

Engineering Ethics

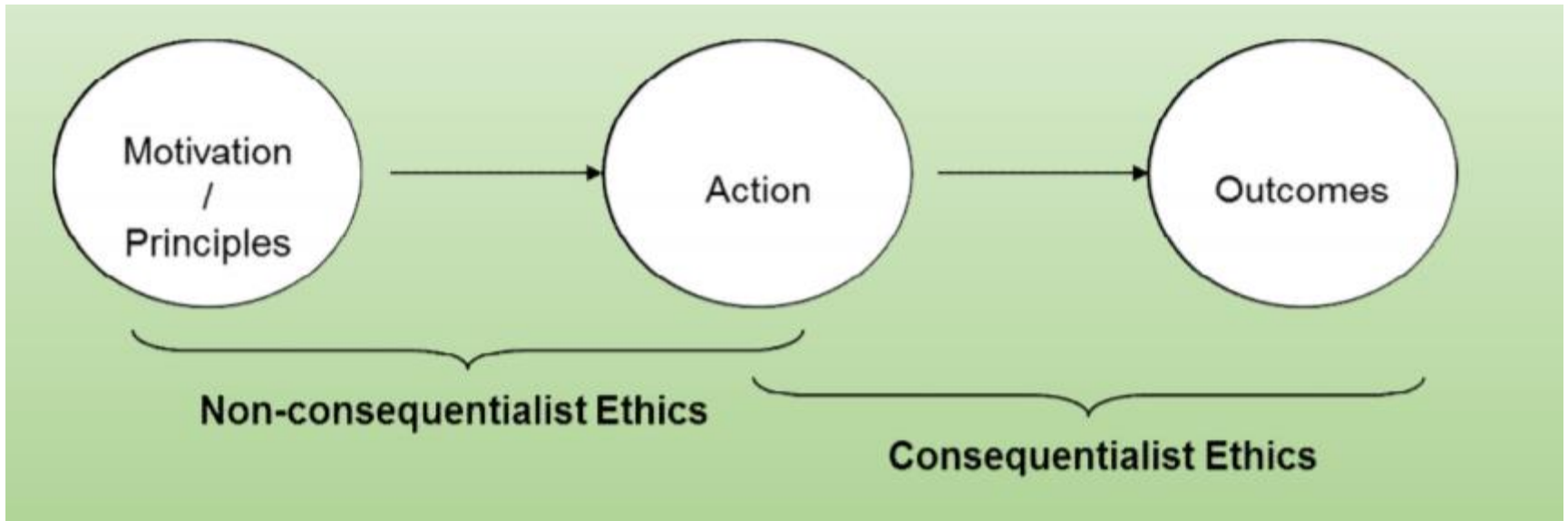
(Hum 4441)

Lecture 3

Consequentialism

- **Consequentialism** states that the ethical value of an action is to be found in its consequences.
- **Utilitarianism**: Happiness -Pain
 - is the maximization of pleasure and minimization of pain.
- **Ethical egoism** (for oneself)
- **Ethical altruism** (for others)

Traditional approach



Utilitarianism

□ Utilitarianism seeks

- to **produce the most utility** i.e. it focuses on **collective welfare**.
- to **balance between good and bad consequences of an action** as it identifies **goodness with the greatest amount of good for the greatest number of people**: the '**greatest happiness principle**'.
- taking into account the **consequences for everyone affected**.
- It does a sort of **cost benefit analysis** i.e. utility is the net result of benefits and 'disbenefits' - or costs.

Emphasis in utilitarianism is not on maximizing the well-being of the individual, but rather on maximizing the well-being of society as a whole, and as such it is somewhat of a collectivist approach.

Utilitarianism

- The main idea of utilitarian ethics is: *secure the greatest good for the greatest number.*
- To illustrate this method, suppose that you are buying ice cream for a party that ten people will attend. Your only flavor options are chocolate and vanilla, and some of the people attending like chocolate while others like vanilla. As a utilitarian, you should choose the flavor that will result in the most pleasure for the group as a whole. If seven like chocolate and three like vanilla and if all of them get the same amount of pleasure from the flavor they like, then you should choose chocolate. This will yield the famous phrase, called “the greatest happiness for the greatest number.”
- An important point in this case is that you should choose chocolate even if you are one of the three people who enjoy vanilla more than chocolate. The utilitarian method requires you to count everyone’s interests equally. You may not weigh some people’s interests—including your own—more heavily than others. Similarly, if a government is choosing a policy, it should give equal consideration to the well-being of all members of the society.

Utilitarianism

- **Another example:** building of dams in a place.
- Dams often lead to great benefit to society by providing stable supplies of drinking water, flood control, and recreational opportunities. However, these benefits often come at the expense of people who live in areas that will be flooded by the dam and are required to find new homes, or lose the use of their land. Utilitarianism tries to balance the needs of society with the needs of the individual.
- So, we need to do a cost benefit analysis, if you are trying to justify the building of the dam how much benefit it is going to bring to whom at the cost of what and to whom and we need to make a balanced decision about it.

Utilitarianism (Steps)

□ The steps are:

1. Identify the issues
2. Identify all possible solutions
3. Identify **costs** and **benefits**
4. **Weigh** the costs and benefits for each option
5. Choose the option which results in the **greatest benefit** for the greatest number of people.

Utilitarianism (Types)

- **Definition of Act Utilitarianism:** One ought to do that action that maximizes happiness in a particular situation for the people affected by the action.
- **Definition of Rule Utilitarianism:** One ought to do an action *based on a rule* that maximizes happiness in general (i.e., whether or not that action maximizes happiness in the particular situation one finds oneself in).

Utilitarianism (Types)

- The consequences of the act of giving money to charity would be considered right in act-utilitarianism, because the money increases the happiness of many people, rather than just yourself.
- In the example above, the general rule would be: 'share your wealth'.

Act vs Rule utilitarianism

- ❑ **ACT UTILITARIAN** measures the consequences of a **SINGLE ACT**.
- ❑ The **RULE UTILITARIAN** measures the consequences of the act repeated over and over again through time as if it were to be followed as a RULE whenever similar circumstances arise.
- ❑ **Act utilitarianism** focuses on individual actions rather than on rules. **Rule utilitarianism** differs from act utilitarianism in holding that moral rules are most important.
- ❑ Rule utilitarian (“do not harm others”, “do not steal” etc.) hold that although adhering to these rules might not always maximize good in a particular situation, overall, adhering to moral rules will ultimately lead to the most good.

Criticism of Utilitarian approach

- Sometimes what is best interest for everyone may be bad for a particular individual or for a group of individuals.
- Another object to utilitarianism is that **implementation depends greatly on knowing what will lead to the most good.** **Frequently, it is impossible to know** exactly what the consequences of an action are.
- The **motives behind actions are ignored**
 - Consider two individuals, A and B, who donate \$100 and \$1,000, respectively, to a charity. Suppose individual A donated the money because he wanted to help the charity and individual B made the donation so that he could improve his own standing in society. Utilitarianism would consider individual B's donation to be superior to individual A's donation, despite the fact that it was made with an ulterior, and less noble, motive.

Criticism of Utilitarian approach

- Aggregate measures of happiness **ignore distributional aspects**
 - In utilitarianism, one considers only the sum total of pains and pleasures, not their distribution. Even though the sum total of units of happiness might be the same, it might be distributed "**unfairly**".

	Action X	Action Y	Action Z
Person A's Happiness	100	250	400
Person B's Happiness	100	150	50
Person C's Happiness	100	50	25
Person D's Happiness	100	30	25
Person E's Happiness	100	20	20
Aggregate Happiness	500	500	520

Cost–Benefit Analysis in engineering

- ❑ In cost–benefit analysis, the costs of a project are assessed, as are the benefits. Only those projects with the highest ratio of benefits to costs will be implemented. This principle is similar to the utilitarian goal of maximizing the overall good.
- ❑ The **pitfalls** of cost benefit analysis are that we cannot measure something based on pure cost benefit discussion. So, it may so happen like the building of a dam may appear to be a very excellent idea. So, but this analysis would not include other issues such as whether the benefits outweigh the loss of the cynic wideness of the area or the loss of an endangered species with no current economic value.
- ❑ Finally, it is also important to determine whether those who stand up to reap the benefits are also those will pay the cost. It is unfair to place all of the costs on one group while another reaps the benefits.

Duty ethics

- Two other ethical theories—**duty ethics** and **rights ethics**—are similar to each other and will be considered together.
- These theories hold that those actions are good that respect the rights of the individual. Here, good consequences for society as a whole are not the only moral consideration.
- A major proponent of duty ethics was **Immanuel Kant** (1724–1804), who held that moral duties are fundamental.
- Ethical actions such as be honest, don't cause suffering to other people, be fair to others, etc. These actions are our duties because they express respect for persons, express an unqualified regard for autonomous moral agents, and are universal principles [Schinzinger and Martin, 2000].
- Duty ethics contends that there are duties that should be performed (for example, the duty to treat others fairly or the duty not to injure others) regardless of whether these acts lead to the most good.

Duty ethics

- Most people believe that **all human beings have some duties to other human beings**. Duties can be positive, such as the duty to look after one's children, or negative, such as the duty not to murder another human being.
- Duty ethics says that **right actions are those required by duties to respect the liberty** or autonomy (self-determination) of individuals.
 - Keep your promises
 - Obey the law.
 - Do your duty
 - Do not deceive.

Rights Ethics

- ❑ Subset of **deontological** theory.
- ❑ In terms of right theory, a decision is **ethically correct** if it **respects the right of other people**. So, **respect** is the keyword in explaining the right theory i.e. **upholding the rights of others is the foundation** of right theory.
- ❑ Another important elements in right theory are **Rights**. There are several rights such as:
 - Legal Rights
 - Human rights
 - Contractual rights

Rights Ethics

- **Right of votes** is legal rights because it rises from law and legally enforceable.
- **Freedom of speech** is an example of basic human rights.
- **Contractual rights** are the agreement or relationships. For example, a contract between engineers and property investor. The engineers have the right under the contract to receive certain amount of remuneration and the property investor has the right under the contract to receive the developed property.



Rights Ethics

- ❑ A **Right** is something as a human being or something we are **entitled** to.
- ❑ A **duty** is something we are **obligated** to do.
- ❑ Consider the relationship of a doctor and patient.



Criticism of Rights and Duty Ethics

- First the basic rights of one person (or group) may **conflict** with the basic rights of another group.
- **How do we decide whose rights have priority?** Using our previous example of the building of a dam, people have the right to use their property. If their land happens to be in the way of a proposed dam, then rights ethics would hold that this property right is paramount and is sufficient to stop the dam project. A single property holder's objection would require that the project be terminated.
- The second problem with duty and rights ethics is that these theories **don't always account for the overall good of society** very well.

Virtue ethics

- A branch of the teleological strand of ethics is that of 'being good'.
- Virtue ethics shifts the analytical emphasis away from rule-based decision-making (of deontological ethics) or of the consequences of an action (eg. in utilitarianism) towards the ethics of individuals and the ethics of human character.
- So, for example, where a utilitarian would argue that giving to a charity maximizes well-being in society, and a deontologist would argue that we have a duty to help others, a virtue ethicist would point to the fact that helping others displays desirable virtues such as being charitable or benevolent.
- Other desirable virtues include honesty, courage, friendship, mercy, loyalty, modesty, patience, and so on.

Virtue ethics

- **Character-based ethics.**
- A right act is the action a virtuous person would do in the same circumstances.
- **Virtue ethics is person rather than action based:** it looks at the virtue or moral character of the person carrying out an action, rather than at ethical duties and rules, or the consequences of particular actions.
- Virtue ethics not only deals with the rightness or wrongness of individual actions, it provides guidance as to the sort of characteristics and behaviors a good person will seek to achieve.
- Virtue ethics is concerned with the whole of a person's life, rather than particular episodes or actions.
- A good person is someone who lives virtuously - who possesses and lives the virtues.

Virtue ethics

- **Virtue ethics teaches:**
 - An action is only right if it is an action that a virtuous person would carry out in the same circumstances.
 - A virtuous person is a person who acts virtuously
 - A person acts virtuously if they "possess and live the virtues"
 - A virtue is a moral characteristic that a person needs to live well.

Duty Ethics vs. Virtue Ethics

- **Duty ethics** (deontology) is about **following the rules** laid down by external sources (be it a human society or a divine commander).
- **Virtue ethics** is about **internal guidance** – following one's conscience to do the right thing.
- **Simply put:** this is the difference between **doing good** vs **being good**.

Ethical theories that are a matter of concern

- ❑ There are four ethical theories that will be considered here, each differing according to what is held to be the most important moral concept.
- ❑ **Utilitarianism** seeks to produce the most utility, defined as a balance between good and bad consequences of an action, taking into account the consequences for everyone affected.
- ❑ A different approach is provided by **duty** ethics. Duty ethics contends that there are duties that should be performed (for example, the duty to treat others fairly or the duty not to injure others) regardless of whether these acts lead to the most good.
- ❑ **Rights** ethics emphasizes that we all have moral rights, and any action that violates these rights is ethically unacceptable. Like duty ethics, the ultimate overall good of the actions is not taken into account.
- ❑ Finally, **virtue** ethics regards actions as right that manifest good character traits (virtues) and regards actions as bad that display bad character traits (vices);