

**ETHICAL DECISION MAKING BY
MANAGEMENT ACCOUNTANTS:
AN EMPIRICAL EXAMINATION OF
OBEDIENCE THEORY**

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Abstract

Fraudulent behavior involving major firms (Enron, WorldCom, etcetera) has resulted in significant losses to investors and others sparking renewed interest in business ethics research. These frauds may have been allowed to flourish because of the pressure that superiors leveled on their accountants.

This study reports the results of an experiment investigating if pressure from superiors (obedience pressure) affects the ethical choices of management accountants in a tax compliance situation dealing with the improper deduction of travel and entertainment expenses. The study also examined whether the materiality of the amount to be deducted improperly and the severity of the tax law violation affected ethical decision making. A sample of 168 members of the Institute of Management Accountants participated in the experiment.

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The materiality of the tax deductions did not significantly affect the actions of the study participants. However, the severity of the tax law violation and pressure from superiors affected subject's actions. The effect of pressure from superiors (obedience pressure) was particularly strong.

The study contributes to a better understanding of the ethical behavior of practicing accountants. This understanding may be used to improve ethics education and to build better models for future research.

INTRODUCTION

The recent problems of unethical behavior from executives of large companies (e.g., Enron, WorldCom) and the demise of the public accounting firm Arthur Andersen lead the U.S. Congress to enact the Sarbanes-Oxley Act of 2002 meant to increase monitoring of publicly traded companies and their auditors. Ethics research examining the behavior in business, especially of accountants, is again a major focus of academic research. At Enron, it has been documented that pressure from superiors led to a number of questionable and illegal transactions. When Sherron Watkins, an accountant at Enron, wrote her famous memo to Ken Lay ("Enron is going to implode in a wave of accounting scandals") her superiors considered terminating her (McLean and Elkind 2003, 358). This experiment addresses the impact of pressure from superiors (obedience pressure) on the behavior of management accountants when facing selected ethics dilemmas involving tax scenarios.

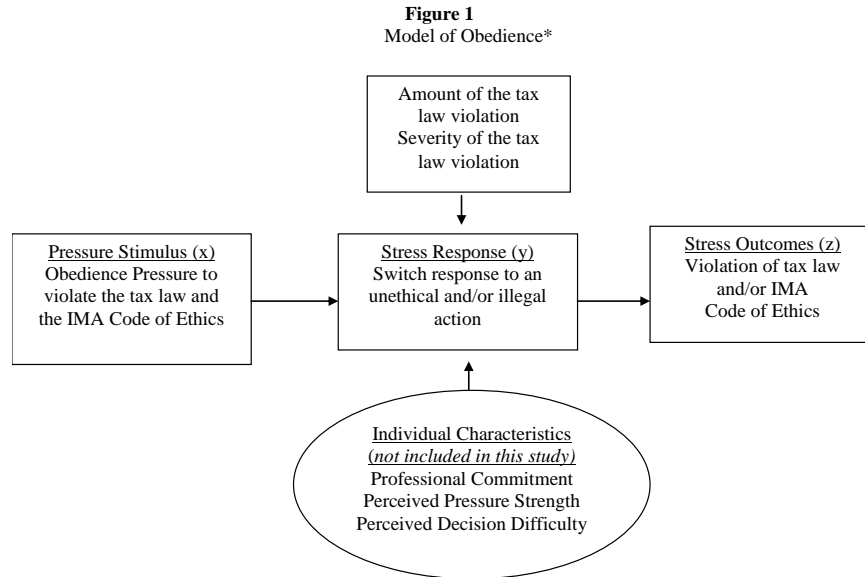
Ethical behavior, whether by management accountants or Certified Public Accountants (CPA), is easier to stipulate in tax situations for several reasons. The Internal Revenue Code and the Treasury Regulations stipulate legal conduct in the preparation of tax returns, for those who accept the law as a minimum level of

ethical behavior in the absence of some compelling reason to ignore a particular law or regulation. As additional requirements, Certified Management Accountants (CMA), non-CMA members of the Institute of Management Accountants (IMA), and CPAs are bound to comply with the Internal Revenue Code and Treasury Regulations by the Codes of Ethics to which they have allegiance, in the absence of some justification for noncompliance (IMA 2006; AICPA 2006). In addition, CMAs agree that tax compliance involves ethics. A survey conducted by Coppage (1985, 244) shows that CMAs consider tax noncompliance very unethical in the absence of some justification for noncompliance. In summary, tax situations present the opportunity to determine *a priori* whether an action is ethical or unethical and then to study participant behavior: this situation does not generally exist in non-tax domains.

The objectives of the current study are to discern the ethics choices management accountants will make within the tax compliance area and to test whether obedience pressure will induce them to act unethically in preparing their company's tax return. The study also examines whether the severity of the tax law violation or the dollar amount of the tax law violation affects the decision making of the management accountants.

HYPOTHESES DEVELOPMENT

Milgram (1974) hypothesized that a person affected by obedience pressure will no longer make decisions based on his or her own attitude, values, and beliefs. Instead, the individual in authority will control the subordinate's decision, and the subordinate is an agent for the individual in authority. The subordinate feels that he or she has now been removed from authority.



Adapted from: Davis, DeZoort, and Kopp 2006, 22.

*The original obedience model was modified by the authors to address a tax law situation and to add for research the materiality of the monetary amount and severity of the ethics violation. The covariates Machiavellianism and ethics position have been omitted as discussed in the text.

Figure 1 presents a conceptual model of the relationships utilized in this study. This model, which was used by Davis, DeZoort, and Koop (2006) to examine budgetary pressure is used to examine the effect obedience pressure has on management accountants in a decision making environment dealing with taxes. It is hypothesized that the stress-induced pressure from the management accountant's superior would create a situation where the management accountant could justify violating the United States Tax Code.

Obedience Pressure - Actual Cases

It has been documented that obedience pressure occurred in several large frauds such as Enron, WorldCom, HealthSouth, and American Tissue, and at the former public accounting firm Arthur Andersen. Top managers at these organizations pressured

subordinates to commit unethical and sometimes illegal acts to help these organizations meet their short-term earning projections and/or to keep their stock price high.

McLean and Elkind (2003) discussed obedience pressure at Enron; this pressure came from Chief Executive Officer Jeff Skilling and Chief Financial Officer Andrew Fastow. In a memo to Ken Lay (at that time CEO of Enron), Sherron Watkins wrote that “Ken Lay and his board were duped by a COO (Jeff Skilling) who wanted the targets met no matter what the consequences...” (McLean and Elkind 2003, 384-385). A senior executive at Enron stated the following about CFO Andy Fastow: “People started to become afraid of him and afraid to speak out. It almost created a fear factor between Andy and people who did not agree with him” (McLean and Elkind 2003, 140). When Carl Bass of Arthur Andersen complained about the veracity of several Enron accounting transactions, Enron executives noted that he was “caustic and cynical toward their transactions” (Bryce 2003, 238). Enron asked Andersen to remove Bass from the Enron audit and Andersen complied with this request (Bryce 2003).

Arthur Andersen has had several documented cases of obedience pressure. David Duncan, Arthur Andersen’s lead auditor on the Enron audit, instructed his audit team to shred secondary information related to the Enron audit. Duncan later testified that the audit team looked stunned when he informed them that they needed to start shredding, but they complied with his request. No one from the team questioned Duncan concerning whether the team was committing obstruction of justice (Squires, Smith, McDongall, and Yeack 2003, 3).

Former Arthur Andersen partner Fred Gold agreed to pay a \$100,000 civil fine for his role in the American Tissue audit failure (Anonymous 2007). American Tissue fraudulently increased assets and income by improperly capitalizing supplies that had been previously expensed, as well as overvaluing finished goods. Gold knew about this fraud, and he directed his subordinates to alter audit working papers and to destroy documents and e-mails that could have been used to uncover the fraud.

The multi-billion dollar fraud at WorldCom was also facilitated by obedience pressure. Executives at WorldCom pressured their subordinates to help meet financial targets. Richard Breeden, a former SEC chairman and the court-appointed corporate monitor of MCI (the successor to WorldCom) reported that CEO Bernie Ebbers ruled with an “iron fist.” Accountants would come to work to find Post-it notes on their computer monitors instructing them to change the numbers. Breeden noted that the “attitude at the company was that orders were to be followed, and it was clear that anybody that didn’t would be fired” (McCafferty 2004, 47).

HealthSouth, also had a multi-billion dollar fraud that was facilitated by obedience pressure. William T. Owens, an accountant at HealthSouth who was familiar with the fraud, testified in federal court that the fraud was directed by Richard Scrushy. Owens testified that Scrushy used intimidation and manipulation to control and direct employees to participate in and cover up the fraud (Associated Press 2005).

Symbol Technologies was charged by the SEC with using fraudulent approaches to increase revenues and earnings (SEC 2004). Once the SEC started investigating, Kenneth Jaeggi, an executive with Symbol Technologies, pressured subordinates to destroy copies of “Tango sheets” (which showed how Symbol was able to manipulate its earnings to meet management projections) along with other documents that showed Symbol’s criminal behavior. The SEC also reported that corporate officer Michael DeGennero “rigged the revenue recognition data provided to the forensic accountants involved in the first internal inquiry, instructed subordinates to withhold or delay providing information to subsequent internal investigators, and directed employees to sanitize key portions of schedules that they intended to provide to the investigators” (SEC 2004, para. 8).

Obedience Pressure – Academic Studies

Several studies show that public accountants are susceptible to pressure from superiors. DeZoort and Lord (1994) examined audit superiors' inappropriate instructions to audit staff through the use of a field experiment. One-hundred forty-six auditors from an international accounting firm participated in the experiment. The auditors were assigned to one of three "pressure" groups: pressure from a firm partner, pressure from a firm manager, or no pressure at all. Their results indicated that auditors are susceptible to obedience pressure. The authors also found that under certain scenarios, partner pressure is more severe (and can lead to more adverse consequences) than manager pressure.

In another experiment utilizing auditors, Lord and DeZoort (2001, 215) studied the effects of obedience pressure and conformance pressure. Conformance pressure occurs when the subordinate reacts to specific examples set forth by the superior, rather than specific instructions (Brehm and Kassin 1990). Lord and DeZoort (2001) found that obedience pressure significantly increased auditors' willingness to sign off on materially misstated account balances. However, they also found that conformance pressure did not affect the auditor's willingness to write off the misstated balances. In an experiment utilizing 49 bankers, Gul (1991, 162) found that the size of the audit fee (i.e., a higher audit fee) negatively affects "perceptions of the auditors' ability to resist management pressure."

In a study of CPAs, McCoy (1994) found that supervisor pressure contributed to CPAs perceiving greater conflict in decision making. Furthermore, supervisor pressure contributed to CPAs rationalizing the unethical action as being more ethical. Finally, McCoy also found that supervisor pressure led to more CPAs actually taking an unethical action.

Rhode (1977) found that auditors who were experiencing situations where they felt that the scope or extent of audit work performed was inadequate sometimes failed to resolve their disagreement with superiors, predominantly because of fear of a negative performance evaluation.

Lathan (1982) found that 30 percent of the audit seniors in his study would discuss reservations regarding the scope or extent of work performed with their superiors, but if still dissatisfied, would do nothing further. Lightner (1980) found that audit and tax practitioners in public practice who strongly disapproved of underreporting hours worked were more likely to do so at a supervisor's request.

Several studies provided evidence that management accountants are susceptible to obedience pressure. Davis et al. (2006) evaluated whether management accountants succumb to obedience pressure through the use of an experiment dealing with budgetary slack. The management accountants were pressured by superiors to create budgetary slack in violation of the organization's stated policies. Over one-half of the participants violated company policy and created budgetary slack when an immediate superior pressured them to do so.

In a survey of management accountants, Shafer (2002) found that organizational pressure to act unethically causes conflicts between the management accountant's professional and organizational values. This in turn could lead to less organizational commitment and higher employee turnover.

Mihalek, Rich, and Smith (1987) found that management accountants feel pressured to manage results. A large minority of their respondents reported actual involvement in or witnessing of misclassification of expenses which materially altered financial results.

Merz and Groebner (1982) described seven ethical dilemmas faced by management accountants, including "Owner-managers of small businesses pressure their management accountants to perform acts that might be unethical, such as classifying a capital cost as a period cost for tax purposes" (46).

In a non-accounting study, Wahn (1988) used a survey to elicit responses concerning obedience pressure from 565 human resource professionals in Canada. Wahn (1988) concluded that individuals that relied on or were dependent on the organizations that employed them were more likely to succumb to pressure from

their superiors than employees who were not dependent on their organizations.

Severity of the Tax Law Violation

Research inquiries into tax compliance indicate that tax audits and penalties established by tax authorities may be good motivators toward compliance (Scott and Grasmick 1981; Violette 1989; Witte and Woodbury 1985). In this regard, deduction of undocumented travel and entertainment expenses violates the substantiation requirements of Internal Revenue Code section 274(d) "Disallowance of Certain Entertainment, Etc., Expenses-Substantiation required" and Treasury Regulations section 1.274-5T "Substantiation requirements" and 1.274-5 "Substantiation requirements." Such violations are subject to civil penalties. Deduction of personal expenses as business expenses is fraud and can incur criminal penalties under Internal Revenue Code sections 6701 "Penalties for Aiding and Abetting Understatement of Tax Liability," 6672 "Failure to Collect and Pay Over Tax, or Attempt to Evade or Defeat Tax," 6663 "Imposition of Fraud Penalty," 6531 "Periods of Limitation on Criminal Prosecutions," as well as civil penalties. Alternatively, Ghosh and Crain (1995) found that the possibility of a tax audit and penalties had less effect on taxpayers who are risk takers.

Independent Variables

Variables studied in the current research fall into two categories: (1) Individual traits of the actors participating in the experiment, and (2) Situational moderators that are in the actors' environment. Individual traits include Machiavellianism and Ethics Position¹. Situational moderators include materiality and severity of the tax law violation and obedience pressure.

Materiality is of interest because it is part of an accountant's formal education and its impact on ethical decision making has not been empirically addressed. One aspect of materiality is the monetary amount. An amount which might be immaterial for financial reporting purposes might result in a

material noncompliance on the company's tax return. Materiality is one of the independent variables manipulated in the study.

Severity of the tax law violation (which is viewed as a non-monetary or qualitative aspect of materiality) affects the severity of the potential penalty. Given the difference in potential penalties, one would expect the deduction of a fraudulent expense to be less likely than the deduction of an undocumented, but otherwise legitimate expense. Severity of the tax law violation is one of the independent variables manipulated in the study.

Obedience pressure is included in the study in the presentation of the dependent variables. As discussed later, the dependent variables have an unconstrained version with no pressure from superiors and a constrained version with pressure from superiors.

Hypotheses

The hypotheses were specified with respect to the specific action choices (dependent variables) presented. The action choices are discussed next in terms of their ethical implications (see Table 1).

Table 1
Characteristics of Action Choices

Action Choice	Brief Summary	<u>Ethical</u> (complies with law, treasury regulations, and codes of professional ethics)	<u>Unethical</u> (violates law, treasury regulations, and codes of professional ethics)	<u>Ethically Indeterminate</u> (complies with law and treasury regulations, but violates codes of professional ethics)
A.	Deduct and sign		X	
B.	Deduct but not sign		X	
C.	Leave out T&E and no one knows			X
D.	Leave out T&E and superiors know	X		
E.	Discuss with VP and if needed with President	X		
F.	Refuse to prepare or sign	X		
G.	Threaten to tell Internal Revenue Service			X
H.	Tell Internal Revenue Service			X
I.	Quit	X		

1. Action choices “A” (Prepare and sign the tax return) and “B” (Prepare the return but not sign it) violate the federal income tax law, the Treasury Regulations, and the codes of ethics of Management Accountants (IMA 2006) or CPAs (AICPA 2006); these dependent measures are considered the most unethical action choices. Any hypotheses regarding more ethical actions lead to an expectation of significantly lower probabilities of actions A and B.
2. Action choices “D” (Prepare the return properly with your superior’s knowledge), “E” (Discuss the matter with superiors), “F” (Refuse to prepare the return), and “I” (Quit the job) are considered ethical choices. These choices do not violate the Internal Revenue Code, the Treasury Regulations, or the codes of ethics of Management Accountants (IMA 2006) or CPAs (AICPA 2006). Any hypotheses regarding more ethical behavior would result in expecting significantly higher probabilities of these actions.
3. None of the hypotheses relate to Action choices “C” (Prepare the return properly without your superiors’ knowledge), “G” (Threaten to notify the Internal Revenue Service), and “H” (Notify the Internal Revenue Service).

The last three actions are not clearly ethical or unethical choices. Action C is ethical in that the return is prepared in accordance with the law and codes of ethics. On the other hand, Action C violates the IMA code of ethics “Integrity” requirement to “Communicate unfavorable as well as favorable information and professional judgments or opinions” (IMA 2006).

Action H is contrary to the confidentiality requirements of both the AICPA code of ethics governing CPAs (AICPA 2006, Rule 301—Confidential Client Information) and the IMA code of ethics governing members of the IMA, whether or not they are CMAs (IMA 2006). Both actions G—because it threatens to notify the IRS—and H—because it notifies the IRS—are considered unethical from the standpoint of the professional codes. On the other hand, these actions could be argued as being ethical since they are intended to stop an income tax law violation.

Formal hypotheses, stated in the alternative form, for the independent variables are:

Ha1: A management accountant faced with pressure from a superior to prepare a tax return unethically is more likely to prepare the return unethically than in the absence of such pressure.

Ha2: Lower dollar amount tax law violations will result in more unethical behavior than higher dollar amount tax law violations.

Ha3: Less severe violations of the law or regulations will result in more unethical behavior than more severe violations (i.e., violations of the letter of the federal income tax law or Treasury Regulations will result in more unethical behavior than fraudulent violations of the Internal Revenue Code).

Interaction effects of the variables are not considered in this research since *a priori* assumptions about them were indeterminable.

METHODOLOGY

The experiment uses a 2X2 factorial analysis of covariance (ANCOVA) design. The independent variables include the following:

- Covariates (Individual factors)—Machiavellianism and Ethics position²;
- Between subjects independent variables (Situational moderators)—Materiality of travel and entertainment expenses and severity of the tax law violation; and
- Within subjects independent variable (Situational moderator)—Obedience pressure (in the form of pressure from superiors).

The experiment uses vignettes to develop the metrics for analyzing respondent choices made for deducting travel and entertainment expenses (T&E). The management accountants were asked to consider one of two situations (no pressure from superiors vs. pressure from superiors) for preparing their company's annual tax return. The sales for the year were assumed to be \$1,000,000

and the taxable income \$100,000 before the tax deductions. The factors manipulated in four separate scenarios were:

Factor A: Materiality (dollar amount in relation to \$100,000 of taxable income)

Level 1: \$1,000 taxable income reduction.

Level 2: \$15,000 taxable income reduction.

Factor B: Severity of the tax law violation

Level 1: Undocumented travel and entertainment expense.

Level 2: Personal expenses treated as travel and entertainment expense.

Vignettes³

Combinations of the above factors include the following: A1 & B1, A1 & B2, A2 & B1, and A2 & B2 (see Exhibit 1). Participants were randomly given only one of the four scenarios and were not aware of the three variable combinations that they were not given.

Exhibit 1 **Vignettes**

Treatment Combination A1 & B1:

You are concerned about undocumented T&E expenses in the amount of \$1,000. You are fairly certain the expenditures are legitimate business expenses. The problem results from the failure of your superiors to submit the proper documentation and their inability to reconstruct it at this time.

Treatment Combination A2 & B1:

You are concerned about undocumented T&E expenses in the amount of \$15,000. You are fairly certain the expenditures are legitimate business expenses. The problem results from the failure of your superiors to submit the proper documentation and their inability to reconstruct it at this time.

Treatment Combination A1 & B2:

You are concerned about undocumented T&E expenses in the amount of \$1,000. You are fairly certain these expenditures are for personal expenses of the president for his vacation, parties and gifts.

Treatment Combination A2 & B2:

You are concerned about undocumented T&E expenses in the amount of \$15,000. You are fairly certain these expenditures are for personal expenses of the president for his vacation, parties and gifts.

Dependent Variables

The dependent variables were respondents' scores on responses to the particular scenario which they received measured from 0 (definitely would not take this action) to 1.0 (definitely would take this action). The eleven-point scale, which is in tenths, is believed to provide a better estimate of subject probabilities and this scale has been used in previous studies (Lathan 1982; Alexander and Becker 1978).

The following action choices were inspired by Nielsen (1987):

- A. Deduct the T&E expenses and sign the return.
- B. Prepare the tax return deducting the expenses, but refuse to sign it.
- C. Prepare the return leaving out the T&E expenses, assuming only you will know you did so.
- D. Prepare the return leaving out the T&E expenses, assuming your superiors will know you did so.
- E. Discuss the matter with the vice president and, if dissatisfied, the president.
- F. Refuse to prepare or sign the tax return.
- G. Threaten to notify the Internal Revenue Service, if the expenses are deducted.

- H. Notify the Internal Revenue Service, either secretly, or with your employer's knowledge, if the expenses are deducted.
- I. Quit the job.

The order of action choices was reversed on one-half of the instruments handed to the respondents to avoid any order-effect bias in responses. Every action choice was tested using a separate ANCOVA. Each subject was also requested to provide his or her first choice of a single action from those listed above.

A constrained set of action choices was used to assess obedience pressure. Subsequent to the subjects' consideration of the initial action choices, they were asked to consider the same choices, but after being told that action "E" (discussion with the superiors) has been exhausted and the superiors directed that the deductions be taken. Again, the order of the action choices were reversed on one-half of the instruments and separate ANCOVAs were used for each action choice. As done in the unconstrained case, the subject was requested to provide his or her first choice of a single action.

RESULTS⁴

Subjects

Sample size was determined by using Cohen's (1988) statistical power analysis appropriate for a 2X2 factorial experiment. One-hundred thirty-two management accountants were needed for the study.

The subjects were members of the Institute of Management Accountants who are primarily industry accountants. Data were collected from participants at chapter meetings of the Institute of Management Accountants in seven cities in five different states. Most respondents completed the questionnaire at the meeting and a minority (19) completed it off site and mailed it to one of the authors.

One-hundred seventy-five responses were received and 168 usable ones resulted. Several meaningfulness checks were included

in the questionnaire to access the quality of the data gathered and to eliminate the weakest responses when balancing the ANCOVA cells. Seven of the original group of 175 were eliminated because some were not familiar with the tax law, were not involved in preparing the tax returns, or had not prepared a tax return for another or found the T&E case to be below the scale midpoint on realism or found the T&E case to be below the scale midpoint on ethics content.

Demographic Variables

Demographic variables were also gathered for sample classification purposes. A majority of the 168 management accountants were female (67 percent), were over 30 (78 percent), had a college degree (93%), and reported more than five years experience in accounting (67 percent). A majority had previous exposure to ethics study (65 percent). The largest primary work area was financial accounting (46 percent) and a large minority had some certification (39 percent) and reported more than 5 years experience with their present company (43 percent). A large minority also worked at an organization with an enforced code of ethics (43 percent), while a few worked at an organization with a code that is not enforced (9 percent). Very few (13 percent) worked for employers of less than 50 people.

Vignette Meaningfulness and Manipulation Checks of the Data

A vast majority (96 percent) of the respondents in the study were familiar with the tax law covering the T&E-expense issues covered in the research instrument. While a majority was not involved in the preparation of their employer's tax return, most of them had taken part, in the past five years, in the preparation of the tax return of another individual or company in which they had little or no ownership interest (64 percent). Some others (9 percent) had done so at some point in their career.

Realism of the case was measured on a seven-point Likert-type scale anchored at 1 for "not at all realistic" and 7 for "very realistic." Ethics content was measured on a seven-point Likert-

type scale anchored at 1 for “not involving ethics at all” and 7 for “involving ethics very effectively.” The subjects found the case to be realistic (mean 5.46) and to have ethics content (mean 5.73).

FINDINGS

Table 2 presents an overview of the results.

Table 2
Respondent Switching Behavior from Unconstrained to Constrained Situation
Number (Percentage)****

Action Choice	Unconstrained Version No Pressure from Superiors					Constrained Version Pressure from Superiors				
	A1&B1	A1&B2	A2&B1	A2&B2	Total	A1&B1	A1&B2	A2&B1	A2&B2	Total
A. Deduct expense and sign return*	11 (7)	3 (2)	4 (2)	4 (2)	22 (13)	21 (13)	6 (4)	12 (7)	6 (4)	45 (27)
B. Deduct expense and not sign return*	0 (0)	2 (1)	3 (2)	5 (3)	10 (6)	8 (5)	14 (8)	20 (12)	15 (9)	57 (34)
Subtotal for above two unethical choices					32 (19)					102 (61)
C. Not deduct; superior does not know***	0 (0)	1 (1)	0 (0)	2 (1)	3 (2)	3 (2)	1 (1)	1 (1)	2 (1)	7 (4)
D. Not deduct; superior knows**	3 (2)	4 (2)	3 (2)	3 (2)	13 (8)	7 (4)	9 (5)	5 (3)	7 (4)	28 (17)
E. Discuss with superior*	25 (15)	28 (17)	31 (18)	28 (17)	112 (67)	N/A	N/A	N/A	N/A	N/A
F. Refuse to prepare or sign return**	2 (1)	3 (2)	1 (1)	0 (0)	6 (4)	1 (1)	7 (4)	4 (2)	9 (5)	21 (13)
G. Threaten to notify the IRS***	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	2 (1)	0 (0)	0 (0)	2 (1)
H. Notify the IRS***	0 (0)	1 (1)	0 (0)	0 (0)	1 (1)	0 (0)	1 (1)	0 (0)	1 (1)	2 (1)
I. Quit the job**	1 (1)	0 (0)	0 (0)	0 (0)	1 (1)	2 (1)	2 (1)	0 (0)	2 (1)	6 (4)
TOTALS	42 (25)	42 (25)	42 (25)	42 (25)	168 (100)	42 (25)	42 (25)	42 (25)	42 (25)	168 (100)

Legend for Vignettes:

- A1&B1 \$1,000 undocumented expenses
- A1&B2 \$1,000 personal expenses
- A2&B1 \$15,000 undocumented expenses

A2&B2 \$15,000 personal expenses

* Unethical—Violates the Internal Revenue Code and/or Treasury Regulations and the AICPA and IMA Codes of Ethics.

** Ethical—Does not violate the Internal Revenue Code, Treasury Regulations, or AICPA or IMA Codes of Ethics.

*** Has ethical and unethical aspects as discussed in the paper.

**** Percentages may not total properly due to rounding

N/A = Not Applicable (because in the constrained version the discussion with superior has already occurred and the subject has been directed to deduct the expenditures).

In the unconstrained (no obedience pressure from superiors to act unethically) case, 32 (19 percent) of the 168 respondents selected either of the unethical choices of deducting the expense and signing the return or deducting the expense and not signing the return. One-hundred thirty-two (79 percent) selected one of the clearly ethical choices; one-hundred twelve (67 percent) would discuss with superior, thirteen (8 percent) would refuse to deduct the expense with the knowledge of their superiors, six (3 percent) would refuse to prepare or sign the return and one (1 percent) would quit the job. The remaining four (2 percent) selected a choice arguably containing ethical and unethical aspects.

In the constrained case (after superiors used obedience pressure to direct the accountant to deduct the expense) one-hundred two (61 percent) management accountants selected one of the unethical choices of deducting the expense and signing or deducting the expense and not signing the return. Only fifty five (33 percent) selected a clearly ethical choice and the remaining eleven (6 percent) selected one of the ethically indeterminate choices.

The only manipulation in moving from the unconstrained to the constrained case was to indicate that the discussion with superiors had been exhausted and the superiors had directed the management accountant to deduct the expenses. A McNemar test⁵ for the significance of changes (Siegel 1956, 63-67) in two related samples was used to evaluate the subject's first-choice-switching behavior from the initial unconstrained to the subsequent constrained portion of the case. The shift from an initial ethical choice to an unethical one (from 32 unethical to 102 unethical) was significant at $\alpha < 0.0005$. Hypothesis Ha1 that an accountant faced with pressure from a superior to prepare a tax return

unethically is more likely to prepare the return unethically than in the absence of such pressure is strongly supported.

Table 3 depicts the significant ANCOVA results for the individual's action choices regarding the T&E expenses.

Table 3
 Significant ANCOVA **** Results—all $p < 0.20$ are shown

Action Choice	Unconstrained Version— No Pressure from Superiors		Constrained Version— Pressure from Superiors	
	Amount	Severity	Amount	Severity
A. Deduct the expense and sign the return*		0.000	0.063	0.000
B. Deduct the expense and not sign the return*	0.108			
C. Not deduct the expense and superiors do not know***	0.004		0.054	
D. Not deduct the expense and superiors know**	0.071	0.170		
E. Discuss with superior**				
F. Refuse to prepare or sign the return**		0.024		0.012
G. Threaten to notify the Internal Revenue Service***		0.019		0.179
H. Notify the Internal Revenue Service***		0.095		0.113
I. Quit the job**				0.044

Bold indicates $p < 0.05$.

* Unethical— Violates the Internal Revenue Code and/or Treasury Regulations and the AICPA and IMA Codes of Ethics.

** Ethical—Does not violate the Internal Service Code, Treasury Regulations, or AICPA or IMA Codes of Ethics.

*** Has ethical and unethical aspects as discussed in the paper.

Amounts are: \$1,000 vs. \$15,000 of travel and entertainment expenses.

Severity is: Undocumented vs. personal expense.

**** Results for the covariates Machiavellianism and Ethics Position have been omitted as discussed in the text.

The 2X2 ANCOVAs test of the effects of the dollar amounts of the tax law violation and the severity of the tax law violation on the probabilities of engaging in various tax preparation actions (e.g., deducting the expense and signing the

return, quitting the job, etc.) after adjustments for differences in Machiavellianism and Ethics Position.

A brief discussion of the results of tests for each independent variable included in the study (except for pressure from superiors discussed earlier) follows. Marginal means, which explain the meaning of significant differences, are presented and discussed for unethical and ethical choices, but not for ethically indeterminate choices.

Ha2: Amount of the Tax Law Violation

In the unconstrained case, the dollar amount of the tax law violations was significant at $\alpha < 0.05$ as a main effect only in the decision to not deduct the expense without superiors knowing—an indeterminate ethics choice. The amount was significant at $\alpha < 0.10$ in the completely ethical choice to not deduct the expense with superior's knowledge. The marginal means indicate a 25 percent smaller likelihood of deducting the \$15,000 $([0.280-0.375]/0.375)$. The results are summarized in Exhibit 2 in table format.

Exhibit 2: Not deduct the expense and superiors know (ethical)			
	Severity		
Amount	Undocumented (Cell Means)	Fraud (Cell Means)	Marginal Means
\$1,000	0.322	0.427	0.375
\$15,000	0.252	0.298	0.280

In the constrained case, the amount of the tax law violations was not significant at $\alpha < 0.05$ as a main effect in any decision. However, the amount was significant at $\alpha = 0.054$ in the indeterminate decision to not deduct the expense assuming the superiors will not know and at $\alpha = 0.063$ in the unethical decision to deduct the T&E expense and sign the return (see Exhibit 3). The marginal means indicate only a 15 percent higher probability of deducting the lower amount and signing the return $([0.372-0.325]/0.325)$.

Exhibit 3: Deduct the expense and sign the return (unethical)			
	Severity		
Amount	Undocumented (Cell Means)	Fraud (Cell Means)	Marginal Means
\$1,000	0.484	0.259	0.372
\$15,000	0.419	0.230	0.325

The amounts to be deducted were \$1,000 and \$15,000 and were one and fifteen percent of the taxable income, respectively. However, the management accountants appeared not to consider differences in the dollar amounts of the tax law violation.

Ha3: Severity of the Tax Law Violation

The severity of the tax law violation—lack of documentation vs. fraud (deduct personal expenses)—was significant at $\alpha < 0.05$ for three action choices in the unconstrained case: (i) deduct the expense and sign the return (unethical) ($\alpha = 0.000$); (ii) refuse to prepare or sign the return (ethical) ($\alpha = 0.024$); and (iii) threaten to notify the IRS (indeterminate) ($\alpha = 0.019$). The likelihood of deducting the undocumented expenditures and signing the return is 85 percent greater than the likelihood of deducting the fraudulent expenditures and signing the return ($[(0.452-0.245)/0.245]$ (see Exhibit 4)).

Exhibit 4: Deduct the expense and sign the return (unethical)		
	Severity	
Amount	Undocumented (Cell Means)	Fraud (Cell Means)
\$1,000	0.484	0.259
\$15,000	0.419	0.230
Marginal Means	0.452	0.245

Practicing management accountants were almost 50 percent more likely to refuse to prepare the return if fraudulent expenditures were involved ($[(0.374-0.254)/0.254]$ (see Exhibit 5)).

Exhibit 5: Refuse to prepare or sign the return (ethical)		
	Severity	
Amount	Undocumented (Cell Means)	Fraud (Cell Means)
\$1,000	0.243	0.392
\$15,000	0.419	0.230
Marginal Means	0.254	0.374

In the constrained case, severity was significant at the alpha < 0.05 level in the three action choices: (i) deduct the expense and sign the return (unethical) (alpha = 0.000); (ii) refuse to prepare or sign the return (ethical) (alpha = 0.012); and (iii) quit the job (ethical) (alpha = 0.044).

Exhibit 6: Deduct the expense and sign the return (unethical)		
	Severity	
Amount	Undocumented (Cell Means)	Fraud (Cell Means)
\$1,000	0.563	0.290
\$15,000	0.439	0.213
Marginal Means	0.501	0.252

When pressured by superiors, management accountants were twice as likely to deduct the undocumented expenses and sign the return ($[(0.501-0.252)/0.252 = .9881]$ or, conversely, one-half as likely to deduct the fraudulent expenses and sign the return ($[(0.252-0.501)/0.501 = .4970]$ (see Exhibit 6)).

Exhibit 7: Refuse to prepare or sign the return (ethical)		
	Severity	
Amount	Undocumented (Cell Means)	Fraud (Cell Means)
\$1,000	0.270	0.395
\$15,000	0.281	0.434
Marginal Means	0.276	0.410

Management accountants were almost fifty percent more likely to refuse to prepare or sign the return if the fraudulent expenditures were involved ($[0.410-0.276]/0.276$) (see Exhibit 7)).

Exhibit 8: Quit the job (ethical)		
	Severity	
Amount	Undocumented (Cell Means)	Fraud (Cell Means)
\$1,000	0.221	0.280
\$15,000	0.203	0.334
Marginal Means	0.212	0.307

Management accountants indicated a 45 percent greater likelihood of quitting the job if the fraudulent expenses were involved ($[0.307-0.212]/0.212$) (see Exhibit 8)).

No interaction effects were hypothesized. The interaction of amount and severity was not significant at $\alpha < 0.20$ for any particular action.

CONCLUSIONS AND RECOMMENDATIONS

Conclusions are discussed with respect to each of the alternative hypotheses presented earlier.

Ha1: There was a threefold increase in number of management accountants selecting an unethical choice—deduct the expense and sign the return or deduct the expense and refuse to sign the return—as the first action choice once the superior

directed the practitioner to take the unethical course of action. The McNemar test of significance of changes indicated that the shift was significant ($p < 0.0005$). The hypothesis that a management accountant faced with obedience pressure from a superior to prepare a tax return unethically is more likely to prepare the return unethically than in the absence of such pressure is strongly supported. Davis et al. (2006) found that management accountants who succumbed to obedience pressure from their superiors assigned the responsibility for creating budgetary slack to the superior. In this case, it may be more difficult for the management accountant to use that rationalization – since the management accountant is violating the tax law as well as the IMA Code of Ethics. The results from this hypothesis are unique in that this study examines how a practicing management accountant responds to competing pressures – the pressure to follow the law and the IMA Code of Ethics when a superior is applying pressure to violate both of these. Similar to the Davis et al. (2006) study, the management accountants succumbed in great numbers to the obedience pressure from the superiors.

Ha2: The hypotheses of more unethical behavior resulting from deducting lower dollar amounts than higher amounts was not supported at the $\alpha < 0.05$ level. The support at $\alpha > 0.05$ and < 0.10 is weak. As mentioned earlier, the amounts (\$1,000 and \$15,000; one and fifteen percent of the taxable income, respectively) did not seem to have any significant impact on the management accountants action probabilities in the tax law violation. Overall, the hypothesis of more unethical behavior from deducting lower dollar amounts is not supported.

Ha3: Management accountants were significantly more likely to deduct legitimate undocumented expenses and sign the return than to deduct the fraudulent expenses. The hypothesis of expected higher unethical behavior in less severe violations of the tax law or regulations is supported.

IMPLICATIONS FOR THE ACCOUNTING PROFESSION

Perhaps the most important finding of this research is to demonstrate that pressure from superiors has a potentially large impact on both ethical and unethical behaviors of subordinates. Such pressure has been found to be significant in previous survey studies, as well as in the Davis et al. (2006) study. This study uses management accountants as subjects and lends reality to such findings. Managers can be trained to prevent them from pressuring subordinates to act unethically. Organizations can adopt codes of ethics that prohibit and severely punish such pressure from errant superiors and also provide internal mechanisms to help employees report and get relief from such pressure.

Management accountants seem susceptible to obedience pressure and, unfortunately, the switching behavior of the management accountants documented that this pressure can win over the pressure to follow the IMA Code of Ethics or the U.S. Tax Code and Regulations. The task used in this study could be used to educate accounting students that they may face pressure from superiors and it may be a legal and professional code violation to succumb to such pressure.

The present study indicates that the dollar amounts used as benchmarks may not significantly impact ethical decision making. Companies and accounting firms can use this outcome to understand that unethical behavior that occurs with relatively small dollar amounts may be repeated with material dollar amounts. Companies can adjust their training methods and their responses to seemingly immaterial unethical behavior of their employees by modifying their internal controls appropriately.

CONTRIBUTIONS OF THE CURRENT STUDY

This research study adds to a growing body of research in business and accounting ethics, as well as accounting behavioral research. Improvement in understanding ethics-related decision making by individuals may allow companies and accounting firms to be more sensitive to controllable situational impediments that adversely affect ethical behavior. Finally, additional knowledge is

a necessary prerequisite to improve business ethics education at universities as well as continuing education in ethics for accounting professionals.

LIMITATIONS OF THE STUDY

Like other empirical studies, this study is subject to some limitations. Variables included in the study may not be sufficient in scope to measure all the relevant characteristics of management accountants that lead them to make ethical/unethical decisions. Some important personality, demographic, and situational variables potentially related to decision making and behavior may have been omitted in the current study. The nonrandom sample used limits the generalization of the results of the study to other management accountants who are not included in the study. Nevertheless, the contribution of this study is still important since the authors know of no other ethics study that gathered data from practicing management accountants regarding an ethics decision that is realistically within the realm of their work environment.

SUGGESTIONS FOR FUTURE RESEARCH

Future research could study other variables not included in the present study (such as locus of control). In addition, demographic variables, such as age, gender, or religious beliefs, could be studied as covariates to determine if they impact ethical decision making.

Future research could also examine the interaction effects among the variables hypothesized to affect ethics decision making. For example, Lightner (1980) found that the interaction of strong disapproval of underreporting chargeable time and supervisor's requests to do so was a significant predictor of underreporting chargeable hours by audit and tax practitioners in public accounting.

Ways to improve moral development of management and other accountants can be explored (for example, see Rolison 1986), so that they will be more naturally resistant to situational factors leading to unethical choices. Alternatively, research might focus on

ways to improve accounting students' and practicing accountants' ethical awareness and reasoning. This may be more easily accomplished than trying to change the belief structures of adults.

Finally, research should address whether ethics courses offered at universities and ethics training offered as part of accounting continuing education serve to improve the likely ethics-related decisions of those entering and belonging to the profession.

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¹ Machiavellianism is a label for individuals who manipulate others in order to obtain their own objectives. It was measured using the Mach IV scale (Christie and Geis, 1970). The Ethics Position Questionnaire is from Forsyth, 1980.

Machiavellianism and Ethics Position did not provide any statistically significant results. Therefore, they are not presented or discussed in this study.

² See endnote 1.

³ Vignettes have been found to be effective for two reasons: “[1] The use of vignettes helps to standardize the social stimulus across respondents and at the same time makes the decision-making situation more real [and 2] by employing systematic variations in vignette content, the researcher is able to measure the *determinants* of respondent opinions more accurately” (Alexander and Becker 1978, 103, italics in original).

⁴ The initial research for this study was part of a dissertation. See Buttross 1991. The literature review and model has been updated beyond the dissertation by the authors.

⁵ The McNemar test is a nonparametric test for two related dichotomous variables, which tests for changes in responses using the chi-square distribution. It is useful for detecting changes in responses due to experimental intervention in “before and after” designs.