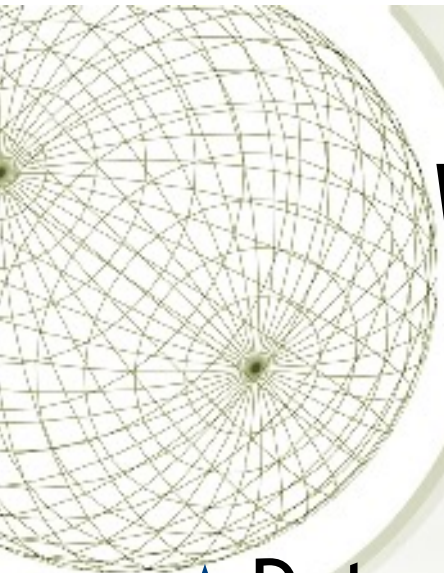


Evolution and International Politics
Lecture 4, Part Two
Evolution and Nuclear Deterrence



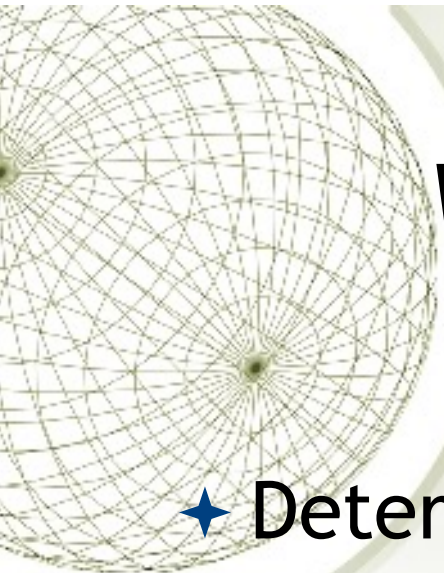
Objectives

- ★ Implications of Evolution's Contribution to Deterrence
- ★ What Is Rational Deterrence Theory (RDT)
- ★ What Evolution Provides
 - ★ Rationality is Very Complicated, Conditional, Many Factors Affect It, Not Identified by Rational Deterrence Theorists
 - ★ RDT Will Fail In Domain of Losses




What Is Rational Deterrence Theory

- ★ Deterrence Is a Function of Political Variables and Military Capabilities
- ★ Convincing an Opponent Not to Take an Action, Deterrence is a Negative Concept, Difficult to Know If It Is Working
- ★ Deterrence by Denial and by Punishment
 - ★ Denial Focuses on Military Objectives
 - ★ Punishment Focuses on What the Opponent Values



What Is Rational Deterrence Theory

- ★ Deterrence (by Punishment) Should Obtain When Benefits are Outweighed by Costs
- ★ Secure Second-Strike Capabilities Make Costs Very High, and So Augment Deterrence
 - ★ Survivable Forces (e.g. triad)
 - ★ Survivable Command and Control Systems
 - ★ Low Risk of Nuclear Inadvertence (Always/Never Dilemma)



What Is Rational Deterrence Theory

- ★ With Secure Second Strike Capabilities Deterrence Should Be Relatively Easy to Obtain
- ★ The Costs are Understandable Across Time, Culture, Religion, Ideology, etc.
- ★ Empirical Evidence Very Strong—
Absence of Nuclear Wars Despite Great Security Competition



Evolution's Contribution

- ★ Applies in Some Cases: One, or Small Number of People Making Decisions Concerning Nuclear Use—N. Korea, al Qaeda
- ★ Humans Do Not Possess a Cartesian Mind
- ★ Baron Cohen's Theory of Mind: Many Different Brains
- ★ Empathy > Systemizing = Most Females
- ★ $S > E$ = Most Males
- ★ $S \gg E$ = Systemizing Hyper-Developed, Empathizing Hypo-Developed
- ★ True for Autistics, but also Most Leaders (of States, Business, etc.)



Evolution's Contribution

- ★ Males More Aggressive, More Likely to Murder, More Likely to Create Tight Dominance Hierarchy, Less Concern for Feelings, Difference Communication
- ★ All Because Brain Is Different than Most Women, and Among Men
- ★ Anecdote: Many Males with Asperger's in International/Natural Security Field



Evolution's Contribution

- ★ Cognitive Abilities Vary Due to:

- ★ Human Evolution and Biology

- ★ Variation in Genotype

- ★ Phobias, e.g. of Snakes

- ★ “Dual Process” Cognitive Functioning—
Autonomous System of Thought with Analytic
Built on Top of It—An Imperfect Structure

- ★ “Run from any animal approaching”



Evolution's Contribution

- ★ Cognitive Abilities Vary Due to:
 - ★ Infection, Intoxication, or Emotional or Physical Trauma
 - ★ Phineas Gage (1848). Explosion removed much of his limbic area (concerned with moral reasoning)
 - ★ Ventromedial Prefrontal Cortex (VMPC), our “Guardian Angel,” trauma limits emotion, and emotional response



Evolution's Contribution

- ★ Leaders Are Overwhelmingly:

- ★ Not a Normal Population

- ★ Male, Older than Average, Overrepresentation of the Characteristics of the Extreme Male Mind

- ★ Great Ambition

- ★ Great Sensitivity to Threat or Challenge to Status

- ★ High Tolerance of Risk

- ★ Low Empathy

- ★ Mao, Stalin, Einstein, Newton



Evolution's Contribution

- ★ Mind Is the Product of the Brain and Somatic Inputs Such as Emotion
- ★ Brain and Body Integrated by Means of Interacting Biochemical and Neural Regulatory Circuits
- ★ Both Interact with environment
- ★ Feeling Is Result of Brain and Body
- ★ Coding and Memory Retrieval May Be Mood Dependent, Interfere with Factual Information, Past Experience
- ★ Culture Can Make This Worse, “Cultures of Honor,” where Protection of Reputation of Probity and Strength Done by Violence



Evolution's Contribution

- ★ Prospect Theory Confirmed (Kahneman and Tversky)
- ★ Framing Effects Are Real, People's Choices Are Altered by Irrelevant Changes in How the Alternatives Are Presented—Which Cancer Treatment Do You Prefer, One with a 90% Survival Rate or One with a 10% Mortality Rate



Evolution's Contribution

- ★ In Certain Circumstances, Humans Are Risk Seeking, Greater Risks Incurred to Win a Large Prize
- ★ Humans More Risk Accepting in the Domains of Losses, Loss of Possessions Felt Most Acutely
- ★ Risk of the Loss of Power for Ruler With Extreme Mind Will Cause Him to Take Great Chances, Incur Great Risks



What It Means for Deterrence Theory

- ★ Choices Fallible, Patterns of Fallibility May Be Identified, and So Assumption of Rational Choices Questioned
- ★ Leaders Are a Certain Type of Human
- ★ Decision-making Will Diverge from the Expectations of RDT in the Domain of Losses
- ★ These Problems Cannot Be Turned Off, Only Overridden or Countervailing Pressures
- ★ Mind of Kim Jong-un, Not Thomas Schelling