

Organizational Influence in a Model of the Moral Decision Process of Accountants

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ABSTRACT. This paper reports on a survey that investigated the moral decision processes of accountants. A formal belief revision model is adapted and hypotheses based on theorizations from the cognitive-developmental school are tested. The moral decision processes of accountants are hypothesized to be influenced by professional expectations, organizational expectations and internalized expectations. Subjects provided specific demographic data and were asked to access the appropriateness of fourteen principles for making moral decisions in business. Subjects were also asked to indicate which of the fourteen approaches would be most appropriate for resolving each of five ethical situations that are representative of common ethical dilemmas in accounting.

Subjects' responses to the appropriateness of the fourteen principles are reduced to two dimensions using factor analysis. The factors are consistent and representative of important underlying dimensions of the stages of moral development. Demographic variables are correlated with the extracted factors using analysis of variance.

The results show that subjects consider interpersonal expectations and conformity to be more appropriate than approaches that are self-serving. These findings suggest that ethical decision processes of accountants are influenced by organizational support. Age, gender, and education were also found to influence the moral decision process. Overall, the findings are consistent with the expectations hypothesized from the cognitive-developmental school and suggest that the moral development of accountants is ongoing.

The savings and load crisis, audit failures, and the subsequent demise of a number of CPA firms has caused the public to question the quality of the service and the ethical standards of accountants in public practice (Anderson, 1985; Wood,

1985). The SEC permits public accountants the privilege of self-governance because it is the most efficient and effective institutionalization of public interest.¹ (Loeb, 1970 and 1984) Practices including insider trading scandals, price-gouging, unauthorized use of funds, and tax fraud has directed public attention to accountants in government and industry. Society implicitly grants accountants in industry a form of self-governance and obligation to society through codes of ethics of professional societies such as the Institute of Management Accountants (IMA) and the Institute of Internal Auditors (IIA). If it is perceived that the self-governance system is not functioning as intended, pressure on public policy makers to reexamine the independent status of the accounting profession may be forthcoming. Regulatory pressure is also plausible in circumstances where organizational policy would play a form of self-governance in eliciting ethical behavior.

The objective of this paper is to examine self governance roles of the organization in moral decision processes of accountants. This study is needed because there is no evidence linking the potentially conflicting roles of professional codes of ethics and organizational policy. As a matter of social concern, we have little basis for determining the appropriate degree of autonomy granted accountants shielded by organizational policy. Earlier studies provide rather strong support that formal post-secondary education can contribute to moral development. This study is conducted to examine the moral decision processes of accountants subsequent to post-secondary education, and to identify factors that influence moral decision-making in an organizational context. As CPAs in public practice are

the subjects in most previous studies of the moral development of accountants, the focus of this study is on the moral decision processes of corporate accountants.

I. Background

The cognitive-development school of psychology provides a framework for evaluating the moral development of individuals. A primary tenet of this school is that an individual will pass through a series of stages of development in reaching maturity. Lawrence Kohlberg (1971) applied cognitive-development theory to the moral development of adolescents, identifying three levels of moral development. Level 1, the pre-conventional level, provides a focus on the individual; Level 2, the conventional level, provides a focus on a group; and Level 3, the post-conventional level, provides a focus on the inner-self. Within each level, Kohlberg identified two stages thus a total of six stages of moral development. Many studies have examined the moral development of individuals using Kohlberg's stage theory.

Gilligan (1982 and 1987) recognizes that the work of Kohlberg does not fully capture certain gender specific concepts of morality. In addition to the justice mode of moral judgment, similar to Kohlberg's stages, she has identified the care mode, which is almost exclusively a female phenomenon.

From a social perspective, it is important to consider both the moral development of individuals and how it may be shaped by business organizations or by the view of self. An individual in Kohlberg's lower stages of moral development might be encouraged to choose alternatives characteristic of a higher stage if appropriately motivated by the organization. On the other hand, the view of self and focus on the care aspect of an ethical dilemma may preclude a justice-based code of conduct from being effective. The role of the business organization in moral development is a blending of its social and economic missions, and is evidenced by examining the support provided employees facing the resolution of ethical conflicts. The interaction between personal moral development

and organizational moral development forms the organizational environment that influences moral decisions, whereby sound moral choice result from a supportive organizational climate (Petrick and Wagley, 1991).

Figure 1 presents a framework for the formation and revision of a CPA's individual code of conduct (Schlachter, 1990). According to this framework, a CPA enters situations having an individual framework that resulted from previous training and experiences. Being placed in an organizational context, this framework, or code of conduct, is influenced by the expectations of the organization, expectations of the accounting profession, and events that occur on the job. For some events, the CPA will refer to the AICPA's Professional Code of Conduct. If the code of conduct does not provide an adequate solution, the CPA must rely on previous influences, organizational expectations, and professional expectations in determining the proper course of action. Internalization of the processes identified in the framework implies a necessary level of social concern beyond that embodied in statements of professional ethics.

Extending the framework to all accountants in a business organization involves viewing the "Code" to include either a professional code of conduct or an organization's code of conduct as stated explicitly to be policy. This modification is consistent with the ICMA's position on resolution of ethical dilemmas. Statement of Management Accounting No.1-C (SMA1-C) indicates that ". . . When faced with significant ethical issues, management accountants should follow the established policies of the organization bearing on the resolution of such conflict." (IMA, 1983) Either as originally formulated, or as we have modified, the resolution framework model supports a strong ex-post influence from professional or business organization policies.

II. Prior research studies and research questions

Rest (1979a) developed an objective test based on Kohlberg's theory of moral development. The test, the Defining Issues Test (DIT), requires a

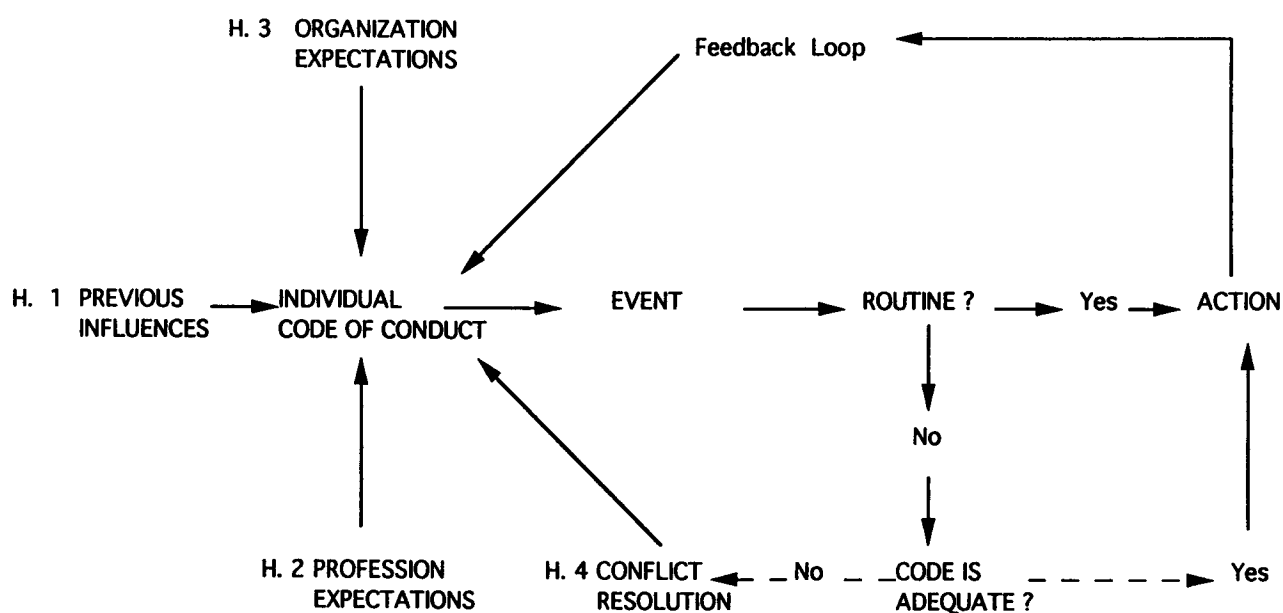


Fig. 1. Formation and Revision of An Individual's Code of Conduct.

participant to examine a moral dilemma, make a decision as to the appropriate action to be taken, and indicate the importance of numerous factors that influenced the decision. Rest's "P" score indicates the percent of thinking that is at Kohlberg's post-conventional level (stages 5 and 6). After examining the results of numerous studies involving the DIT, Rest formed two major conclusions (1979b): (1) ethical thinking is in the cognitive domain and can be enhanced through instruction, and (2) moral development is not enhanced by age. This second conclusion suggests that moral development terminates in absence of formal education.

Much prior work involving accounting students support Rest's first conclusion. Ponemon and Glazer (1990) administered the DIT to accounting majors at two colleges. The overall mean "P" score for college freshmen was 25.5, while senior accounting majors averaged 40.8. Hildebeitel and Jones (1991 and 1992) studied the changes in the moral development of accounting students who were subjected to an ethics module in an accounting course. After completing an ethics module, students increased their reliance on higher level considerations (Kohlberg's stages 3 and 4) when resolving professional ethical dilemmas (1991). In a second study, Hildebeitel

and Jones (1992) found that after integrating a unit of ethics in an accounting course, students relied more heavily on "the disclosure rule", "the golden rule", and the "professional ethic."

In a study of 479 college seniors, St. Pierre *et al.* (1990) found significant differences in DIT scores related to gender and undergraduate major. Female students scored significantly higher than most business majors.

Several studies of accounting graduates provide support for Rest's second conclusion. Armstrong (1987) used the DIT in a study of the moral development of CPAs. In her study, the DIT "P" scores of CPAs ranged from 20.7 to 76.7 with a mean of 38.5. These scores are roughly equivalent to "adults in general" and are lower than Rest's findings for college students (42.3) and college graduates (53.3). Armstrong concluded that a college education may not foster continued moral growth among CPAs. Armstrong encourages further research into the moral development of accounting students and practitioners.

Ponemon (1990) had 52 CPAs participate in a Moral Judgement Interview (MJI), which uses the Heinz dilemma from the DIT, and also respond to an audit-role dilemma. The MJI detected significant differences among CPAs due to age, experience, and level in the firm, but no

significant difference was noted for gender and education. Ponemon found that moral reasoning increased from the staff accounting level to the supervisory level, and decreased from the manager to partner level.

There are other studies that do not support Rest's second conclusion. Claypool *et al.* (1990) studied a group of 63 CPAs to determine factors that influenced their decisions regarding six ethical dilemmas. The CPAs viewed "confidentiality" and "independence" as the most common factors used when faced with ethical dilemmas. Other factors included "self-esteem", "morally right or wrong", "integrity", "professionalism", and "expectations of society." The authors believe that these comments indicate that CPAs are using a higher stage of moral reasoning than previously asserted by Armstrong (1987).

Research question #1 evaluates the effect of personal characteristics on the moral decision-making of accountants and coincides with an evaluation of the role of previous influences aspect of the revision model:

Q1: Is moral reasoning of accountants related to personal characteristics such as age, gender, or education?

The second research question examines the influence of professional expectations in resolving moral situations. It has been assumed by public policy makers that CPAs possess high moral character. Several studies question this assumption (Armstrong, 1987; Ponemon and Glazer, 1990), and several studies found that the level of moral reasoning was lower for partners in CPA firms than for CPAs at less than the partner level (Sorenson, 1967; Ponemon, 1990). The second research question coincides with a test of the professional expectations influence by hypothesizing whether the moral reasoning of individuals possessing a CPA certificate differs from that of other accountants.

Q2: Is moral reasoning of accountants affected by professional expectations as evidenced by the possession of a CPA certificate?

Several studies support the notion that moral

attitudes change as new accountants are assimilated into the profession. An employer, a superior, or a peer who exhibits strong moral character might influence the attitudes and actions of the new accountant. Several studies of business managers and executives cast doubts on the accuracy of Rest's second conclusion. Arlow and Ulrich (1988) surveyed business graduates who had been out of college for five years. The graduates indicated that family training and conduct of superiors were two most influential factors influencing their moral conduct. These factors were also found to be most influential in studies by Clark (1966) and by Baumhart (1968). Other factors considered in the Arlow and Ulrich survey, in order of decreasing importance, were practices in the industry, conduct of peers, religious training, and university training.

Lewis (1989) found moral development of business people after college graduation. He had students, middle managers, and executives indicate their level of agreement with each of fourteen ethical principles, and found considerable differences among the three groups. He characterized the students as "self-reliant ethical seekers," the middle managers as "organizational realists," and the executives as "self-reliant ethical entrepreneurs." Referring to Kohlberg's levels of development, the Lewis study seems to have identified a progression in moral development that changes with advances in one's business career. The implication of these studies is that ethical conduct of business graduates can be influenced by the conduct of superiors and industry practice. In other words, business people will make morally correct decisions if the business environment supports ethical behavior.

Coinciding with a test of the organizational expectations influence, the third research question examines the association of various organizational variables with accountants moral decision processes. The main thrust of this research is whether expectations of one's employer affect moral reasoning. If organizational influence is valid in the resolution model, then an organization that encourages a high level of ethical conduct can influence the moral decision processes of its employees. The influence of firm size, employment area, employer-provided ethics

training, and the attitude of the business organization regarding ethical business practice are tested in this research question:

Q3: Is moral reasoning of accountants affected by organizational expectations?

When an accountant encounters a non-routine moral situation, resolution may be found in internalized expectations, organizational expectations, and/or professional expectations. A particular situation might mandate the source of the assistance. A CPA might look to the AICPA Code of Conduct when a situation is addressed by the Code, and an accountant not in public practice might look to his employer's policy manual. Based on prior research, it is unclear whether the accountant relies on organizational or professional assistance when resolving these situations, or might internalize the situation and rely on his or her own individual code of conduct? The fourth research question is:

Q4: Is the action mandated by a non-routine moral situation related to internalized expectations, organizational expectations, professional expectations, or some combination?

III. The study

Members of the Institute of Management Accountants (IMA) were selected as subjects in order to obtain a high percentage of accountants not in public practice. Questionnaires were mailed to 1,000 members, with 250 usable responses being returned. A comparison was made between the demographic characteristics of the respondents and the demographic characteristics of respondents to other IMA experiments. A comparison was also made between the early responses and late responses as a test of non-response bias. Based on results of these tests we are comfortable in making generalizations.

Demographic data analysis

Table I presents demographic variables of the participating accountants including age, education, gender, certification, area of employment, firm size, and three questions relating to ethics training. We chose to use the instrument found in Hildebeitel and Jones (1991), in which subjects assess the appropriateness of fourteen principles of ethical conduct for addressing ethical decisions in business. The fourteen principles, originally compiled by Lewis (1989), are shown in Table II. Despite the popularity and construct validity of the DIT (Jones and Ponemon, 1993), the instrument typically finds little improvement in scores after post-secondary education, while other measurement instruments do detect change. Unlike some measurement instruments, the DIT does not examine the moral development of the individual in a business environment. Subjects also indicate an appropriate approach for resolving five ethical situations, which are shown in Table III.

Seventy-two percent of the respondents are male with an average age of 42. 95% have a baccalaureate degree, while 26% have advanced degrees. Professional certification is held by 56% of the respondents, with the CPA certificate being the most common certificate. Twenty-one percent of respondents indicate their employment area to be in general management. Fifty-eight percent are in corporate accounting, with the most common positions being controller and general accounting. Ten percent of the respondents are in public accounting where most held the position of partner.

Thirty-eight percent work for firms employing over 1,000 employees, while 27% work with firms employing fewer than 100 employees. Thirty-four percent took an ethics-related course in college, but ethics training is regularly provided to only 3% of the respondents. However, 69% of the respondents indicate that their employer always encourages ethical business practice.

For each principle of ethical conduct, the subject was to indicate a level of agreement using a nine-point scale.² A "1" indicated that the respondent believed that a particular ethical prin-

TABLE I
Demographics

Personal Variables					
Age		Education		Gender	
20-29	32	<Bachelor's	11	Male	181
30-39	77	Bachelor's	122	Female	67
40-49	87	>Bachelor's	41	Total	248
50-59	39	Master's	65		
60-69	15	>Master's	11		
Total	250	Total	250		
Ethics Training in college					
Area of Employment		Certification		Ethics Training in college	
Management	53	CPA	99	Yes	85
Corporate Accounting	146	Other	41	No	165
Public Accounting	27	None	110	Total	250
Other	22	Total	250		
Total	248				
Organizational Variables					
Firm Size		Ethics Training		Employer Encourages Ethical Practice	
0-24	28				
25-99	40	Regularly	8	Always	171
100-499	60	Occasionally	15	Occasionally	49
500-999	26	Rarely	58	Rarely	23
>1,000	95	Never	165	Never	4
Total	249	Total	246	Total	247

principle was appropriate for addressing ethical decisions in business. A "5" indicated that the respondent was uncertain whether or not a principle was appropriate. A "9" indicated that the respondent believed that a principle was not at all appropriate.

Subjects were given five experimental situations that might be encountered in business listed in Table III. The genesis of these situations is the IMA's Standards of Ethical Conduct for Management Accountants (1982). These standards include rules dealing with competence, confidentiality, integrity, and objectivity. Subjects were asked to indicate which of the fourteen principles would be most appropriate for resolving each situation. The first situation involved the violation of a labor law; the second involved the violation of an accounting principle; the third related to confidential company information; and

the last two related to conflicts of interest. The purpose of placing the subjects in realistic scenarios was to ascertain whether their beliefs in the appropriateness of an ethical principle would follow through to actions.

Experimental data analysis

Mean and modal responses for each of the fourteen approaches measure the tendency of subjects to favor those approaches for resolving ethical dilemmas. The mean response is used to establish rank order preference of the fourteen approaches. Factor analysis was used to reduce dimensionality of the responses on the appropriateness of the fourteen approaches to two factors, and an ANOVA model estimates the parameters used in tests of the hypotheses. A frequency

TABLE II
Lewis' list of principles of ethical conduct

When faced with a moral choice, I should:

1. Act in a way that I believe is right and just for any other person in a similar situation. (Kant's categorical)
2. Take advantages of all legal opportunities and widespread practices or customs. (Carr's conventionalist)
3. Ask how it would feel to see the thinking and details of the decision disclosed to a wide audience. (The disclosure rule)
4. Look at the problem from the position of another party affected by the decision and try to determine what response the other person would expect as most virtuous. (The golden rule)
5. Do whatever I find to be in my own self-interest. (The hedonistic ethic)
6. Go with my "gut feeling" or what I understand to be right in a given situation. (Moore's intuition ethic)
7. Take actions and be motivated by personal gains in business dealings. (Smith's market ethic)
8. Ask whether some overall good justifies any moral transgression. (Machiavelli's means-end)
9. Seize what advantage I am strong enough to take without respect to ordinary social conventions and laws. (Nietzsche/Marx's might-equals-right ethic)
10. Ask whether actions are consistent with organizational goals and do what is good for the organization. (The organization ethic)
11. Do whatever I desire if there is a proportionate reason for doing so. (Garrett's principle)
12. Do only that which can be explained before a committee of my peers. (The professional ethic)
13. Pray, meditate, or otherwise commune with a superior force or being. (The revelation ethic)
14. Determine whether the harm in an action is outweighed by the good. (Betham/Mill's utilitarian).

TABLE III
Five ethical situations

Which of the fourteen approaches would be most appropriate for resolving each of the following situations?

1. A situation where the law is being violated (e.g., your employer is violating fair labor laws by employing underage workers on a part-time basis)
2. A situation where professional standards are being violated (e.g., your employer's financial statements do not disclose related party transactions)
3. A situation where the confidentiality of company information is at stake (e.g., on several occasions, you have overheard loud discussions concerning confidential merger proposals being discussed in the company lunch room)
4. A situation where a conflict of interest exists that you are aware of (e.g., some people in your department have been accepting gifts from suppliers)
5. A situation where a conflict of interest exists that directly affects you (e.g., the timing of an inventory write down could greatly affect EPS and your year-end bonus)

distribution was constructed to evaluate the responses concerning resolution of the five situations.

Table IV presents a summary of the subjects' assessment of the appropriateness of the fourteen principles of ethical conduct. It shows the modal response, mean response, variance, and rank of the mean response. Low responses and rankings indicate the most appropriate approaches for resolving ethical situations in

business. Approaches #1, #6, and #3 had the lowest mean rankings while approaches #7, #5, and #9 had the highest mean rankings. The relative rankings suggest that the group as a whole thought it more appropriate to resolve dilemmas by looking at an action in the context of how other might view the choice (1, 3, 6) rather than in self-interest (5, 7, 9).

The fourteen principles of ethical conduct elicit many dimensions of personal choice.

TABLE IV
Accountants' assessment of appropriateness of fourteen approaches

	Modal* Response	Mean* Response	Variance	Ranking by Mean
1. Kant's categorical	1	1.95	2.20	1
2. Carr's conventionalist	3	4.08	5.45	6
3. The disclosure rule	1	3.72	5.95	3
4. The golden rule	3	3.98	6.07	5
5. The hedonistic ethic	9	7.84	3.23	13
6. Moore's intuition ethic	3	3.17	3.23	2
7. Smith's market ethic	9	7.54	4.00	12
8. Machiavelli means-end	9	6.41	4.97	10
9. Nietzsche/Marx's might-equals-right ethic	9	8.20	1.91	14
10. The organization ethic	3	3.82	4.36	4
11. Garrett's principle	9	6.59	4.89	11
12. The professional ethic	5	4.59	6.52	7
13. The revelation ethic	9	5.22	9.34	9
14. Betham/Mill's utilitarian	5	5.11	5.95	8

* Based on nine-point scale with #1 considered to be the most appropriate approach

Consideration of these principles as individual variables results in intractable combinations of variables. To simplify the analysis, it is necessary to identify the underlying uniform dimensions addressed by the fourteen principles. A factors analysis was performed, resulting in two significant factors.³ These factors and the correlations appear in Table V, Panel A.⁴

The squared multiple correlations of the variables with Factor 1 and Factor 2 are 0.712 and 0.583, suggesting a reasonably high level of explanatory power. The cumulative proportion of variance explained by the two factors is nearly 100%, and the results seem quite interpretable. No additional factors were found to improve the explanatory power, and following a common heuristic the factor structure is limited to two. (Johnson and Wichern, 1982: pp. 437-438)

The factor loadings shown in Table V, Panel A offer some insight into the nature of the underlying dimensions. Principles 5, 7, 8, 9, and 11 all correlate highly with Factor 1. To a moderate extent, Principles 2, 10 and 14 also load on Factor 1.⁵ These principles embody some feeling of individualism or self-centeredness, thus resembling Kohlberg's preconventional level (stages 1 and 2, serving one's own interest).

Principles 3 and 4, and to a lesser extent Principles 1, 12, 13, and 14 correlate with Factor 2.⁶ The emphasis of these principles is external, and reflects a concern for how others might view actions. Factor 2 resembles Kohlberg's conventional level (stages 3 and 4, a social perspective).

Table V, Panel B presents factor loadings for a reduced sample of corporate accounting positions, which is the primary interest of this study. The factor loading shown are identical in pattern and very nearly identical in magnitude to the full sample. The consistency of the sub-sample with the full sample suggests that the extracted factors do capture valid underlying dimensions.

To relate individual preferences for the fourteen principles to the demographic variables, scores for the two factors are obtained for each individual, and the resulting factor scores are the dependent variables in an ANOVA model. In order to construct reasonable models from a multitude of variables, while avoiding a high experiment-wise error rate, we conducted a quadratic response surface analysis, which identified the major sources of variance and the nature of the factor response. The analysis indicated that there was a significant amount of unexplained variance not captured by any of the demographic

TABLE V
Factor analysis

Panel A: Full Sample Results (<i>n</i> = 250)				
Principle	Factor 1 Loading	Correlation	Factor 2 Loading	Correlation
1. Kant's categorical	-0.01528		0.31007	Moderate
2. Carr's conventionalist	0.22576	Moderate	-0.01225	
3. The disclosure rule	-0.08307		0.50441	High
4. The golden rule	0.03418		0.51869	High
5. The hedonistic ethic	0.54026	High	0.05080	
6. Moore's intuition ethic	0.13942		0.00066	
7. Smith's market ethic	0.52749	High	0.12374	
8. Machiavelli means-end	0.53851	High	-0.04035	
9. Nietzsche/Marx's might-equals-right ethic	0.54977	High	-0.03722	
10. The organization ethic	0.37402	Moderate	0.06965	
11. Garrett's principle	0.54108	High	-0.09452	
12. The professional ethic	0.07480		0.26380	Moderate
13. The revelation ethic	-0.07746		0.46526	Moderate
14. Betham/Mill's utilitarian	0.32978	Moderate	0.36777	Moderate

Panel B: Reduced Sample Results-Corporate Accountants (<i>n</i> = 146)				
Principle	Factor 1 Loading	Correlation	Factor 2 Loading	Correlation
1. Kant's categorical	-0.1442		0.17776	
2. Carr's conventionalist	0.21561	Moderate	-0.12241	
3. The disclosure rule	-0.06284		0.25753	Moderate
4. The golden rule	-0.00741		0.33652	Moderate
5. The hedonistic ethic	0.68159	High	0.07761	
6. Moore's intuition ethic	0.20886		0.01610	
7. Smith's market ethic	0.57566	High	-0.07374	
8. Machiavelli means-end	0.64270	High	0.03196	
9. Nietzsche/Marx's might-equals-right ethic	0.61227	High	-0.03120	
10. The organization ethic	0.39828	Moderate	-0.06346	
11. Garrett's principle	0.51686	High	-0.17952	
12. The professional ethic	-0.06682		0.18822	
13. The revelation ethic	-0.01642		0.65859	High
14. Betham/Mill's utilitarian	0.29765	Moderate	0.45729	High

variables, but this is not unusual for this type of design. Typical adjusted R^2 ranged from 0.20 to 0.25; and with the exception of a quadratic response for encouragement and training variables, all functional forms are essentially linear. An interaction term is thus included for the combines effect of encouragement and training. The following ANOVA model was constructed to evaluate the association between the depen-

dent variables (Factor 1 or Factor 2) and the demographic variables:

$$Y_{ij} = \mu + X_1 + X_2 + X_3 + X_4 + X_5 + X_6 + X_{5*6} + e_{ij};$$

where: Y_{ij} = *i*th respondent factor score on the *j*th factor

μ = grand mean

X_1 = age (seven levels)

- X_2 = gender (two levels)
 X_3 = education (six levels)
 X_4 = CPA certificate (two levels)
 X_5 = employer encouragement,
 X_6 = employer training; and,
 e_{ij} = normally distributed error term.

The remaining demographic variables (firm size and college training) were not included in any of the final models because of insufficient data, or were eliminated because the analyses showed no apparent statistical relationship at any reasonable level for any factor or respondent subset. Area of employment is used to partition the sample into subgroups for further analysis. Variable X_{5*6} , which we label "employer support", is the interaction between encouragement and training. Model parameters are estimated for the entire set of respondents, and separately for the respondents in corporate accounting.

IV. Results

Table VI provides evidence for evaluating the first three research questions. In that table, significance levels resulting in a reasonable experiment-wise alpha risk are signified by an asterisk (*). Panel A shows the results of the ANOVA model for the full sample while Panel B reports reduced sample results for corporate accountants. Research question #1 considers the effect of the personal characteristics of age, gender, and education on the moral reasoning of accountants. In this study, age is a significant variable in the full sample (Panel A, Factors 1 and 2) and reduced sample (Panel B, Factors 1 and 2). Gender is marginally significant for the full sample (Panel A, Factor 1) and is significant in the reduced sample (Panel B, Factor 1). Education is a significant variable in the full sample (Panel A, Factor 2) and for the reduced sample (Panel B, Factor 2). Contrast estimates were computed, and these indicated that female subjects or older subjects found Factor 2 principles more appropriate, while male subjects or younger subjects were the subjects finding Factor 1 principles to be appropriate. In general, the significance of demographic variables is consistent with prior research

TABLE VI
ANOVA model

Panel A: Full Sample Results ($n = 250$)			
Factor 1			
Source	F	Pr>F	
Age	2.23	0.0663*	
Gender	2.61	0.1077*	
Education	0.79	0.5579	
CPA certificate	0.02	0.8964	
Employer encouragement	0.30	0.7652	
Employer training	0.47	0.7069	
Employer support (encouragement*training)	2.17	0.0757*	
Factor 2			
Source	F	Pr>F	
Age	3.25	0.0130*	
Gender	1.81	0.1800	
Education	2.58	0.0270*	
CPA certificate	0.09	0.7640	
Employer encouragement	0.13	0.9437	
Employer training	0.94	0.4228	
Employer support (encouragement*training)	0.01	0.9173	
Panel B: Reduced Sample Results ($n = 146$)			
Factor 1			
Source	F	Pr>F	
Age	2.39	0.0542*	
Gender	6.30	0.0134*	
Education	0.85	0.5154	
CPA certificate	0.26	0.6141	
Employer encouragement	0.26	0.6141	
Employer training	0.31	0.8150	
Employer support (encouragement*training)	4.72	0.0317*	
Factor 2			
Source	F	Pr>F	
Age	2.49	0.0466*	
Gender	0.95	0.3322	
Education	1.95	0.0950*	
CPA certificate	3.51	0.0633*	
Employer encouragement	0.86	0.4626	
Employer training	2.04	0.1122	
Employer support (encouragement*training)	0.59	0.4479	

(for example: Arlow, 1991; St. Pierre *et al.*, 1990; among others). Those studies show age and/or gender differences to be consistent explanations for differences in the moral decision processes of accountants.

Research question #2 considers the influence of professional expectations on the moral reasoning of accountants. As depicted in Table VI, the possession of a CPA certificate is a significant variable in this study for the reduced sample of corporate accountants (Panel B, Factor 2). The respondent observations contained too few CMA certificate holders to permit an analysis of IMA policy.

Research question #3 considers the affect of organizational expectations on the moral reasoning of accountants. Table VI shows that employer encouragement and employer training are not significant variables in the ANOVA model. However, the support variable in the ANOVA model, which is the interaction variable for employer provided ethics training and encouragement, is significant for Factor 1 (Panel A) for the full sample and is highly significant for Factor 1 (Panel B) when the sample is restricted to corporate accountants, while a CPA certificate is not. Contrast estimates showed that subjects employed in organizations that support moral decision processes through both formal training and encouragement find Factor 1 principles to be less appropriate than those subjects exposed to only the main effects of either training or support. This finding is substantial evidence that the organization expectations aspect of the resolution model is valid, and dominates the possession of a CPA certificate. Thus, support in the form of both encouragement and training can have a significant impact on reducing the likelihood that an accountant would make ethical choices consistent with Kohlberg's lower stages of development.

Research question #4 considers the action mandated by a non-routine moral situation. Does the accountant tend to rely on a internalized expectations, organizational expectations, or professional expectations when non-routine moral situations occur? To evaluate this question, a frequency distribution of the responses to the five ethical situations is presented in Table VII.

TABLE VII
Accountant's Assessment of Appropriate Approach
for Resolving Situation ($n = 250$)

	Situation*				
	1	2	3	4	5
1. Kant's categorical	90	57	63	66	59
2. Carr's conventionalist	38	27	2	11	16
3. The disclosure rule	13	23	20	11	21
4. The golden rule	7	23	14	10	15
5. The hedonistic ethic	0	2	3	1	0
6. Moore's intuition ethic	31	22	28	32	33
7. Smith's market ethic	0	1	2	2	2
8. Machiavelli means-end	7	5	4	6	1
9. Nietzsche/Marx's might-equals-right ethic	6	5	3	4	5
10. The organization ethic	8	22	79	65	44
11. Garrett's principle	2	1	4	0	6
12. The professional ethic	20	46	9	13	35
13. The revelation ethic	5	4	4	3	6
14. Betham/Mill's utilitarian	17	7	8	20	2

*Situation 1 – Law being violated

Situation 2– Professional standard being violated

Situation 3– Confidentiality being violated

Situation 4– Conflict of interest being violated-you are not affected

Situation 5– Conflict of interest being violated-you are affected

Table VII presents a frequency distribution showing the subjects' selection of various principles of ethical conduct for resolving five ethical situations. Approach #1 was selected as being the most appropriate for five of the six situations. Approach #10 was selected as being the most appropriate in the remaining situation and was the second most frequently selected approach in two situations. Approaches #2 and #12 were each selected second for one situation. Approach #6 was uniformly identified as appropriate for all situations. Approaches #5, #7, and #11 were rarely selected as being the most appropriate approaches. The observations are consistent with the reported appropriateness of the approaches to resolving dilemmas, supporting the notion that respondents would indeed act on a dilemma similar to the way they believe they ought to act. The importance attached to Principles #1 and #6, implies that there is an internalization of the

situation, though importance is still attached to organizational or professional expectations as embodied in Principles #10 and #12.

V. Discussion

The formation and revision of an individual accountant's code of conduct, as depicted in Figure 1, seems to capture some aspects of the moral decision process followed by the accountants in this study. Moral reasoning was affected by personal influences including age, gender, and education; however the exact role of those effects remains the focus of further study. As hypothesized by cognitive-development theory, moral development seemed to proceed to higher stages when fully supported by the organization. There is less reliance on self-centered reasoning (Factor 1) and more reliance on social reasoning (Factor 2) as accountants increase their level of education and as they advance in age. Many accountants complete additional studies leading to advanced degrees, study for professional exams, complete continuing education and self-improvement programs to gain promotions or stay current in their profession. It seems that cognitive processes such as moral development to continue well beyond post-secondary education, and this effort can be augmented by organizational support.

In *Mapping the Moral Domain* (Gilligan *et al.*, 1988), a vast body of evidence is presented to support gender based differences in the approach to resolving moral conflict observed in this study. Gilligan concludes that, "Among samples of educationally advantaged North American adolescents and adults, a focus on care concerns, although not characteristic of all the women, was found to be primarily a female phenomenon" (p. 290). The authors point to the differences in early childhood relationships, adolescent experiences, and in adult social and economic status as factors influencing psychological differences between men and women (p. 291).

In this study and in much of the prior research of accountant's cognitive processes, female accountants respond with a different mode of moral decision making than their male

counterparts as their reliance on judgement-based principles (Factor 1) was less than the male accountants. This is in agreement with the findings of the studies by St. Pierre *et al.* (1990) and Arlow (1991), and contradictory to the study by Ponemon (1990). The small sample size used in the Ponemon study may have affected his findings, or Ponemon may have been able to more effectively capture the care mode of the moral decision process. The divergence of male and female decision processes remains a puzzle with potentially interesting implications for the codes of ethics which institutionalize the public's confidence in the accounting profession.

It is clear that employer-provided ethics training and encouragement is associated with development the moral reasoning of corporate accounts as their reasoning takes on more of a social perspective in organizations that are supportive. This finding is consistent with the concept of the ethical organization as presented by Reidenbach and Robin (1991) and the supportive organizational climate advanced by Petrick and Wagley (1991).

The sample in this study included only 27 accountants in public practice, and those not employed in public accounting seem to be influenced by organizational expectations and only to a limited extent by expectations associated with the mechanisms of self governance sanctioned by society. Additional study of the influence of organizational and professional expectations on the moral decision-making of accountants not in public practice is needed in order to identify society's role in establishing codes of conduct for organizations.

In resolving non-routine moral situations, it seems that accountants rely primarily on a judgment-based code of conduct indicated by their reliance on Principle #1 (Act in a way that I believe is right and just for any other person in a similar situation). This reliance is strongest when a law is being violated (Situation #1), but it is also strong when a professional standard (Situation #2) or organizational policy (Situation #3-#5) is involved. This finding is of importance to gender-based research, since women have been documented to ascribe to an internalized care dimension, whereas men do not.

Organizational expectations are frequently considered when accountants make non-routine moral decisions as indicated by their reliance on Principle #10 (Ask whether actions are consistent with organizational goals and do what is good for the organization). The reliance on organizational expectation is most pronounced, as one might expect, when the moral situation involves a organizational policy such as confidentiality or a conflict of interest (Situations #3–#5). Organizational expectations were rarely considered when a law was being violated or a professional standard was being violated.

Professional expectations are considered when accountants make non-routine moral decisions as indicated by their reliance on Principle #12 (Do only that which can be explained before a committee of my peers). This reliance is strongest when a professional standard is being violated (Situation #2) and is also considered when the accountant is personally involved with a moral conflict (Situation #5). The lack of strong association between the factors and certification suggests that a code of ethics promulgated by a professional association and sanctioned by society (e.g., the AICPA Code) may be secondary to supportive organizational policy.

VI. Conclusions

The cognitive-development school theorizes that complex cognitive processes such as moral decision making continues to develop. In keeping with this hypothesis, the results here indicate that organizational support influences the moral decision processes of accountants and hence organizations that support these processes contribute to the development of higher stages of moral reasoning. Age, education, and gender were also shown to influence the moral decision processes of accountants.

Based on the findings of this study, it appears that accountants are at a level of moral development that allows them to make moral decisions that consider societal needs, and that moral development can be influenced by additional education and organizational support. Policy makers should continue to encourage professional

accounting organizations to strengthen their codes of professional conduct and to educate their members as to the importance of complying with these codes. Owners and managers of business organizations should support moral development by offering ethics training and encouraging compliance with proper ethical conduct. Corporate accountants can be expected to develop moral decision processes to levels above Kohlberg's pre-conventional level provided that decision-making is enhanced by strong organizational support.

Acknowledgements

The authors are grateful for the comments of Gary Mann and the late Howard L. Siers and the cooperation of members of the Institute of Management Accountants. This research was partially funded by grants from KPMG Peat Marwick and Scott Paper Company.

Notes

¹ In an attempt to meet its obligation to the public, the profession, through the American Institute of CPAs (AICPA), has developed auditing and attestation standards and a code of professional conduct.

² The Cronbach coefficient alpha, used to assess reliability, averaged about 0.72 for each principle.

³ Maximum likelihood (ML) estimation in SAS version 6.03 Factor Procedure was used to identify the factors. ML estimation is preferable for large samples and gives better estimates than the more common principle factor method. Varimax rotation is used, which results in orthogonal factors.

⁴ Common gauges of validity support using the instrumentation: The approaches load on one primary factor; eigenvalues exceed one; and the correlation between the principal factors and total raw scores are high, at 0.702 for Factor 1 and 0.502 for Factor 2.

⁵ This is a subjective evaluation based on the observed magnitude of the factor loadings. A generally recognized rule is that loadings greater than 0.5 are indicative of high correlation.

⁶ Principles 14, "Determine whether the harm in an action is outweighed by the good," is moderately correlated with both factors. Perhaps the way "harm" and "good" are defined depends upon a reference

point. Individuals at lower stages of moral development may interpret these terms based on how actions affect them, whereas at higher stages the terms may be in reference to society. Though ambiguous, the loading is not inconsistent with the factors as labeled.⁷ SAS Version 6.03 General Linear Models procedure was used. A MANOVA model is not necessary as the factors are orthogonal, and as such the analysis would reduce to ANOVA.

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