# Ethical Principles

Module 4 of a course on *Ethical Issues in AI*

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# Ethical principles

- We must have principles for resolving issues in an objective way.
  - Otherwise we can rationalize anything.
  - **Generalization principle**
  - **Utilitarian principle**
  - **Autonomy principle**

# Basic assumptions

- **Universality of reason**
  - *You don't get to have your own logic.*
- **Acting for reasons**
  - *Freely chosen action is based on a rationale.*

# Basic assumptions

- **Universality of reason**
  - *You don't get to have your own logic.*
- **Acting for reasons**
  - *Freely chosen action is based on a rationale.*
- This is the **deontological** approach to ethics.
  - ***Deontology** = What is required.*
    - Ethical principles represent what is required for the possibility of free action.

# Universality of reason

- What is rational **does not depend on who I am**.
  - *I don't get to have my own logic.*
- The assumption underlies science and all forms of rational inquiry.
  - *Ethics assumes nothing more.*

# Acting for reasons

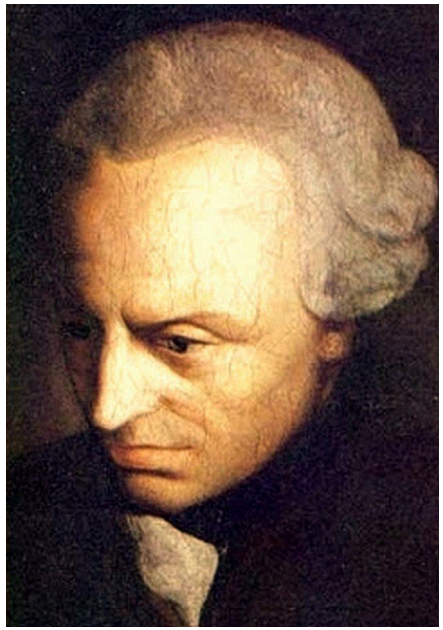
- Basic premise:  We always act for a reason.
  - *Every action has a rationale.*
- Why?
  - *This is how we distinguish **freely chosen action** from mere behavior.*
    - An MRI machine can detect our decisions **before we make them**.
    - If decisions are determined by **biological causes**, how can they be freely chosen?

# Acting for reasons

- Solution:
  - *Free chosen actions have **two kinds of explanation**:*
    - A biological cause
    - A rationale provided by the agent
  - *For example:*
    - A hiccup has **only** a biological explanation.
      Not a freely chosen action.
    - Drinking water to stop hiccups has
      **2 explanations**: a biological cause
      and a rationale. A freely chosen action.

# Acting for reasons

- Dual standpoint theory
  - *Originally proposed by Immanuel Kant.*
    - *Grundlegung zur Metaphysik der Sitten* (1785)
    - *Recent versions: Nagel (1986), Korsgaard (1996), Nelkin (2000), Bilgrami (2006).*
  - *Provides a **basis for ethics**.*
    - Ethical principles are **necessary conditions** for the logical coherence of an action's rationale.



# Generalization principle

# Generalization principle

- My action has a reason behind it.
  - *Why? Every action has a rationale.*
- So if the reason justifies the action for me...
  - *It justifies the action for **anyone to whom the reason applies**.*
  - *Why? Universality of reason.*

# Generalization principle

- Maybe I don't agree with universality of reason.
  - *Why can't I say, "My arguments show that cheating is unethical, but others are free to believe something else."*
    - They are, but I am saying they would be **wrong**.
    - That's what it **means** to believe that cheating is unethical.

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  - *Suppose I say, "My calculations show that 7 + 8 = 15, but others are free to believe that 7 + 8 is something else."*
    - They are, but I am saying they would be wrong.
    - That's what it **means** to believe that 7 + 8 = 15.

# Generalization principle

- **Example**
- Suppose I steal a watch from a shop.
- I have 2 reasons:
  - *I want a new watch.*
  - *I won't get caught.*
    - Security at the shop is lax.

# Example - Theft

- So I am making a decision for everyone:
  - *All who want a watch and think they won't get caught should steal one.*

# Example - Theft

- So I am making a decision for everyone:
  - *All who want a watch and think they won't get caught should steal one.*
- But I know that if all do this, they will get caught.
  - *The shop will install security.*
  - *My reasons will no longer apply*

# Example - Theft

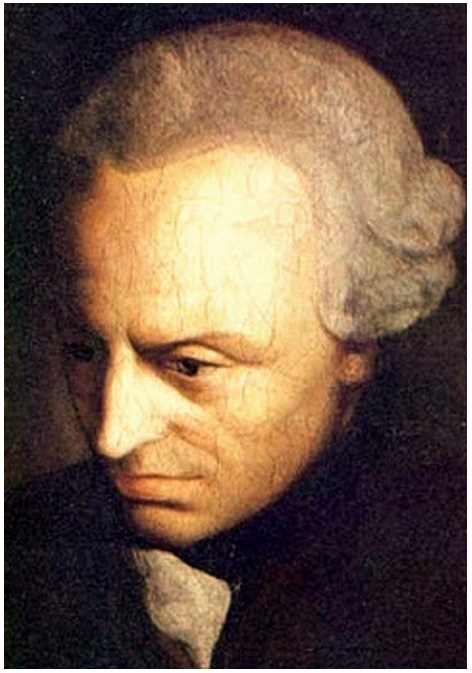
- I am not saying that all these people actually **will** steal watches.
  - *Only that if they did, my reasons would no longer apply.*

# Example - Theft

- My reasons are **inconsistent** with the assumption that people will act on them.
- I am caught in a contradiction.
  - *I am deciding that these reasons justify theft for **me**.*
  - *But I am **not** deciding that these reasons justify theft for **others**.*
  - *I can't have it both ways.*

# Generalization principle

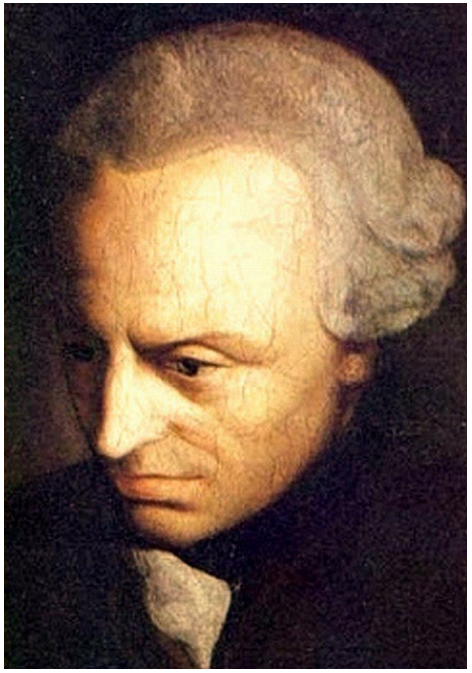
- The principle is:
  - *The **reasons** for an action should be **consistent** with the assumption that **everyone with the same reasons acts the same way**.*



Immanuel Kant
1724-1804

# Generalization principle

- Or more precisely:
  - *It should be **rational** for me to believe that the **reasons** for my action are **consistent** with the assumption that **everyone with the same reasons acts the same way**.*



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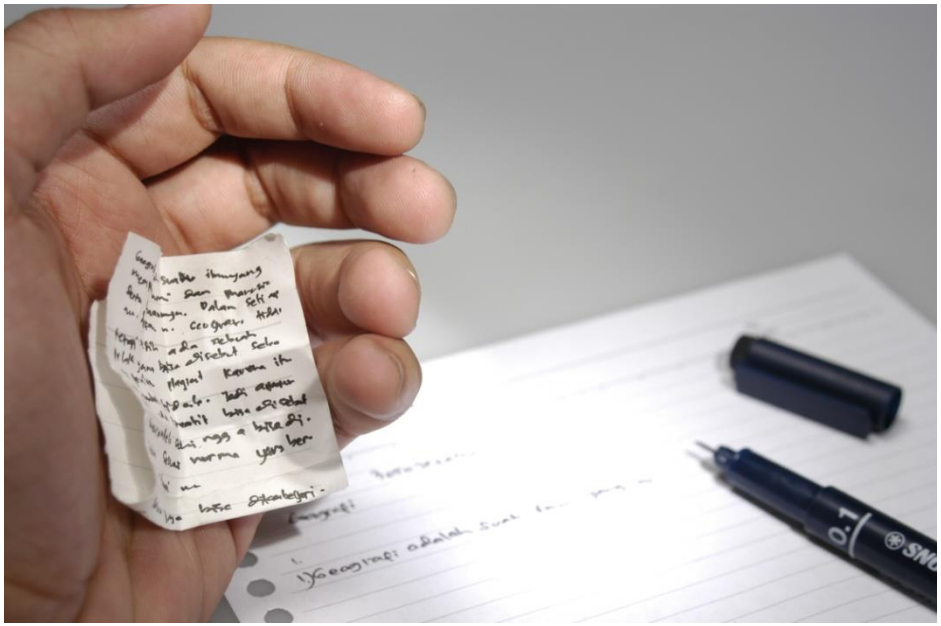
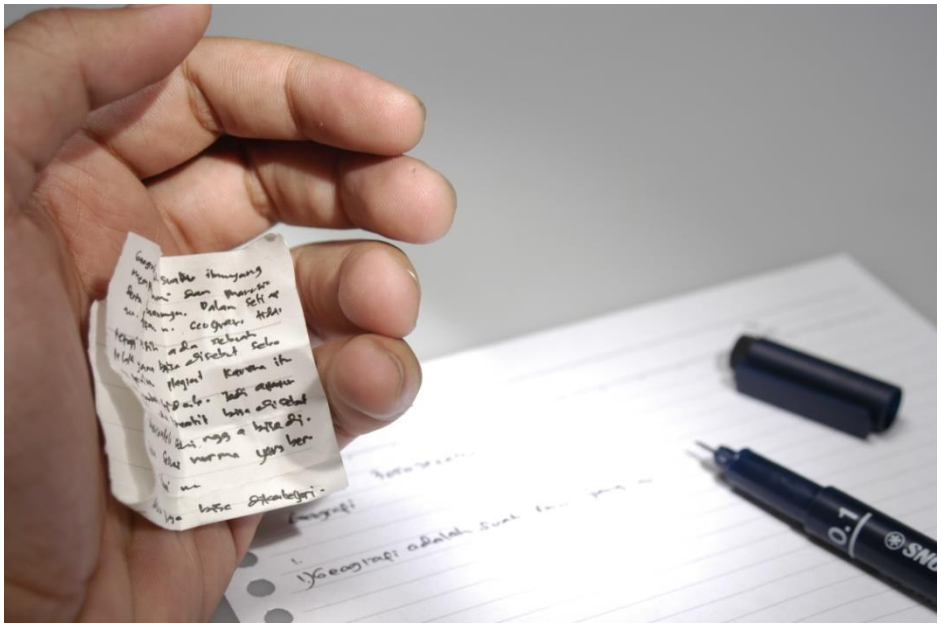
# Example - Cheating

- What is wrong with cheating on an exam?
- My reasons:
  - *I will get a better grade.*
  - *Which means I will get a better job.*



# Example - Cheating

- Nearly all students have these reasons.
- If they all cheat…
  - *Everyone will have a top grade.*
  - *Good grades won't get me a better job.*



# Example - Agreements

- **Breaking an agreement** violates generalization principle.
  - *If I break it merely for convenience or profit.*
  - *An agreement (or contract) is a mutual promise.*

# Example - Agreements

- Suppose everyone broke agreements when convenient.
  - *It would be impossible to **make** agreements in the first place.*
  - *And therefore impossible to achieve my purposes by **breaking** them!*
  - *The whole point of having an agreement is that you keep it when you **don't want** to keep it.*

# Example - Lying

- Lying for mere convenience violates the generalization principle.
  - *If the reason for lying implies that people will believe the lie.*
  - *If everyone lied when convenient, no one would believe the lies.*
    - The possibility of **communication** presupposes a certain amount of credibility.

# Example - Lying

- Lying can be generalizable, depending on the reasons.
  - *Workers in an Amsterdam office building lied to Nazi police, 1940-42.*
    - They denied knowing the whereabouts of Anne Frank's family, who they knew were hiding in the building.
    - Their purpose was to avoid revealing a Jewish family's location to the Nazi regime.

# Example - Lying

- Lying can be generalizable, depending on the reasons.
  - *This is generalizable*
    - If everyone lied to avoid revealing a Jewish family's location to the Nazi regime, it would still be possible to accomplish this purpose by lying.
    - It would not be necessary for the police to believe the lies.

# Alternate formulations

- The generalization principle can be formulated:
  - *It should be rational for me to believe that I could **achieve my purposes** if everyone with my reasons acted the same way.*
    - I would not achieve my purpose by cheating if everyone cheated to get a better job.

# Alternate formulations

- The principle can also be formulated:
  - *It should be rational for me to believe that the **practice or institution** that makes achieving my purposes possible would **not be undermined** if everyone with my reasons acted the same way.*
    - The institution of grades would be undermined if everyone cheated to get a better job.

# Example - Theft

- Suppose I steal whenever it is convenient and profitable for me.  Why is this unethical?
  - *Because it is illegal?*
    - Suppose it were legal.  Would this make it OK?

# Example - Theft

- Suppose I steal whenever it is convenient and profitable for me. Why is this unethical?
  - *Because it is illegal?*
    - Suppose it were legal. Would this make it OK?
  - *It would undermine the institution of **property**.*
    - I steal something to have possession and use of it.
    - That is, to make it **my property**.
    - If everyone stole for convenience, there would be no institution of property.
    - When I steal something, others will steal from me 5 minutes later.

# Example - Deception

- One can **deceive** without lying.
  - *For example, if your doctor deliberately neglects to mention a serious diagnosis.*
    - There is no lying, only deception.
    - Deception = **causing someone to believe something you know is false**.

# Example - Deception

- One can **deceive** without lying.
  - *For example, if your doctor deliberately neglects to mention a serious diagnosis.*
    - There is no lying, only deception.
    - Deception = **causing someone to believe something you know is false**.
  - *Deception, merely for convenience, is **not generalizable**.*
    - It would not deceive if generalized.

# Human decision making

- A flaw in rationality-based ethics?
  - *Most of our actions are automatic.*
    - We can't devise a rationale for everything we do.
    - We are creatures of habit.
  - *This doesn't mean we are unethical most of the time.*

# Human decision making

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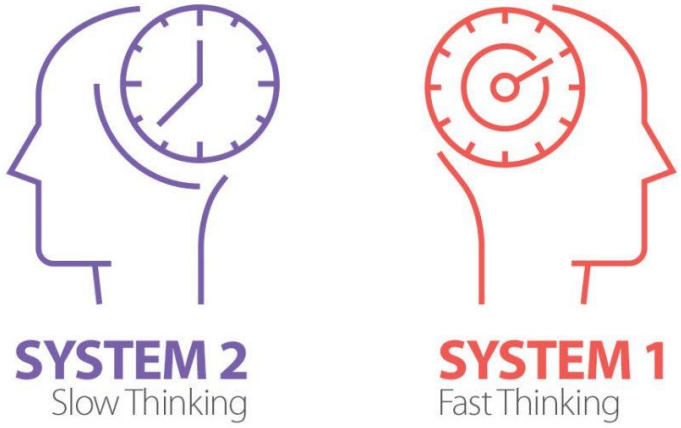
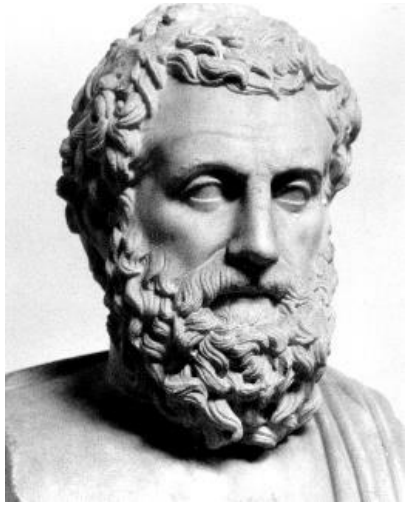
    - We can't devise a rationale for everything we do.
    - We are creatures of habit.
  - *This doesn't mean we are unethical most of the time.*
  - ***Dual process theory** agrees.*
    - **System 1 thinking** is fast and unconscious.
    - **System 2 thinking** is slow and based on conscious reasoning.
    - We usually rely on System 1.



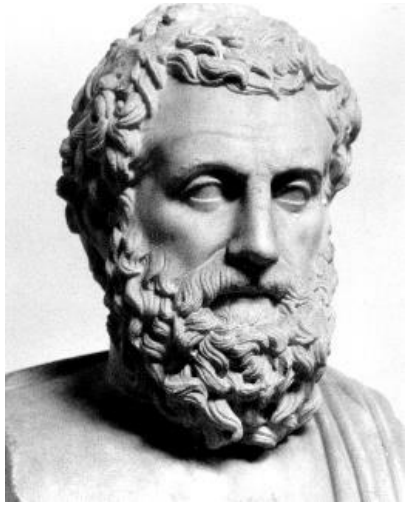
# Human decision making

- Ethicists are well aware of this
  - *Going back at least to Aristotle.*
  - *We allows habits to **continue**.*
    - If I continue smoking, I **make a decision** not to break the habit.



# Human decision making

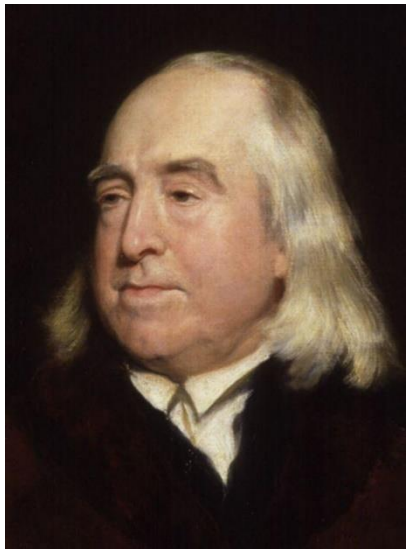
- Ethicists are well aware of this
  - *Going back at least to Aristotle.*
  - *We allows habits to **continue**.*
    - If I continue smoking, I **make a decision** not to break the habit.
  - *We can **invoke system 2 thinking** when needed.*
    - This is where **ethics** comes into play.



# Utilitarian principle

# Importance of utility

- The **utilitarian principle** is based on the idea that one should try to make things better.
  - *Or as Jeremy Bentham put it, one's actions should* ***maximize utility***
    - That is, create the **greatest good for the greatest number**
      *"On the principle of utility" (1780)*



Jeremy Bentham
Father of utilitarianism

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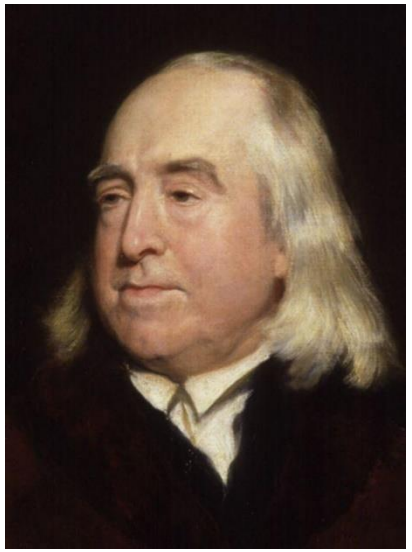
    - For example, Bentham believed that criminal penalties should be designed to reduce crime rather than exact retribution.



Jeremy Bentham
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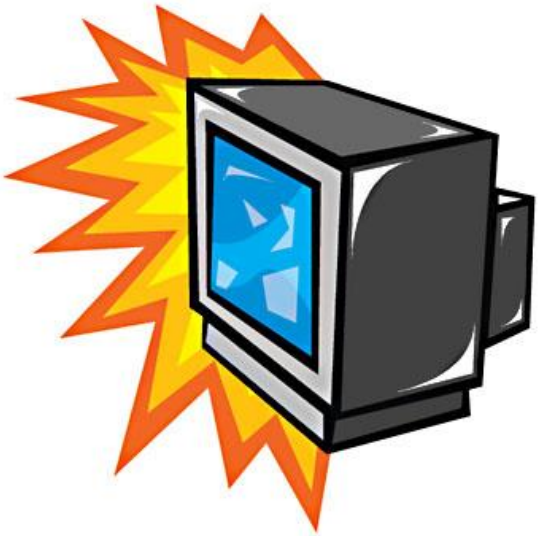
Bentham’s skeleton dressed in his clothes, with wax head, in student center of University College London

# Importance of utility

- For example, suppose I listen to loud TV in my hotel room at 2 am.
  - *Keeping other guests awake.*
    - Why is this unethical?
    - Let's say it doesn't violate hotel rules
    - **So it satisfies the generalization principle**.



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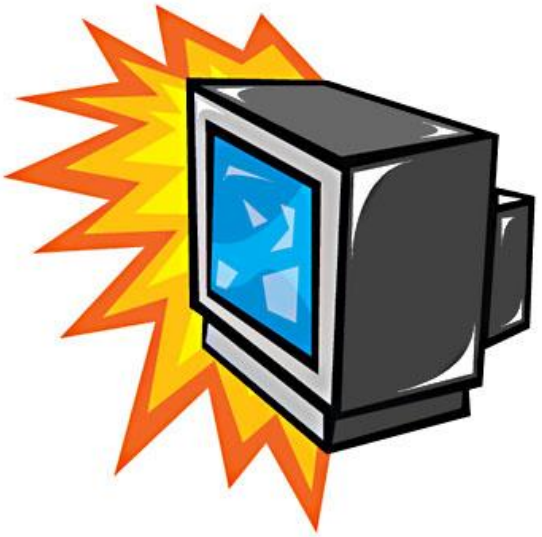
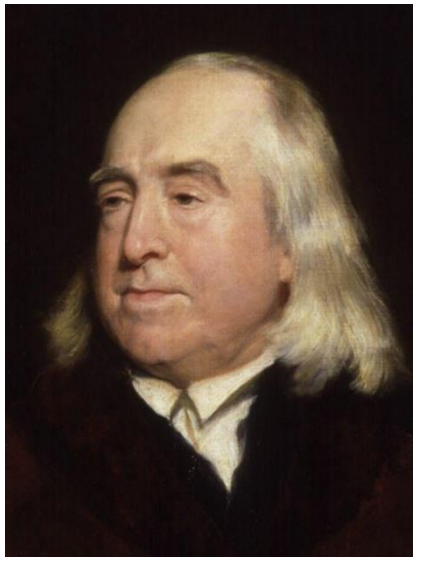


- Problem: it reduces net utility.
  - *Maybe it makes me a little happier.*
  - *But it substantially reduces utility of other guests.*

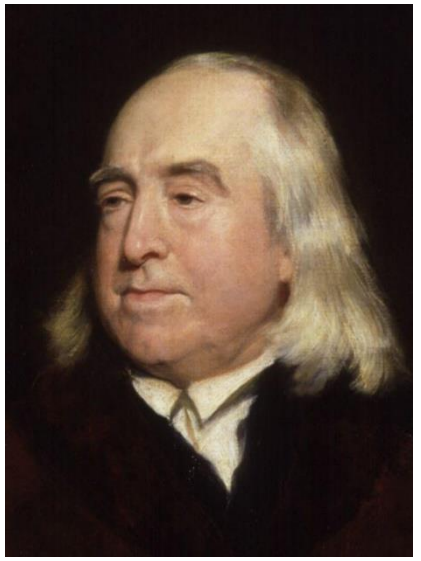
# Basic argument

- Step 1: An action is often a **means to an end**.
  - *You may want to achieve some goal.*
  - *Maybe your ultimate goal is happiness.*
    - This was Bentham's suggestion.
  - *Whatever it is, let's call it **utility**.*
    - It's what you regard as **inherently valuable**, as the **end** to which your actions are a **means**.



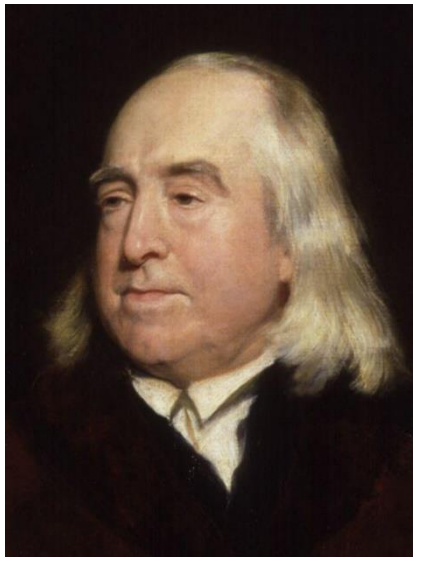
# Basic argument

- Step 2:  If I regard something as inherently valuable...
  - *I must regard it as inherently valuable for **anyone** (not just me).*
  - *…due to the **universality of reason**.*



# Basic argument

- Step 3:  My actions should take everyone's happiness as seriously as my own.
  - *Bentham thought this means* ***maximizing total net utility****.*
    - This is adequate for most purposes.
    - We will go with it for now.



# Utilitarian principle

- An act is ethical only if I can rationally believe that **no other act**…
  - *creates **more net expected utility****…*
  - *and **satisfies other ethical principles**.*

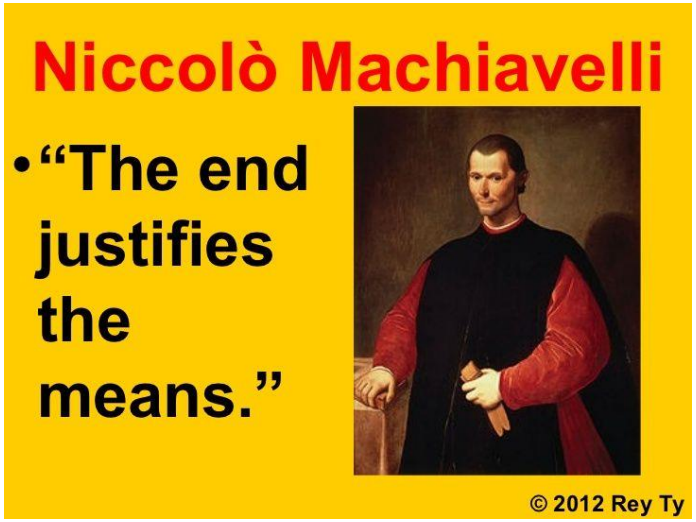
**counting **everyone's** utility.*

# Utilitarian principle

- Why consider only actions that satisfy other ethical principles?
  - *Because behavior that doesn't satisfy other ethical principles is **not action**.*
    - And so is not a freely chosen option.
  - *So utility can never "override" the other principles.*

# Utilitarian principle

- Does the **end** justify the **means**?
  - *Only an end **can** justify a means.*
  - *But only it can do so **only if**…*
    - The means satisfies the **generalization** and **autonomy** principles.
    - The disutility of the means **doesn't offset** the utility of the end.



# Measuring utility

- What if it's hard to predict the outcome of a decision?
  - *I am not required to have a crystal ball.*
  - *I need only make a **rational** determination, given the evidence.*
  - *If there is no way to tell, the utilitarian principle is satisfied by default.*

# Measuring utility

- But I must make a reasonable effort to research the issue.
  - *The same effort I would invest in decisions that affect me.*
    - For example, it is **irrational** to buy real estate without checking into it.
  - *Find **optimal tradeoff** between research and need to act.*
    - This is “satisficing,” a concept introduced by Herbert Simon.
    - Don’t waste time researching minor decisions.

# Autonomy principle

# Autonomy

- Fundamental obligation: **respect autonomy**.
  - *This rules out murder, coercion, slavery, etc.*
- Why this obligation?
  - *Will explain shortly…*

# Autonomy

- Autonomy = self-law
  - *I act **autonomously** when I freely make up my own mind about what to do, based on coherent reasons I give for my decision.*
  - *An **agent** is someone who can act autonomously.*
    - Sometimes called a “moral agent.”
  - ***Agency** is the exercise of autonomy.*

# Autonomy

- Autonomous vs. programmed
  - *An "autonomous car" is **not** autonomous in this sense.*
  - *It is only **programmed**.*
    - …and therefore independent of real-time human control.

# Action plans

- To make things more precise…
  - *An action has the form of an **action plan**.*
    - **If** the reasons for my action apply, **then** do it.
    - Example: "If I want to catch the bus, and the bus stop is across the street, and no cars are coming, then cross the street."

# Coercion

- Coercion violates my autonomy if it **interferes with my action plan**.
  - *I start to cross the street to catch a bus, **no cars are coming**, and you pull me off the street.*
  - *This interferes with my action plan.*
  - *A violation of autonomy.*

# Coercion

- Coercion does **not** violate my autonomy if it is **consistent with my action plan**.
  - *I start to cross the street to catch a bus, and you **pull me out of the path of a car**.*
  - *This is **consistent** with my action plan.*
  - *Not a violation of autonomy.*

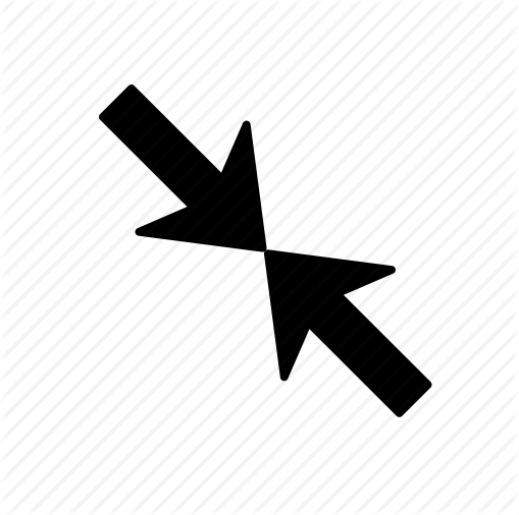
# Autonomy principle

- An action plan is **unethical** if the agent is **rationally constrained to believe*** that…
  - *it **interferes** with the **ethical action plans** of some collection of other agents **without informed or implied consent**.*

**it is irrational not to believe…*

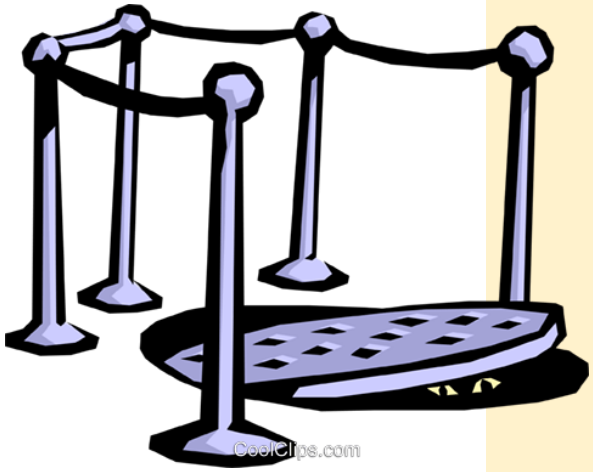
# Autonomy principle

- Why?
  - Let's say I interfere with **your** ethical action plan.
  - If **I were you**, I would be interfering with **my own** action plan, which makes no sense.
  - But the universality of reason says that when choosing an action, **it should not matter** whether I am me or I am you.
  - So interfering with an ethical action plan is **self-contradictory**.



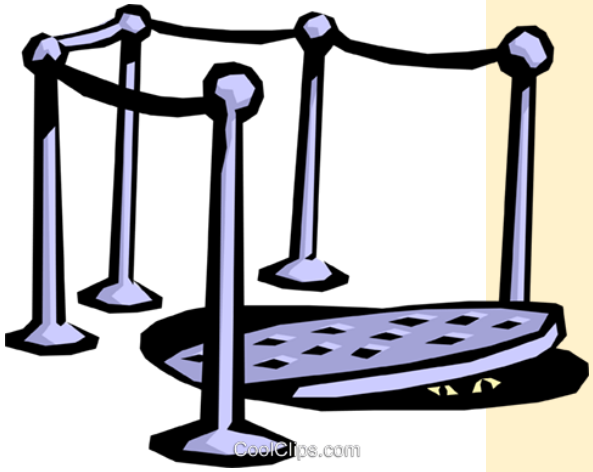
# Autonomy principle

- I must be **rationally constrained to believe** there is a conflict of action plans.
  - *That is, it is **irrational** not to believe this.*
    - If someone falls into a manhole I leave unprotected while working under a busy street, this is **not** a violation of autonomy.
    - It is only **probable** that someone will fall in.
    - My neglect violates the **utilitarian** principle.



# Autonomy principle

- I must be **rationally constrained to believe** there is a conflict of action plans.
  - *That is, it is **irrational** not to believe this.*
    - However, suppose I replace the manhole cover with one that will **collapse** when someone steps on it (a booby trap).
    - And it is on **5th Ave NYC**.
    - I must believe this will interfere with someone's action plans.
    - This **violates autonomy**.



# Autonomy principle

- Suppose my commanding officer orders me to torture a prisoner.
  - ***Futility argument:*** *results are the same if I refuse, as someone else will obey the orders.*
    - This shows that the torture passes **utilitarian** test.

Abu Ghraib Prison, Iraq

# Autonomy principle

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  - ***Futility argument:*** *results are the same if I refuse, as someone else will obey the orders.*
    - This shows that the torture passes **utilitarian** test.
  - ***Autonomy argument:*** *My torture violates autonomy of the prisoner.*

# Informed consent

- Coercion does **not** violate autonomy if there is **informed consent**.
  - *I attend a concert where there are strict rules against recording the performance.*
  - *Yet I record it anyway.*
  - *Ushers compel me to leave.*
  - *This does not violate my autonomy*
    - I gave informed consent.
    - My action plan was, "If I am not kicked out for doing so, I will record the performance."
    - The ushers did not interfere with this action plan.

# Informed consent

- Coercion does **not** violate autonomy if there is **informed consent**.
  - *My employer tells me I must transfer to another city or be fired.*
  - *This seems inconsistent with my action plan.*
  - *But by taking the job, I implicitly agreed to abide by the company's business decisions.*
  - *So my action plan is consistent with the company's decision.*

# Limits on autonomy

- The autonomy principle doesn't require you to allow people to **do anything they want**.
  - *You can interfere with **unethical** action.*
    - Because unethical action is **not really action**, and so there is no interference with an action plan.

# Limits on autonomy

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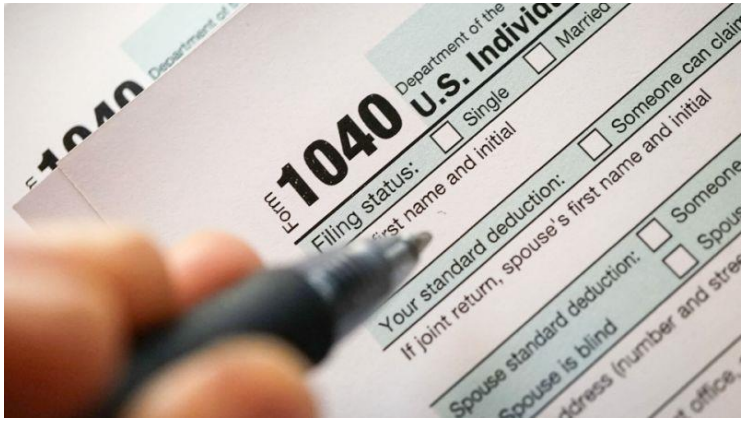
  - *You can interfere with **unethical** action.*
    - Because unethical action is **not really action**, and so there is no interference with an action plan.
    - You can defend yourself, because attacking you is unethical.
    - You can keep people off your property, because trespassing when forbidden by owner is illegal and therefore unethical.

# Interference principle

- ***More*** *than minimal coercion is problematic.*
  - I can't lock you in a closet to prevent you from cheating on your income tax.
  - This interferes with many ethical actions.



# Limits on autonomy

- A restaurant can ethically refuse to serve me unless I wear a mask.
  - *This does not interfere with **my** action plan.*
    - I cannot have an action plan of being served. This is not my decision to make.
    - I can only have an action plan of eating in the restaurant **if served**.
  - *A government mandate is another issue.*

# Limits on autonomy

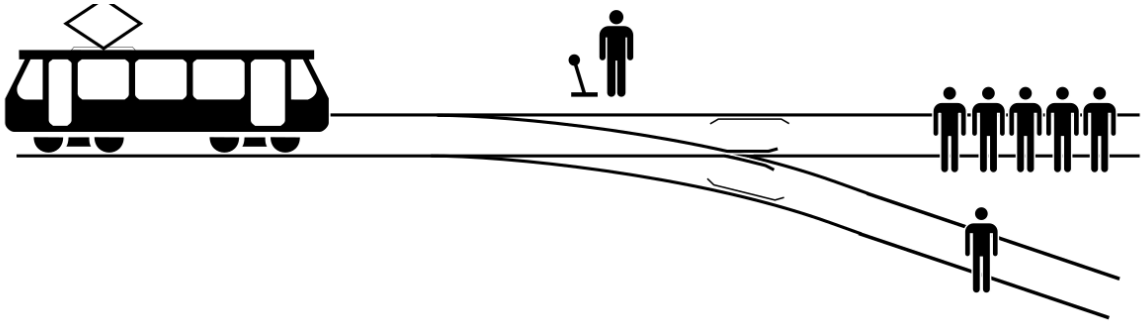
- However, a prison guard cannot ethically refuse to serve me food and water.
  - *True, I cannot have an action plan of being served food and water.*
    - But deprivation of necessities interferes with any and all of my ethical action plans.
    - It therefore violates autonomy.

# Limits on autonomy

- My boss cannot ethically require me to contribute to a political party I don't support.
  - *I gave **no informed consent** to this.*
  - *But there is **no violation of autonomy**.*
    - I cannot have an action plan of being employed while making no political contributions.
  - *But this **violates generalizability**.*
    - It is a breach of the employment agreement, which implicitly promises that my duties will be related to the operation of the business.

# Trolley car dilemmas

- Often introduced to stimulate discussion.
  - *Allow trolley to kill 5 people, or pull switch and kill one person?*
    - Gives impression that ethical dilemmas cannot be resolved.



# Trolley car dilemmas

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  - *Allow trolley to kill 5 people, or pull switch and kill one person?*
    - Gives impression that ethical dilemmas cannot be resolved.
  - *Analysis? Autonomous action is impossible.*
    - Ethics tells us to avoid these situations in war, police work, medical triage, etc.