

## Engineering Ethics — Outline of an Aspirational Approach

W. Richard Bowen, Springer-Verlag, London UK, (2009), 111 pp., hardback, 99 USD, ISBN 978-1-84882-223-8

A review of engineering ethics book in NCEJ? I bet some readers think of this as filler material because not enough books on noise control have been reviewed. On the other hand, we must all know engineers that could use a dose of ethics, and the dose not given by suppository. I know many engineers and companies where ethics is a word only found on Pluto. Hence this review.

Ethics is not only about cheating or lying. As an engineer, would you help build a facility or system of facilities to handle, kill, and cremate six million humans? Or a silencer for a rifle? What about a bomb that could kill 100,000 people? Or maybe an approach to mass production that every year can take 10 billion sentient creatures (food animals), treat them like an inanimate objects and raise them from birth to slaughter with no consideration of their interests? Are there differences here? In the victim? In the cause? No matter, because you can bet engineers, trained technical men and women, managed to put these processes together. As employees, when asked to design something should we do it? As engineers, what are our responsibilities to our civilization?

The preface discusses a potential engineer's experience interviewing at a university. After seeing a highly touted car designed to break land speed record, she changed major because, while it was engineering, it had no practical use.

At the get-go, I must say I don't agree with the premise of this book—"the primary objective [of engineers] is the promotion of human well-being" because that itself is controversial. Only human? Have we no responsibility for other lives on this planet, much less this planet, itself? And well-being for whom? Cheap labor can give much, much well-being to company owners. Making chemical weapons brings profits to the manufacturers and helps the workers maintain a reasonable standard of living. The Jewish holocaust, and the engineering needed to come to a "final solution" was helping well-being of the Nazis.

Yet, I think this book is a must-read and I'll explain why. The purpose of this book is to develop an approach to aspirational ethics. The author thinks that because we are so engrossed in technology, we don't have time (or

the inclination) to think of the ramifications of our work. This might be true. Many of us are so geek-like we don't think of the social ramification of our work. Of course, *noise control* is probably a good thing. But it too has ramifications. One can argue that quieting the inside of tanks, fighting against industrial noise control<sup>1</sup> because of the cost/benefit ratio, etc., and developing a quiet submarine could be an antithesis to a better world.

What about lying and cheating to improve our well-being. Is that so wrong?

This brief book, in two parts with seven chapters and an index discusses the concept of ethical opportunities—using engineers to help others. The major chapters, each with numerous references at the end are:

### Part 1

1—Introduction

2—What is the issue

3—Traditional ethical viewpoints

4—Ethics in medicine and business

5—Reflection

### Part 2

6—Outline of an aspirational engineering ethics

7—Practical outcomes

*Engineering Ethics* is a good read. We all need to learn, or at least be aware, of the ramifications of our actions while in our workplace, in our relations with other human and non-human creatures, and this planet. As pointed out by J.S. Mill, "there are large portions of mankind whose happiness it is still practical to disregard." If you agree with this statement this isn't the book for you. However, Mill goes on to state that education [of the public] might be the way negate this statement. He said that while the US Civil War was beginning. And since at present that Mitt Romney and his supporters agree with Mills' quote, shows that his solution hasn't worked.

This book is not for technoweenies who only care about technical issues. Although, maybe it is the exact audience to which the author aimed. It is meant to help the reader consider life and the effect of engineering on the life of living things.

Highly recommended.

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<sup>1</sup>While at OSHA I experienced dozens of engineers testifying against the hearing conservation amendment. Most at the request (command?) of their employers.