

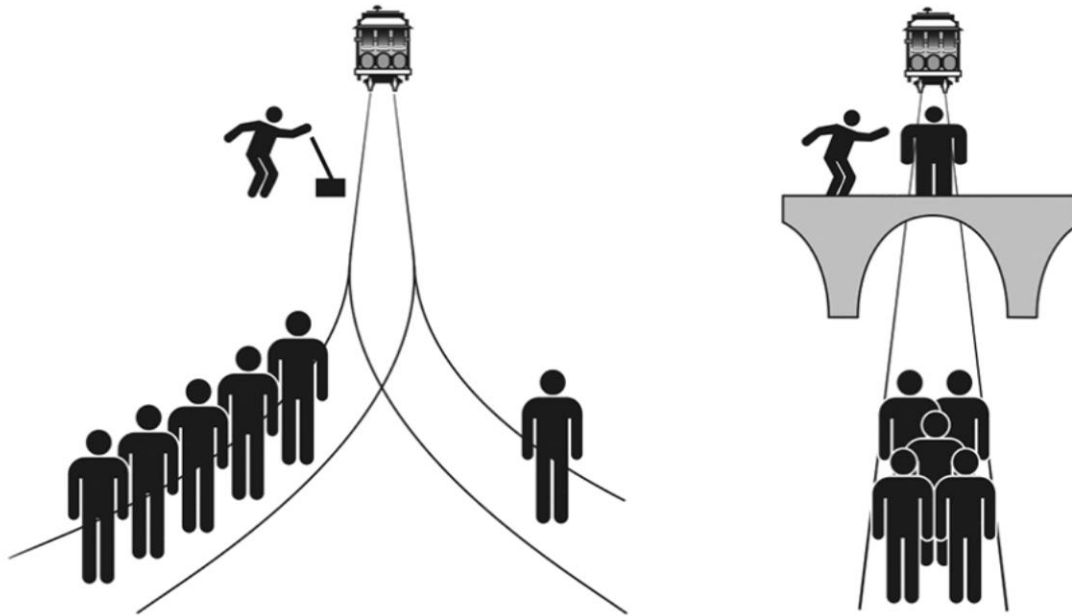
ETHICS

DRIVING

# DRIVING

- You are driving a car and a semi veers into your lane
  - Keep going and die
  - Drive onto the pavement\* sidewalk
    - But in doing so you will hit a family out for a walk, almost certainly killing at least one of them
- A variant of the *trolley problem*

# THE TROLLEY PROBLEM



# AUTONOMOUS VEHICLES

- ◉ These are not just thought experiments
  - Designers of autonomous cars are going to have to consider them
- ◉ Should an autonomous vehicle
  - Protect its passengers above all else
  - Protect the greatest number of people
  - ...
- ◉ Having a framework for reasoning about these kinds of issues is useful
  - Ethics

# ETHICS & MORALITY

- ◉ The terms *ethics* and *morality* are often used interchangeably
  - However, there is a distinction between them in philosophy
- ◉ The words *morality* and *ethics* have similar roots
  - *Mores* which means manner and customs from Latin, and
  - *Etos* which means custom and habits from Greek

# ETHICS & MORALITY

- ◉ *Morality* is used to refer to what we would call moral conduct
- ◉ *Ethics* is used to refer to the formal study of moral conduct
- ◉ Morality: first-order set of beliefs and practices about how to live a good life.
- ◉ Ethics: a second-order, conscious reflection on the adequacy of our moral beliefs

# ETHICS AND THE LAW

- ◉ Communities have rules that community members are expected to follow
  - In large, established, communities these are laws
- ◉ The study of ethics is not the same as the study of law
  - Laws may or may not be ethical
  - There are many situations where our behaviour is not governed by law
    - And we may want to decide what is ethical
  - There are also situations where our behaviour is governed by law
    - But we may decide that following the law is unethical



# ETHICAL THEORIES

# IT'S ALL DETERMINED

- ◉ Determinism suggests that ethical choices are mainly not possible
  - There are a number of reasons for this belief
    - Powerful economic and social forces determine which choices are possible
    - Or because our actions are determined and there is no free will
- ◉ Saves us from agonizing over choices that really wouldn't change anything
  - Perhaps this approach simply allows us to avoid difficult ethical choices

# THE GOLDEN MEAN

- ◉ According to Aristotle the golden mean is the desirable middle between two extremes
  - Between an excess and a deficiency
    - An excess of courage results in recklessness, a deficiency in cowardice
  - This was also proposed by Confucius
- ◉ Pros
  - Simple way to decide on problems
  - Prevents one from choosing an extreme which may cause harm later in life
- ◉ Cons
  - The scale on which a user decides upon may be skewed

# RELATIVISM

- ◉ In subjective relativism each person decides morality for themselves
  - One person's view of what is right or wrong can be very different from another's
  - And both are considered valid
- ◉ Cultural relativism is similar except that each society decides what is right and wrong
  - Through laws, religion or custom
- ◉ A relativist would believe that there are no universal moral rules

# RELATIVISM - PROS

- ◉ Reasonable people may make opposite moral choices
- ◉ Arguing about morals is a waste of time, since it is unlikely to change anyone's mind
- ◉ Explains how societies can have diametrically opposite views
- ◉ This approach allows for leniency in certain situations

# RELATIVISM - CONS

- ◉ Easy to justify bad behaviour
  - “I’ve invented my own morality!”
- ◉ How can you compare the actions of two different people or societies using relativism?
- ◉ Doesn't explain how each society developed their ethics in the first place
- ◉ Doesn't help us to decide how to act during periods when society is changing
- ◉ What happens when two societies or individuals have conflicting values that come into conflict?
- ◉ Doesn't allow for any universal values

# DIVINE COMMAND THEORY

- ◉ Good actions are aligned with the will of God, and bad actions are contrary to his or her will
- ◉ This has important implications for ethical propositions
  - If charity is good it is because God commands that we be charitable
- ◉ Similar versions of the Divine Command Theory may offer allegiance to other powers
  - The state, or corporation for example

# DIVINE COMMAND THEORY - PROS

- ◉ If you believe in and trust a higher power, it makes sense to defer to it in ethical decisions
  - If enough people believe in a the authority, this seems like a systematic way to resolve disputes
  - Particularly in an isolated culture
- ◉ Unlike relativism it is a universalist theory
  - Since God's will applies to everyone



# DIVINE COMMAND THEORY - CONS

- ◉ Which book is right?
- ◉ What if a problem isn't covered in your particular book?
- ◉ Morality becomes arbitrary, if God commanded that cruelty then it would be ethical to be cruel
  - The Euthyphro objection (Plato)
    - *Is the pious loved by the gods because it is pious, or is it pious because it is loved by the gods?*
- ◉ The Karamazov objection (Dostoevsky)
  - God is the source of moral truths
  - If God does not exist there are no moral truths
  - God does not exist
  - Therefore there are no moral truths

# DEONTOLOGY

- ◉ From the Greek *deon* (obligation, duty) and *logia* (a suffix meaning bodies of knowledge)
- ◉ Rules based ethics
  - Often contrasted with consequentialist ethics
  - Divine command theory is a deontological philosophy
- ◉ As is Kantianism
  - The ethical theory of the philosopher Immanuel Kant (1724 - 1804)
    - Kant lived in Germany near Königsberg
      - Home of the Königsberg Bridge Problem (Euler)

# KANTIANISM

- ◉ Kant argued that it is *motives* that make an act right or wrong, not its *consequences*
  - He also tried to identify "the highest good"
    - That was good in itself and without qualification
    - It must be intrinsically good, and its application cannot make a situation ethically worse
  - He argued that intelligence, perseverance and pleasure were not intrinsically good
    - *Nothing in the world—indeed nothing even beyond the world—can possibly be conceived which could be called good without qualification except a good will.*
- ◉ Kant then argued that a good will cannot be determined from the consequence of an act

# THE CATEGORICAL IMPERATIVE

- ◉ Kant claimed that a person has good will if he “*acts out of respect for the moral law*”
  - Good will should therefore be based on a respect for moral rules that we act on out of duty
    - It is critical to be able to determine if actions are grounded in a moral rule
- ◉ Categorical Imperative - First Formulation
  - Act only from moral rules that you can at the same time will to be universal moral laws
- ◉ Categorical Imperative - Second Formulation
  - Act so that you always treat yourself and others as an end, and never only as a means to an end

# UNIVERSAL MORAL LAWS

- ◉ To evaluate a moral law express it as a universal law and consider the results
  - i.e. a thought experiment
- ◉ For example consider making a false promise to avoid a difficult situation
  - If this was ethical, then the rule that it is OK to make false promises would have to be universal
  - But nobody would ever believe such promises
  - Willing that the moral rule is a universal law produces a logical contradiction
    - Note this is a logical argument not an ethical one

# ENDS AND MEANS

- ◉ When deciding how to act, people should never be treated only as a means to an end
  - Other people should be respected as rational beings
- ◉ This rules out acts like slavery and theft

# KANTIANISM - PROS

- ◉ The approach is based on reason
  - It allows for discussion and argument of the merits of actions or rules
- ◉ The approach produces universal rules
  - Which allows us to make moral judgments that are not based on cultural or historical context
- ◉ All persons are treated equally

# KANTIANISM - CONS

- ◉ Sometimes a single action is covered by two or more conflicting rules
  - For example disasters and looting
  - Kantianism does not provide a way to resolve conflicts
- ◉ Universal rules don't really allow for exceptions
  - e.g. *“Honesty is the best policy”*
- ◉ But the theory does allow for decision making based on logical reasoning



# CONSEQUENTIALISM

- ◉ Determine what will cause the greatest good
  - Argues that we should choose our acts to increase the sum of human happiness
  - Or generalize them into rules
- ◉ Good acts are those that increase happiness, bad acts decrease happiness
- ◉ Consequentialism is often contrasted with Kantianism
  - As it focuses on consequences not motives

# ACT UTILITARIANISM

- ◉ Based on the Principle of Utility, or the Greatest Happiness Principle
  - Proposed by Jeremy Bentham (1748 - 1832) and John Stuart Mill (1806 - 1873)
  - Act to produce the greatest happiness (or satisfaction) among all people
- ◉ Utility is a measure of satisfaction
  - Bentham and Mill differed on how to measure happiness
  - Mill distinguished between higher and lower orders of happiness

# ACT UTILITARIANISM

- Use the principle of utility to judge actions
  - Add up the positive and negative utility and
  - Compare with other related actions
- Utilitarianism does not consider motives
- Bentham recognized that different benefits have different weights and considered
  - Intensity and duration
  - Certainty - probability of the benefit
  - Propinquity - how close or related benefits are
  - Fecundity - how repeatable benefits are
  - Purity - extent to which pleasure is undiluted
  - Extent - number of people affected

# ACT UTILITARIANISM - PROS

- ◉ Aligns with people's expectations for ethical philosophy since it focuses on happiness
- ◉ Conceptually straightforward and practical
  - Particularly when considering economic benefits
- ◉ Comprehensive since it allows all of the elements of a situation to be considered

# ACT UTILITARIANISM - CONS

- ◉ Impractically difficult to apply
  - If we used act utilitarianism to judge every action we would spend all our time in calculations
  - And it is difficult to determine who to include in the calculation, and how far ahead to look
- ◉ Ignores any ideas of duty or motives
  - For example, breaking a promise is morally neutral
- ◉ Susceptible to the problem of moral luck
  - An act with good motives may be unethical due to bad luck (or vice versa)
- ◉ Can be used to justify discrimination

# RULE UTILITARIANISM

- ◉ Rule utilitarianism is also based on the Principle of Utility
- ◉ It claims that people should follow those moral rules that lead to the greatest utility
  - The rules can then be applied to actions
  - Thereby avoiding the necessity to calculate the utility of each action
- ◉ Similar to Kantianism in that it focuses on rules
  - But the rules are derived quite differently

# RULES UTILITARIANISM - PROS

- ⊙ Easier to derive rules than to consider all of the repercussions of individual actions
- ⊙ Not every action requires creating a new rule
- ⊙ Avoids the problem of moral luck
- ⊙ An appealing philosophy
  - Actions are justified, if the action, as a rule, would bring about greater net happiness

# RULES UTILITARIANISM - CONS

- Rule utilitarianism suffers from two of the problems of act utilitarianism
- It is difficult to sum the happiness for complex situations
  - That might involve multiple benefits and costs of different types
- It ignores the problem of an unfair distribution of good consequences
  - Note that the greatest good *for the greatest number* is not pure utilitarianism
  - And may lead to internal inconsistency



# UTILITARIANISM

- ◉ Both act and rule utilitarianism have advantages and disadvantages
- ◉ They are quite different from Kantianism
- ◉ But, like, Kantianism they are coherent ethical philosophies
  - Allowing moral problems to be evaluated in a coherent way

# SOCIAL CONTRACT THEORY

- ◉ Social contract theory asserts that law and political order are not natural
  - But are created by humans to gain the benefits of living in a civilized society
- ◉ Thomas Hobbes (1603 - 1679) was the first to articulate the theory in detail
  - According to Hobbes the state of nature was “*solitary, poor, nasty, brutish and short*”
  - The social contract occurs when people come together and agree to cede individual rights
    - I’ll agree not to kill you if you agree not to kill me
  - A sovereign entity (or government) is required to enforce the rules

# SOCIAL CONTRACT THEORY

- ◉ The Social Contract Theory has many adherents
  - John Locke (1632 - 1704) disagreed with Hobbes on the state of nature
    - And saw government as a neutral arbiter of disagreements
  - Jean-Jaques Rousseau (1712 - 1778) believed that law is a civilizing force
- ◉ Note that the Declaration of Independence invokes the idea of a social contract
  - And was very much influenced by Locke, who was much esteemed by Jefferson

# SOCIAL CONTRACT THEORY

- ◉ There are universal rules that can be determined through a rational process
  - In social contract theory rules are created to benefit the community
- ◉ People (actually morally significant beings) have rights that are upheld by society's rules
  - Such as the right to life, liberty and property
  - Modern philosophers have added other rights such as privacy to this list
  - There is a close relationship between rights and duties
    - I have a duty to protect your rights

# RIGHTS CLASSIFICATION

- ◉ Negative right: A right that another can guarantee by leaving you alone
  - e.g. free expression
- ◉ Positive right: A right obligating others to do something on your behalf
  - e.g. free education, public health care
- ◉ Absolute right: A right guaranteed without exception
- ◉ Limited right: A right that may be restricted based on the circumstances

# PRINCIPLES OF JUSTICE

- ◉ John Rawls (1921 - 2002) proposed two principles of justice
  - Each person may claim a *fully adequate* number of basic rights and liberties
    - So long as these claims are consistent with others having a claim to the same rights
  - Any social and economic inequalities must
    - Be associated with positions that everyone has a fair and equal opportunity to achieve
    - Be to the greatest benefit of the least-advantaged members of society (the difference principle)

# SOCIAL CONTRACT THEORY - PROS

- ⦿ This approach reasons in terms of individual rights, a widely-accepted basis of argument
- ⦿ It explains why rational people would behave in ways that result in negative consequences
  - Where no contract exists people may act selfishly
- ⦿ It provides a rationale for resistance if the social contract is broken by the government

# SOCIAL CONTRACT THEORY - CONS

- ◉ When did you read and sign your social contract?
  - Perhaps this is just another way for those who made the rules to get us to obey them
  - But, as Rawls states social contracts are “hypothetical and non-historical”
    - Moral guidelines are the result of analysis
- ◉ Even if you agree to a set of natural rights, there may be competing rights in a given situation
  - e.g. the right to security versus the right to privacy
- ◉ What happens to those that are unable to follow the rules?
  - Are drug addicts who break laws to feed their addictions criminals or sick people?



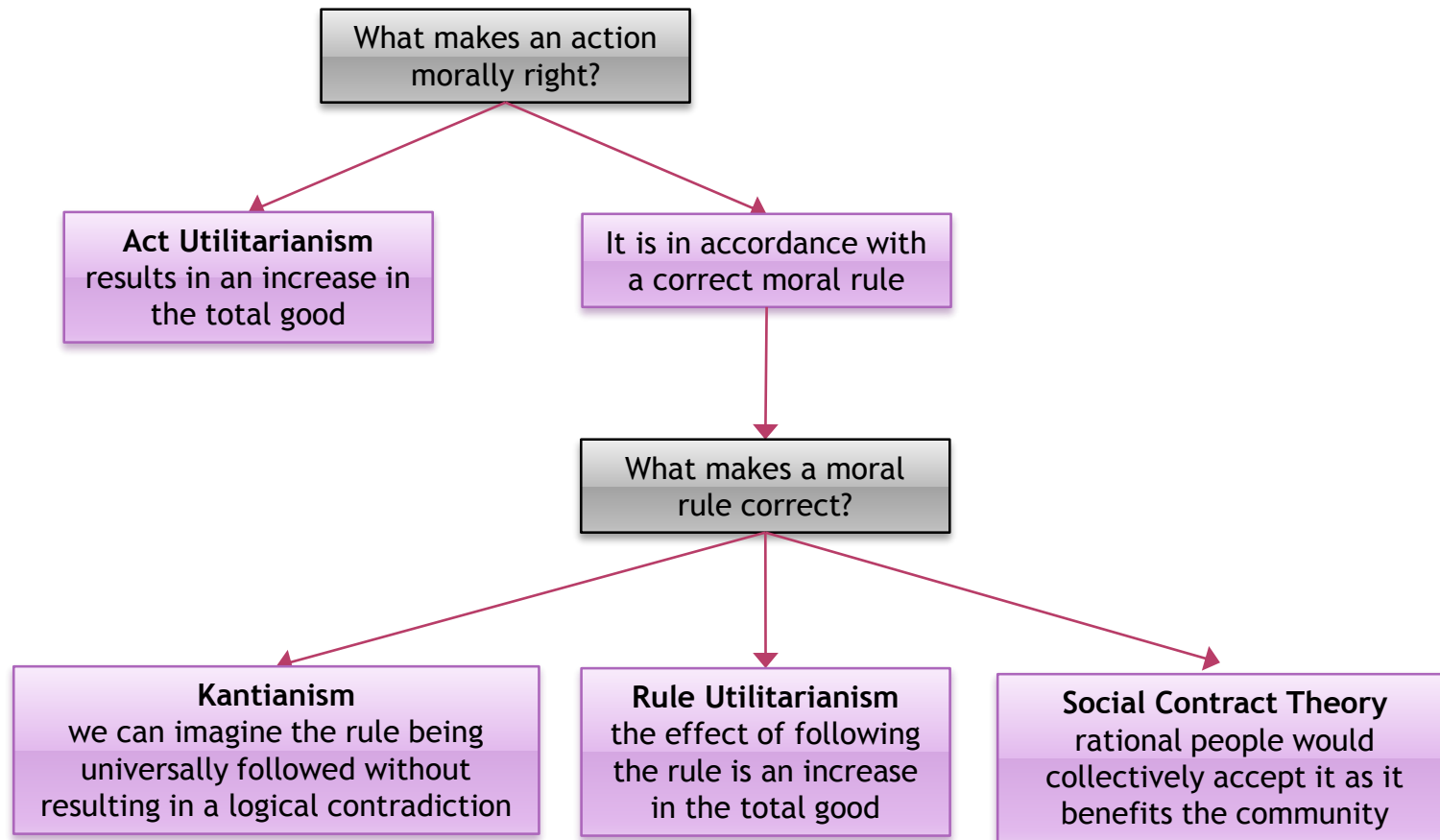
# SOCIAL CONTRACT THEORY

- ◉ Social contract theory is logical and analytical
  - It allows people to explain why an action is moral or immoral based on the effect on people's rights
- ◉ Like Kantianism and Utilitarianism it is useful for reasoning about ethical decisions

# OBJECTIVISM VS. RELATIVISM

- ◉ Objectivism: Morality has an existence outside the human mind
- ◉ Relativism: Morality is a human invention
- ◉ Kantianism, utilitarianism, and social contract theory are examples of objectivism

# COMPARING THEORIES



# REACHING THE RIGHT DECISION

- ◉ There is no formula to solve ethical problems
  - The computer professional must consider trade-offs
- ◉ Ethical theories help to identify important principles or guidelines
  - *Ethical theory* is the study of ethics at a conceptual level
  - *Applied ethics* is aimed at the everyday life of the typical person
  - *Professional ethics* is aimed at a person engaged in the practice of a particular profession

# GENERAL PROCESS

- ◉ Recognize an ethical issue
- ◉ Get the facts
  - Determine the relevant facts and consider if more information is needed
  - Identify stakeholders and determine the relative importance of each stakeholder group
- ◉ Evaluate alternative actions
  - Using different ethical theories
- ◉ Reflect on the decision
  - How would the decision be considered by others?
  - How can the decision be implemented?