

Phil. 2200

Notes: Hobbes & the State of Nature

Thomas Hobbes

Biographical note: 17th-century British philosopher. One of the originators of the social contract theory. Author of *Leviathan*, a long book on political philosophy & the social contract theory.

On human nature & morality

- *Psychological Egoism:* All humans are 100% selfish.
- *Ethical Egoism:* Self-interest provides the only good reason anyone can ever have for doing anything. Selfishness is good.
- No natural law. Morality dependent on government.
 - “The notions of right and wrong, justice and injustice, have there no place. Where there is no common power, there is no law; where no law, no injustice. Force and fraud are in war the two cardinal virtues.”
- In the state of nature, “every man has a right to every thing, even to one another’s body.”

The State of Nature (ch. XIII)

- Three causes of conflict:
 1. *Competition:* People attack others to seize resources.
 2. *Diffidence:* People attack others to prevent others from attacking them at a later time.
 3. *Glory:* People attack others to gain respect, avenge insults, etc.
- Result:
 - A war of all against all.
 - “There is no place for industry, because the fruit thereof is uncertain”, etc.
 - “And the life of man, solitary, poor, nasty, brutish, and short.”
- Empirical evidence:
 - “The savage people in many places of America . . . have no government at all, and live at this day in that brutish manner, as I said before.”
 - “When taking a journey, [a person] arms himself and seeks to go well accompanied; when going to sleep, he locks his doors; when even in his house he locks his chests; and this when he knows there be laws and public officers, armed, to revenge all injuries shall be done him Does he not there as much accuse mankind by his actions as I do by my words?”
 - Rulers are in a ‘state of nature’ with respect to each other, and it is a constant state of war. But this is not as bad as the war of individuals against each other.

Of Natural Laws (ch. XIV)

- Laws of self-preservation:
 1. a) To seek peace. b) To defend ourselves.
 2. To be willing to lay down our right to all things, to achieve peace
- Origin of ‘injustice’:
 - People can renounce/transfer a right, by word or deed.
 - Injustice: One renounces/transfers a right, then goes back on it.
 - But: there must first be a government to enforce contracts. Otherwise, there’s nothing wrong with breaking your word.
- But some rights are inalienable:
 - All voluntary acts aim at some benefit to self

- No one can be understood to voluntarily give up a right, if there is no benefit to him from doing so.
- One cannot give up the right of self-defense against those who aim to kill, injure, or imprison oneself.

Why you should keep agreements (ch. XV)

- You should keep agreements. Objection:
 - It is sometimes in your interest to break covenants.
 - It is rational to do whatever is in your interests.
 - So, it is irrational (“against reason”) to keep such covenants.
- Response:
 - It is not in your interests to break covenants: Other people will kick you out of society. Then you will die.
 - Also, don’t rebel against the king:
 - a) you cannot know if you will succeed,
 - b) if you do, others may try to overthrow you.

The origin of government (ch. XVII)

- The ‘sovereign’: Everyone gives up all their rights to one person or group.
- Advantages:
 - Prevents them from fighting among themselves.
 - Defense against foreign governments.
- The government should have absolute power. The state is god:

“This is the generation of that great LEVIATHAN, or rather, to speak more reverently, of that mortal god to which we owe, under the immortal God, our peace and defence.”

Objection: The government could abuse its power (ch. XX)

Response:

- Couldn’t be as bad as the state of nature.
- All problems are the subjects’ fault:

“There happeneth in no Commonwealth any great inconvenience but what proceeds from the subjects’ disobedience and breach of those covenants from which the Commonwealth hath its being.”
- Can’t limit the power of a government, without having some more powerful agency.

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Notes: Prisoners' Dilemmas

I. The Prisoner's Dilemma

A game with the following actions and payoffs*:

		Player 2	
		Cooperate	Defect
Player 1	Cooperate	3,3	1,4
	Defect	4,1	2,2

*Notes: "x,y" means payoff x for player 1 and y for player 2. Higher numbers are better.

- What should each player do?
 - Player 1 should defect. Defection is the **dominant strategy**: whatever player 2 does, player 1 increases his score by defecting.
 - Player 2 should likewise defect.
- Problem: "defect, defect" outcome is worse for both than "cooperate, cooperate" outcome. Hence the "dilemma."
- Important: Game theory "games" are *not competitions*. Goal is to maximize own payoff, not to beat other player.

II. Some Examples

- Real life examples:
 - Trade: You and I agree to trade my cow for your keg of beer. Somehow, each of us has to give what he has before he knows that the other party has done their part. Outcomes:
 1. I cooperate, you defect: I lose my cow & get nothing. (worst for me)
 2. Both cooperate: Each has something we prefer to what we started with (good)
 3. Both defect: Both keep what we started with (less good)
 4. I defect, you cooperate: I get both the cow & the beer. (Best for me)
 - Birds picking ticks off each other's heads (Dawkins, 2007)
 1. Worst outcome: I pick your ticks, you do nothing.
 2. Second worst: No one picks ticks.
 3. Second best: Both pick ticks off each other's heads.
 4. Best outcome: You pick ticks off my head, I do nothing.

III. Sidebar: The PD with known iterations

- Two parties play PD repeatedly, with # of plays known in advance.
- Your action may affect other player's actions in future rounds.
- Theoretical prediction: Both parties defect every time.

IV. The indefinitely iterated PD

- PD is to be played many times (unknown #).
- Your action may affect other player's actions in future rounds.
- What is the best strategy?
 - *Nice* strategies: are never first to defect
 - *Provocable* strategies: can be caused to defect by other player's behavior
 - *Forgiving* strategies: do not hold a grudge

- *Best strategy: Tit for tat*
 - Cooperate in round 1.
 - In round $n+1$, do what the other player did in round n .
- This was tested & confirmed by Robert Axelrod (*The Evolution of Cooperation*)
- Why is this best?
 - Avoids extended runs of sucker's payoffs. Cost: potential 1 round of sucker's payoff.
 - Obtains extended runs of cooperation with other nice players.
 - Beats nasty strategies: The payoffs from cooperation outweigh the 1 round of sucker's payoff.
 - Beats pacifist strategy ("always cooperate"): avoids multiple rounds of sucker's payoffs.
- Note: Best strategy is relative to the field of competitors. However, TFT works in many contexts.
- Variation: PD with errors: Suppose a player periodically misinterprets the other player's action.
 - Then TFT can lead to long runs of mutual recrimination, CD DC CD ...
 - Can be improved by a more forgiving strategy.
- Sidebar: Other ways to increase cooperation
 - *Reputation*: Players have access to other players' previous moves in interactions with third parties.
 - *Selection*: Players can choose whom to play with.
 - *Reproduction*: Frequency of a program increases with each round that it is successful.

V. Lessons for understanding society

- To be selfish, be nice, forgiving, but provocable.
- Don't be envious. Goal is to maximize your score, not 'beat' your partner. TFT *cannot* beat its partner.
- Strategies may be conscious *or unconscious*. "Strategies" are defined purely behaviorally. Hence,
 - Real-life players may be moved by thoughts of "justice", the virtue of "forgiveness", etc.
 - But they may *behave* like rational utility-maximizers.

VI. More real-life examples

- German & British soldiers "cooperating" with mutual non-aggression during WWI.
- The British soccer example.
 - Teams A and B will each move to the next round if they draw against each other. If one loses, the loser is eliminated.
 - Result: Teams start cooperating for a tied score.
- Chess tournaments can have similar cases. Both players agree to a draw.

VII. Postscript

- In a later tournament, another strategy won:
 - People from Southampton University submitted a total of 60 programs.
 - Southampton programs were designed to recognize each other in the first 5-10 rounds against each other.
 - After recognition, the programs assume a "master-slave" relationship.
 - The programs defect against non-Southampton programs.
- But this result has little theoretical interest. (Why?)

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Notes: Friedman’s Positive Account of Property Rights

Introduction

Q: Why do people recognize ‘rights’?

- Moral concept of ‘rights’: “A has a right to do B” ≈ “It would be (prima facie?) wrong to prevent A from doing B.”
- Legal concept of ‘rights’: “A has a right to do B” ≈ “There’s no law against A doing B.”
- These don’t explain all rights-respecting behavior:
 - Both fail to explain Britain’s ‘right’ to control Hong Kong or ‘ownership’ of the Falkland Islands.
 - For the moral concept: some aspects of accepted property rights seem arbitrary.
 - For the legal concept: there is some circularity, since the behavior of government people is partly explained by the rights that they have. (Better argument: legal rights depend upon the laws themselves having been made ‘legitimately’, i.e., by people who had the right to make those laws; and how is that to be understood?)
- Alternative: a *positive* account of rights: A theory of why people would engage in rights-recognizing behavior, independent of moral beliefs or laws. “Rights ... are a consequence of strategic behavior and may exist with no moral or legal support.” (p. 2)

I. Schelling points, self-enforcing contracts, and the paradox of order

Q: What is the difference between civil society and the ‘Hobbesian state of nature’?

- [Note: the ‘Hobbesian state of nature’ is a state of social chaos; no rule of law.]
- Not because of the physical objects present. (Courtrooms, law books, etc.)
- Not because of the people present. (Police officers, politicians, etc.) For what makes those people act in the socially orderly way?
- Answer: People in a civil society face a different strategic situation than people in a state of nature. (They have different incentive structures.)

A. Schelling points

- **Coordination problems:** A “game” in which each party has multiple options, and both gain some good if and only if they choose the same option. Q: If the people can’t communicate, how can they coordinate?

		Player 2			
		A1	A2	A3	...
Player 1	A1	1,1	0,0	0,0	...
	A2	0,0	1,1	0,0	...
	A3	0,0	0,0	1,1	...
	⋮	⋮	⋮	⋮	

- A **Schelling point** is a solution that people will tend to converge on in the absence of communication, because it seems natural or ‘special’ to them.
 - Ex.: You and a friend have to try to pick the same number from the following sequence:

2, 5, 9, 25, 69, 73, 82, 96, 100, 126, 150

Which number do you pick?

- The game of **bilateral monopoly**: Two people are in a room with \$10. They may keep the money if

they can agree on how to divide it between them. If they can't agree, then neither gets anything.

- In terms of pure game theory, *any* division (other than 0-10) benefits both parties, so both parties should be willing to accept it. Should you insist on 9-1 in your favor?
- Note how this is similar to the above game. What division should you propose/accept?
- Schelling points provide alternatives to continued bargaining.

B. Up from Hobbes

- Imagine 2 people in a state of nature.
 - Both want to avoid conflict.
 - Best way is to agree on a system of rights, esp. property rights. This is a coordination problem.
 - * Agreement \Rightarrow both get peaceful cooperation (good)
 - * No agreement \Rightarrow lack of cooperation, risk of conflict (bad)
- The Schelling point:
 - May use some natural boundary to divide the land. Neither party pays tribute to the other.
 - Any previous agreement is thereafter itself a Schelling point.
- The establishment of the agreement does not alter our physical situation or physical power. But it alters the strategic situation.
 - Neither party violates the agreement, because that would return them to the 'Hobbesian jungle.'
 - If one party violates the agreement, the other party fights, because allowing the violation "implies unlimited demands." If A allows B to steal from him, A loses not only that property, but also the advantage of *having agreed-upon property rights*.
- Important: The contract enforces itself, *without moral beliefs or legal sanctions*.

II. Two routes from Hobbes to here

- Main idea:
 - There is a process of evolution of norms, whereby more efficient rules win out.
 - It produces *locally efficient* but not necessarily *globally efficient* norms. I.e., a norm will not be adopted if its benefits depend upon almost everyone adopting it. It will be adopted if it benefits small groups who adopt it.

III. Law, justice, and efficiency

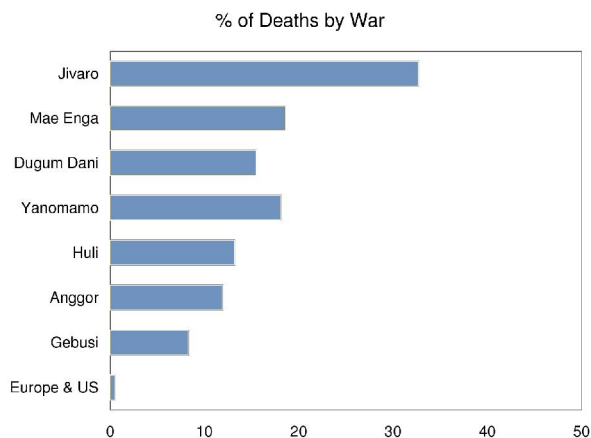
- The 3-way coincidence: the following tend to be about the same:
 1. The (intuitively) morally correct rules
 2. The economically efficient rules
 3. The rules that are actually in effect
- Why this coincidence?
- (II) above explains why 2 & 3 tend to coincide.
- To think about: Why does (1) correspond with (2) and (3)? What, if anything, does this show about the nature of morality?

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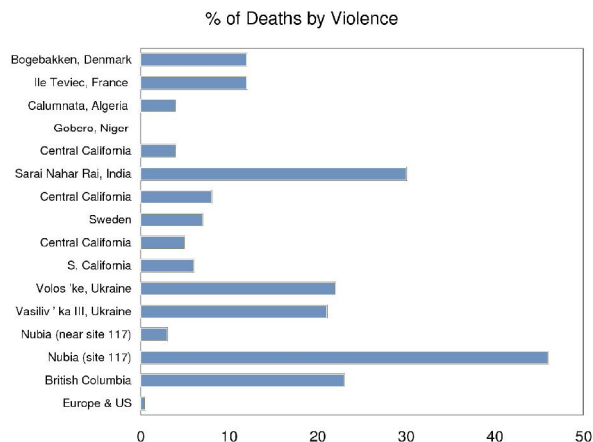
Notes: Our Violent Past

Primitive Societies Are Very Violent

Modern Primitive Societies:



Prehistoric Primitive Societies:



Q: Why?

- Is Hobbes' analysis correct?
- Why doesn't tit-for-tat win out?
- Why doesn't Friedman's analysis win out?
- Why wasn't this behavior selected out?

Hobbes' analysis is not the explanation

- Hobbes' thesis: violence is prevalent in primitive societies because *violence is rational*.
- Problem: War is very costly. Appears irrational on its face.
- Problem: Hobbes does not distinguish ingroup/outgroup → cannot explain why most violence is intergroup.
- Problem: Hobbes analysis supposed to apply to all rational individuals → cannot explain why almost all violence is male-on-male.
- Possible problem: Why is male-on-male violence also prevalent among nonhuman animals?

Theory: Primitive violence has a biological explanation

- Assumptions of Evolutionary Psychology:
 - Some psychological characteristics are caused/influenced by genes.
 - Some characteristics tend to cause an organism to reproduce more, on average, than alternative traits.
 - If organisms with a gene tend to reproduce more than the organisms with its alleles, then that gene's frequency in the population will increase.
 - Conclusion: Populations will be dominated by organisms with characteristics that tend to increase reproduction (compared to alternative characteristics that could have been produced by other genes).
- * Qualifier: These characteristics tended to increase reproduction *in our evolutionary past*, not necessarily today.
- * Qualifier: Inclusive fitness: for these purposes, reproduction may be by the individual organism *or* other organisms who hold copies of the same genes (ex.: immediate family).

- Informally: Organisms will tend to behave *as if* seeking to maximize the number of copies of their genes in the population.
- Hypothetical scenario:
 - Male M has the option of participating in a raid on a neighboring tribe.
 - M presently has 1 wife.
 - If M participates in the raid, M has a 50% chance of dying. → Future reproduction = 0.
 - If M participates in the raid, M has a 50% chance of capturing a new wife. → Future reproduction doubled.
 - Conclusion: Raiding & not raiding are about equally good.
- Conditions that would make raiding definitely favored:
 - M presently has no wife.
 - Probability of capturing new wife > probability of death.
 - M can capture two or more wives.
- Note common misconceptions about evolutionary psychology:
 - Evolutionary psychology does *not* say that people perform these calculations to predict future offspring. These calculations are performed by a theorist seeking to explain why a trait was/wasn't selected for.
 - Evolution does not select for *survival* so much as *reproduction*.
 - Selection operates on individual genes, not whole organisms, groups, or species.
- Why not female violence?
 - Females *do not* increase their reproductive capacity by gaining additional husbands. They can only reproduce once in 9 months, no matter how many husbands they have.
 - Males *do* increase their reproductive capacity by gaining additional wives.

What about modern warfare?

- Objection:
 - In modern societies, the people who start wars do not thereby get to reproduce more.
 - The wars are not fought over females.
 - So the above theory leaves *modern* warfare unexplained.
- Not so:
 - Evolutionary psychology predicts traits that increased our reproductive fitness *in the past*, not necessarily today.
 - It does not say that people *try to* increase or *think about* increasing their reproduction. It just says that people have traits that would have *resulted in* increasing their reproduction.
 - * The mechanism causing conflict might have been merely that human males feel emotions of hostility toward males of other social groups.
 - * The above account explains why this trait would have been selected for.
 - We still have that trait, even if it is no longer adaptive.
 - This explains modern conflict.

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Notes: Commons, Public Goods, & Externalities

I. The Tragedy of the Commons

- There is a common grazing area. Many ranchers have free access.
 - Ranchers profit according to # of cattle they have.
 - If land is overgrazed, it becomes useless to everybody.
- What will happen?
 - Each rancher gets 100% of the benefit of each cow he adds to the land.
 - He gets $1/n$ of the cost, where n is the # of ranchers.
 - He “should” then put as many cows on the land as possible.
 - Problem: The land becomes overgrazed & worthless. Maybe he should restrain himself? Problem:
 - If *one* other rancher overgrazes, that rancher gets all the benefit, and everyone else is a “sucker”.
The larger the group, the more certain that this happens.
 - If one rancher *thinks* someone else will overgraze, then he “should” do so first.
 - No natural rule for how much each can graze (no Schelling point).
- Analogies:
 - Population & overbreeding.
 - Pollution.
 - Use of National Parks.

II. Public Goods

- Like the tragedy of the commons, except with something good.
 - Non-excludable: The good must be provided either to all or to none of the members of some pre-existing group \Leftrightarrow Provider cannot collect money proportional to the value of the good. \Leftrightarrow Provider bears the costs, other people get the benefits.
- Example: A dam could protect a valley from flooding.
 - Anyone who builds it pays the cost.
 - The benefit goes to everyone in the valley.
 - Problem: no individual will choose to build it.

III. Externalities

- *Positive externalities*: Benefits your action has that you can't charge people for. (Like public goods.)
- *Negative externalities*: Harms your action causes that you don't have to pay for.
- Problem:
 - Positive externalities are underproduced.
 - Negative externalities are overproduced.

IV. Solutions

A. *Appeal to conscience?*

- This won't work because people will not want to be suckers.
- Also, it causes anxiety.
- And conscience will be selected out by cultural/biological evolution.

B. *Private property*

- For the ranchers, this would internalize the externalities.
- Problems: What about population? Air pollution? Oceans?

C. *“Mutual coercion, mutually agreed upon.”*

- We appoint an authority to hurt people who produce negative externalities.
 - We could prohibit harmful actions.
 - Or we could tax them. This is better, when the optimal amount is nonzero.
- Problem: Who will watch the watchers?
 - We must “invent corrective feedbacks to keep custodians honest”. (Doesn’t say what these would be.)

V. The Problem Hardin Doesn’t Notice

“Mutually agreed upon coercion” creates another tragedy of the commons.

- Custodian may:
 - Exploit the resource for his own benefit (directly or indirectly): Benefits go to custodian. Harms go to society.
 - Protect resource responsibly: Benefits go to society. Costs go to custodian.
 - What will he do?
- Response: The public will watch over the authorities.
- Problem: Each citizen may:
 - Carefully watch over the authorities: Benefits go to society. Costs go to citizen.
 - Ignore authorities, let other people do the watching: Benefits go to citizen, costs to society.
 - What will citizen do?

VI. Schmitz on Jamestown & Customs

- Jamestown: First permanent settlement in America, 1607 on.
- Most colonists starved. Why?
 - Food was a commons: Any food was to be shared equally. \Rightarrow Food is a positive externality.
 - Human “skeletons” were standing in the streets bowling, waiting for someone else to plant crops.
- Governor Dale in 1614 divides land into private plots.
 - Production rises 7-fold.
 - Why? Internalized positive externalities.
- An alternative to conscience, chaos, and government: Custom. Works best when
 - Group is very interdependent.
 - They can easily monitor.
 - They get frequent feedback.
- Difference between Hutterites and Jamestown?
 - In Jamestown, you get food no matter what.
 - I think Schmitz’ point is: The consequences of shirking must be more than disapproval. Like, starvation. The rewards for good behavior should be tangible.
 - Note: Punishments might be enacted only rarely. But they must be there.

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Review of Unit 2

By the end of this unit, students should understand:

These concepts

State of Nature
Egoism, psychological & ethical
Natural law/natural rights
Prisoner's dilemma
Tit for tat
Dominant strategy
Coordination problem
Schelling point
Bilateral monopoly game
"Positive account" of property rights
Public goods
Non-excludability
Positive/negative externalities

These theories & arguments

Hobbes argument for gov't, incl.:
3 causes of violence in state of nature
Why gov't power must be unlimited
Friedman on why we respect rights
& why it is rational to fight if other party
departs from the Schelling point
Objections to Hobbes, incl.:
Irrationality of war
Explaining ingroup vs. outgroup
Explaining male-on-male violence
Evolutionary explanation, incl.:
What sort of traits evolution selects for
How warfare contributes to reproduction
Why male rather than female violence?
Why public goods are underproduced
Hardin's argument for government
Objection to Hardin: how government creates
another tragedy of the commons

These empirical facts

Why tit-for-tat succeeds
Rates of violence in primitive societies,
comparison to 20th century

These examples, what happened in them & what they show

Tragedy of the commons, incl.:
Why farmers degrade the commons
Hardin's solution to the problem
Jamestown, incl.:
Why colonists starved
How problem was solved

These people's views

Hobbes
Dawkins
Friedman
Pinker
Hardin
Schmidtz

