

Evolution and International Politics
Lecture 3
Evolution and the Origins of War



Objectives

- ★ Why Would Warfare Begin
 - ★ Neoclassical Darwinian and Inclusive Fitness
 - ★ Group Selection
- ★ The Evidence from Tribal Societies
- ★ Importance of Resources and Population Change Today
- ★ Bottom Line: Warfare is a Solution to Resource Scarcity, Natural Selection Caused It
- ★ Implications of the Evolutionary Understanding of War
- ★ Warfare and Human Evolution
- ★ Warfare Elsewhere in the Animal Kingdom
- ★ Stimulating Aspect of Warfare and Why Males Are Warriors
- ★ Role of Disease in International Politics, Including Pandemics like Covid-19



Why Would Warfare Begin?

- ★ Recall the Environments of Evolutionary Adaptation (EEA)—Many Different Climate Changes, Many Different Humans—*Homo erectus* and *Homo neanderthalensis* die out, only *Homo sapiens* survives
- ★ Resources: food, shelter, territory (with abundant water or food, free of dangerous animals or insect infestations), status, weapons, reproduction (typically polygyny)
- ★ Warfare very risky, but rewards great



Why Would Warfare Begin?

- ◆ Individual Selection Explanations
- ◆ Warfare to Increase *Absolute* Fitness
- ◆ Neo-Classical Explanation
 - ◆ Warfare to Gain or Defend Resources Necessary for Survival of Individual
- ◆ Inclusive Fitness Explanation
 - ◆ Warfare to Gain or Defend Resources Necessary for Survival of Individual and Family Group
- ◆ Result: Offensive and Defensive Warfare



Why Would Warfare Begin?

- ◆ Individual Selection Explanations
- ◆ Warfare to Increase *Relative* Fitness
- ◆ Neo-Classical Explanation
 - ◆ Warfare to Deny Resources to Competing Groups to Aid Individual
- ◆ Inclusive Fitness Explanation
 - ◆ Warfare to Deny Resources to Competing Groups to Aid Relatives, Family Group, Increase Own Numbers through Reproduction, Decrease Reproduction of Rival Groups
- ◆ Result: Offensive and Defensive Warfare



Why Would Warfare Begin?

- ★ Group Selection Explanation
- ★ Warfare to Increase *Relative* Fitness
- ★ Warfare Begins by Altruistic Sacrifice
- ★ Fighting for the Good of the Group, and not for Individual or Family Benefit
- ★ More Altruists = More Warriors
- ★ Test: Would Warfare Be Present in Other Animals



Evidence from Tribal Societies

- ★ Ubiquity of Warfare, Many Causes of Tribal Warfare
- ★ Tribal Warfare very Costly
- ★ Not More Violent than the United States
- ★ Was Warfare Present in *Homo erectus* or *Homo neanderthalensis*?



Evidence from Tribal Societies

- ★ Findings: 90-95% Have Warfare (Keeley), 92% Wright, 78% (Otterbein)
- ★ In All Regions: Melanesia and Polynesia, North America, South America, Africa
- ★ Motivations: Resources—Women, Land, Pigs, Magic



Evidence from Tribal Societies

- ★ “War is bad and nobody likes it. Sweet potatoes disappear, pigs disappear, fields deteriorate, and many relatives and friends get killed...But one cannot help it. A man starts a fight and no matter how much one despises him, one has to go and help because he is one’s relative and one feels sorry for him.” (Kapauku Papuans)



Evidence from Tribal Societies

- ✦ Napoleon Chagnon in 1967:

- ✦ “Who [*sic*] did you raid?” he asked.

- ✦ “Germany-teri.”

- ✦ “Did you go on the raid?”

- ✦ “No, but my father did.”

- ✦ “How many of the enemy did he kill?”

- ✦ “None.”

- ✦ “Did any of your kinsmen get killed by the enemy?”

- ✦ “No.”

- ✦ “You probably raided because of women theft, didn’t you?”

- ✦ “No.”

- ✦ At this answer he was puzzled. He chatted for a moment with the others, seeming to doubt my answer.

- ✦ “Was it because of witchcraft?” he then asked.

- ✦ “No,” I replied again.

- ✦ “Ah! Someone stole cultivated food from the other!” he exclaimed, citing confidently the only other incident that is deemed serious enough to provoke man to wage war



Type of Warfare

- ★ Clear Understanding of the Balance of Power
- ★ The Raid
- ★ Fixed Battle
- ★ The Massacre

Scale of Effort

★ COMBAT UNIT SIZES AND PERCENTAGE OF MALES MOBILIZED FOR SELECTED TRIBAL SOCIETIES AND CONTEMPORARY STATES

★ Group Mobilized	Maximum Unit Size	Male Population	% of Males
★ Huron	600	9,000-11,000	5-7
★ Mohave	100	1,500	7
★ <i>U.S. in WWII</i>	11,490,000	66,000,000	17
★ Modoc	100	500	20
★ <i>USSR in WWII</i>	20,000,000	91,000,000	22
★ Maori	350+	1,250-3,750	9-28+
★ <i>Germany in WWII</i>	10,800,000	34,250,000	32
★ Mae Enga (1 clan)	70	175	40
★ Miyanmin	200	<500	40+
★ <i>France in WWI</i>	8,410,000	19,500,000	43
★ Tahiti	7,760	17,683	44

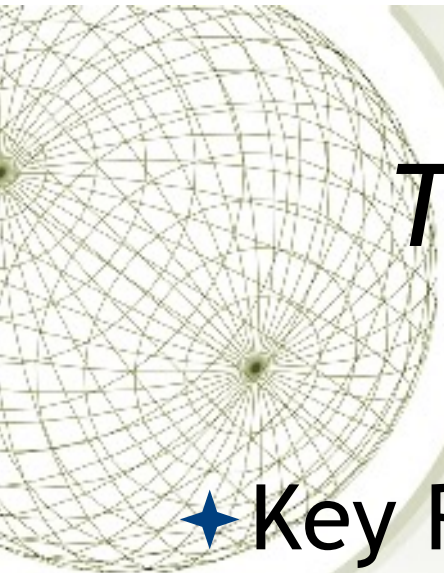
★ Notes: All figures are estimates. States are italicized. Maximum Unit Size is the total number who served during a war. Male population is estimated by dividing total population in half.

★ Source: Keeley, *War Before Civilization*, Table 2.6, p. 189

Comparison of Causalities

ANNUAL WARFARE DEATH RATES FOR SELECTED TRIBAL SOCIETIES AND CONTEMPORARY STATES		
Society	Region	Annual % Rate
Dani—South Grand Valley	New Guinea	1.00
Dinka (1928)	N.E. Africa	.97
Fiji (1860s)	Polynesia	.87
Chippewa (1825-1832)	Minnesota	.75
Telefolmin (1939-1950)	New Guinea	.74
Mtetwa (1806-1814)	S. Africa	.59
Dugum Dani (1961)	New Guinea	.48
Manga (1949-1956)	New Guinea	.46
Modoc	California	.45
Auyana (1924-1949)	New Guinea	.42
Mae Enga (1900-1950)	New Guinea	.32
Dani—C. Grand Valley (1900-1960)	New Guinea	.31
Yanomamö (1938-1958)	South America	.29
Mohave (1840s)	California-Arizona	.23
Gebusi (1940-1982)	New Guinea	.20
Tiwi (1893-1903)	Australia	.16
<i>Germany (1900-1990)</i>	Europe	.16
<i>Russia/Soviet Union (1900-1990)</i>	Europe-Asia	.15
Boko Dani (1937-1962)	New Guinea	.14
<i>France (1800-1899)</i>	Europe	.07
<i>Japan (1900-1990)</i>	East Asia	.03

† Notes: All figures are estimates. States are italicized. Males and females are included.
 † Source: Keeley, *War Before Civilization*, Table 6.1, p. 195. Central Grand Valley Dani
 † Numbers are from Heider, *Grand Valley Dani*, p. 106.

A wireframe globe is positioned in the top-left corner of the slide, partially overlapping the title area. The globe is composed of a grid of lines forming a sphere.

The Importance of Resources Today

★ Key Resources Remain and Are Sources of Conflict

◆ Energy

◆ Water

◆ Straits

◆ Land

◆ Future Wars Will Be Fought over Resources

A wireframe globe is positioned in the top-left corner of the slide, partially overlapping a white circular graphic element. The globe is composed of a grid of lines representing latitude and longitude.

Importance of Population Change

- ★ Population Growth

- ★ Concentrated in East Africa and Arabian Peninsula

- ★ Population Decline

- ★ Most Advanced States



Warfare and Human Evolution

- ★ Warfare and Human Intelligence

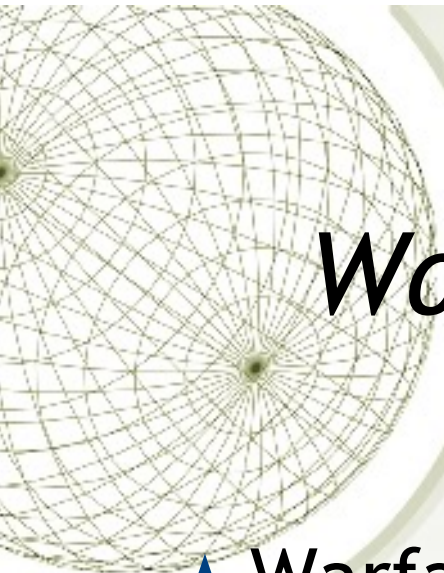
- ★ Warfare is only evolutionary pressure that places ever greater demands upon intelligence. Why?

- ★ 1) Balance of Power Calculus, Ambush, Surprise

- ★ 2) Weapons cause “intelligence spiral” due to: 1) distance, 2) planning, 3) ability to kill stronger foe, 4) effectiveness of offensive

- ★ Warfare’s Role in Ever-Larger Political Organization, State Formation

- ★ Charles Tilly: “War Made the State and the State Made War”



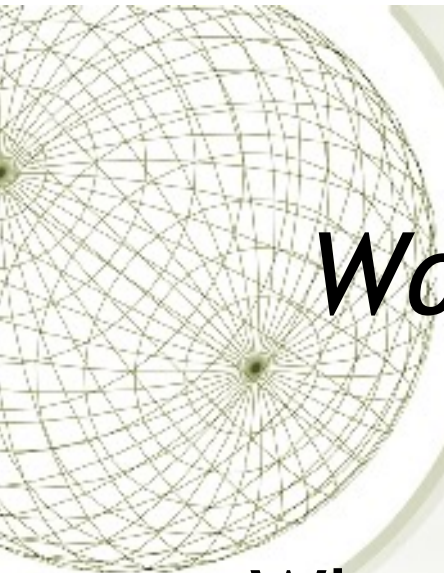
Warfare Among Other Animals

- ★ Warfare Not Uniquely Human
- ★ Amending Karl von Clausewitz
 - ★ War is Waged for Political Purposes, but War was First Waged for Evolutionary Purposes
 - ★ War Is a Solution to Resource Scarcity
- ★ Warfare in Social Insects: Ants
 - ★ Ants Wage War against Other Colonies, Genocidal Warfare, Humans are Peaceful in Comparison, True Power Maximization as Offensive Realism Predicts
 - ★ Surplus Population: Sterile Females



Warfare Among Other Animals

- ★ Warfare among Chimpanzees (*Pan troglodytes schweinfurthii* and *P.t. versus*)
- ★ Budongo, Gombe, Kibale in Uganda, Mahale in Tanzania, Tai in Ivory Coast
- ★ Jane Goodall: “If they had had firearms and had been taught how to use them, I suspect they would have used them to kill.”
- ★ Behaviors: 1) Territorial Defense; 2) Border Patrols; 3) Deep Incursions; 4) Coalitionary Attacks; 5) Coalitionary Kills and Warfare
- ★ Strong Sensitivity to Balance of Power
- ★ Stealth, Ambush Killing, Very Violent Attacks
- ★ Wars between Rival Groups



Warfare Among Other Animals

★ What about Bonobos

- ★ Descendents of Chimpanzees
- ★ Allegedly the “Have Sex, Not War” Ape, True Behavior is More Complicated
- ★ More, Continuing Study Needed
- ★ Different Ecology, Less Predation



Stimulating Aspect of Warfare

- ★ Very Common for Veterans to Describe the “Thrill” of Warfare. Stimulating in every respect
- ★ Jones: War “was like facing God. Or gambling with Luck [or] taking a dare from the Universe.” More stimulating “than all the hunting, gambling and fucking he had ever done.”
- ★ Produces a loyalty and intense bonding experience. Broyles: “I believe that most men who have been to war would have to admit, if they are honest, that somewhere inside themselves they loved it too, loved it as much as anything that has happened to them before or since.”
- ★ Hatred, revenge, sexual stimulation



Why Are Males Warriors

- ★ For Humans, Males Are Expendable (But Not as Expendable as Sterile Female Ants)
- ★ For Surviving Males, Increased Reproductive Possibilities in War or After (in absolute or relative terms)
- ★ No Reproductive Value for Females, Females Willing to Mate Seldom Lack Willing Males



Disease and International Politics

★ Pandemics

- ★ Profound Impact of Covid-19

★ Biological Weapons

- ★ Long History of Biological Weapons in Warfare
- ★ Soviet/Russian Biological Weapons Complex
- ★ Genetic Engineering/Biotechnology Producing More Effective Biological Weapons



Disease and International Politics

★ Epidemiological Balance of Power

- ★ Disease Assists and Hinders Imperial Expansion
- ★ When There is an Imbalance in Favor of Attacker, Expansion Easier
 - ★ Europeans in the New World, Greatest Allies Were Smallpox, Influenzas, Measles
 - ★ Infected a Virgin Population, Unknown How Many Died Due to Disease But 80-90% Is Reasonable
 - ★ New World Diseases Bad, But Less Communicable



Disease and International Politics

★ Epidemiological Balance of Power

★ When There is an Imbalance Against the Attacker, Expansion Difficult or Stopped

- ★ Europeans in India and Africa Stopped by Disease and Parasites
- ★ In India, Cholera, But Africa Particularly Bad, Sierra Leone and Senegal the Worst

★ Disease as a National Security Issue Today

- ★ Covid-19, Impact of Extremely Drug Resistant Tuberculosis, SARS, Avian Flu, H1N1, on the Security of States, Globalization, Commerce, Travel