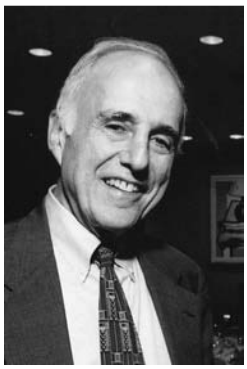
What Do We Mean by 'Ethics' in Engineering?

Robert SILMAN
President
Robert Silman Associates,
Structural Engineers
New York, NY, USA
silman@silman.com



Robert Silman has led his structural engineering firm with offices in New York, Washington and Boston for the past 44 years. In addition he has taught "The Philosophy of Technology" at Yale and Columbia Universities. He holds a Bachelor of Arts degree from Cornell University and Bachelor's and Master's degrees in Civil Engineering from New York University.

Summary

This paper will investigate some traditional ethical systems and their relevance to our every day practice of structural engineering. Ethics will be equated to responsibility, as the unprecedented demands of technology require.

Keywords: Ethics, responsibility, technology, philosophy.

1. Introduction

Ethics is a word that we commonly encounter in both our everyday lives and our engineering experience. Therefore we understand that it pervades all aspects of our existence, both personal and professional. We generally understand ethics to mean the inquiry into the reasons for how we ought to act or desire or feel or do.

In many of the professional societies that regulate the practice of engineering, we agree as members to abide by various codes of conduct. Indeed IABSE has produced a statement of Ethical Principles for the Practice of Structural Engineering.[1] This document contains ten articles stating general principles that have been synthesized from an array of ethical practice codes produced by various national organizations. Where do these principles come from and why do we agree to abide by them? Are they relevant to our contemporary world or are they merely holdovers from an earlier period? Why should we live by these rules rather than others or, perhaps, none at all?

In looking at ethical standards that have been established by many of our professional organizations, we can see that some of the principles enunciated really apply to our lives in general while others are more specific to what we do – the practice of engineering. Let us call the first group Personal Ethics and the second, Professional Ethics. While there is not always a clear-cut line between the two, we can make certain distinctions.

2. Personal Ethics

Personal or social ethics has developed from the inception of humans deciding to live communally rather than separately. It is our natural instinct to satisfy our desires simply by taking or using whatever we please without regard for how it might affect others. In other words, we are inherently selfish. We want the most or the best for ourselves. The way we adjust our unbridled desires so that we can coexist with our fellow humans and fellow creatures determines our ethics. Some enter into a contract with their fellows that establishes their duties and rights. For others, contracts are not the essential feature of their ethical direction.

Very briefly in the first part of this paper I would like to outline some of the more influential theories so that the reader may understand that there are some choices in selecting a personal social ethical code. In the second part of the paper, I would extend some of these theories to encompass our professional activities and to examine how they might guide us in our work ethic. Now I am not a philosophy professor and am therefore little qualified to preach in great depth on this subject. However over the past twenty years I have taught a course called The Philosophy of Technology

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