

War and Peace:

What can Game Theory Teach us?

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Based on:

“War and Peace”

[http://nobelprize.org/nobel_prizes/
economics/laureates/2005/
aumannlecture.pdf](http://nobelprize.org/nobel_prizes/economics/laureates/2005/aumannlecture.pdf)

- “Wars and other conflicts are among the main sources of human misery.”
- Most attempts to bring about peace have been on a piecemeal, case-by-case basis.
- Suggestion: First try to understand the root causes: **WHY** do people go to war?
- Like one studies disease.

Rationality

Definition:

We call a person's behavior **rational** if it best promotes **his** goals, given **his** information.

Can **war** be rational?

Can **strikes** be rational?

Can racial or gender **discrimination** be rational?

Yes – they **CAN** be!

We take all the ills of the world, and dismiss them by calling them irrational. If they are **rational**, once we understand that they are, we can try to address the problem. If we dismiss them as irrational, we can't address the problem.

Economics (and Game Theory)
in one word:

Incentives

Example: Taxes

Example: Market Economies

Example: Repeated Games –

“Repetition enables cooperation”

Incentives for Peace

- Concessions?

Munich 1938: “Peace in our time”

- Disarmament?

The Cold War

- The Pax Romana:

“If you want peace, prepare for war.”

- Barack Obama:

The belief that peace is desirable
is rarely enough to achieve it.

-- Nobel Peace Prize Lecture,
Oslo, 10 December 2009

Repeated (or Ongoing) Games

Repetition Enables Cooperation

- Example: Mutual Generosity Game

Two players, Alfonso and Bob.

Each one must choose between

getting \$1,000 for himself (**E**goism)

and

the other getting \$3,000 (**C**ooperation)

		Bob	
		C	E
Alfonso	C	3,3	0,4
	E	4,0	1,1

Real-Life Examples

- Acreage restrictions
- Fisheries
- Competition

How to achieve cooperation?

- Agree to cooperate!
- But why will the players play as agreed?
What's "in it" for them? Why is it worthwhile?
- Mechanism for enforcing agreements
- Like a law court

“Pray for the government’s welfare, for without its authority, man would swallow man alive.” (Talmud)

- But what if there are no courts?
- Like in the **international** arena.
- Then **Repetition** can provide an **enforcement** mechanism,
- And so, **enables** cooperation.
- How?
- With an **implicit** *punishment* strategy.
- Conclusion: **Patience** – a long horizon – is essential.

Additional Incentives for Peace

- Clear signals
- Credible signals
- Carrot and Stick
- Incentives must apply directly to policy architects

“It shall come to pass that many people will say, let us go up to the mountain of the Lord, and He will teach us His ways ... And He will judge among nations, and they will beat their swords into ploughshares, and their spears into pruning hooks; nation will not lift up sword against nation, nor shall they learn war any more.” (Isaiah 2, 2-4)

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Thank You!