

A Brief Introduction to Ethical Theories and Frameworks

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Practical ethics vs. philosophical ethics

- We want students to recognize where ethics comes into play in their careers
- We want them to consider future implications of decisions they make (in terms of safety, reliability, equity, sustainability, cost, etc.)
- We want them to be able to see decisions from the viewpoint of different stakeholders, who may benefit or suffer from an engineering decision.
- These are practical issues
- Covered well, particularly for design decisions, in the DTC book

Design Thinking and Communication

Principles and Practice

2020 EDITION

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CHAPTER 11: ETHICS AND DESIGN

- Ethics in design
- Nature and scope of design consequences
- Good design and ethical design
- Ethical decision-making

The first thing to recognize about engineering ethics, and professional ethics generally, is that they do not entail a fundamentally new and different *basis* for ethics than you already have. Professional ethics do not ask you to adopt one set of values at the workplace and another set in your personal or civic life. Logically and ethically, the founding principles of our actions must go deeper than circumstance. This means that your personal and professional ethics are not entirely divorced from one another.

But this is not to say that there is no difference between personal and professional ethics. Although the underlying values will have much in common, professional situations entail fiduciary obligations and involve profoundly new and different *contexts* for your actions—contexts that could entail far-reaching ramifications for others. This difference in context means that your actions take on a different significance when they are part of your professional work.

Practical ethics vs. philosophical ethics

But if everyone came to the same decisions, we would not have so much conflict in society or so many product recalls (or a 50-50 Congress!)

- Some conflict is because of bad or amoral actors, but
- Some is based on the assumptions and framework underlying decisions

Argument for teaching philosophy of ethics

- We make decisions based on some underlying set of assumptions and philosophy, whether we recognize it or not.
- Philosophers do not agree on an ethical framework
- Seems like spending a little time on ethical frameworks would be useful to make students realize that they are using some framework.
 - They could decide to use a different framework in the future
 - "... ethical theories need to be treated as hypotheses subject to tests, i.e., evaluated in light of how one evaluates the actual projected consequences of putting them into practice. Similar to ethical theories, codes of ethics are typically highly abstract and do not give practicing engineers unequivocal direction on how they should behave in every specific circumstance. A proper course of action in one situation may not be effective in the future if the situational elements change. Thus the circumstance must inform the choice of ethical theories depending on which make the most sense and to what extent these theories still hold." (Zhu and Jesiek, 2017.)
- Language of ethical philosophies may be unfamiliar to engineering faculty but worth trying to include this.
- Very brief tour through this material

A few frameworks to consider

- **Deontology – from Greek Deon = Duty**
- **Consequentialism (Utilitarianism)**
- **Principle ethics**
- **Virtue ethics**
- **Ethics of care**

Where these come into play:

- **Micro-ethics: your own responsibilities, decisions, actions**
- **Macro-ethics: collective ethics and integrity of the profession**

Two opposing theoretical frameworks

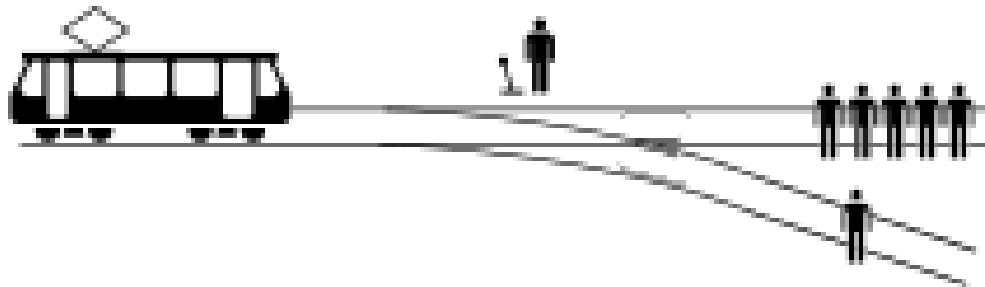
DEONTOLOGY	CONSEQUENTIALISM
Deontology is an ethical theory that states it is possible to determine the rightness or wrongness of actions by examining actions themselves, without focusing on their consequences	Consequentialism is an ethical theory that states it is possible to determine the rightness or wrongness of actions by examining its ^{^ their} consequences
Doesn't focus on the consequences of an action	Mainly focuses on the consequences
Duty-, rule-, or obligation-based	Consequence-based
	Visit www.PEDIAA.com

[What is the Difference Between Deontology and Consequentialism - Pediaa.Com](http://www.PEDIAA.com)

Frederic is a deontologist in *The Pirates of Penzance, or the Slave of Duty* (paradox song) but if he were a consequentialist....

Seems a simple distinction, but

- According to **deontology**, people have to do the right action, even if it brings bad results. You are disregarding the possible consequences of your actions when determining what is right and what is wrong.” From pediaa.com
- **Consequentialism** states that an action should be judged right or wrong on the basis of its consequences. Thus, according to consequentialism, a morally right act is an act that will produce good results. Furthermore, the more good results an act produces, the better or more right that act will be. From pediaa.com.
- But is deontology possible? Does everyone agree on the right actions? Maybe you don't think telling the truth is a core duty. But to quote Mark: **if deontology is taken to mean Kant, as is typical, then our duty is not arbitrary or role-based but universal and revealed by reason**
- Is consequentialism possible? Maybe you don't have all the information you need to really foresee all the consequences.
- And, engineering decisions have consequences are both good and bad, and the action itself is neutral, so neither system is perfect.



Principle ethics

Instead of being a hard line deontologist or consequentialist, an option is to avoid absolutism and recognize that there are several ethical principles to consider and balance.

Important principles:

List as given by Subbian et al. ASEE 2022

- (1) **Beneficence** – promoting the welfare of others
- (2) **Nonmaleficence** – avoiding actions that cause harm and preventing harm
- (3) **Autonomy** – fostering the right of others to make decisions on their own behalf
- (4) **Justice** – distributing benefits and burden equally;
- (5) **Fidelity** – honoring commitments and keeping promises, both stated and implied;
- (6) **Veracity** – being honest and telling the truth.

1, 3 and 4 (3 phrased as *Respect for persons*) are the Belmont principles for human experimentation, and influence selection of subjects, consent, allowable procedures, study termination, etc.

All go beyond medicine and clearly apply to engineering – 1 to 4 are the foundations of **Reflective Principlism** (Beever and Brightman, 2016), argued to be an ideal formulation for engineering

Another framework - Virtue ethics

Virtue Ethics focuses on the **traits of the individual**, rather than applying specific criteria or problem-solving processes. **The focus in virtue ethics is the extent to which one lives or behaves in concordance with ones' values.** – Subbian et al. ASEE

Bourgeois, 2021:

- ...in virtue ethics, the **cultivation of moral judgment and practical wisdom** replaces rules and rubrics.
- At its root, virtue ethics, as first articulated in the Nicomachean Ethics (Aristotle), is about a vision of the good life for human beings— of what constitutes flourishing for us as individuals, as communities, and even as a species.
- Flourishing requires the attainment of various kinds of goods, and these in turn require the cultivation of certain moral habits: the virtues that give the approach its name. **Virtues are dispositions, skills, or habits that tend to enable success in the attainment of some unique good, one that is characteristic of a particular type of activity.** [e.g. Integrity, Trust, Honesty, Self-Control, Fairness]
- Virtues for Aristotle are, famously, means between vices— one of excess and one of deficiency (Aristotle 2014, book 2).

Ethics of Care

- “Ethical theory that has developed over the past few decades [4] and can be concisely defined as emphasizing “the importance of responsibility, concern, and relationship over consequences (utilitarianism) or rules (deontology)” – Campbell et al. 2012
- “The concept of care is inherent to professions that care for individuals and this approach to ethics has been a central part of professional ethical issues in both nursing and medical ethics, but in fact has much broader applications in relation to science and technology.” - <https://www.encyclopedia.com/science/encyclopedias-almanacs-transcripts-and-maps/ethics-care>
- Emphasizes relationships and caring about and for others.

References

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