Exploring language use within U.S. accounting rules of professional conduct

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ABSTRACT

Codes of ethics and rules of professional conduct are promoted by a variety of professional institutions in the accounting sector (Misiewicz, 2007; Frankel, 1996). While the precise language used within such codes may potentially influence compliance, this area, at least in the accounting domain, is largely unexplored.

George *et al.* (2014) found that the type of obligating language used within professional accounting codes may influence ethical perceptions and behavior. This paper builds on that work by surveying 219 United States (U.S.) accounting students to investigate whether the language used within the Colorado State Board of Accountancy's (CSBA) *Section 1.12 Rules of Professional Conduct* (Secretary of State for Colorado, 2022b) influences ethical behavior. To explore this issue, the researchers designed a case study that asked respondents to evaluate an ethical dilemma after consulting four differently worded ethics provisions relating to professional integrity and objectivity. The results suggest that even when respondents possess a prior ethics-based education, the precise language used within rules of conduct impact ethical attitudes and behavior. While age and having taken a business ethics course were moderating influences, the significance of language prevailed when tested against other factors, such as gender and work experience. These findings have implications for both the design of professional accountancy codes and the teaching of accountancy in the U.S., since all of the students surveyed had taken at least one, and sometimes more, courses in business or accounting ethics.

Keywords: ethics, language, accounting, education, professional

INTRODUCTION

This paper explores the role of language within ethical codes and rules for professional conduct in U.S. accountancy. While the vast majority of professional accountancy bodies worldwide now have some form of ethical rules or code that establish the boundaries for appropriate professional conduct, little is known about the role language plays in shaping human attitudes and behavior towards compliance with such requirements (George et al., 2014).

This paper adds to the existing literature by analyzing the language used within the Colorado State Board of Accountancy's (CSBA) Section 1.12 Rules for Professional Conduct (Secretary of State for Colorado, 2022) and comparing it with a set of four different hypothetical "rules" that use alternative types of obligating wording. The aim is to see whether the behavior of accounting students faced with an ethical dilemma is affected by the precise language used within ethical guidance, and also to determine whether various contextual factors, such as ethical education, work experience, gender, and age play a role in mitigating this impact.

The role of language in professional codes

As professional rules and codes use language to convey messages and understanding to the reader, it is critical that they are clearly written and unambiguous in order to encourage the persons to whom the regulation is directed to comply with its requirements. As a result, "language, together with ethnicity, age, gender and the level of education of code respondents, is likely to be…significant when measuring the impact of a code, and when measuring compliance of respondents to a code" (George et al., 2014, p. 2).

In terms of the legal understanding of contractual obligations, the word "shall" should only be used to express anything that parties are obligated to do. As a result, the use of "should", or "may" within contracts or legal codes have an entirely different meaning and allow some degree of "voluntary" decision making potential on behalf of the person interpreting the regulatory or contractual provision (Adams, 2023). For example, in the professional world, codes utilize "should"-based requirements to provide guidance on the application of voluntary best practice (see for example, the Royal Institution of Chartered Surveyors (2014) Code of Practice: Commercial Service Charges) or create a "comply-or-explain regulation that avoids a "one size fits all" approach to regulation (see for example, the UK Financial Reporting Council's (2024) UK Corporate Governance Code). Thus, language does matter, and it is vital that regulators use the appropriate language to influence human behavior.

This paper uses a unique case study survey to establish whether accountants are affected by variations in the obligating language used within professional codes of conduct and ethical codes. The next section provides a literature review on the effectiveness of codes of ethics and the perception of language within them.

LITERATURE REVIEW

The effectiveness of ethical codes and the perception of language used

Professional codes of conduct establish standards that govern the actions and behaviors of individual members within a given field and organization. These codes develop a set of ethical standards and rules of conduct that guide members or employees toward acting in an ethical manner and thereby avoiding unintended consequences or sanctions (Erwin, 2011). However, research findings related to the effectiveness of the codes of conduct in reducing the incidence of misconduct presented mixed results (Singh, 2011). A number of studies found that existence and enforcement of codes influence the behavior of employees and managers significantly (Stohs and Brannick, 1999; Adams et al., 2001; Somers, 2001, Schwartz, 2001; Kacem & Harbi, 2023). Other studies found an inconclusive relationship between such codes and the ethical behavior and actions of individuals (Cleek & Leonard, 1998; McKendall et al. 2002; Kaptein and Schwartz, 2008). Research has also shown that the mere existence of ethical codes is not sufficient to produce ethical actions, with mediating factors such as code contents, effective communication, training, implementation and consequences of misconduct, support for whistleblowers, commitment to profession, and personal characteristics, also determining the ethical awareness and decision-making by employees (Kaptein & Schwartz, 2008; Singh, 2011).

One of the crucial and under researched influences on the effectiveness of an ethical code is the language used to establish its tone, context and meaning, an aspect rarely addressed in the existing literature (Winkler, 2011). "Language is regarded as social practice that functions at creating particular understandings of individuals and groups, how they are interrelated, and how they should behave" (Winkler, 2011, p. 653). Glass & Cahn (2022, p.122) argued that "language is an indicator of how stakeholders view an ethics code's intent, and key to distinguishing code properties, such as promoting ethical-valued decision-making or code-based compliance". How language is used has potential in contributing towards ethical perceptions and the subsequent behavior of employees (Glass & Cahn, 2022). The level of acceptance and rejection of a codes of ethics by the readers depends on "how they interpret and make sense out of these documents" (Winkler, 2011, p. 654). Examining a stratified sample of 75 U.S. firms, Holder-Webb & Cohen (2012) scrutinized both the content and language employed within corporate ethics codes. Their research revealed that, aside from ethical codes in financial reporting, such codes typically utilized generic and ambiguous language, and failed to provide explicit guidance and "substantive binding constraints on organizational behavior" (p. 504). Undertaking a cross-country comparative analysis, Jakubowski et al. (2002) examined the codes of professional conducts of certified or chartered accountants of seven countries (Australia, India, Malaysia, Ontario, South Korea, Taiwan, and U.S.) to investigate the commonalities and differences in the code contents and language. They concluded that there are differences in formulation of ethical rules across these countries which might be due to the cross-country differences of their respective culture, economy, and legal systems and also to some extent, the age of the professional accounting bodies. Although some ethical standards such as integrity, independence and conflicts of interests are commonly addressed across the nations, but the study evidenced that even these codes show inconsistencies with respect to their "specificities and elaborateness" (p. 127). The cross-country comparisons outlined in this study also highlights notable discrepancies in their selection of modalities used to convey the intensity of a code of conduct and its ensuing perception. These modalities range from "not knowingly" and "should" to "must" and "prohibited" (p.114). Farrell and Farrell (1998) argued that one of the strategies used in writing codes of ethics is the selection of modalities to establish varying range of tone of commands from a "polite imperative" to a "strong sense of command" (p.596).

George et al. (2014) investigated the use of language within the Australian Code of Ethics for Professional Accountants. The study used the survey results from students studying in Australian and the United Kingdom (UK) as a proxy for the views of accounting professionals and found that the language used within a code of ethics did influence an individual's perception of whether an ethical dilemma existed, and how to respond to such issues in a professional manner. The study concluded that the wording used within professional accounting codes of ethics may influence individual behavior. While the impact of language used in corporate codes of conducts on managers and employees' ethical behavior has been heavily examined in the extant literature, George et al. (2014) is the only empirical study that directly investigates how the language and wording used in professional accounting codes of conduct impact the ethical perceptions and attitudes of the readers. What is urgently needed is further work that applies the George et al. (2014) approach to study whether language is a potential issue in professional accounting codes elsewhere in the world.

This paper adds to the existing literature by focusing on the language used within rules of professional conduct issued by U.S. State Boards of Accountancy and exploring whether the ethical behavior of American students is influenced by the wording used within such codes. More specifically, this study surveys accounting students in Colorado, United States, to examine to what extent the language utilized in the Colorado Board of Accountancy Rules of Professional Conduct (2022) influences the ethical behavior of individuals.

Language used within U.S. State rules for professional accountancy

As there is no unified Federal Board of Accountancy within the U.S., in theory each State should provide its own unique rules and codes. However, the American Institute of Certified Public Accountants (AICPA) has provided its code that has been adopted in certain U.S. states.

In theory, as there is no unified U.S. Federal Board of Accountancy, each State could provide its own unique rules and codes. While many states adopt or align their codes with the American Institute of CPAs (AICPA) Code of Professional Conduct, differences exist in the contents and language used within the codes in addition to other rules and requirements. However, all the State Boards of Accountancy are found to be similar in incorporating the rules of integrity and objectivity in their codes/rules of professional conduct. Hence, this study focuses on the language used to communicate the rules of professional conduct with respect to integrity and objectivity as they are regarded as the fundamental feature of the profession from which public trust derives. Integrity requires a member not to subordinate "service and public trust" to "personal gain" whereas objectivity "imposes the obligation to be impartial, intellectually honest, and free of conflicts of interest". Additionally, the principles of "objectivity, independence and due care" stems from the principle of integrity (AICPA, 2020, p.6). Although all the U.S. State Boards of Accountancy incorporate these two rules in their codes/rules of professional conduct, the obligating language or modalities used to communicate the need to adhere to these rules varies widely. Appendix 1 provides the author's detailed state-by-state account of the language used by the 55 U.S. state boards of accountancy, with the results summarized in Appendix 2: Table 1 by type of obligation language or modality used.

Appendix 2: Table 1 highlights that 25 U.S states universally adopted the wording and language used within the AICPA (American Institute of Certified Public Accountants) Code of professional conduct. Rule 1.100.001 Integrity and Objectivity of the AICPA Code emphasizes that "In the performance of any professional service, a member shall maintain objectivity and integrity, shall be free of conflicts of interest, and shall not knowingly misrepresent facts or subordinate his or her judgment to others" (AICPA, 2020, p.29). In contrast, other states used similar but different types of modal verbs and obligating language for providing rules for professional rules related to the misrepresenting facts or subordinating judgement to others, including “shall act”, “shall maintain”, “may adopt”, “may not knowingly”, “shall not knowingly” “avoid knowingly”, and “must not”. Eight states use either the phrases “shall maintain” and “shall not knowingly”. Specifically, 14 states employ the phrase “shall not knowingly,” while four states opt for “may not knowingly.”

What is notable and perhaps surprising is that this language is very different to what George et al. (2014) observed within the Australian APES 110 Code of Ethics for Professional Accountants which demonstrated “an abundant use of “may” and “should” throughout the document” (George et al., 2014, p.6). In contrast to the U.S. rules, the Australian code did not use “shall not” at all, substituting it with “should not” which in an Australian context is interpreted to mean “an obligation or duty to perform” (Ibid, p.6). Even this rudimentary comparison of language suggests that users of rules or codes often have to “make many judgements regarding ethical behavior as a respondent” (Ibid, p.6).

As an example of the influence of language, the Oxford English Dictionary (2016) provides definitions for five of the most widely used types of obligation-related language within professional accountancy rules: may (may not), should (should not), must (must not), prohibited, and shall (shall not):

- May (may not): Used to express permission, a possibility, a wish, uncertainty
- Should (should not): Used to express obligation or duty, similar to ought to, something expected
- Must (must not): Used to express necessity of obligation
- Shall (shall not): Expressing an instruction or command
- Prohibited: To forbid, ban something

Farrell & Farrell (1998) suggest the language used within professional codes of ethics can be classified as low, median, or high obligating language. However, ranking such language in terms of strength of meaning is difficult, since although some differ significantly in terms of their level of obligation, others possess the same intended meaning or could be interpreted in alternate ways by different cultural groups (Baskerville and Evans, 2011). English language is complex, and the precise language and terminology used within modern accounting further complicates things, especially when translating accounting standards (Baskerville and Evans, 2011). While the obligation level within these popular regulatory terms vary from “low” to “high”, their precise interpretation may also depend upon the specific context in which they are used. For example, does “should not” mean something different than “shall not” in some situations and for certain accountants? An exploration of the cultural differences between the use of obligatory language within accounting regulations is beyond the scope of this paper, but it is clear that in the U.S. the term “shall not” intends to convey the same thing as the Australian “should not”. What complicates matters is this is not the same in all contexts. As was mentioned earlier, in the UK, use of “should” is sometimes used in a “comply-or-explain”, best practice manner, which allows for compliance using an alternative means of the same quality. What is clear is that the use of any of these terms in a professional code should be determined by the precise human behavior and type of compliance that regulators are hoping to achieve.

Using Farrell and Farrell (1998) and the construct of modality, it is clear that the language used within U.S. State Board of Accountancy rules varies widely in terms of wording and strength of meaning and obligation. As a result, this variation provides a context and justification for research that investigates the impact that professional language may have on the ethical behavior of accountants. Building on the research conducted by George et al. (2014), the present study will explore the impact of the language on the individual ethical behavior of U.S. accounting students. Before investigating the role of language further, it is important to discuss whether other factors, such as an individual's level of ethical education, may serve as a moderating force when respondents struggle with the precise wording used within such regulatory instruments.

Ethical Education within the U.S. higher education accounting curriculum

While the precise language used within rules of professional accounting may influence human behavior, the ethical training and education of individuals may play a role in the identification and resolution of ethical issues. As a result, there have been widespread call for accountants and accounting students to receive education in ethical issues, since "accounting education can perpetuate differences in interpretation but it can also play a crucial role in encouraging equivalent interpretation and a common understanding (Baskerville & Evans, p. 13)."

The call to incorporate ethical values into business and accounting curricula can be traced back to as early as 1987, with the Treadway Commission Report prompted by a series of significant corporate financial failures in mid-1980s (Grundfest and Berueffy, 1989). The report called for the integration of ethics into all business courses arguing that an "inadequate coverage of ethical issues can send an unintended message to students that ethics is of secondary importance" (Report of the National Commission on Fraudulent Financial Reporting, 1987, p.83). Although such recommendations were not widely implemented at that time (Madison & Schmidt, 2006). However, as a direct result of corporate scandals in the early 2000s resulting from U.S. public accounting firms inappropriately certifying fraudulent financial statements as "materially correct", the credibility of the profession was brought into question (Misiewicz, 2007, p.15) and these events "set a new low for the accounting profession" (Low et al., 2008, p.222). In order to restore U.S. investor confidence in public accounting, the Sarbanes-Oxley Act was passed in 2002, and Statement of Auditing Standards 99 (SAS 99) was issued to address concerns related to ethics and fraud within financial reporting and audit practice. As a direct result, there were increased calls from within both the U.S. accounting profession and academia for a need to integrate ethics and ethical training within the U.S. accounting curriculum to better prepare "new professionals" for the challenges of modern accountancy (Klimek and Wenell, 2011).

In the United States, State Boards of Accountancy determine the eligibility and examination requirements to become a CPA (Certified Public Accountant) and maintain a CPA license. While a portion of the CPA exam is uniformly required by all State Boards, the ethics-based educational requirements vary between states. These variations include three specific areas: the ethics education required before taking the CPA exam, the need to take an ethics test/exam as part of the exams, and the requirements for continuing professional education (CPE) in ethics (Misiewicz, 2007). For example, in 2002 the Texas State Board of Accountancy was the first to mandate completion of college coursework in ethics prior to taking the CPA exam. Subsequently, seven more states (California, Colorado, Maryland, New York, Rhode Island, West Virginia, and Illinois) enacted rules that required college coursework in ethics for CPA exam eligibility (Horne et al., 2022). In 2007, Misiewicz (2007) found that 32 U.S. states required some ethics coursework prior to taking the CPA exam, with 15 specifying that this coursework must be completed as part of the applicant's college degree curriculum, and 39 states necessitate that candidates pass an ethics exam either alongside the CPA exam or separately.

As Misiewicz's work was conducted seventeen years ago, there is need to update the literature to ascertain current U.S. State-by-State requirements for ethics-based education. In theory, these regulatory demands should be relatively unchanged, but the U.S. accountancy profession is in a perpetual state of flex regarding the debate over the need for ethical education, with Horne et al. (2022) suggesting that there is an urgent need to harmonize these requirements throughout the U.S.

Appendix 3 provides a summary of the current U.S. state board of accountancy educational requirements for CPA exam eligibility and licensure for each state as at June 30, 2024. This data was hand collected and complied by the authors from information published at each state board of accountancy website. Surprisingly, this analysis shows a notable decrease in the requirement for ethics coursework and exams compared to the results presented by Misiewicz (2007).

The changes in the ethics-based requirements for CPA exam and licensure since Misiewicz's (2007) study are summarized in Appendix 2: Table 2 which shows that the number of the states mandating the inclusion of an ethics course as part of the requisite degree prior to taking the CPA exam decreased by 40% and those requiring candidates to complete some form of ethics coursework declined by 19% since 2006. Additionally, the number of states that require candidates to pass an ethics exam, either concurrently with the CPA exam or separately, has declined by 36%. Twelve states do not impose any requirements for ethics-related coursework or exams before obtaining CPA licensure.

In order to explain the overall decline in ethics-based educational requirements, attention needs to focus on the debate over whether these are indeed necessary. Amernic & Craig (2004) suggest that "one of the causes of the seemingly never-ending parade of accounting scandals and unexpected company collapses has been the inadequacy of university curricula and business education" (p. 343). However, although a body of research emphasizes the importance of ethics education for accountants, there is a lack of consensus on "how ethics should be taught" or "whether ethics should be taught as a separate course or integrated into the curriculum" (Poje & Zaman, 2022, p. 463). In 2005, NASBA (National Association of State Boards of Accountancy) published its Exposure Draft for Proposed changes to the Uniform Accountancy Act, which included a new requirement for three semester hours of education in accounting ethics (NASBA, 2005). However, NASBA's changes were widely criticized by both academic and non-academic stakeholders, with many claiming that the proposals would impose significant costs and have many negative unintended consequences on quality of accounting education (The American Accounting Association (AAA), 2006). In a survey of educators conducted by Blanthorne et al. (2007), the majority supported the inclusion of ethics in the accounting curriculum, but favored a case study approach over theoretical content, and wished to integrate ethics into existing courses rather than creating new ones. For example, Parks-Leduc et al. (2022, p. 45) stated that "adding yet another required course to the business curriculum can be a daunting challenge" and found that incorporating ethics in multiple courses throughout the core curriculum improved ethical decision-making among graduating seniors significantly. Low et al. (2008) asked students whether they believed education influenced their ethical behavior. While the findings of the study were inconclusive, the students believed that it was still important to have ethics education in their program of study. This finding, in itself, suggests that it is still possible to influence the 'thinking' of accounting graduates before they entered the professional work domain (Low et al., 2008). Similarly, a study by Mayhew & Murphy (2009, p. 397) found that "when participants are anonymous, misreporting rates are nearly the same regardless of ethics program participation. However, when their reporting behavior is made public to the cohort, participants who completed the ethics program misreported at significantly lower rates than those who did not receive the ethics program. The results suggest that ethics education does not necessarily result in internalized ethical values, but it can impact ethical behavior".

The potential obstacles in adding a standalone ethics course to U.S. university-level accounting curriculum as well as inconclusive evidence of its effectiveness in raising ethical awareness and behavior among accounting students, may potentially explain why more U.S. states are removing ethics coursework from the accounting curriculum required for licensure.

As an example of this relevant to this current paper, in 2023 Colorado's requirement to have three hours or more of courses concentrating on accounting or business ethics before taking the CPA exam was waived in proposed changes to the CSBA's rules (Department of Regulatory Agencies, 2023). While these proposals were criticized by many academic stakeholders to the consultation on the changes, the Colorado Society of CPAs (COCPA) welcomed the "roll-back" stating that "with the requirement to pass a uniform ethics test" as well as "the continuing education mandate for CPAs -requiring four hours of ethics-focused coursework every two years - underscores the enduring nature of ethical responsibility". The COCPA emphasized that "regulating course specific focus for entry into the profession based on the minority that holds a potential ethics failure risk is unnecessarily burdensome to the occupational licensure process" (COCPA, 2024, P. 3). As a result of such views, in July 2024 the CSBA voted to proceed with the removal of the three semester hours of accounting or business ethics from the 150 total semester hours of coursework required for individuals to meet the education requirements for CPA certification in Colorado. At the time this paper was written there was no timetable for the implementation of these changes.

In summary, there are growing calls to relax ethical educational requirements for CPA candidates, and the results from Appendix 2: Table 2 suggest that these demands are being acted upon by state regulators. However, this "roll-back" contrasts with prior calls for a consistent ethics requirement so that "the accounting profession should, on a national basis, carefully consider the nature and extent of optimal ethics education for CPAs in order to ensure that everyone using this designation is adequately prepared to meet the ethical dilemmas common to the profession. State boards should also be encouraged to harmonize their ethics education requirements to avoid placing unnecessary obstacles to new accountants' mobility across state lines (Horne et al., 2022, p.22)."

Despite recent changes in the professional accounting ethics requirements, Table 2 highlights that U.S. accounting students in many states have classes on ethics during their degree, and these students should, in theory, be relatively less influenced by the precise language contained within professional rules of ethical conduct. One way to advance the existing literature on the role of language within accountancy ethical codes is to survey such students to explore this hypothesis further. George et al. (2014) found no difference in the impact of language on students that **were** and were not enrolled on an ethics course, although this study failed to disclose the percentage of participants with such ethics-based education or the number or type of class taken. Furthermore, none of the Australian and the UK student respondents within the George et al. (2014) study had a *mandatory* ethics requirement within their respective degree programs.

While it can be argued that ethics-based educational requirements should promote ethical awareness amongst accounting students and professionals alike, studies of the impact of these classes provide mixed results (Hiltebeitel and Jones, 1992). The impact of incorporating ethics in accounting curricula depends appears to depend on how it is integrated, how it is taught, and whether its provided at an undergraduate or graduate level (Christensen and Latham, 2018; European Union News, 2018).

A major contribution of this paper is that it uses data obtained from Colorado-based accountancy students that had taken a mandatory ethics-based educational class that met the requirements imposed by the CSBA. Despite the forthcoming changes discussed above, the currently effective *Accountancy Rules and Regulations* issued by the CSBA require that an applicant complete a three-semester hour, or more, course that concentrates on accounting or business ethics. A Colorado-based applicant for a CPA license must also take AICPA Ethics course and pass the AICPA Ethics Examination with a score of ninety percent or better within two years immediately preceding the application receipt date. The CSBA also requires a certificate holder to complete four hours of Ethics-based CPE in each subsequent CPE reporting period (Secretary of State for Colorado, 2022, p.14, 20, 28). As a direct result of CSBA's requirements, all degree seeking accounting students in Colorado take at least one three semester hour class in either accounting or business ethics which could potentially impact ethical behavior and also restrict their response to different types of obligating language.

Other factors influencing compliance with accounting codes

To this point, the paper has focused primarily on the role of language, cultural differences, and prior ethics-related educational requirements in influencing human behavior towards compliance with a professional code. Rest (1993) suggests that age, level of educational achievement and life experience are main determinants of moral development and ethical behavior. In terms of gender, Newman (2008) suggests that there is no universal opinion as to the role of gender differences in language, although White (1999) suggests that female respondents typically respond to ethical scenarios with comparatively higher levels of ethical responsiveness. As age, gender, and level of work experience are also potential factors that may influence compliance with rules of professional conduct, these will also be explored within the empirical work within this paper.

In summary, this paper adds to the existing literature by exploring the level of influence that the precise language contained with U.S. professional ethical rules of professional conduct (codes) may have on individuals with some level of pre-existing ethical education. Through an electronic survey, the researchers will identify whether or not this influence is dependent on various demographics and whether or not the language used in codes need to be changed to reflect a code's purpose and intended level of influence.

RESEARCH METHODOLOGY

From the literature review and our analysis of U.S. state board of accountancy rules for professional conduct, it is clear that there are variations in both the language used to articulate those rules and ethical educational requirements of U.S accountants. Together, these factors may influence the ethical perceptions and interpretations of U.S. accounting students, and a result, the main research question for the study is as follows:

Does the language used within an ethical code influence whether respondents comply with its requirements?

In order to address this question, this paper used an experimental case-study survey that presented participants with a scenario based upon a friendship between a client and a professional accountant, with the accountant being asked to "modify" revenue estimates included within the client's pro-forma corporate financial statements. The financial statements were being prepared as part of an initial public offering (IPO) for the business. The case-study survey is presented in Appendix 4 of this paper. In a similar manner to George et al. (2014), the case explores the issues of integrity, objectivity, and independence addressed within the CSBA's *Rules of Professional Conduct*:

I. The issue of independence of a licensee performing auditing or other attestation services is addressed by Paragraph B of Section 1.12 of the CSBA Rules (Secretary of State for Colorado, 2022, p. 46).
II. The issue of integrity and objectivity is addressed by Paragraph C of Section 1.12: "A licensee shall not knowingly misrepresent facts or subordinate his judgement to others" (Ibid, p. 46). Misrepresentation of fact or subordination of judgement include "knowingly making, or permitting or directing another to make, false or misleading entries in an entity's financial statements or records' (Ibid, p.46).

After asking for some information about age, work experience, gender, and ethics-related education in part 1, the second part of the survey presented participants with a scenario asking them to consider whether an ethical issue was present for the accountant. In the third and final section, participants were presented with the same scenario four times, and each time it with accompanied with a differently worded rule from a hypothetical professional code of conduct related to materially misstated financial information.

For each version of "rule", participants were asked to respond to the situation by indicating whether they would associate themselves with the client's modified financial statements. Rule 1 used the "shall not" language present with the CSBA's rules on integrity and objectivity, the other rules created by the authors to incorporate a variety of obligating language:

- Rule 1: 'A licensee **shall not** knowingly misrepresent facts or subordinate their judgement to others when performing professional services.'
- Rule 2: 'A licensee **may not** knowingly misrepresent facts or subordinate their judgement to others when performing professional services.'
- Rule 3: 'A licensee **should not** knowingly misrepresent facts or subordinate their judgement to others when performing professional services.'
- Rule 4: 'A licensee is **prohibited from** knowingly misrepresenting facts or subordinating their judgement to others when performing professional services.'

For each of the four alternative rules of professional conduct, participants could choose from the following responses about their level of association with the restated financial statements:

- Definitely not associate myself with
- Would not be associated with
- May not associate myself with

- May associate myself with

These four options were used to allow participant responses into two categories, "unequivocal" ("Definitely not associate" or "would not be associated with"), and "ambivalent" ("may not associate myself with" and "may associate myself with) attitudes.

Acting as a proxy for the views of professional accountants, the survey was given to U.S. accounting students. After an initial trial, the survey was administered to 219 U.S. accounting students studying in Colorado to investigate whether the language used within the Colorado Board of Accountancy Rules of Professional Conduct (2013) influences the ethical behavior of respondents with some degree of ethical education. The participants included both undergraduate and graduate students from a number of Colorado-based universities, although the majority of students were from two specific institutions. Appendix 2: Table 3 provides a summary of the ethics-based education of the 219 participants.

A unique feature of the population of Colorado-based participants surveyed was that all of them had ***completed at least one ethics class*** as part of their degree requirements. 53% had completed one class, while 38.4% has completed two, and 8.6% had completed all three of the classes commonly provided by Colorado-based accounting programs. Of the classes completed, 48.4% of students had completed a specific accounting ethics class, that included content specific related to professional accounting ethics and ethical conduct. This suggests that, prior to taking the survey, respondents should have been aware of ethical issues and the appropriate resolution of such matters. This is an important aspect of the study and potentially moderates the influence of language in the ethical behavior of participants. As was mentioned earlier, prior studies of language use (George et al., 2014) did not fully explore the role of mandatory ethics-based education, so this present work also adds to the existing literature by investigating this.

RESULTS AND ANALYSIS

Of the 219 complete and useable case responses, 196 respondents (89.5%) strongly agreed or agreed that the case contained an ethical issue in Part 1. Surprisingly, the other 23 participants (10.5%) did not believe that an ethical issue was present nor expressed any clear opinion whether this was the case.

Appendix 2: Table 4 shows that, after being exposed to each of the four different rules in part 3, a number of participants changed their opinion as to whether there was an ethical issue with the accountant associating themselves with the misstated revenue estimates. Across the four rules, the number of participants changing their original opinion never exceeded 22.4% (49 of 219 participants for "may not"). Over the four rules, the number of participants who went from believing that an ethical dilemma was present to be willing to associate themselves with the misstated financial statements never exceeded 15.6% (34 for "may not"). Alternatively, 9.1% of those that originally believed no ethical dilemma existed, stated unequivocally that that an ethical issue prevented them from associating themselves with the misstated information.

Relatively few of the 196 subjects who initially perceived an ethical issue in part 2 changed their mind after being exposed to hypothetical wording in part 3. In effect, subjects who initially perceived an ethical issue were generally not persuaded to change their mind as a result of being exposed to specific rule-based language. In contrast, a relatively high number of the 23 subjects who did not perceive an ethical issue in part 2 (but before being exposed to the statutory language) changed their minds and perceived an ethical issue ***after*** being exposed to the alternative obligating language. The results also indicate that the wording of the rule had a relatively strong effect on participants, even though all participants has taken at least ethics classes before taking the survey. Specifically, subjects that did perceive an ethical issue changed their minds less than half as often after exposure to the “prohibited from” phrasing as they did after being exposed to the “may not” language. Likewise, 87% of subjects who initially did not perceive an ethical issue changed their minds after they were exposed to the “prohibited from” phrasing, as opposed to after they were exposed to the “may not” or “should not” phrasing (both of which had 65.2% of respondents changing their perceptions). Overall, this initial analysis indicates that the type of obligating language used within a code does matter, since it influences the ethical attitude and behavior of respondents.

The overall responses of participants to the four alternative versions of the "rules" of professional conduct are presented Appendix 2: Table 5.

Rule 4, which stated that a member was **prohibited** from association with a report or statement where a professional licensee believes such a statement includes false or misleading information, provided the strongest results with 71.2% (156 respondents) stating that they would **definitely not** associate themself with the misleading financial statement. Of the remainder, 1.8% (4) indicated that they may associate themselves with the false and misleading statement even though this version of the "Rule" prohibits such an action.

Rule 1, which stated that a member **shall not** be associated with a false and misleading statement, attracted a response rate of 52.5%, (115), respondents stating that they would definitely not be associated with a false and misleading statement, however, 2.7% (6) responded that they may be associated with the statement.

Rule 2, which stated that a member **may not** be associated with a false and misleading statement, attracted a response of 37.9% (72) stating that they would definitely not be associated with the statement and a further 3.2% (7) indicating that they may be associated with the statement.

Rule 3, which stated that a member **should not** be associated with such a statement, attracted the least amount of support from respondents, with only 34.2% (75) indicating that they would definitely not associate with such a statement, and 4.6% (10) indicating that they may associate themselves with it.

To provide further analysis, Appendix 2: Table 6 dichotomizes the survey responses for each version of the code into unequivocal (i.e. “definitely not” or “would not” associate with the misstated financial statements) and ambivalent categories (i.e. “may” sign off and endorse the financial statements or “may not” associate themselves with them) in a similar manner to George et al. (2014). These dichotomized results clearly show that the proportion of respondents unequivocal **against** signing the materially misstated information appeared to be influenced by the precise wording used within each rule.

Tukey contrast testing in Appendix 2: Table 7 shows that responses between rules were significantly different, such that respondents assigned to the prohibited rule 4 were significantly more likely to answer unequivocally that they would not be associated with the financial statements compared to those assigned to the may not ($p<.010$) and should not ($p=.048$) groups. Answers however did not significantly differ between rules 1, 2, and 3, indicating the importance attached to the stronger obligating word “prohibited” compared to the weaker, “may not,” “should not” and “shall not.”

The other interesting observation was that rule 1 “shall not” did not have any significant additional impact compared to the “may not” and “should not” rules, which is surprising considering the wide use of such obligating terminology in the legal and professional domain. Appendix 2: Figure 1 provides an illustration to explain these pairwise results.

Other secondary factors

Other factors were also examined to see whether they might explain the impact of language and directly affect the willingness of participants to associate with the financial statements. Second factors controlled for included gender, age, work experience, class level, number of, and types of ethics courses taken. The results of the logistic regression for the other factors is shown in Appendix 2: Table 8. The overall results were unchanged after considering these factors: the language used within the rules impacted willingness to associate with the financial statements. However, participant's age (p=.003) and completion of a business ethics course (p=.002) were also significant such that older participants, and those who have had a business ethics course were more unequivocal about the case. What this appears to suggest is that completion of anything beyond an introduction to ethics class was significant to the ethical perceptions of the respondents. Interestingly, participants taking a stand-alone accounting ethics course did not demonstrate significant improvement in their ethical perception (p=.454), which should provide some comfort to accounting regulators seeking to remove the requirement for a specific accounting ethics course. At the very least it appears that more general business ethics courses are more effective in developing moral judgment than a subject-matter specific course, and those seeking to "liberate" the U.S. accounting curriculum appear to have a valid perspective.

DISCUSSION OF THE RESULTS

The empirical results within this paper indicate that the precise language and wording used within a code of ethics provision significantly affects the ethical attitudes and behavior of students, even when secondary factors are considered.

Before being presented with four versions of a hypothetical code of professional conduct, the majority of U.S. student respondents (89.5%) stated that an ethical issue was present. After being presented with four codes that only differed in terms of obligating language that ranged from "prohibited from" to the more conditional, "may not", respondents were asked as to whether they would associate themselves with revised misstated financial statements. The results show that respondents were more ambivalent about signing off such statements when lower obligation language such as "may not" was used within a code. Significant differences were found between the results of rule 4 "prohibited from" when compared to rules 2 "may not" and 3 "should not". Rather surprisingly, rule 1 "shall not" did not appear to exhibit any significant additional impact when compared to the other rules. In similar work conducted by George et al. (2014), the researchers found that Australian and UK students were similarly influenced by the use of "may not" within a code but did not differentiate between "prohibited from" and "should not". This suggests a potential cultural influence on the perception of language, which requires further investigation using an international survey of accountants or accounting students.

From these results, it could be concluded that drafting a U.S. professional code that uses language such as "prohibited from", "shall not", "should not", or "may not" could have a significant impact on behavior. The use of "may not" could be especially problematic, as it might encourage more professionals to be ambivalent about responding to an ethical issue. Based upon the international professional experiences of the authors, the use of the term "should not" is more commonly used in the UK and Australia than the U.S., so the true "obligating" nature or "duty" of the term might be misinterpreted as more "optional" by U.S. students and professionals. Regardless of the language used, participants responding to the case should have recognized that there was an ethical issue that unequivocally prevented them from associating themselves with the restated financials. However, the results show that this was not the case for certain respondents , even though age and whether a business ethics class had been taken proved to partially moderate the impact of language in certain instances. Even when considering these additional factors, the relatively different impact of "may not", "should not", "shall not" and "prohibited from" were unchanged.

Since all of the Colorado-based students surveyed for this paper had taken at least one, and in many cases up to three, business or accounting ethics courses, the findings presented here have potential implications for both the design of professional accountancy codes and the teaching of accountancy in the U.S. Clearly, professional bodies are advised to avoid the use of conditional language within professional codes since the perceptions and actions of U.S. accounting students do appear to be influenced by the inclusion of differing types of obligating verbs.

CONCLUSIONS

This paper presents new insight into how the language used within a professional accounting code may influence its likely impact on the ethical behavior of members. Building on work by Farrell & Farrell (1998) and George et al (2014), this paper shows that language does matter, with U.S. participants to a case study being influenced by differing levels of obligating language, even in situations where accounting students have prior ethics-based education knowledge that could potentially moderate such influences.

The wording used within a code of ethics potentially affects ethical attitudes and behavior. Such findings are especially important in a U.S. context, since U.S. state boards of accountancy use widely different types of obligating and conditional language within their professional codes. As George et al. (2014, p.13) observe "the accounting profession and regulators of the accounting profession would be advised…to avoid the use of conditional or low obligation language within ethical codes." As a result, regulatory bodies responsible for preparing and implementing the rules of professional conduct are advised to be careful when drafting and updating their existing codes. While this point is obvious, more troublesome is the fact, that a number of respondents to this study who previously thought that the case included an ethical issue ***changed*** their opinion once the code language was introduced. A professional accountant seeking to uphold their reputation and that of their profession, must always act with integrity and never associate with misstated information. The findings from this paper suggest that some U.S. accounting students did not currently have such a mindset, even though the participants analyzed within this paper had taken at least one accounting or business ethics class.

As a result of the above issues, the paper has potential implications for both the design of professional accountancy codes and the teaching of accountancy in the U.S. The results from this paper suggest that U.S. states, such as Colorado, that are considering "rolling back" the ethical training and educational requirements within the U.S. accountancy profession should reconsider that decision or rethink current requirements to further promote ethical behavior.

Further cross-cultural and U.S. centered work is needed to explore these issues, and the authors are continuing to monitor the role of ethics education and professional language use within U.S. accounting.

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APPENDIX 1

Language used with U.S. State Boards of Accountancy Rules and Codes

States/ AICPA	Shall act	Shall Maintain	May adopt	May not knowingly	Shall not Knowingly	Avoid Knowingly	Must Not	Conform to AICPA
AICPA		x			x			
Alabama					x			
Alaska								x
Arizona								x
Arkansas					x			
California					x			
CNMI								
Colorado					x			
Connecticut					x			
Delaware								x
District of Columbia					x			
Florida					x			
Georgia	x							
Guam								x
Hawaii					x			
Idaho					x			
Illinois Board								x
Indiana			x					
Iowa					x			
Kansas					x			
Kentucky								x
Louisiana								x
Maine								x
Maryland				x				
Massachusetts					x			
Michigan								x
Minnesota								x
Mississippi					x			
Missouri								x
Montana								x
Nebraska								x
Nevada								x
New Hampshire					x			
New Jersey								x
New Mexico								x
New York		X			x			
North Carolina		x						x
North Dakota								x
Ohio		x			x			
Oklahoma								x
Oregon		x			x			
Pennsylvania				x				
Puerto Rico								
Rhode Island								x

States/ AICPA	**Shall act**	**Shall Maintain**	**May adopt**	**May not knowingly**	**Shall not Knowingly**	**Avoid Knowingly**	**Must Not**	**Conform to AICPA**
South Carolina								x
South Dakota				x				
Tennessee		x			x			
Texas		x			x			
Utah								x
Vermont					x			
Virgin Islands								x
Virginia						x		x
Washington							x	x
West Virginia		x			x			
Wisconsin				x				
Wyoming		x			x			

Information regarding Puerto Rico's adherence to the code could not be obtained as detailed codes are not publicly available.

APPENDIX 2

Table 1: Use of modalities and obligating language within U.S. State Boards of Accountancy Rules of Professional Conduct (2022)

Modality phrases and obligating language used	Number of states
May adopt	1
May not knowingly	4
Shall not Knowingly	14
Shall Maintain and shall not knowingly	8
Conform to AICPA Shall maintain and shall not knowingly	25
Shall act	1
Avoid Knowingly	1
Must Not	1
Total	**55**

Table 2: Comparison of the ethics-based requirements for CPA exam and licensure: Misiewicz (2007) vs current status

Ethics based requirements for CPA exam and licensure	Misiewicz (2007)	Current Status (2024)	Decline in Percentage
Ethics course required as part of degree prior to CPA exam	15	9	40%
Some form of ethics course required to obtain CPA license	32	26	19%
Required to pass ethics exam during CPA exam or separately	39	25	36%

Table 3: Ethics-based education of case participants

Class	Respondents who had taken %		
Introductory ethics	72 (32.9%)		
Business Ethics	163 (74.4%)		
Accounting Ethics	106 (48.4%)		
Number of classes	1 or more	2 or more	3 or more
Ethics classes taken	116 (53%)	84 (38.4%)	19 (8.6%)
Ethics Classes Taken	219 (100%)	103 (47%)	19 (8.6%)

Table 4	Rule 1 "shall not"	Rule 2 "may not"	Rule 3 "should not"	Rule 4 "prohibited from"
Participants who changed their ethical stance after being exposed to the Code language	39 (17.8%)	49 (22.4%)	45 (20.5%)	36 (16.4%)
Subjects that *initially* ***DID*** *perceive an ethical issue* but *after* being exposed to the wording of the code ***DID NOT***	22 (10.8%)	34 (15.6%)	30 (13.3%)	16 (7.3%)
Subjects that *initially* ***DID NOT*** perceive an ethical issue but **DID** ***after*** being exposed to the wording of the code	17 (7.8%)	15 (6.8%)	15 (6.8%)	20 (9.1%)
Subjects that went from no ethical issue to an ethical issue	17/23 (73.9%)	15/23 (65.2%)	15/23 (65.2%)	20/23 (87%)
Subjects that went from ethical issue to no ethical issue	22/196 (11.2%)	34/196 (17.3%)	30/196 (15.3%)	16/196 (8.2%)

Table 4: Analysis of respondents who changed ethical stance after being introduced to language

Table 5 Distribution of Responses by Rule

	Response				
Rule language	Definitely not associate myself	Would not associate myself	May not associate myself	May associate myself	n
Rule 4 Prohibted	71.2%	20.1%	6.8%	1.8%	219
Rule 1 Shall not	52.5%	34.7%	10.0%	2.7%	219
Rule 2 May not	37.9%	42.9%	16.0%	3.2%	219
Rule 3 Should not	34.2%	48.4%	12.8%	4.6%	219

Table 6 Distribution of Dichotomized Responses by Rule

	Response				
Rule language	Unequivocal	%	Ambivalent	%	n
Rule 4 Prohibted	200	91.3%	19	8.7%	219
Rule 1 Shall not	191	87.2%	28	12.8%	219
Rule 3 Should not	181	82.6%	38	17.4%	219
Rule 2 May not	177	80.8%	42	19.2%	219

Table 7 Contrast Testing

Group IV		Mean Difference (I-J)	Std. Error	Sig.
Rule 4 Prohibited	Shall Not	0.04	0.033	0.610
	Should Not	.09*	0.033	0.048
	May Not	.11*	0.033	0.010
Rule 1 Shall Not	Prohibited	-0.04	0.033	0.610
	Should Not	0.05	0.033	0.523
	May Not	0.06	0.033	0.225
Rule 3 Should Not	Prohibited	-.09*	0.033	0.048
	Shall Not	-0.05	0.033	0.523
	May Not	0.02	0.033	0.948
Rule 2 May Not	Prohibited	-.11*	0.033	0.010
	Shall Not	-0.06	0.033	0.225
	Should Not	-0.02	0.033	0.948

Based on observed means.
*. The mean difference is significant at the 0.05 level.

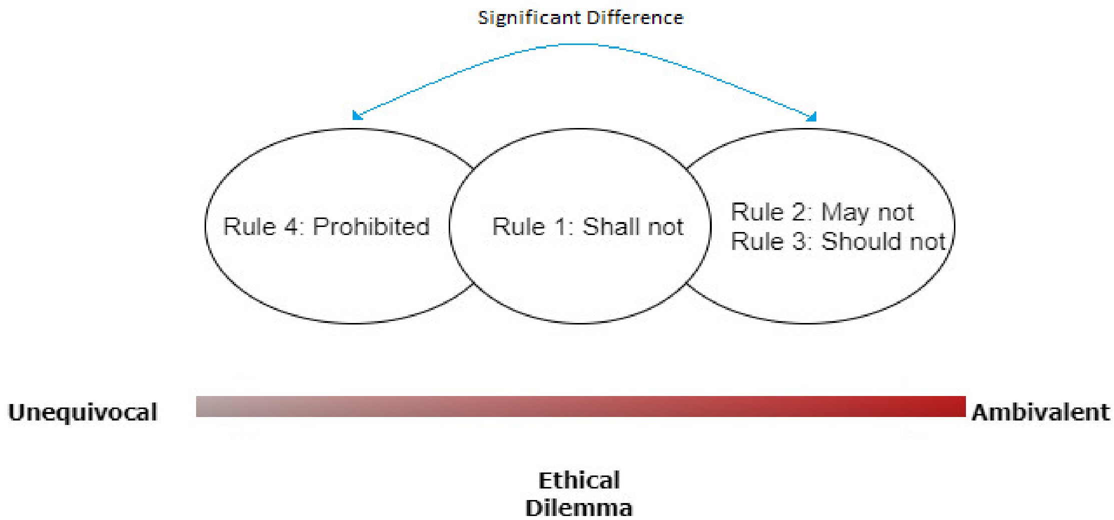

Figure 1: Graphical representation of the differences among rule language and ethical dilemma perception

Table 8 – Logistic Regression

Logistic Regression

		B	S.E.	Wald	df	Sig.	Exp(B)
Step 0	Constant	1.778	.096	340.936	1	<.001	5.921

Variables in the Equation

		B	S.E.	Wald	df	Sig.	Exp(B)
Step 1[a]	Group Number	-.296	.090	10.811	1	.001	.744
	Gender	.136	.204	.443	1	.506	1.145
	Age	.639	.217	8.649	1	.003	1.894
	Acct Exp	.116	.148	.610	1	.435	1.123
	UG or G	.109	.123	.790	1	.374	1.115
	Have you taken introductory ethics?	-.014	.220	.004	1	.949	.986
	Have you taken accounting ethics?	-.174	.233	.560	1	.454	.840
	Have you taken business ethics?	.715	.229	9.723	1	.002	2.043
	Constant	.318	.630	.255	1	.614	1.375

a. Variable(s) entered on step 1: Group Number, Gender, Age, Acct Exp, UG or G, Have you taken introductory ethics? Have you taken accounting ethics?, Have you taken business ethics?.

b. Number of ethics courses omitted from model due to collinearity.

APPENDIX 3

Requirement of Ethics course for CPA Exam and Licensure across the State Boards

States	Ethics course required as part of Degree prior to CPA exam	Some form of ethics course Required to obtain CPA license	Required to pass Ethics exam during CPA exam or separately
Alabama	x	x	
Alaska			x
Arizona		x	x
Arkansas		x	
California	x	x	x
Colorado	x	x	
Connecticut		x	x
Delaware		x	x
District of Columbia			
Florida			
Georgia			
Hawaii			
Idaho		x	
Illinois Board	x	x	x
Indiana			
Iowa		x	x
Kansas		x	x
Kentucky			
Louisiana			
Maine			
Maryland	x	x	x
Massachusetts			
Michigan			
Minnesota			x
Mississippi		x	x
Missouri			x
Montana		x	x
Nebraska	x	xx	x
Nevada			x
New Hampshire			
New Jersey		x	
New Mexico		x	x
New York		x	
North Carolina		x	
North Dakota		x	x

Ohio		x	
Oklahoma			x
Oregon		x	
Pennsylvania			
Rhode Island		x	x
South Carolina			x
South Dakota			x
Tennessee			
Texas		x	x
Utah	x		x
Vermont	x	x	
Virginia		x	x
Washington			
West Virginia	x		
Wisconsin			x
Wyoming			

APPENDIX 4

Copy of the Case Study Survey
Investigating the Language used in Codes of Ethical Conduct
Please provide some general information about yourself by answering the following questions:

1. Which age group are you in?
    a. 21 or younger
    b. 22 to 36
    c. 37 to 51
    d. 52 or more

2. What is your gender?
    a. Male
    b. Female

3. What is your country of citizenship?
    ____

4. How long have you resided in Colorado?
    a. Less than a year
    b. 1-4 years
    c. 5-10 years
    d. Over 10 years

5. What institution has provided the majority of your accounting education?
    ____

6. What type of academic program are you undertaking?
    a. Undergraduate
    b. Graduate
    c. Combined undergraduate & graduate program

7. What is your current enrollment status?
    a. Freshman – Sophomore
    b. Junior - Senior
    c. Graduate

8. How many years of accounting-related work experience do you have?
    a. None
    b. 1-2
    c. 3-5
    d. 6 or more

9. Which of the following best describes how the CPA exam fits into your career path?
    a. Will be taking the exam
    b. Will not be taking the exam
    c. Partially completed the exam requirements
    d. Completed the exam requirements

10. If you have partially completed the CPA exam, which section(s) have you taken or are in process of studying for?
    a. REG
    b. FAR
    c. BEC
    d. AUD
    e. N/A

11. Which of the following ethics courses have you taken and/or are in the process of taking? (Answer with multiple responses if applicable).
    a. Introductory Ethics
    b. Business Ethics
    c. Accounting Ethics

Part 1 *Please read the case facts below:*

You are an actively licensed CPA in Colorado and regularly play golf with your friend, the CFO of a local privately-held construction company. You acquired this client for your accounting firm over ten years ago, and this company is now an important client. You anticipate becoming a partner in this accounting firm soon.

After your most recent golf game, your friend asks if you will 'modify' the revenue estimate in the company's financial statements recently prepared by you. Your friend believes that the revenue estimate is too low. This set of financial statements is being prepared as part of a forthcoming initial public offering (IPO) for the construction company.

Part 2 *Indicate the extent of your agreement with the following statement by selecting the answer* ***nearest to your view***:

An ethical issue arises for you in the situation described above.

Strongly Agree ☐
Agree ☐
Neither agree nor disagree ☐
Disagree ☐
Strongly Disagree ☐

Part 3 *More case facts.*
Your friend has now revised the original financial statements by including a modified revenue estimate.

Part 4 *Rules of Professional Conduct*
The rules of professional conduct issued by the Colorado State Board of Accountancy have varied over time. Presented below are four (4) similar rules that differ in wordage; choose your best response based on the wording used.

Rule 1 states: "A licensee shall not knowingly misrepresent facts or subordinate their judgment to others when performing professional services."

Indicate your most likely response to Rule 1 by selecting the answer nearest to your view.

I would definitely not associate myself with the revised financial statements. ☐
I would not associate myself with the revised financial statements. ☐
I may not associate myself with the revised financial statements. ☐
I may associate myself with the revised financial statements. ☐

Rule 2 states: "A licensee may not knowingly misrepresent facts or subordinate their judgment to others when performing professional services."

Indicate your most likely response to Rule 2 by selecting the answer nearest to your view.
I would definitely not associate myself with the revised financial statements. ☐
I would not associate myself with the revised financial statements. ☐
I may not associate myself with the revised financial statements. ☐
I may associate myself with the revised financial statements. ☐

Rule 3 states: "A Licensee should not knowingly misrepresent facts or subordinate their judgment to others when performing professional services."
Indicate your most likely response to Rule 3 by selecting the answer nearest to your view.
I would definitely not associate myself with the revised financial statements. ☐
I would not associate myself with the revised financial statements. ☐
I may not associate myself with the revised financial statements. ☐
I may associate myself with the revised financial statements. ☐

Rule 4 states: "A licensee is prohibited from knowingly misrepresenting facts or subordinating their judgment to others when performing professional services."

Indicate your most likely response to Rule 4 by selecting the answer nearest to your view.
I would definitely not associate myself with the revised financial statements. ☐
I would not associate myself with the revised financial statements. ☐
I may not associate myself with the revised financial statements. ☐
I may associate myself with the revised financial statements.. ☐