

An Organizational Construction Ethics Maturity Model: The Integration of Process and Normative Values

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There remains persistent evidence that construction ethics needs significant improvement; however, the evidence also reveals that a code of ethics alone does little to elicit ethical behavior from corporate officers and employees. This paper establishes that normative construction ethics are a complex interaction of history, individuals, ethical theory, groups, externals, and situations, formed iteratively by culture, professional organizations, institutions, businesses, and individuals. To overcome an inertia of inattention found in the construction culture, this study proposes a Construction Ethics Maturity Model (CEM²) for use in establishing a quality control initiative in construction organizations that can comeingle appropriate normative values with organizational decision-making. The proposed ideas are presented and evaluated using both a rich review of research in the fields of philosophy, business ethics, maturity models, and quality control, and a brief case study.

Keywords: construction ethics, maturity models, quality control, applied ethics, business ethics

Definitions

In this paper, the authors will use the following terminology, which is consistent with that generally found in the philosophy literature. The authors respectfully request that readers note how common language uses these terms in a manner different than that found in the technical language of philosophy.

- Values-those notions about ideas, customs, things, or acts considered to be preferred, liked, good, important, excellent, ethical, or moral, as well as their opposites (unimportant, disliked, bad, etc.). This paper does not attempt to define construction values; it only argues for their inclusion in organizational decision making.
- Ethics-customs, ideas, or acts that can be described as excellent, good, moral, or virtuous.
- Morals-often synonymous with ethics, herein used as defined by Aristotle: excellent (the highest) virtues, customs, codes, ideas, or acts of individuals or groups, often (but not necessarily) based in religion.
- Normative-widely accepted or established as a minimum standard or a rule of conduct; a norm.
- Ethicology-the study and categorization of values, and judgements related to values, including how and why values are important, preferred, liked, good, ethical, or moral.

Introduction

When the public thinks of corporate corruption, Enron, WorldCom, Lehman Brothers, and perhaps Wells Fargo spring to mind. Darkly questionable behavior on the part of these corporate players resulted from pressure for higher financial returns (Paine, 2003), from management dominated by the "bottom line", and from institutional norms and firms' reward systems (Kish-Gephart, Harrison, & Trevino, 2010). In the construction literature, we find similar behavior, like "pay-to-play" practices (ENR, 2005), a general lack of ethical leadership (Bishop, 2005), or a general failure to implement a corporate code of ethical conduct (Parsons, 2005), among others.

In response, legislators typically pass laws to discourage malfeasance (Kwak, Cheng, & Ni, 2012); and regulators take a similar approach to deal with poor industry practice. Within the business community, including the construction community, there is no doubt of the desire for an ethical and values-based work environment. However, the use of an organizational code of ethics meets with very mixed success in the general business community, where many companies using a code of ethics find no significant change in personnel behavior. (Cleek & Sherry, 1998) A study done by Jackson (2005) shows that 2/3 of construction companies do not have a code of ethics, and those with a code of ethics showed no significant effects in personnel behavior. Slattery (2006) found that construction companies generally believe in ethics, believe that their personnel believes in ethics, and seek guidance to implement codes of ethics, but are generally skeptical about their success because of economic and market forces.

These approaches are not wrong, per se, but incomplete; rather, it is important that a *climate of ethicality* permeate each firm and association, an environment where individuals can volitionally act in an ethical and positive manner. The authors agree with Audi (2012) and Trevino (1986), that the key to this shift is to allow normative ethics to inform construction managers about how to attain that ideal climate. The most distinctive and salient point about morality, among all virtues, is that morals are excellent, the highest, values. They distinctively define what is singular and normative. Be it a means or an ends motivation, or a basis in rational virtues, or some post-modern reason to act, morals cannot be viewed as merely a topic of the religious (Trevino, 1986).

There is a need, therefore, to offer the construction community a model that Hoffman (2006) calls a "pragmatic postmodern approach to ethics." Audi (2012) proposes just such an approach be adopted by organizations to the benefit of a broad group of stakeholders, including owners, customers, sub-contractors, and employees, because it offers that much needed "compromise between the very abstract, ambiguous principles [of postmodernism] and the more concrete, overly-simplistic ethics code [of modernism]"

This work proposes to augment the construction ethics literature by comingling the normative values surrounding ethical decision-making with organizational decision making. The premise of this presentation is that the current foundation for construction ethics is based largely and disproportionately on the amoral aspects of both modernist and postmodernist ideals, and would benefit from a broadened basis in normative values. In the following paragraphs, we propose integrating construction ethical values with a continuous improvement device known as a maturity model, to create a values-based Ethical Maturity Model (EM²) applicable to the construction industry.

Strategic Integration of Normative Values

Construction Values

This research originally began with a literature review of both construction ethics and ethical philosophy, including a broad reading of various philosophical classics such as Plato, Spinoza, Kant, and Nietzsche, with the purpose of understanding and describing the historical causes and effects on the formation of construction ethics. The fruition of that work is presented in Table 1. Drawing from the work of both McDevitt, et al. (2007) and Stead, et al. (1990), among others, Table 1 proposes these influences on Construction Values: Construction History, Group Dynamics, Individual Dynamics, External, Applied Ethics, and Construction Situations. The cause and effect breakdown in Table 1 provides insight to the development of Construction Values, thus informing further research and work on how to effect change in construction values and ethics.

Construction History. The construction industry is nearly as old as the history of human civilization. That history brings a rich tradition in the formation of today's construction stakeholders, organizations, and labor practices, especially notable are the remnants of the guilds, the master craftsman, and the master builder in today's trades.

Group and Individual Dynamics. A great deal of research and thought exists about how and why individuals and groups make ethical decisions. Their influence on social values' changes should not be overlooked, and is the topic of study typically found in sociology. Individuals are the agents of change within society, and organizations and groups are the agencies of change (used by individuals). So change requires both groups and individuals working together. When it happens, synthesis of ideas in practical application occurs (Harper & Leicht, 2011).

Externals. The context of decision-making strongly influences values within the construction industry. These influences include the construction culture, economics, laws and codes, and the environment. In particular, the authors found unique normative values in the construction culture, in construction laws, and in construction codes.

Applied Ethics. Applied ethics is the use of philosophy in praxis, including such topics as business ethics, professional ethics, and labor ethics (Cohen, 1999). This part of Table 1 includes the historical analysis on the influences of human values, usually said to begin in the pre-Socratic era of Ancient Greece, but Socrates and Plato are considered the fathers of modern ethical thought. Their philosophical ideas, along with others, bloomed quickly for about a millennium, from 500BC to 500AD, and then died for another millennium, re-blooming again circa 1500 AD. This later period is dominated by European thinkers, such as Kant (1724-1804), among many others, who extended the rational modern ideas of the ancient Greeks. Followed shortly thereafter (1800s) by the profound influence of post-modernists, such as Nietzsche.

Table 1.

Cause of and effect on construction values

Construction Values					
Construction History	Group Dynamics	Individual Dynamics	Externals	Applied Ethics	Construction Situations
• Guild formation • The Master Craftsman • The Master Builder	• Leadership • Values • Development	• Personality • Values • Experiences • Training	• Construction Law and Codes • Environment • Construction Culture • Economics	• Labor Ethics • Normative Ethics and Values • Metaethics • Professional Ethics • Business Ethics	• Construction Contracts • Construction Laborers • Stakeholders • Health/Safety

Construction Situations. Situations are where the application of ethical theory and practical thought are brought to bear on problem solving and ethical conflicts. In the construction industry, there are several potential ethical conflicts created among the various parties involved, including bid processes, legal agreements, time management, worker effectiveness (Cohen, 1999), quality control, environmental management, and project conclusion processes (Mirsky & Schaufelberger, 2015). These conflicts, myriad and complex, require the application of diverse practical theory to reach creative and workable solutions.

Of all the influences (Table 1) on construction values, the authors found that applied ethics, particularly normative values, appears lacking in construction's ethical decision-making literature. One reason for this could be the misperception that ethicology is too complicated, too old or ancient, or too difficult to implement. Or it could be that applied ethics, normative ethics, and morals, are considered irrelevant, as a mere "Sunday school subject" (Trevino, 1986).

Influences on the Formation of Construction Values

Using the causes and effects of normative values given in Table 1, this research next set out, through a literature review, to determine the processes for development of values in society. What we found is summarized in Figure 1.

Values. Figure 1 illustrates the Dynamics of Values. First, since values are human constructs, we establish the entry point into Figure 1 is through Individual Values processes (at left), regardless of a person beliefs in the supernatural or not, values are meaningless without individual humans, so we start there. Second, values distinguish "good" from "bad" (as defined above); but in this context, we emphasize good, excellent, and normative values. Third, accepting the well-established idea that the source of values has deep meta-ethical considerations, nevertheless this paper posits that values formation follows a systematic process, regardless of their meta-ethical source. In Figure 1, this paper proposes the formalization of the values formation process in an express-create-analyze-correct loop. Fourth, Figure 1 explicitly distinguishes four major values systems in society: individual values, normative values, professional values, and organizational (group) values.

Values formation. Values formation is the process of determining values, creating awareness for them, and correcting or changing values. Figure 1 contains four "values formation" processes, one for each of the four value systems. Within each values formation system are four sub-systems (slightly different for each sub-system): the organizational unit (please note that the organization unit for the individual is the individual), including as inputs: values conflicts and values corrections, and as outputs: expressed values and normative behavior; the create values process; the analyze and choose values process; and the correct values process. (Within the organization value system, the values formation loop is akin to Deming's plan-do-check-act (PDCA) quality control loop, making values relatively easy to integrate into quality control.)

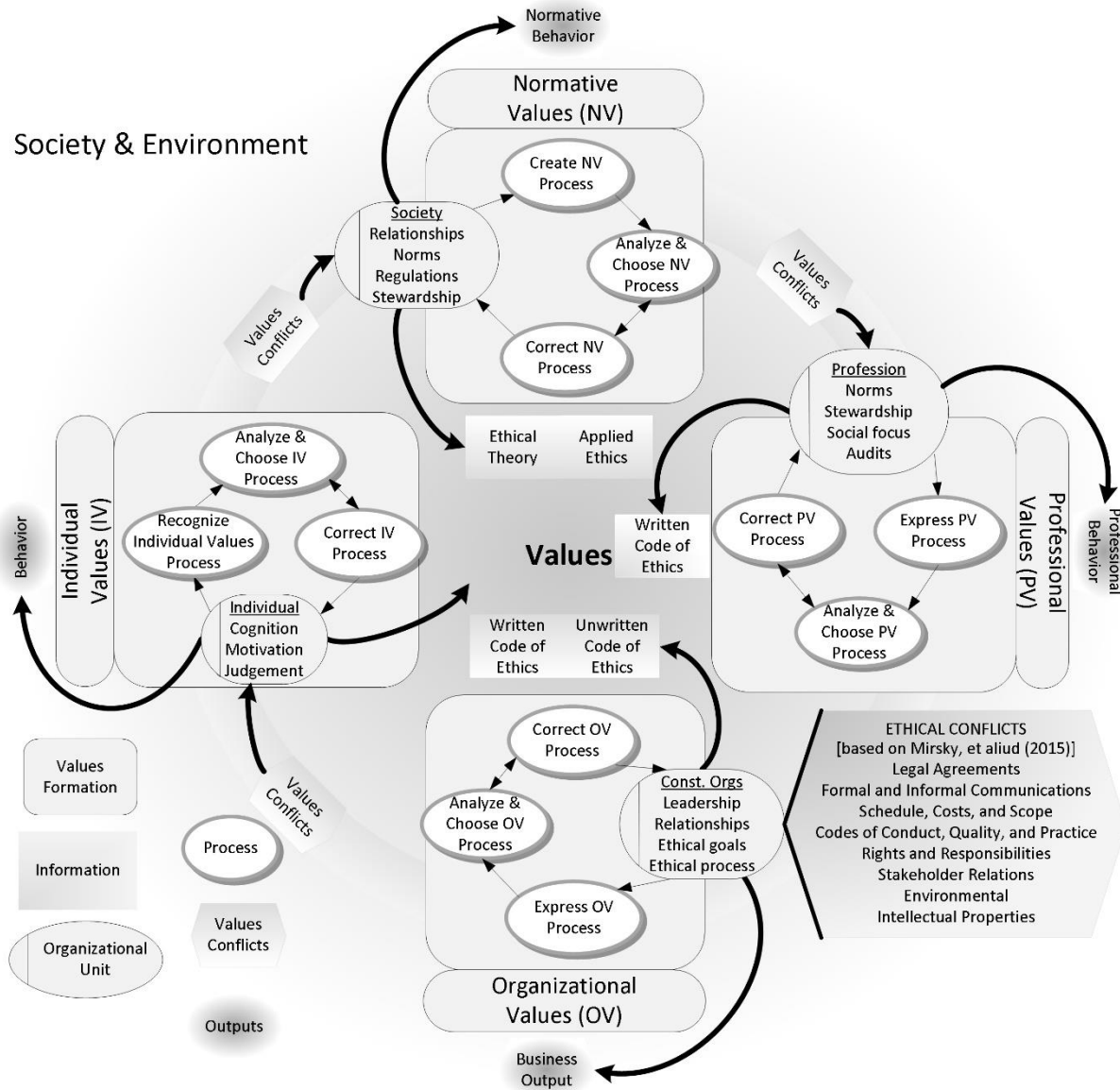


Figure 1. The Dynamics of Values.

Individual values. Individual values are unique to each and every person. These values develop over a lifetime of personal experiences that effect maturity, motivation, judgement, and cognition. In the area of maturity and cognition, ethical values are especially relevant since the ability to make an ethical decision is directly influenced by the ethical cognition and maturity of each individual, known as Rest's Four Component Model (Rest, 1986).

Normative values. These are norms created by society. These values typically establish norms between relationships of individuals-to-individuals, individuals-to-groups, groups-to-groups, and individuals/groups-to-environment. This values formation system establishes normative behavior and creates ethical theory and applied ethics for society.

Professional values. These norms are created by professional groups, such as construction managers, architects, engineers, etc., as well as laborers and labor unions. These values again establish norms among these groups, with society, and with the environment, and establish professional behavior and create professional codes of ethics.

Organizational values. Organizational values (including group values) stand on a tripod between normative values of society, professional values, and individual values. Like individual values, organizational values are unique to each company, but like professional values, the organization has a responsibility to society-at-large to embrace both professional values and many normative values of society (Bishop, 2005). This paper proposes, in the following section, the formalization of the ethics values formation process in construction organizations. Although organizational values represent construction organizations in this model, organizational values also represent any organized group, association, or institution, formal or informal.

Values conflicts. It is the nature of values that they conflict, be it intrapersonal conflicts, interpersonal conflicts, or intergroup conflicts. The four hexagons in Figure 1 represent these value conflicts as a major input into each of the four values formation processes, and partially explains why values are a major issue within the construction industry. Near the bottom right of Figure 1 is a values conflict hexagon filled with a list of "Ethical Conflicts" common to the construction industry, summarized from the work of Mirsky & Schaufelberger (2015).

Ethics Maturity Model

Next, we hone in on the formation of organizational values, at the bottom of Figure 1. We assume that ethical practice is a critical component of all construction organizations and that ethical maturity is important to long-term viability as well. With that in mind, this research resolutely looked to the literature once again for organizational processes that lend themselves to values formation, finding applications in the risk management maturity literature. We contend, and indeed found in the literature, that even as firms mature in their approach to risk management, so too can they mature in their ethical policies, procedures, and management. Ethically mature firms will be characterized by an ethical climate compatible with the ideals of normative ethics. We next present the results of the integration of our ideas with what we found in the literature review.

This paper proposes the use of an ethics maturity model as a tool for the OV formation process, bottom center of Figure 1. Originally called "A Stage Hypothesis," maturity models were first proposed by Nolan (1973) as a quality control tool. Since that time, many maturity models exist from information security, to project management, to learning, and in each case the intended use is quality control and improvement. A simple search of "maturity models" in Wikipedia shows the widespread usefulness of this tool, as dozens of models are being used in no less than 20 different content areas. In Table 2, we propose a maturity model consistent with those that others have proposed to monitor quality control. In this case, the authors propose the inclusion of construction's normative ethics in the quality control loop by creating qualitative levels of organizational maturity, including ethical maturity, from infancy to full development.

TIIA (The Institute of Internal Auditors, 2013) published their Ethics Maturity Model (EM²) containing 5 levels of maturity (Initial, Repeatable, Defined, Mature, and World Class) and 6 attributes (Code of Ethics, Culture and Consistency, Awareness, Structure and Accountability, Process Automation and Integration, and Goals and Metrics). Their model focuses upon the processes needed to generally implement a maturity model, but again fails to explicitly include normative values.

In the creation of Table 2, this paper's authors conducted a comparative evaluation of TIIA's (2013) EM² material, the works of Trevino (1986) and COBIT (2007), the material presented earlier in Table 1 and Figure 1, as well as the work of Schwantz (2005). The result is the proposed Construction Ethics Maturity Model (CEM²) in Table 2.

Toward a Construction Ethics Maturity Model (CEM²)

This work proposes the use of the CEM² in Table 2 consistent with its progenitor's, Nolan (1973), motivation to create a tool that provides a framework for organizations to move forward in the management of organizational change. Benefits for using maturity models include "setting direction, prioritizing actions, and beginning cultural change..." plus it has the ability to provide a basis of comparison of maturity across organizational boundaries, including among construction organizations (Backlund, Chronéer, & Sundqvist, 2014).

Table 2.

A proposed construction ethics maturity model

[based largely on Trevino (1986), The Institute of Internal Auditors (2013), and COBIT (2007)]

Construction Ethics Maturity Model (CEM²) Attributes and Descriptions					
Maturity Levels	Leadership & Structure	Reinforcement & Consequences	Performance	Code of Ethics	Construction's Normative Values
Level 4 Optimal	Control is effective, continuous, and enterprise-wide. Employee involvement in improvement.	Evaluation, feedback, communication, and enforcement is continuous, not periodic.	Employee and corporate feedback are continuous, including findings on goals and compliance.	Employees' feedback used to assess understanding and perception, and modify process.	Resolution, compliance, and norms undergo continuous evaluation and improvement.
Level 3 Managed with metrics	Effective control exists in the organization. Detailed procedures are integral to policies and procedures.	Detailed procedures, including rewards and consequences, are well known. Annual training is required.	Annual goals and metrics are published and specific. Whistleblowing is encouraged and protected.	Code is up-to-date, key issues are detailed and evaluated annually based on goals.	Defined conflict resolution, compliance and norms have detailed metrics based on company culture.
Level 2 Defined	Senior management sets agenda of ethics policy, including support, monitoring, and accountability.	Ethical conduct is part of job descriptions and taken seriously. Widespread cognizance.	Broad, unspecific goals and metrics exist. Whistleblowers are protected.	Code is comprehensive up-to-date, easy to understand, and read annually.	Written code includes resolution, compliance, and norms: trustworthy, responsible, fairness, caring, citizenship.
Level 1 Known but Intuitive	Only legal considerations of conduct. The ethics officer responsibility is loosely defined.	Discretion of enforcement is left to low management; folks are generally incognizant.	Goals and metrics are unwritten but legal compliance is seen as most important.	Code exists, but it's not comprehensive, not current, or difficult to comprehend	Known norms include honesty and compliance. Corporate recognition of values conflicts.
Level 0 Initial/Adhoc	No leadership, no structure	No awareness, no cognizance.	No metrics or goals, lax compliance.	No code	Norms & purposes are unclear.

The left column of Table 2 contains a standard 5-level form found in most maturity models, with Level 0 containing the least mature descriptions and Level 4 containing the highest maturity descriptions. The top row of the table contains the attributes proposed by this paper for construction ethics maturity, coming from the authors' reading of TIIA's (2013) EM², Trevino (1986), and COBIT (2007), among others. The maturity descriptions in the cells of the table's body are proposed by this paper, and often originate from Table 1 and Figure 1, and from the various sources listed throughout this paper. Table 2 descriptions include legal compliance issues that are strongly related to ethics, but what is unique about the descriptions, is the inclusion of construction's normative values (the right-most column) for implementing and monitoring ethics. With the inclusion of normative values, the model combines both rational and post-modern characteristics, allowing for a contingency approach for use in the broadest range of organizations.

Example of CEM² Implementation

The Proposed Construction Ethics Maturity Model can be used by upper management to diagnose and monitor the ethical health of the construction firm, or by lower management to monitor the health of a part of the firm. Such analysis yields positive benefits in terms of public perception of corporate social responsibility, brand development, and lower legal liability. The analysis could even become an annual strategic planning tool that metrically indicates tactical plans needing attention.

To accomplish this aim, upper management could assign anchoring weights to each of the attributes (columns) provided (Leadership & Structure, Reinforcement & Consequences, etc). Local management-determined weights provide flexibility that can account for firm size, industry, working contexts, attitudes of regulators, and changes in circumstances. For the levels (rows) we, tentatively, suggest that a weight of "0" (zero) be attached to Level 0 with greater numerical emphasis reserved for the remaining levels. The scores for each attribute can be calculated by multiplying the column weight times the respective level score chosen, and then by adding the scores for each attribute together yields a total CEM² score for the organization.

There is little doubt that Deming's fundamental PDCA cycle, when embedded within the organization, improves organizational quality control, including implementation with other contemporary applications, such as a maturity matrix (Sokovic, Pavletic, & Pipan, 2010). The key to implementation of this CEM² is for the organization to first choose the level of maturity desired, based upon appropriate market and economic factors, not simply for the sake of reaching a higher level of maturity, but to truly improve ethical behavior (Backlund, Chron  r, & Sundqvist, 2014).

Consider a somewhat familiar case typically found in the literature [for example Mirsky & Schaufelberger (2015)] where a lower level employee is asked to falsify the records on the orders of an upper level employee to hide some accident record or possibly some environmental violation. Using the CEM², upper management could emphasize the value of veracity in accident and environmental reports, evaluate the organization's environmental performance, and analyze the level of maturity, on the "Adhoc" to "Optimal" scale, actually demonstrated by the organization. That analysis then becomes feedback in the PDCA cycle to develop tactical plans to raise maturity in the future.

Conclusion

The need for improvement of ethics within the construction community is not unique to this industry alone; as presented in this paper, the business ethics literature is replete with examples. The literature also establishes that the mere existence of a corporate code of ethics does not in-and-of itself create a sufficient ethical corporate culture. We generally established that the reasons for this failure is a tendency to minimize the importance of normative values because of economic and market forces. In addition, there is a danger that the inclusion of explicit values within a code of ethics will be seen on the one extreme as intrusive, or on the other extreme as merely a "Sunday school subject." The danger is that without explicit normative values, employees and officers are left to their individual

imaginations. The danger of intruding values can be avoided by encouraging involvement of all employees in the creation, use, and implementation of the maturity model, which takes on a postmodern, non-intrusive and democratic feel, even within the construct of an organizational structure.

Toward that end, we presented the CEM² that can incorporate both broad construction-industry normative values and/or the normative values unique to each construction organization. Although this work does not provide a comprehensive suggestion of the normative values to use in the CEM², those values can be readily found in the literature, for example, the work of Mirsky and Schaufelberger (2015). The example provided demonstrates the relative ease of implementing a model into existing quality control efforts, such as Deming's PDCA quality loop.

The implications of this work is that further work is needed to research, improve, and evolve the processes that form organizational construction values. Research is needed to establish the validity of construction's normative values, construction ethics maturity models, and construction ethics processes and their improvement.

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