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1.1 Rational Decision-Making

- Rational decision-making defines how we make decisions
- A person's or institutions goal is not relevant, the process of pursuing that goal is the factor driving decision-making
- This allows us to generalize decision-making significantly more
- Critical to consider the probabilistic nature of benefits and harms when considering rational decision-making
- Expected Value = "weighted value" for all costs and benefits
 - Same thing as "average payoff"

1.2 Incentive Structures

- Incentive structures are the expected values for each of the strategies considered
- Incentive structures impose a certain course of action upon us, given that we are rational actors

2 Fearon

- Three reasons war may occur
 - People are sometimes irrational and don't consider the costs of war due to this irrationality or their biases
 - Leaders may enjoy benefits of war but not pay the costs
 - People are rational and consider the risks but fight anyway (Rationalist explanation)
- Flaws with contemporary rationalist arguments are that they don't address prewar bargains
- Contemporary Rationalist reasons for war:
 - Anarchy
 - Benefits o/w costs
 - Rational preventative war
 - Rational miscalculation due to lack of info
 - Rational miscalculation due to disagreement about relative power
- Fearon's reasons for war
 - private or misrepresented info about relative capabilities
 - relationships are not possible because at least one party has an incentive to cheat
 - Despite being able to compromise, one or more party does not want to because of their beliefs on the issue

2.1 The Puzzle

- People often see war as something nobody wants though wars can often simply be costly but worthwhile gambles
- Wars are always ex post inefficient because no matter how small, the costs of fighting still exist

2.2 Anarchy

- War occurs because there is nothing to prevent it
- Does not explain why wars still occur due to their inefficiency, therefore does not explain war completely
- Anarchy may lead to arms races and insecurity, but little war outside or preemptive war

2.3 Preventive War

- If a declining power suspects that it may be attacked in the future by a rising power, it will find a preventive war rational
- Theory does not consider diplomacy and timeframe
- Why should the declining power fear an attack if it's inefficient, even for the rising power

2.4 Positive Expected Utility

- Argues that war is rational when both sides have a positive expected utility from it
- While often presented, this argument doesn't explain specific condition in which both parties fighting a war have positive expected utility

3 Expected Profit Khan Academy

- Expected value can be calculated as the sum of all the outcome probabilities multiplied by their corresponding profits.
- Considering all outcome probabilities should yield a total probability sum of 1 (100%), with profits being positive (gains) or negative (losses)

4 01.15.21

- Brain has a complex set of structures that work together to do both really important, and fundamentally flawed actions

4.1 Brain Stem

- The reptilian brain
- Really just an extension of the spinal cord
- Controls automatic actions, no effect on decision-making

4.2 Middle Brain (Limbic System)

- Body's monitoring system to identify important elements of the environment
- Discriminates things of importance constantly and ambiently

4.3 Brain Cortex

- Controls higher-level thinking
- Moral decision-making, learning, conscious awareness

4.4 Hierarchy of the brain

- Information goes from the brain stem, to the limbic system, to the brain cortex
- Critically, the limbic system was never designed to collect all the information around you - that incomplete information is used for decision-making
- Understanding the interplay and potential biases of the limbic system can help us understand decision-making and prevent bad decision making
- Fear and the triggering of fear prevents higher-level decision making and can prevent the intake of new information
- Sources of information can also have a significant effect on the processing of that information - can be seen through in-group/out-group bias

4.5 Rational Decision-Making

1. Pick a goal
2. Evaluate all strategies
 - Analyze costs
 - Analyze benefits
3. Select strategy with best cost/benefit ratio
4. Bias often occurs at stage 2 because of filtration of information through the limbic system