



NCSEA

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Structural Connection

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Your Practice IS Your Ethics!

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All engineers are familiar with the codes and standards that govern their work. For structural engineers, this includes IBC, ASCE/SEI 7, ACI 318, and the AISC *Steel Construction Manual*. Printed editions require a considerable amount of paper – nearly four thousand pages just for these four publications – and additional volumes provide the design criteria for additional materials and situations. Other disciplines of engineering are similar; the amount of relevant technical information is far beyond what any individual could reasonably be expected to memorize. As a result, engineers must refer to such documents on a regular basis, reflecting their importance for engineering practice.

Engineers are also generally familiar with the codes of ethics that industry organizations have promulgated, such as the model one developed by NCSEA and adopted by some of its Member Organizations (<http://www.ncsea.com/about/ethics/>). Consisting of three Fundamental Principles, seven Fundamental Tenants, and associated Guidelines to Practice, it can be printed on a total of just three pages; perhaps it would be reasonable to expect engineers to memorize it – if not in its entirety, then at least its primary elements. However, it is doubtful that very many of us have taken this step; in fact, it seems unlikely that very many of us even feel the need to refer to the code of ethics on a regular basis. Does this reflect its (un)importance for engineering practice?

The eyes of a lot of engineers probably glaze over when they read or hear the words, "engineering ethics." Many jurisdictions require a certain amount of continuing education in ethics for every license renewal, and anecdotal evidence suggests that many engineers find this to be annoying, tiresome, and a waste of time and money. Perhaps at least part of the problem is confusion about what is meant by engineering ethics – is it simply a set of rules to follow or a group of behaviors to avoid, over and above the technical aspects of the profession? Or could there be more to it than that?

As the title of this article indicates – and as faithful readers of my many "InFocus" columns for *STRUCTURE* magazine over the years already know – I advocate treating ethics as something that is *integral* to practice, not supplemental to it. Rather than prescribing a code of ethics, this approach – known as "virtue ethics" – involves identifying and focusing on certain key characteristics of engineering itself:

- Its social aspect, by which it constitutes a combined human performance.
- Its proper purpose, which is the material well-being of all people.
- Its societal role, which is the assessment, management, and communication of risk.
- Its internal goods, which include safety, sustainability, and efficiency.
- Its moral virtues, which include objectivity, care, and honesty.
- Its intellectual virtue, which is its discipline-specific form of practical judgment.

The result is a comprehensive framework – for all of the details, please visit www.VirtuousEngineers.org – that constitutes an aspirational vision of what it looks like for an engineer to practice with genuine *integrity*. Virtue ethics is less concerned with what someone has done and will do than with what kind of person – what kind of engineer – someone is now and will become in the future. The goal is not so much better engineering decisions, but rather better engineering decision-makers, i.e., better engineers.

With this in mind, it seems that all engineers could benefit from being a little more intentional about integrating ethics into our practice. Consider who will potentially be affected by our efforts; what financial and other risks our decisions will create or mitigate; and how best to assess, manage, and communicate those risks to our clients and the general public. This exercise will be especially effective if we allow our moral imagination to engage our intellect and emotions along the way. Try to visualize the individuals who will live or work in, travel across, or otherwise interact with our projects—and then be conscientiously objective, careful, and honest for their sake.