# **Engineering Ethics**

Lec – 4: *Moral Framework* – Utilitarianism, Rights Ethics & Duty Ethics

#### Moral Framework

- An ethical theory seeks to provide a comprehensive perspective on morality that clarifies, organizes, and guides moral reflection.
- If successful, it provides a framework for making reasonable moral choices and resolving moral dilemmas.



#### **Ethical Theories**

- We discuss five types of ethical theories (and traditions) that have been especially influential:
- \*utilitarianism,
- \*rights ethics,
- duty ethics,
- ❖virtue ethics, and
- self-realization ethics.

- *Utilitarianism* says that we ought to maximize the overall good, taking into equal account all those affected by our actions.
- *Rights ethics* says we ought to respect human rights, and *duty ethics* says we ought to respect individuals' rational autonomy.



- Virtue ethics says that good character is central to morality.
- Self-realization ethics emphasizes the moral significance of self-fulfillment.
- None of these theories has won a consensus, although each has proven attractive to many people.
- At least in some of their versions, they widely agree in their practical implications.

#### Utilitarianism

- Mill: Act-Utilitarianism and Happiness
- Utilitarianism is the view that we ought to produce the good for the most people, giving equal consideration to everyone affected.
- The standardization of right conduct is the maximization of goodness.

• How to assess the "production" of goodness: with respect to each action or with respect to the consequences of general rules about actions.

• Depending on how these questions are answered, utilitarianism can be developed in different directions.



#### Act – Utilitarianism

- We should focus on individual actions, rather than general rules.
- An act is right if it is likely to produce the most good for the most people involved in the particular situation.
- Everyday maxims like "Keep your promises," "Don't deceive," and "Don't bribe" are only rough guidelines.

• According to John Stuart Mill, these rules should be broken when doing so will produce the most good in a specific situation.

• Also, in Mill's view, pleasure is qualitative and can be categorized as *high* and *low pleasure*.



#### Brandt: Rule – Utilitarianism

- Rule utilitarianism, which is the second main version of utilitarianism, regards, moral rules as primary.
- According to it, we should always act on those rules that if generally followed would produce the most good for the most people.

• Thus, we ought to keep promises and avoid bribes, even when those acts do not have the best consequences in a particular situation, because the general practices of promising and not bribing produce the most overall good.



- Brandt believes that rules should be considered in sets which he calls *moral codes*.
- A moral code is justified when it is the *optimal code* that, if adopted and followed, would maximize the public good more than the alternative codes would.
- The codes may be society wide standards or special codes for a profession like engineering.

#### Duty Ethics

• Kant: Respect for Persons

• Kant regard duties, rather than good consequences, as fundamental.



### Duty Ethics (Contd.)

- In his view, right actions are those required by a list of duties such as:
- ✓ be honest
- ✓ keep your promise
- ✓ don't inflict suffering on other people
- ✓ be fair
- ✓ make reparation when you have been unfair
- ✓ show gratitude for kindness extended by others



#### **Duties to Ourselves**

- There are also duties to ourselves:
- ✓ Seek to improve one's own intelligence and character
- ✓ Develop one's talents
- ✓ Don't commit suicide

- Why are these our duties?
- According to Kant, it is because they meet three interwoven conditions:
- ✓ each expresses respect for persons
- ✓ each is a universal principle
- ✓ each expresses an unqualified command for autonomous moral agents

#### Prima Facie Duties

- One difficulty with Kant's view is that he thought principles of duty were *absolute* in the sense of never having justifiable exceptions.
- He failed to be sensitive to how principles of duty can conflict with each other, thereby creating moral dilemmas.
- Principles of duties that have exceptions are called prima facie duties.



# Rights Ethics

- *Locke: Liberty Rights* John Locke argued that to be a person entails having rights human rights to life, liberty, and the property generated by one's labor.
- These are referred to as *liberty rights* or *negative rights* that place duties on other people *not* to interfere with one's life.



- *Melden: Liberty and Welfare Rights* this second version of rights ethics conceived of human rights as intimately related to communities of people.
- A. I .Melden argued that having moral rights presupposes the capacity to show concern for others and to be accountable within a moral community.



• Melden's account allows for more "positive" *welfare rights*, which he defined as rights to community benefits needed for living a minimally decent human life.



# Virtue Ethics, Self-Realization Ethics



#### Character, Virtues & Vices

- Character is the pattern of virtues (morally desirable features) in persons.
- Virtues are desirable habits or tendencies in action, commitment, motive, attitude, emotion, ways of reasoning, and ways of relating to others.
- Vices are morally undesirable habits or tendencies.



#### Virtue & Vice

- Words for specific *virtues*, both in engineering and in everyday life, include for example, competence, honesty, courage, fairness, loyalty, and humility.
- Words for specific *vices* include: incompetence, dishonesty, cowardice, unfairness, disloyalty, and arrogance.



#### Aristotle's View

- Aristotle suggested that the moral virtues are habits of reaching a proper balance between extremes, whether in conduct, emotion, or desire.
- Virtues are tendencies to find the reasonable (golden) mean between the extremes of too much (excess) and too little (deficiency) with regard to particular aspects of our lives.



### Aristotle's View (Example)

- Thus, *generosity* is the virtue lying between wasting one's resources (excess) and being miserly (deficiency).
- Again, *courage* is the mean between foolhardiness (the excess of rashness) and cowardice (the deficiency of self-control) in confronting dangers.



• The most important virtue is practical wisdom, that is, morally good judgment, which enables us to discern the mean for all the other virtues.



### Virtue of Engineers

- The most comprehensive virtue of engineers is responsible professionalism.
- This umbrella virtue implies four (overlapping) categories of virtues:
- \*public well-being,
- professional competence,
- \*cooperative practices, and
- personal integrity.



# 1. Public-Spirited Virtues

- Public-spirited virtues are focused on the good of clients and the wider public.
- The minimum virtue is non-maleficence, that is, the tendency not to harm others intentionally.
- Engineering codes of professional conduct also call for beneficence, which is preventing or removing harm to others and, more positively, promoting the public safety, health, and welfare.



### 1. Public-Spirited Virtues (Contd.)

- Also important is a *sense of community* in the prospects for meaningful life within professional and public communities.
- *Generosity*, which means going beyond the minimum requirements in helping others, is shown by engineers who voluntarily give their time, talent, and money to their professional societies and local communities.
- Finally, *justice* within corporations, government, and economic practices is an essential virtue in the profession of engineering.



### 2. Proficiency Virtues

• Proficiency virtues are the virtues of mastery of one's profession, in particular mastery of the technical skills that characterize good engineering practice.



### 2. Proficiency Virtues (Contd.)

- The most general proficiency virtue is *competence*: being well prepared for the jobs one undertakes.
- Another is *diligence*: alertness to dangers and careful attention to detail in performing tasks.
- *Creativity* is especially desirable within a rapidly changing technological society.



#### 3. Teamwork Virtues

• Teamwork virtues are those that are especially important in enabling professionals to work successfully with other people.



#### 3. Teamwork Virtues (Contd.)

- They include *collegiality*, *cooperativeness*, *loyalty*, and *respect for legitimate authority*.
- Also important are *leadership* qualities that play key roles within authority-structured corporations, such as the responsible exercise of authority and the ability to motivate others to meet valuable goals.



# 4. Self-Governance

• Finally, self-governance virtues are those necessary in exercising moral responsibility



### 4. Self-Governance (Contd.)

- Some of them center on moral understanding and perception: for example, *self-understanding* and *good moral judgment*—what Aristotle calls practical wisdom.
- Other self-governance virtues center on commitment and on putting understanding into action: for example, *courage*, *self-discipline*, *self-respect*, and *integrity*.



### Self – Realization Ethics

- Each of the preceding ethical theories leaves considerable room for self-interest, that is, for pursuing what is good for oneself.
- Thus, *utilitarianism* says that self-interest should enter into our calculations of the overall good;
- rights ethics says we have rights to pursue our legitimate interests;
- duty ethics says we have duties to ourselves;
- and *virtue ethics* links our personal good with participating in communities and social practices.



### Self – Realization Ethics (Contd.)

- Self-realization ethics, however, gives greater prominence to *self-interest* and to *personal commitments* that individuals develop in pursuing self-fulfillment.
- As with the other ethical theories, we will consider two versions, depending on how the self (the person) is conceived:
- ✓ community-oriented version,
- ✓ethical egoism



# Community - Oriented Version

- The community-oriented version of self-realization ethics says that each individual ought to pursue self-realization, but it emphasizes the importance of caring relationships and communities in understanding self-realization.
- It emphasizes that we are social beings whose identities and meaning are linked to the communities in which we participate.



### Community - Oriented Version (Contd.)

• This theme is expressed by F. H. Bradley (1826–1924): "The 'individual' apart from the community is an abstraction. It is not anything real, and hence not anything that we can realize. . . . I am myself by sharing with others.



# Ethical Egoism

- Ethical egoism is a more *individualistic* version of self-realization ethics that says each of us ought always and only to promote our self-interest.
- The theory is ethical in that it is a theory about morality, and it is egoistic because it says the sole duty of each of us is to maximize our well-being.

