

EXPLORING ETHICAL CODES AND MORAL BEHAVIOR IN TODAY'S CLASSROOM

Robert Joseph Skovira, Robert Morris University, skovira@rmu.edu
Stanley T. Schuyler, Edinboro University, sschuyler@edinboro.edu

ABSTRACT

G.M. Marakas states [20] "Suggesting that ethics are an important element in any business endeavor seems intuitive. In systems analysis (IS)¹, however, personal integrity and ethics are often at the center of the conduct of a development effort." At Edinboro University of PA the Computer Science (CS) program specifies that CS courses contain a section on ethical issues related to the course topic. At Robert Morris University (RMU), an entire course in the IS program is devoted to a study of global, social, economic and ethical issues in computing. As ethical and behavioral issues are of growing concern in business, so too are they in today's classroom. The access and exchange of electronic documents among students and their ability to be opaque as to the use of these materials on assignments increasingly raises concerns regarding plagiarism and authorship across educational institutions. A key question addressed in this essay is "What are the drivers (factors) that account for the decisions today's university students make to either engage in, or refrain from, actions that are considered immoral?" Can we determine and depict where students stand on ethical drivers as well as on the behavioral choices each makes? This paper introduces concepts for representing ethical drivers as dimensions in social-cultural and ethical frameworks; further, techniques for placing a student within these multidimensional frames are introduced. An initial survey instrument has been piloted that demonstrates one of the dimensions related to ethical framing. The design of a target study to demonstrate both ethical and moral frames, along with associated survey instruments, is presented.

Keywords: ethics, moral behavior, deontology, utilitarianism, eudaimonism, virtue ethics, culture, moral position model, ethical position model

Introduction

Framing the Essay's Situation

This essay is a result of a course: The Global, Economic, Social, and Ethical Issues of Computing, conducted in the 2009 spring semester. The course

builds its subject matter around four frames of reference: Global, Economic, Social Cultural and Ethical. Students are provided opportunities to investigate the conceptions of the four frames, and to raise questions regarding their role in making decisions on information use and IS development. The course's goal is to exercise students into habitual critical uses of these frames when analyzing and making decisions on computing issues. The delivery of effective instruction in the ethical and moral domain depends on having shared frames of understanding pertaining to ethical drivers, related moral decision making, and finally behavior.

This essay presupposes a position that persons reside in social cultural environments (SCEs) which provide, among many other influences, sets of moral practices and vocabularies with attending ideas. Residing in a SCE affords opportunities for learning acceptable styles of relating to other people, things, or even animals (socialization and enculturation). These acceptable styles (at least within the nurturing SCEs), if analyzed and developed, may formally be established as resulting from one of three ethical theories broadly termed deontological, utilitarian, and eudaimonic (each is described in detail below).

Purpose and Objectives

This research is a work in progress. It is intended to serve three purposes: publish the conceptual models of the frames derived and abducted from other's research; expose the design of the field project to peer review; and serve as a case study for doctoral students to reveal the challenges involved in designing a field project to investigate moral decision making.

Literature Review

The decisions an individual makes, in situations that require choosing between "right and wrong," are made with respect to an unconscious moral grammar [13] [17]. Moral grammars are culture specific and consist of symbols representing alternative actions and the rules, or moral codes, that determine when an action is morally right or wrong [13]. Hauser describes three perspectives (or grammars) on the customary judgments of action [13]: "overall goodness (*virtue ethics*)" (p. 113), "good versus bad consequences (*utilitarianism or consequentialism*)" (p. 113), and

¹ "Information System (IS) project" added by the authors to clarify the context.

“categories of right or wrong action (*deontological principle or nonconsequentialism*)” (p. 113). The acquisition and development of one’s moral grammar comes from the social groups within which we are immersed [6] [8] [9]. As Chappell states [3]: “...that knowledge of ethics – what it is that we ought to do – comes not from a course in organizational behavior in business school (or from a ‘business ethics’ course) but from the bonds formed in the family, the church, the schools, the neighborhood, and self-help groups. As persons we are in a web of beliefs, traditions, and religious and cultural traditions”(p. 71). Figure 1 below depicts these relationships.

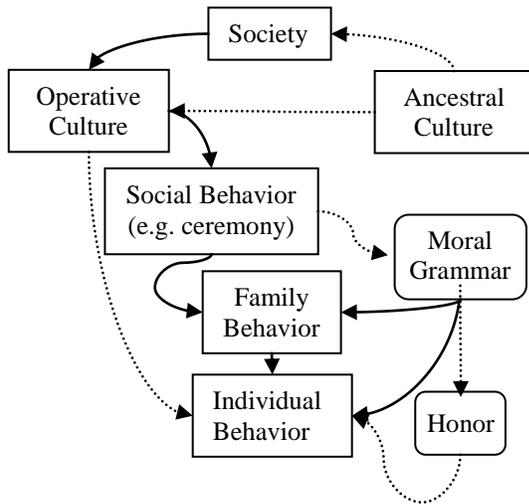


Figure 1: The Role of a Moral Grammar

“When the individual in our Western society recognizes a particular event, he tends, whatever else he does, to imply in this response (and in effect employ) one or more frameworks or schemata of interpretation of a kind that can be called primary” [10]. In essence, we must *frame* the components (i.e. players, rules, and outcomes) for making decisions in some mental model that continuously enables a judgment of the decision process as well as its outcome [5] [10]. The contents of these decision frames are derived from the moral grammar as they represent shared systems of meanings and values in the culture of the social group [9][7][14][15][33][35].

In this research we need a set of explicit frameworks and a methodology of frame analysis [10] that characterizes an individual’s position and decision model. We introduce a set of analytic frameworks to characterize levels of cultural codes and shared systems of meanings. The first is “Social (cultural) Framing Analysis,” the second Ethical Framing Analysis, and the third is the Moral Framing Analysis.

The Social cultural Framing Conception

The social cultural framing conception, as an analytic technique, can be defined or characterized in terms of a social group or network, relationships describable in terms of role and status, and its shared system of meanings, practices, and situations informing personal beliefs and behaviors [7] [14] [15] [33] [35] [12]. A person stands in the midst of multiple and complex social cultural spaces (a simple set of such social cultural spaces consists of family, circle of friends, profession, organization, society). It is a social cultural landscape as an ecological system, or environment, in the head as much as in the world [28].

A social cultural space consists of a social group (formal or informal) or network (role and status) of people with whom one habitually associates, and a shared system of meanings, practices, and situations. A fundamental social cultural space is the family: this space provides the basic beliefs, attitudes, and behaviors that inform an individual’s personality (provide affordances and constraints) [7] [14]. The social cultural space of the family creates a “cultural legacy” [9]. “Cultural legacies are powerful forces. They have deep roots and long lives. They persist, generation after generation, virtually intact, even as the economic and social and demographic conditions that spawned them have vanished, and they play such a role in directing attitudes and behavior that we cannot make sense of our world without them” [9].

The social cultural space is a moral space. Our beliefs and behaviors are informed by a moral grammar (what is good or evil, right or wrong, and why) which tacitly structures personal relationships and actions in situations [8] [13] [17]. Frankena writes “...that morality starts as a set of culturally defined goals and rules governing achievement of the goals, which are more or less external to the individual and imposed on him or are inculcated as habits” [6]. Figure 2 below identifies the components of the social-cultural space.

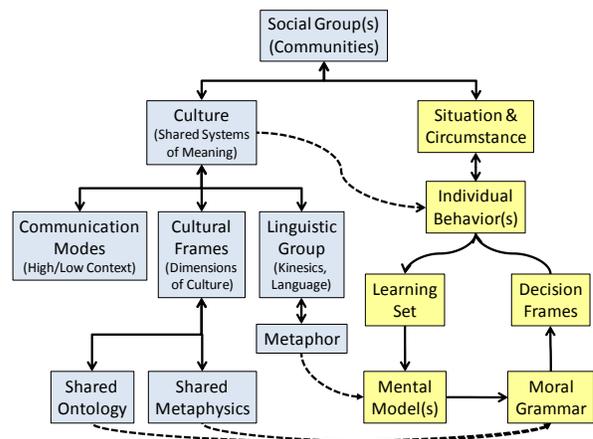


Figure 2: Social-Cultural Frame Components

Culture consists several interlaced systems of shared values and meanings [7][13][14][17], including modes of communication, language, ontologies, metaphors, and moral grammars. Individual behavior is guided by a set of decision frames. The decision frames are populated from moral grammar(s) learned from a family's and other social groups' norms. The mechanisms for learning, representing and employing the frames include the individuals learning set and mental model formation [22] [26].

The Ethical Framing Conception

The ethical frame (or framing conception) is theoretical in so far as it presents the formal and systematic elucidation of three general ethical propositions and positions from which actions can be judged [13]. The acronym "DUE" will be used to refer to these three components: Deontological - principled (e.g. rule based ethics) or *deontology*; Utilitarian - consequences (e.g. utility ethics) or *utilitarianism*; and Eudaimonic - goodness (e.g. virtue or character ethics) also termed *Eudaimonism* [Macintyre, 1984]. Each component deals with the valuation of actions and outcomes [34] [27] and can be thought of as the espoused theories behind the moral theories-in-use of the social cultural environments [1] [2].

Deontology is an ethical theory that refers to a universalizeable and intentional rule which justifies an action as right or good. As such, it is an obligation to act in situations as you would have others act. It is the Golden Rule: Do for others as you would have them do for you (even an eye for an eye), certifying the universal rightness of the act. This assures the good of the act in itself and one's intuitive knowing (based on one's shared system of practices and meanings) that the act is right [16] [11] [18] [23].

Utilitarianism is an ethical theory based on the doctrine of utility (use-value) that can select either actions or rules: a moral act is one that results in the most pleasure or happiness with the least pain; or a moral principle (rule or policy) of action produces, as a result, the most pleasure or happiness. The more happiness (pleasure), the more moral is the act. There are two theoretical perspectives: the egoist version focuses on the greatest good (happiness) for oneself and the universalist version which centers on the greatest good (happiness) for the greatest number. The latter version could be called the Golden Result [37] [21] [36] [38] [39] [23].

Eudaimonism is an ethical theory which embodies character or virtue ethics. It is an ethics of well-being or happiness (eudaimonia). It is an ethics based, according to Plato and Socrates, in self-actualization and growth towards fulfilling (working toward) one's potential by striving for knowledge (especially self knowledge) and excellence in action [30] [31] [32] [23]. According to Aristotle, who gives us the Golden Mean, eudaimonism is an ethics of habitually striving for excellence but in moderation (the Mean) [23]. Personal well-being or eudaimonia is the ultimate criterion by which character, action, and consequences are judged [19].

The Moral Position Model

The moral frame refers to the behavior an individual exhibits when faced with a decision in a situation that engages the ethical frame. The decision criteria relate to four of the five cultural dimensions identified by Hofstede and Hofstede [14], the ethical frame components of DUE, and the relationship among the players impacted by one's moral decision making. Table A1, see attachment below, identifies six moral position dimensions that were derived by the authors from four cultural dimensions in Hofstede and Hofstede:

1. Individualism:
 - a. Stakeholder Focus: the primary player(s) impacted by a decision one is making (toward self or other).
 - b. The outcome valuation: the degree to which the affected stakeholders are harmed or benefited.
2. Power Distance:
 - a. The relationship of the decision maker to the stakeholder(s) impacted.
 - b. The responsibility of the decision maker toward the stakeholder(s) impacted.
3. Gender Stance (Masculinity or Femininity):
The judgment of the worth of the stakeholder(s) to receive the value of the outcome that results from the decision (do they deserve or not deserve the outcome).
4. Uncertainty Avoidance:
Decision Transparency: the degree to which the decision maker is known, the basis for the decision is hidden, known truthfully (full disclosure), or is characterized falsely (fabricated).

Each of these dimensions have endpoint and mid-point (axis intersection) characterizations as shown in Table A1. In order to depict and relate these multi-dimensional positions, Figure A3 is attached (below Table A1) which illustrates how they are related.

Based on this review and interpretation of the literature on social-cultural and ethical framing (DUE), two sets of frames emerge that are related to the development and understanding of one's moral grammar. The challenge is to find a methodology that is effective for characterizing a social group's position by surveying individual members in the group.

PILOT STUDY: The DUE Position Model

The objective in the pilot was to develop a method that would characterize the approximate ethical position(s) a group of individuals share. The purpose of the positioning model is to form a standardized qualitative depiction that enables qualitative comparisons and analysis. The ability to position a group, and individuals within the group, in an ethical position model is the first step toward developing a method to position individuals in the proposed moral position model. If the pilot depictions are effective, later stages of research can extend the moral position model to include cultural and ancestral dimensions. However, before quantitative comparisons can be addressed, the qualitative models need to be in place.

The approach adopted draws on the work of Dagsvik and Liu [4] for analyzing rank ordered items that represent qualitative characteristics. This technique was used by the authors to model rank ordered learning techniques used by students [24] [25]. The technique requires participants to rank order a set of descriptive statements such that their first choice is most like them, and the last choice is least like them. The position model is constructed from the rank order data (as used in [24] and described below).

A set of 12 statements were constructed such that each is indicative of one the DUE ethical theories (Deontology, Utilitarianism, or Eudaimonism). In addition, three statements of principle were constructed that directly characterize each theory. The statements are presented in Table 1 below. See Attachment A for detailed clarifications of the statements.

Table 1: Statements indicative of ethical theory choices for rank ordering.

DUE Theory	Statements reflecting moral rules (active choices)	Identifier
D	Hard work always pays off.	EffortComesFirst
U	Winning is everything. Results are what count.	ResultsComeFirst
E	Playing well is more	QualityInAction1st

Table 1: Statements indicative of ethical theory choices for rank ordering.

DUE Theory	Statements reflecting moral rules (active choices)	Identifier
	important than winning.	
E	Doing a good job is reward enough.	QualityInResult1st
U	Everyone is out for his- or herself.	SelfComesFirst
D	Respect others.	OthersComeFirst
D	Friends should always help each other.	FriendsComeFirst
U	Life is pain and suffering.	EndureForReward
U	Life is good, enjoy it.	PleasureComesFirst
D	Help strangers.	StrangersComeFirst
E	Be careful, things are dangerous.	CautionComesFirst
E	A life lived well has its own reward.	QualityInLiving1st
Statements of Ethical Principle (Claim)		
E	Always do the right act, for the right reason, in the right situation, in moderation	
D	Do for others what you would want all others to do for you	
U	Always do the best you can that would make others the happiest	

Data Collection

The study was administered as a class exercise in which individuals reflected and rank ordered the statements; this was followed by forming five small discussion groups in which each group selected a first and a last ranked statement.

METHODOLOGY

Participants were selected from a course on "Global, Economic, Social, and Ethical Issues of Computing." There was no incentive offered participants: the task was considered a natural part of the course process.

Data Analysis

To determine a final rank ordering that represents the group as a collective, the rankings for each statement were assigned a composite value². The statements

² Calculated by totaling each student's statement rank times the inverse of the rank position across students (e.g. 12 if ranked 1st, 11 if ranked 2nd, etc.).

were sorted by the composite to produce the Pareto shown in Table 2. The ordering in Table 2 is an estimate of the cultural position of these moral rule choices. Note the first three are of type D, U, and D.

Table 2: Composite Ranking of Statements

Abbreviated Rule Identifier	ID	Ranking Positions										Rank	DUE Type		
		1	2	3	4	5	6	7	8	9	10			11	12
OthersComeFirst	F	151	127	50	30	21	5	5	5	0	0	0	0	1	D
PleasureComesFirst	I	138	102	80	60	42	18	11	5	0	0	0	0	2	U
FriendsComeFirst	G	124	100	56	56	47	47	26	14	4	0	0	0	3	D
QualityInLivingFirst	L	120	96	96	86	41	9	9	3	3	3	1	4	E	
EffortComesFirst	A	108	72	72	42	42	34	34	28	13	5	2	0	D	
QualityInResultFirst	D	104	92	81	71	44	36	22	10	10	4	0	6	E	
QualityInActionFirst	C	97	97	77	68	68	33	15	10	2	2	0	7	E	
StrangersComeFirst	J	93	81	70	60	51	43	36	30	15	3	1	8	D	
CautionComesFirst	K	82	70	70	70	61	53	39	21	16	8	5	1	E	
SelfComesFirst	E	72	72	72	42	42	42	35	29	29	21	3	1	U	
ResultsComeFirst	B	57	57	57	57	48	40	40	40	40	30	18	6	U	
EndureForReward	H	30	30	30	30	30	22	22	22	17	17	17	9	U	

Depicting Moral Positions

The ranking position in Table 2 was used to construct a horizontal scale that ranged from -0.5 to +0.5 in 0.1 increments. Each position on the scale represents a moral position such that: *EndureForReward* occupied -0.5 (left), and *OthersComeFirst* occupied +0.5 (right). To place an individual (or a group's position), a calculation was done using their 1st ranked statement, or their 1st and 2nd, or their first three ranked statements. The basic equation using all three was:

$$\text{Moral Position Score} = \frac{(1 - (\text{Rank1} + \text{Rank2}^{0.8} + \text{Rank3}^{.65}))}{A} * p$$

The values for "p" and "A" were adjusted to meet the scale range requirements (and truncated to the nearest 0.1 interval). To position an individual using the only

the 1st ranked statement, the "Rank2" and "Rank3" terms were dropped.

RESULTS

Fifteen individuals participated. Moral positioning scores were calculated for each individual and for each group based on the moral behavior statement ranked first. The results are shown in Figures A1 and A2 attached below. Of interest is that the Composite ordering ranked *OthersComeFirst* (D), yet most individuals selected *PleasureComesFirst* (U), and the group processes selected *EffortComesFirst* (D). The individual distribution appears the inverse of the group distribution, and both are located on the positive side of the position scale. When the first three ranked statements are used to position individuals as depicted in Figure A2, the distribution tightens and begins to align with the group distribution.

Each participant selected a statement to claim the ethical principle each perceived they followed: 4 (four) claimed D (Deontology), 2 (two) claimed U (Utilitarianism), and 9 (nine) E (Eudaimonism). However, when the DUE designations are examined to see if individual choices aligned with their claim, 8 chose D, 3 U, and 4 E. The same comparison was made using the Pareto (Table 2 above) and the group choice. Figure 3 below depicts the ethical frame distributions of DUE choices. The Pareto is 1st (foreground), individual statement choice (2nd), the group choice (3rd), and the participants' claim 4th.

What is clear is that although participants primarily claim E (Eudaimonism), by all other estimated positions participants act using D (Deontology). This relatively simple exercise reveals and indicates that individuals collectively share deontological rules that reflect "good" intentions to act in a manner which is universalized as a moral obligation.

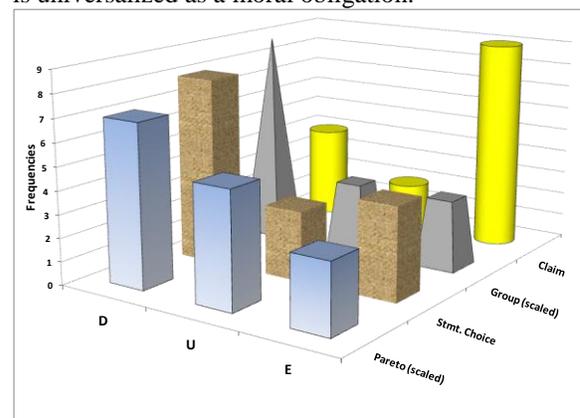


Figure 3: Ethical Frame Distributions wrt. DUE

In contrast, they also share an internal view of themselves that they are really following the principles

of Eudaimonism by acting habitually virtuously, or with excellence, and moderation; their claim for second choice was deontological. The individual statement choices indicate Eudaimonism is second to deontological. The choice of statements in group sessions was consistent with the Pareto and individual selections that were deontological. However, the set of statement choices in the Pareto composite indicates that utilitarianism is selected second: that is, their second choice indicates that people act in a manner following principles to avoid pain and suffering, or attain pleasure from “good” results (consequences) that certifies an act as moral, for self or others. The pilot study did not press the group to choose a 2nd or 3rd choice. This fact prevents comparing the selection of U and E statements in the ethical frame. However, groups did select a bottom ranked choice which was consistent with the Pareto composite shown Table 2

DISCUSSION

The depictions of the moral frame as illustrated in Table 2 (Pareto), Tables A2 and A3 provide effective visuals for depicting and recognizing the moral space (the Pareto Table) and positions that individuals and groups share. Figure 3 (left) effectively integrates these positions in a visual ethical frame depiction. The positions reflect elements of the underlying moral grammar a social group shares either in-common or in-difference. Given a large enough set of participants from different social-cultural contexts, their positions would be discernable using these frames.

The separation between claim (ethical principle perceived as dominant) and practice (statements of moral actions that dominate behavior) are shared values in this set of participants. That is, these participants shared an inward ideal toward principles for action (Eudaimonism) and shared an outward set of moral responses for action (Deontologism). This is similar to the notions of “espoused theory” which is an elicited explanation of an action and “theory-in-use” which informs an action and is observable in a situation [1] [2].

There are several possible sources for these not being aligned: there is no requirement that principles (ideals) and actions (in the context of social expectations) be aligned; also, a participant's interpretation of either or both the ethical principle and/or moral behavior statements may differ from what the researchers intended; another possible source is the assignment of a DUE ethical category to moral statements by the researchers is itself interpretation dependent. Regardless, the analytic

method enables us to examine these data in a consistent visual framework.

Proposal for a comprehensive study

Asking an individual to reveal their own judgment regarding ethical or moral situations assumes they are willing to risk being personally transparent. Based on the role of the social-cultural frame and its associated moral grammar, it should be the case that an individual's ethical and moral position is derived predominately from their family group. If so, one could expect the parents (or significant guardians) that raised a participant through the age of 8 or 10 to have similar ethical and moral positions. This could be pushed back to one more generation: to the dominant grandparent or grandparents' ethical and moral positions. As a means to overcome an individuals reluctance to be transparent (or only give “politically correct” responses), the notion we have is that individuals may be more willing to reveal their perception of how they think their parent's (or grandparents) would respond.

In the pilot study each student was required to rank order statements according to how they saw themselves. Suppose instead we asked them to rank order the statements according to how they believed their parents would rank order them (or which ethical principle the parents would follow)? Could a participant have a clear view of their parent's ethical and moral position? What about having the ability to assess their grandparents' position? We would also need to collect demographic information from participants regarding their parents and grandparents, such as country of origin, religion, ethnic community, etc. We expect that some participants would not possess knowledge of their ancestors and may have to research their family tree as part of the data collection effort.

In addition, we recognize the need to get data using materials that are less subject to diverse interpretations, and to get data that assess the dimensions in the “Moral Analysis Framework” (see Table A1 below). To achieve this we are planning to use a sequence of questionnaires and rank ordering exercises that are integrated as a natural part of a participant's course experience. Any course that has a section on ethics (such as the course used for the pilot study here) could integrate a study on moral positions. The materials would have to be incremental, unobtrusive, and fit into the natural sequence of topic discussions. One approach is to use a series of mini-case studies that are less than 10 minute exercises and that recur as the course topics are covered. There are ethical dimensions in courses covering many subject areas: for example, accounting, economics, project

management, computer security, information systems development and others [18] [29] [30] [36].

The new materials are being designed to enable producing illustrations like those shown in Figures 3 (above), in the attached Figures A1, A2, and particularly the Figure proposed in A3. The strategy will be to have a special case story that participants will review and analyze in a sequence of exercises. The story will involve a set of key stakeholders (Table 3) involved in analyzing, reporting, and making decisions that result in a negative outcome for an organization as a whole.

Table 3: Stakeholders

Identifier	Affiliation
Bob	Government
Carol	Contractor
Dave	Government
Former Employee	
Jim	Contractor
Panel Members	Government
Paul	
Steve	News Organization
Sue	Government
Ted	

The outcome is traceable to decision making by a group and/or individuals. Decisions can be interpreted in ethical and moral frames based on the manner in which information was withheld, distorted, and/or fabricated. However, the roles of some individuals involve deciding in the face of a moral dilemma. Thus, the morality of

some actions is not easily discernable as “correct.” The sequence of exercises is designed to follow a series of participant reviews and responses (repeated measures). The series begins by having participants read the case story by themselves. A suite of responsive materials will be designed to meet requirements for data collection in two broad areas: the moral positioning frame and the ethical positioning frame. The set of data gathering requirements are described next.

Moral behavior positioning requirements

A set of questions that relate to the decisions of the stakeholders were composed. A sample of these is attached in Tables A2-1 and A2-2. Associated with each decision question is a set of evaluation categories pertaining to moral, ethical, individual, and collective judgments. A questionnaire will be designed that is suitable for having participants indicate their responses to each question.

Ethical principles positioning requirements

In addition, a set of statements were composed that reflect ethical or moral principles couched in terms of stakeholder behaviors or decisions. Participants

would be asked to estimate how their grandparents would respond in one session. In a subsequent session participants would be asked to summarize in a free writing exercise the facts of the case story. They would then be asked to estimate how their parents would respond. The narrative responses would be rated by a software program in terms of factual coverage of the facts in the story (similar to what was done in [24]). Using the ratings, the instructor would lead an oral review of the facts of the story and present the range of scores to the participants (anonymously). Following the review participants would indicate their own personal take on the statements. The final exercise would involve groups of participants with at least five members (always an odd number). Each group would review and discuss each statement and then choose a group response that reflects the majority position of group members.

CONCLUSION

The purpose of this research is to design and illustrate frameworks addressing moral and ethical systems of shared values. We seek to develop shareable descriptive techniques for determining, representing and analyzing ethical principles and moral action choices that can be used to promote the education and self-awareness of students in the ethical domain. Through this paper we have shared (revealed) the anatomy of a research design process intended to help graduate students identify the pitfalls, challenges, and refinement aspects of developing a research project that addresses a complex social-technical arena.

The pilot study demonstrated that it is feasible to use relatively simple rank ordering exercises to reveal positions that a group of participants share as individuals or as a collective in a constrained spectrum of possibilities. The results reveal that individuals may hold one view about their own moral principles (Eudaimonism), but take action using a different set of moral principles (Deontologism).

The nature of behavioral choices with respect to social-cultural frames is multi-dimensional and complex. The multi-dimensionality occludes comprehension, and modeling, of the relationships between cultural dimensions, ancestry, and ethical/moral positions. What we are proposing is a way of visualizing and modeling these frames, by exploiting available tools and techniques, to enable a better understanding of social-cultural dimensions, ethical principles, moral grammars, and how these are linked to behavioral action choices. We have proposed a set of research requirements for data collection, and an administration strategy, that makes the study of ethical principles and moral choices a natural part of

courses that likely already have modules related to these topics.

REFERENCES

1. Argyris, C. (1999). *On organizational learning*, 2nd ed. Oxford: Blackwell.
2. Argyris, C. and Schon, D.A. (1978). *Organizational Learning: A theory of action perspective*. Reading, MA: Addison-Wesley.
3. Chappell, T. (1993). *The soul of a business: Managing for profit and the common good*. New York: Bantam Books.
4. Dagsvik, John K., and Liu, Gang. (2006). *A Framework for Analyzing Rank Ordered Panel Data with Application to Automobile Demand*. Discussion Papers No. 480, October, 2006. Statistics Norway, Research Department, pp. 1-20.
5. Fairhurst, G. T. & Sarr, R. A. (1996). *The art of framing: Managing the language of leadership*. San Francisco: Jossey-Bass.
6. Frankena, W. K. (1963). *Ethics*. Englewood Cliffs, NJ: Prentice-Hall.
7. Geertz, C. (1973). *The interpretation of cultures*. New York: Basic Books.
8. Georges, T. M. (2003). *Digital soul: Intelligent machines and human values*. Boulder, CO: Westview Press.
9. Gladwell, M. (2008). *Outliers: The story of success*. New York: Little, Brown.
10. Goffman, E. (1974). *Frame analysis: An essay on the organization of experience*. Cambridge: Harvard University Press.
11. Green, R. M. (1994). *The ethical manager: A new method for business ethics*. New York: Macmillan College Publishing.
12. Hall, E. T. (1981). *Beyond culture*. New York: Anchor Books Random House.
13. Hauser, M. D. (2006). *Moral minds: The nature of right and wrong*. New York; HarperCollins.
14. Hofstede, G. & Hofstede, G. J. (2005). *Cultures and organizations: Software of the mind*. New York: McGraw-Hill.
15. Hooker, J. (2003). *Working across cultures*. Stanford, CA: Stanford University Press.
16. Kant, I. (1959). *Foundations of the Metaphysics of Morals*. Indianapolis, IN: Bobbs-Merrill.
17. Lakoff, G. (2002). *Moral politics: How liberals and conservatives think*, 2nd ed. Chicago and London: University of Chicago Press.
18. Mason, R. O., Mason, F. M. & Culan, M. J.. (1995). *Ethics of information management*. Thousand Oakes, CA: Sage.
19. MacIntyre, A. (1984). *After virtue: A study in moral theory*, 2nd ed. Notre Dame, IN: University of Notre Dame Press.
20. Marakas, George M. (2006). *Systems Analysis and Design – an active approach*, 2nd. New York: McGraw Hill/Irwin.
21. Mill, J. S. (1957). *Utilitarianism*. Indianapolis, IN: Bobbs-Merrill. (Originally published 1861).
22. Norman, D. A. (1988). *The design of everyday things*. New York: Currency Doubleday.
23. Rosenstand, N. (2006). *The moral of the story: An introduction to ethics*. Boston: McGraw-Hill.
24. Schuyler, S. T. (2008a). *Using Problem Formulation Ability to predict Student Performance in a First Course in Computer Programming*. Doctoral Dissertation, Robert Morris University.
25. Schuyler, S. T. (2008b). The Role of Learning Technique on student performance in CS1 courses. *Issues in information Systems*, IX (1): 60-67.
26. Senge, P. M. (1990). *The fifth discipline: The art and practice of the learning organization*. New York: Currency Doubleday.
27. Shirk, E. (1965). *The ethical dimension: An approach to the philosophy of values and valuing*. New York: Meredith.
28. Skovira, R. J. (2004). Using informational landscape as a model to understand information use and design within organizations. *Issues in information Systems*, V(1): 308-314.
29. Skovira, R. J. (2003). *The social contract revised: Obligation and responsibility in the information society*. In Azari, R. (Ed.), Current security management and ethical issues of information technology. Hershey, PA: IRM Press.
30. Solomon, R. C. (1992a). *Ethics and excellence: Cooperation and integrity in business*. New York & Oxford: Oxford University Press.
31. Solomon, R. C. (1992b). *Morality and the good life*, 2nd Ed. New York: McGraw-Hill.
32. Solomon, R. C. (1997). *It's good business: Ethics and free enterprise for the new millennium*. Lanham, MD: Rowman and Littlefield.
33. Spradley, J. P. (1980). *Participant observation*. New York: Wadsworth Thomson Learning.
34. Szasz, T. S. (1974). *The myth of mental illness: Foundations of a theory of personal conduct*. New York: Harper & Row.
35. Trompenaars, F. (1994). *Riding the waves of culture: Understanding diversity in global business*. London: The Economist Books.
36. Walton, C. C. (1988). *The moral manager*. New York: Ballinger Harper & Row.
37. Wiener, N. (1954). *The human use of human beings: Cybernetics and society*. London: Free Association Books.

38. Williams, B. (1972). *Morality: An introduction to ethics*. New York: Harper Torchbooks Harper & Row.
39. Williams, O. F. (Ed). (2000). *Global codes of conduct: An idea whose time has come*. Notre Dame, IN: University of Notre Dame Press.

Attachment A: Clarification of Ethical and Moral Statement Definitions with associated identifiers

Statements of Principle

- D: Deontologism: a rule of "good" intention to act which is universalized as a moral obligation.
- U: Utilitarianism: avoidance of pain and suffering, or attainment of pleasure from "good" results (consequences) certifies an act as moral, for self or others.
- E: Eudaimonism: acting habitually virtuously, or with excellence, and moderately, is acting morally.

Statements on moral behavior reflecting principles

- D = Hard work always pays off: EffortComesFirst
There is a tacit rule at play here: It is a good thing to work (working at a job is what life is about) and to earn your pay (or keep). It also says that it is the effort put to the task that counts. It is about process, or the journey, and its quality. Hard work is a universalizable rule.
- U = Winning is everything. Results are what count:
ResultsComeFirst
This is not about the process, playing the game for the game's sake, or sportsmanship. Worth is to be had in favorable results. The end justifies the means. The pleasure of the consequences outweighs any "pain".
- E = Playing well is more important than winning:
QualityInActionFirst
It is the doing of the activity consciously and excellently, to the "best" of one's ability, that counts. And, the player is a "good" player, plays according to his or her strengths (virtues) required for the "game".
- E = Doing a good job is reward enough:
QualityInResultFirst
The emphasis here is on *good* job; doing one's best (an excellence or virtue) and this sense of excellence is happiness.
- U = Everyone is out for his- or herself:
SelfComesFirst
Altruism is not a virtue. Survival of the fittest is. An egoistical version of the greater good results. Good results for me makes my acts good. Close to getting "merit" for behavior that accomplishes tasks.

- D = Respect others: OthersComeFirst
A rule followed which creates or continues a universalized rule of empathy for others, no matter who they are or what they do. This rule follows the idea that other people represent "ends" in themselves.
- D = Friends should always help each other:
FriendsComeFirst
A rule followed which creates or continues a universalized rule of empathy for others, although it matters who they are and not necessarily what they do. This rule follows the idea that other people, especially "friends", represent "ends" in themselves.
- U = Life is pain and suffering: EndureForReward
An idea that provides a basis for striving for pleasure in all things, because there is suffering or effort required to achieve any end.
- U = Life is good, enjoy it: PleasureComesFirst
An idea that enjoins a person to embrace the pleasures of the act, and the moment.
- D = Help strangers: StrangersComeFirst
A rule based on universalizing empathy for others, even those outside of the immediate social group, which makes this a good thing to do.
- E = Be careful, things are dangerous:
CautionComesFirst
The virtue of prudence applied to all situations and actions, because of unknown possible circumstances, results and consequences.
- E = A life lived well has its own reward:
QualityInLivingFirst
Doing things in an excellent manner always creates a sense of well being or happiness.

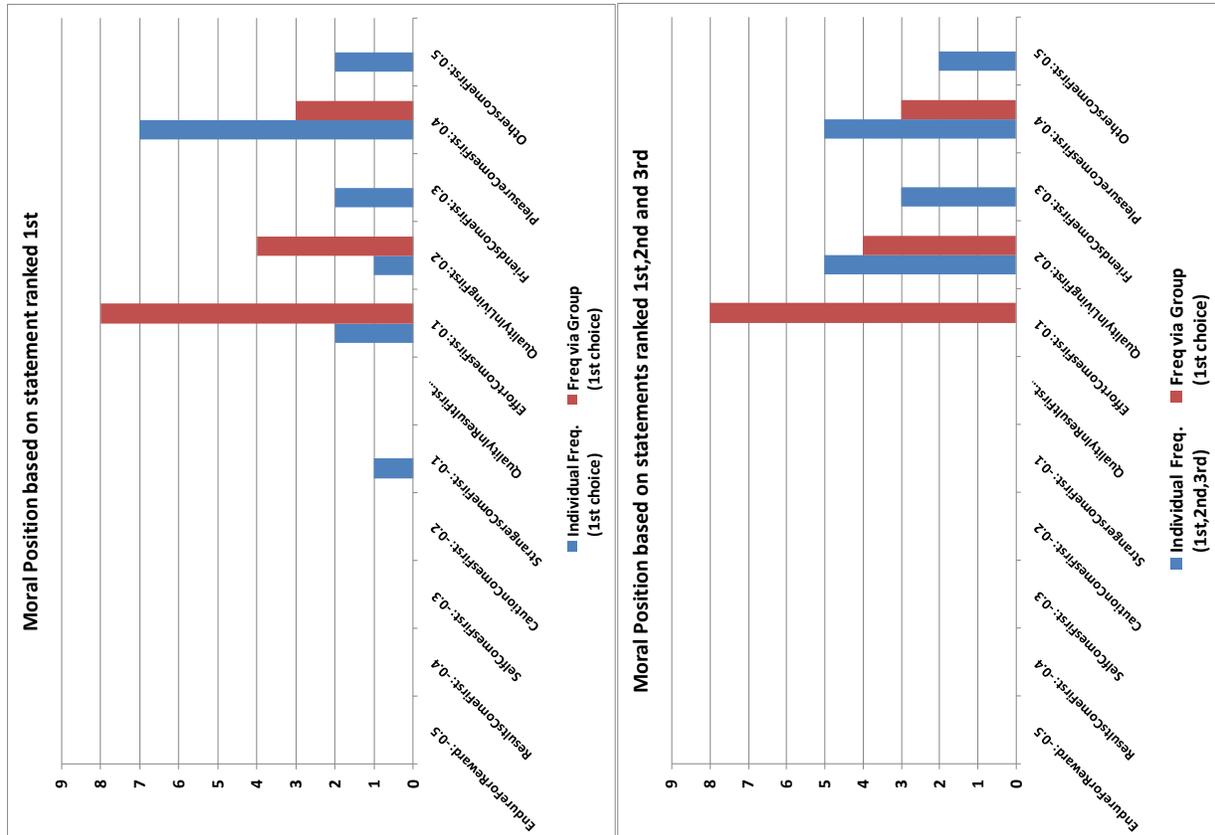
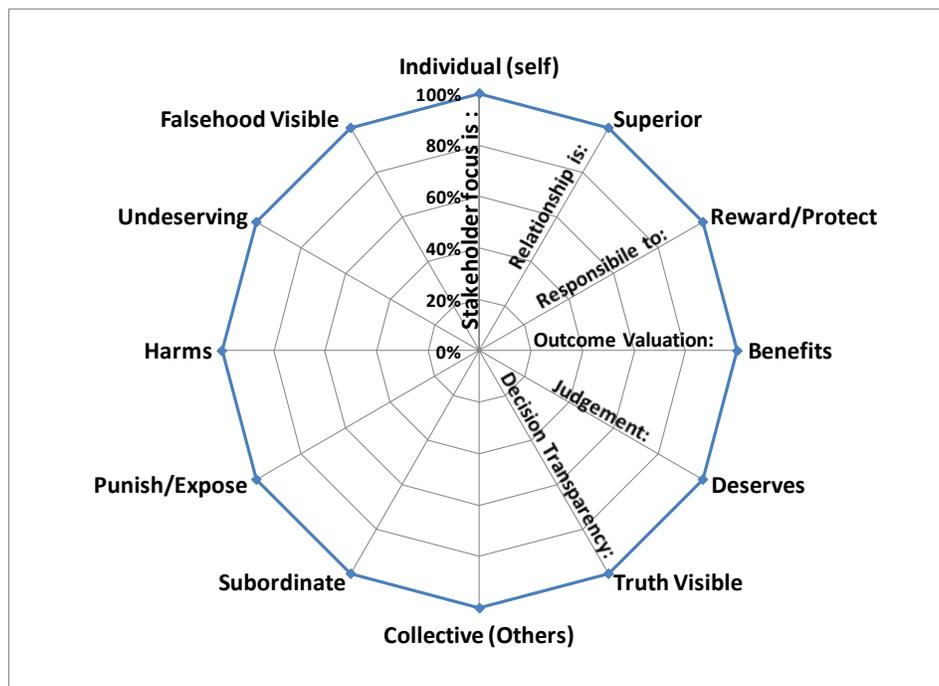


Figure A1 (left): Moral Position of Individuals and Groups on 1st Ranked Statement
 Figure A2: (right): Moral Position of Individuals and Groups on 1st three Ranked Statements



Dimension	Axis Endpoints			Brief Description
	One End	Inter-section	Other end	
Stakeholder Focus is:	Individual /Self (the Decider)	Both	Other(s)/ Collective (not the decider)	This dimension identifies the individual(s) (stakeholder(s) who experience an outcome from a decision (those affected by the decision made by the decider). However, there can be an impact on the decision maker from the responses (anticipated and precipitated decisions) of the stakeholder(s) whom are affected. Therefore, both ends of the axis need to be considered in parallel.
Relationship to is:	Sub-ordinate	Peer/Self	Superior	Role relationship of decision maker toward stakeholder(s) impacted.
Responsibility is to:	Punish/ Expose	Neutral	Reward/ Protect	This dimension indicates the role relationship (or stance) the decision maker holds with respect to the stakeholder(s) impacted by the decision.
Outcome Valuation for:	Harm	Benign	Benefit	This dimension addresses the valuation of a decision on the stakeholder(s) affected by the decision maker.
Judgment of is:	Un-deserving	Impartial	Deserves	This dimension characterizes the evaluation of the decision maker on the stakeholder(s) who are impacted by a decision.
Decision Transparency is:	Visible is False	Opaque (withheld, hidden)	Visible is True	This dimension indicates the choices a decision maker has regarding revealing their decision basis, views, and/or decider role to the stakeholder(s) regarding their judgment, suspicion, fact, or imagination. Stated another way: is the decision process and basis confidential, fabricated, or forthright?

Table A2-1: Ethical/Moral Question Response Requirements – Part 1

Sample of questions regarding decisions stakeholders made as reported in the case story	Moral Culpability			Impact on Outcome			Ethical Principle Basis		
	Morally correct	Amoral (not a moral issue)	Immoral	Practical (effective for goal)	Had no impact on outcome	Impractical (caused failure)	Ethical	Nothing to do with Ethics	Unethical
Bob's decision to rebuff Ted's input was?									
Bob's decision to suggest Ted resign was?									
Bob's decision to rebuff Dave's input was?									
Bob's decision to accept Jim's contract bid was?									
Jim's decision to accept the governments financial boundaries was?									
Jim's decision to ignore Carol's cost assessment was?									

** and additional questions to cover each stakeholder ...

Table A2-2: Moral Question Response Requirements – Part 2

Sample of questions regarding decisions stakeholders made as reported in the case story	Being true to self	Not a personal issue	Compromised his/her integrity	Being a team player.	Nothing to do with Teaming	Not being a team player	Due to his/her incompetence	Not a competency issue	Due to his/her competence
Bob's decision to rebuff Ted's input was?									
Bob's decision to suggest Ted resign was?									
Bob's decision to rebuff Dave's input was?									
Bob's decision to accept Jim's contract bid was?									
Jim's decision to accept the governments financial boundaries was?									
Jim's decision to ignore Carol's cost assessment was?									

** and additional questions to cover each stakeholder ...

Table A3: Cultural Ethical Principles Requirements (sample of) – not shown: self rating columns

The statements below are composed to couch ethical principles and/or moral codes related to a specific case story. The intent is to design them to allow the multidimensional representation in Figure 3A to be produced: one for each generation of influence in a participant's family.

	My rating of how my grandparents might answer					My rating of how my parents might answer				
	Not at all like them	some what unlike them	Neither like or unlike them	Some what like them	Exactly like them	Not at all like my parents	some what unlike parents	Neither like or unlike parents	Some what like my parents	Exactly like my parents
My view is that subordinates are to find a way to support the lead of their superior, so it was reasonable for Bob to get tough with Ted and Dave. Ted and Dave should have used their talent to propose changes that would enable Jim's position to work.										
My view is that subordinates are to find a way to support the lead of their superior, so it was reasonable for Ted and Dave to challenge Bob. Bob should have used Ted's and Dave's concerns to challenge Jim.										
My view is that every individual must be true to themselves and their personal values, so Ted had to confront Bob.										
My view is that every individual must be true to themselves and their personal values; however, if the other person is not open to input, it is better to withhold the point of view.										

** and additional statements to cover each dimension ...