Towards a Rational Basis for Engineering Ethics

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Question(s) at Hand

- Do secular systems provide an adequate rationale for engineering ethics?

- Does the Biblical Ethic provide that foundation?

- Should an explicitly Christian view have a seat at Pluralism's table?

Engineering Ethics Defined

"Engineers shall hold paramount the safety, health and welfare of the public n the performance of their professional duties."

ABET, various professional codes

An ethics of technology must therefore concern itself with man's good and responsible conduct in and through technology, i.e. man must fulfil the normative aspects of reality within which technology functions.

Prof. Egbert Schuurman

Engineering Ethics obligates the engineer's work in several domains.

- Product Safety
- Environmental Responsibility
- Personal Ethics (Loyalty, Honesty)
- Societal Impacts

Secular Ethics asks good questions.

- Personalistic

   "What kind of person should I be?"

- Consequential

   "What outcomes should I seek?"

- Normative

   "What rules should I obey?"

- Denial

   "Objective Right & Wrong don't exist!"

Secular Ethics makes some foundational assumptions we should challenge.

- All these systems take as *givens*:
  - The value of life
  - Rational capacity of humanity
  - The concept of ethical responsibility
  - The value of the environment
- What are the necessary philosophical pre-conditions to the intelligibility of these *givens*?

The Biblical Worldview satisfies these preconditions!

- Biblical doctrine of humanity establishes the value of human life
- Biblical doctrine of creation establishes the value of the environment
- Biblical theory of knowledge legitimizes reason, empirical learning, and intuition
- Biblical doctrine of God establishes the conception of moral responsibility
- Biblical ethics…

Biblical Ethics answers the 3 questions:

- "What kind of person should I be?"
  Like Christ   Eph 5:1

- "What outcomes should I seek?"
  God's glory   2 Cor 10:31

- "What rules should I obey?"
  God's law   John 14:21, Deu 6, …

Triperspectivalism

What would the Bible tell us about our responsibilities as engineers?

Use honest scales and honest weights, an honest ephah and an honest hin. I am the LORD your God, who brought you out of Egypt. Lev 19:36

The LORD abhors dishonest scales, but accurate weights are his delight.
Prov 11:1

What would the Bible tell us about our responsibilities as engineers?

"When you lay siege to a city for a long time, fighting against it to capture it, do not destroy its trees by putting an ax to them, because you can eat their fruit. Do not cut them down. Are the trees of the field people, that you should besiege them?"   Deu 20:19

What would the Bible tell us about our responsibilities as engineers?

"When you build a new house, make a parapet around your roof so that you may not bring the guilt of bloodshed on your house if someone falls from the roof."

Deuteronomy 22:8

Why should a non-Christian entertain a Christian perspective?

Secular writers recognize religion as legitimately *motivating* right behavior, but rejected as *informing* right behavior

- *Euthyphro* dilemma

- If ethics is to be understood as universal, it cannot employ assumptions or commitments that are not universally shared.

Plantinga on Christians and Science

"… a Christian academic and scientific community ought to pursue science in its own way, *starting from* and taking for granted what we know as Christians."

"According to Augustine, Kuyper, and many others, human history is dominated by a battle— a contest between the *Civitas Dei* and the City of Man. Part of the task for the Christian academic is to discern the limits of this contest, and to pursue the various areas of intellectual life as citizens of the *Civitas Dei.* This naturally suggests pursuing science using all that we know—what we know about God and his creation and what we know by faith— and what we know in other ways."

Alvin Plantinga, "Should Methological Naturalism Constrain Science?" *Science: Christian Perspectives for the New Millennium*

And yet…

Martin and Schinzinger acknowledge that worldviews shape environmental ethics, and **plead for a religious contribution** to our understanding of ecology.

"the potential for world religions to advance ecological understanding is enormous…"
(4e, pg 236)

Furthermore

In an otherwise factual article, Haws reserves his only praise for Messiah College's capstone design, incorporating service learning. He lauds the integration institutional mission, design course, ethics, and demonstrative compassion.

David Haws, "Ethics Instruction in Engineering Education: A (Mini-) Meta-Analysis," *Journal of Engineering Education,* Apr, 2001.

Question(s) at Hand

- Do secular systems provide an adequate rationale for engineering ethics?   *No*

- Does the Biblical Ethic provide that rational foundation?   *Yes*

- Should an explicitly Christian view have a seat at Pluralism's table?   *Yes*

Where next?

For Further Reading

- Christian Ethics
  - Greg Bahnsen, *By This Standard*
- Christian Worldview
  - Andrew Hoffecker (ed), *Building a Christian Worldview*
- Environment
  - Francis Schaeffer, *Pollution and the Death of Man*
- Technology & Society
  - Egbert Schuurman, *Faith, Hope and Technology,* and *Perspectives on Technology and Culture*