provided."
  →Although this statement is comprised of more thought units than the first sentence, since it all relates to one overall reason to accept or reject the alternative, it is considered one ethical issue.
  → speaks to motivation, ethical issue (#2)
- The decision made or conclusions indicated by the respondent, although a complete thought, does not constitute an ethical issue because it does not speak to why the action should or should not be taken.

Dependant Variable – the stakeholders to the Decision

The stakeholders to the decision are computed to be non-redundant. Any mention of employees/ managers is considered one stakeholder. Management has been interpreted to be the C-Suite of executives and is separate or distinct from employees.

Stakeholders are coded as internal/ external, consistent with the rules of insider vs. Outsider trading. Board members, executives and employees are considered insiders, whereas, shareholders (Current or future), customers and lenders are considered outsiders.

Examples:

Outsiders

- Investors – current
- Investors - future
- Analysts
- Customers
- Lenders
- Maclean's Magazine and Jantzi-Sustainalytic
- Community

Insiders

- Employees (includes reference to managers, etc.)
- His own
- Galvin
- Employees' families