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TRANSPARENCIES FOR UCLA-BEC SEMINAR - April 8, 2002

Note: This list may not correspond perfectly to the transparencies actually used in the presentation.

List of transparencies:

1. Title Page: Economic Conflict Theory
2. Cover: DARK
3. Cover: Schelling
4. Two Ways of Making a Living
5. DRAW!: SMT versus ECT
6. DRAW!: Intellectual Linkages [War & International Relations only]
7. A Selection of Issues
8. Conflict: Causes, Conduct, Consequences
9. Causes of Conflict: Gunderson #1
10. Causes of Conflict: Gunderson #2
11. Conduct of Conflict: POP #1
12. Conduct of Conflict: POP #2
13. Conduct of Conflict: POP #3
14. Consequences of Conflict: Cederman #1
15. Consequences of Conflict: Cederman #2
16. Envoi - Words of Wisdom (?)
17. Non-military Conflicts
18. Elements of SMT and ECT Compared
19. Some Ideas I Couldn't Squeeze In

ECONOMIC CONFLICT THEORY

Jack Hirshleifer
RAND – Nov. 15, 2001

The efforts of men are utilized in two different ways: they are directed to the production or transformation of economic goods, or else to the appropriation of goods produced by others.

Vilfredo Pareto

The Dark Side of the Force

Economic Foundations of Conflict Theory

Jack Hirshleifer

THE STRATEGY OF CONFLICT

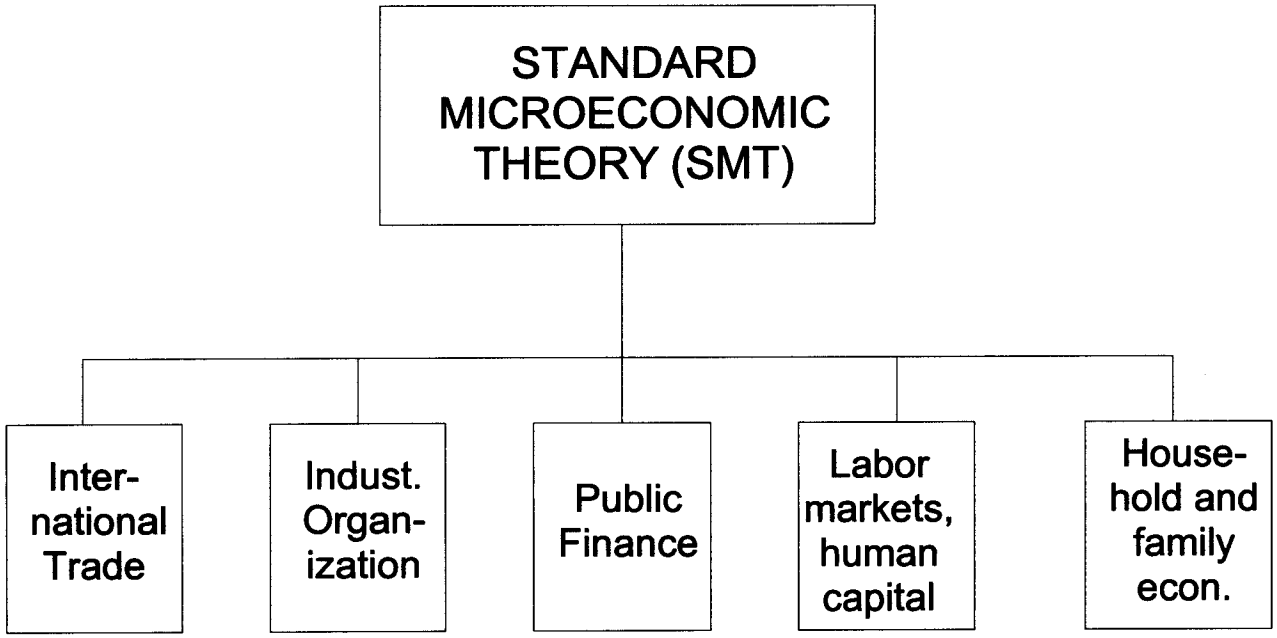
Thomas C. Schelling

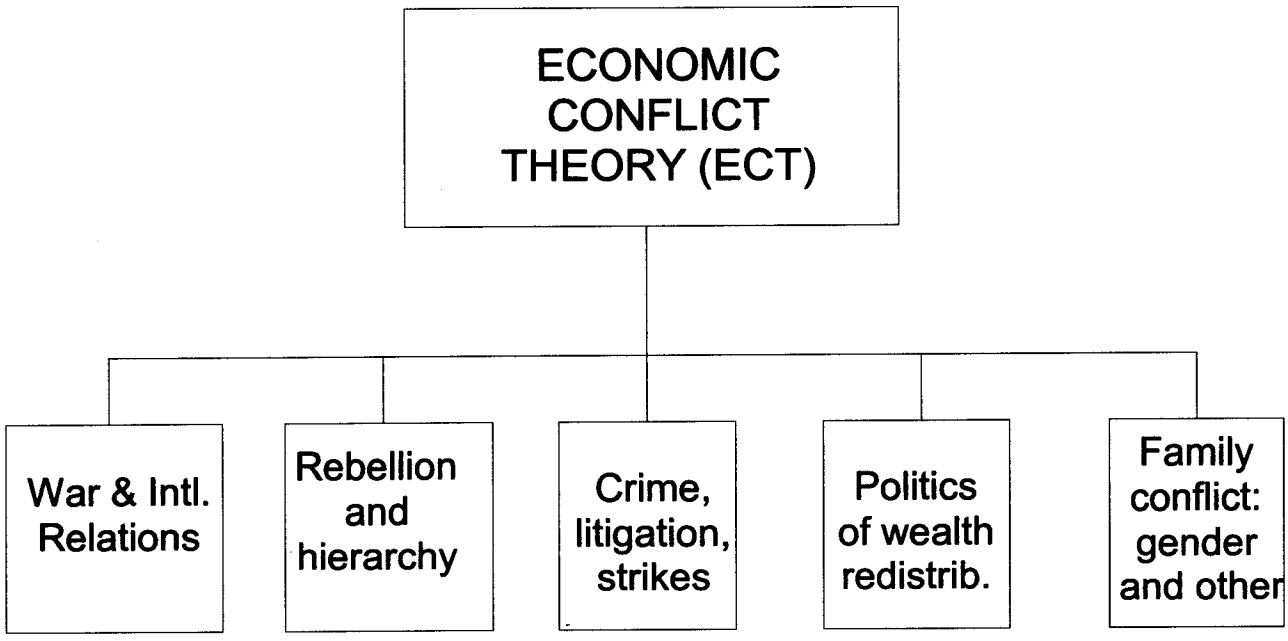
With a new Preface by the author

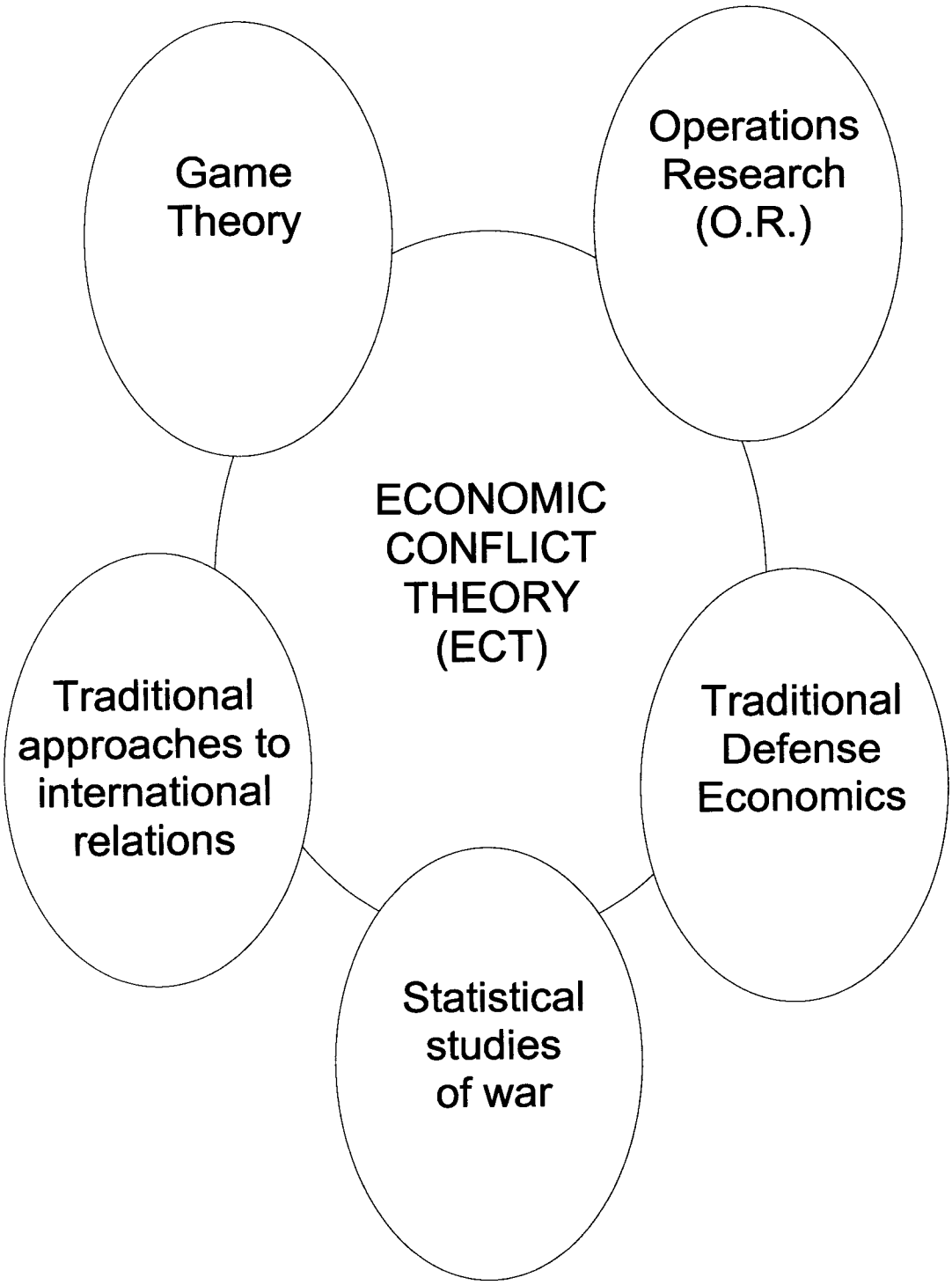
TWO WAYS OF MAKING A LIVING
(Adam Smith versus Niccolo Machiavelli)

1. "The way of Adam Smith": PRODUCTION AND EXCHANGE
   - Technology of production
   - Transfer of goods via trade and reciprocation
   - Motivation: Self-interested maximization
   - Result: Mutual benefit
   - Analytic method: Standard Microeconomic Theory (SMT)

2. "The way of Niccolo Machiavelli": CONFLICT AND APPROPRIATION
   - Technology of struggle
   - Transfer of goods via appropriation (encroachment, invasion) and defense
   - Motivation: Self-interested maximization
   - Result: Asymmetrical gain/loss, or mutual loss
   - Analytic method: Economic Conflict Theory (ECT)


STANDARD MICROECONOMIC THEORY (SMT)
Inter-national Trade
Indust. Organ-ization
Public Finance
Labor markets, human capital
House-hold and family econ.


ECONOMIC CONFLICT THEORY (ECT)
War & Intl. Relations
Rebellion and hierarchy
Crime, litigation, strikes
Politics of wealth redistrib.
Family conflict: gender and other


Game Theory
Operations Research (O.R.)
ECONOMIC CONFLICT THEORY (ECT)
Traditional approaches to international relations
Traditional Defense Economics
Statistical studies of war

A SELECTION OF ISSUES

1. Who fights, and how hard?

When do contenders -- individuals, tribes, nations, etc. -- "fight" (literally in the case of warfare, or metaphorically in contexts like political campaigns and litigation) rather than come to an agreed settlement?

Effects upon peace/ war choices of:
- interpersonal sympathy
- greater wealth
- improved productive opportunities
- increased economic interdependence

What happens as conflict technology becomes more destructive?

When the contestants are more equally matched, does conflict become more likely (or more intense)?

2. Who wins, and by how much?

Effects of:
- disparities of wealth endowments
- comparative advantages in production versus combat
- differences in time-preferences or in risk-aversion, etc.

In conflictual interactions do the rich become richer and the poor poorer? The strong stronger and the weak weaker?

3. Erroneous perceptions

Is conflict usually or always a mistake on the part of one side or the other, so that better information will tend to promote peaceful settlement?

4. Coercion/ appeasement

What are threats and promises? Why should they ever be believed? When are they likely to be effective?

Conversely, when is 'appeasement' likely to work?

CONFLICT: CAUSES, CONDUCT, CONSEQUENCES

Causes of Conflict:
Preferences: Malevolence/benevolence, attitudes toward risk, role of passions
Opportunities: Technology of production/exchange versus technology of struggle
Perceptions: Optimism/pessimism, attribution problems

Conduct of Conflict:
Scale: Intensity of struggle
Offense/defense, tactics and strategy
Weapons, personnel recruitment

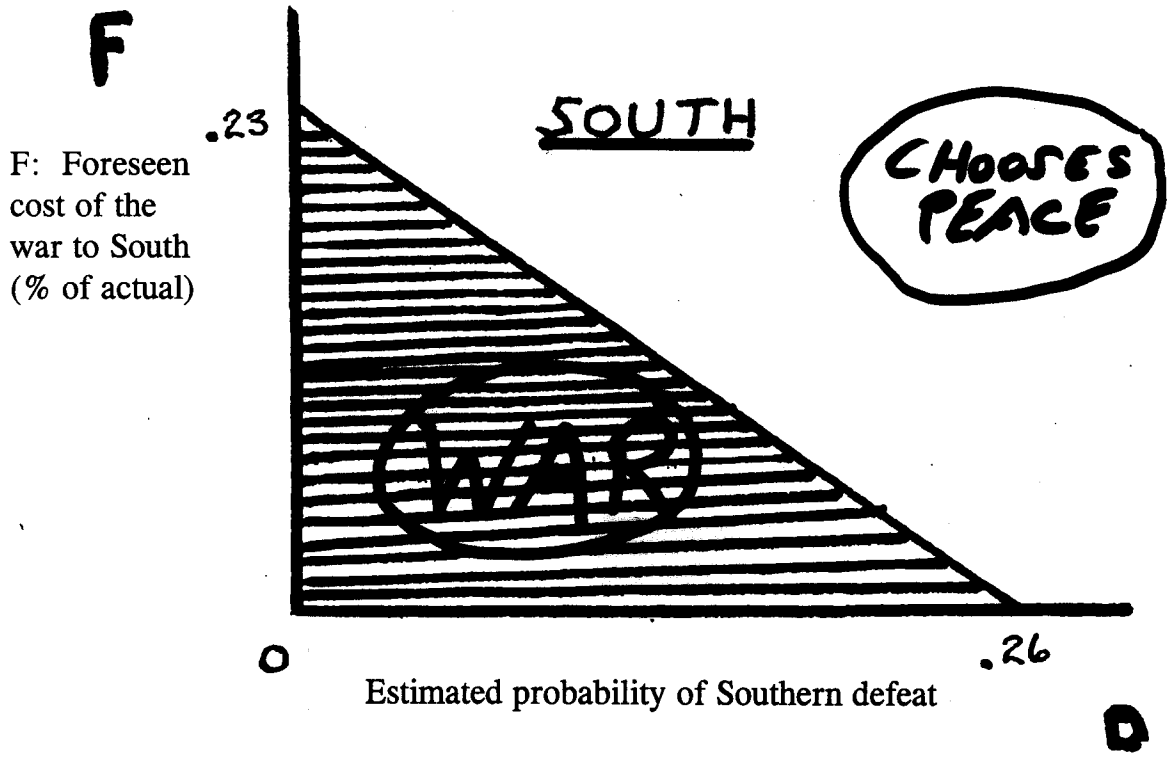
Consequences of Conflict:
Geographical division of territory
Internal dominance and hierarchy
Selection of social institutions (religion, civility, diversity)
Selection of human types (strength, resourcefulness, leadership qualities)

Gerald Gunderson, "The Origin of the American Civil War", Journal of Economic History (Dec. 1974), 34: 915-950

TABLE 1
THE LOSS OF INCOME TO FREE CITIZENS OF THE SLAVE STATES FROM NON-COMPENSATED ABOLITION OF SLAVERY IN 1860

	State	*% Reduction In Income Of Free Citizens From Abolition*
SECEDED AFTER LINCOLN'S ELECTION	Alabama	42%
	South Carolina	36
	Florida	34
	Georgia	29
	Mississippi	29
	Louisiana	24
	Texas	24
	above seven states	— 31%
SECEDED AFTER FORT SUMTER	North Carolina	19
	Tennessee	18
	Arkansas	17
	Virginia[a]	17
	above eleven states	— 23%
DID NOT SECEDE	Kentucky	10
	Maryland	6
	Missouri	5

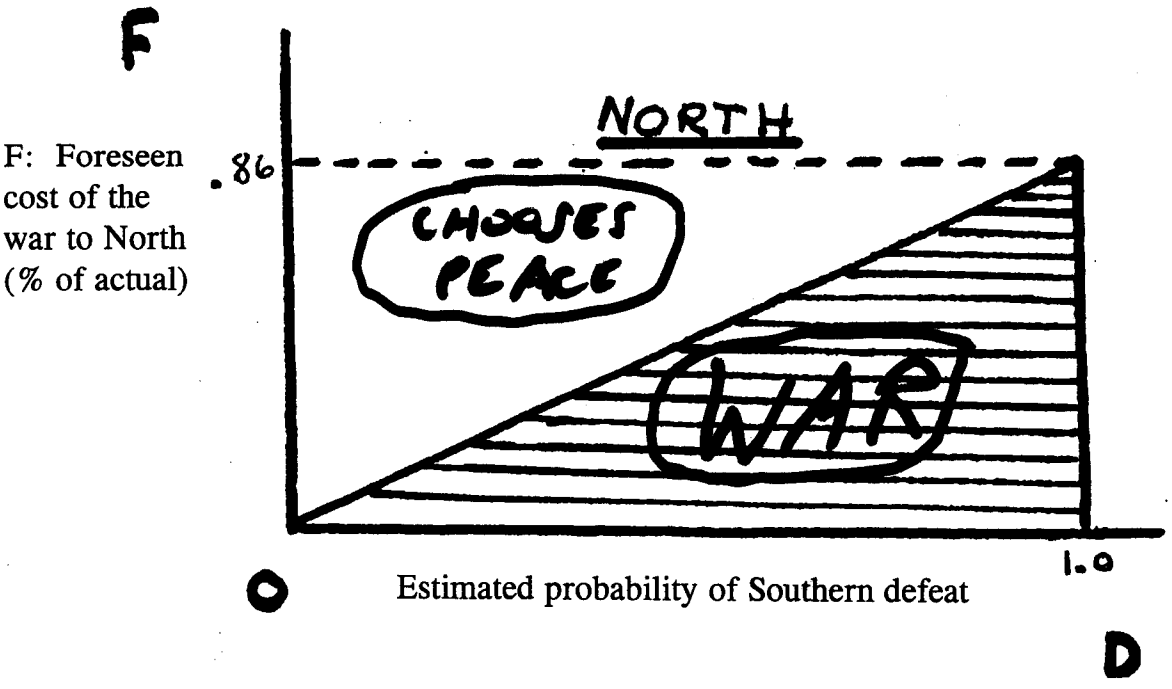
FIGURE 1
POSSIBLE PAIRED VALUES OF F AND D FOR THE SOUTH



F: Foreseen cost of the war to South (% of actual)

Estimated probability of Southern defeat

FIGURE 2
POSSIBLE PAIRED VALUES OF F AND D FOR THE NORTH

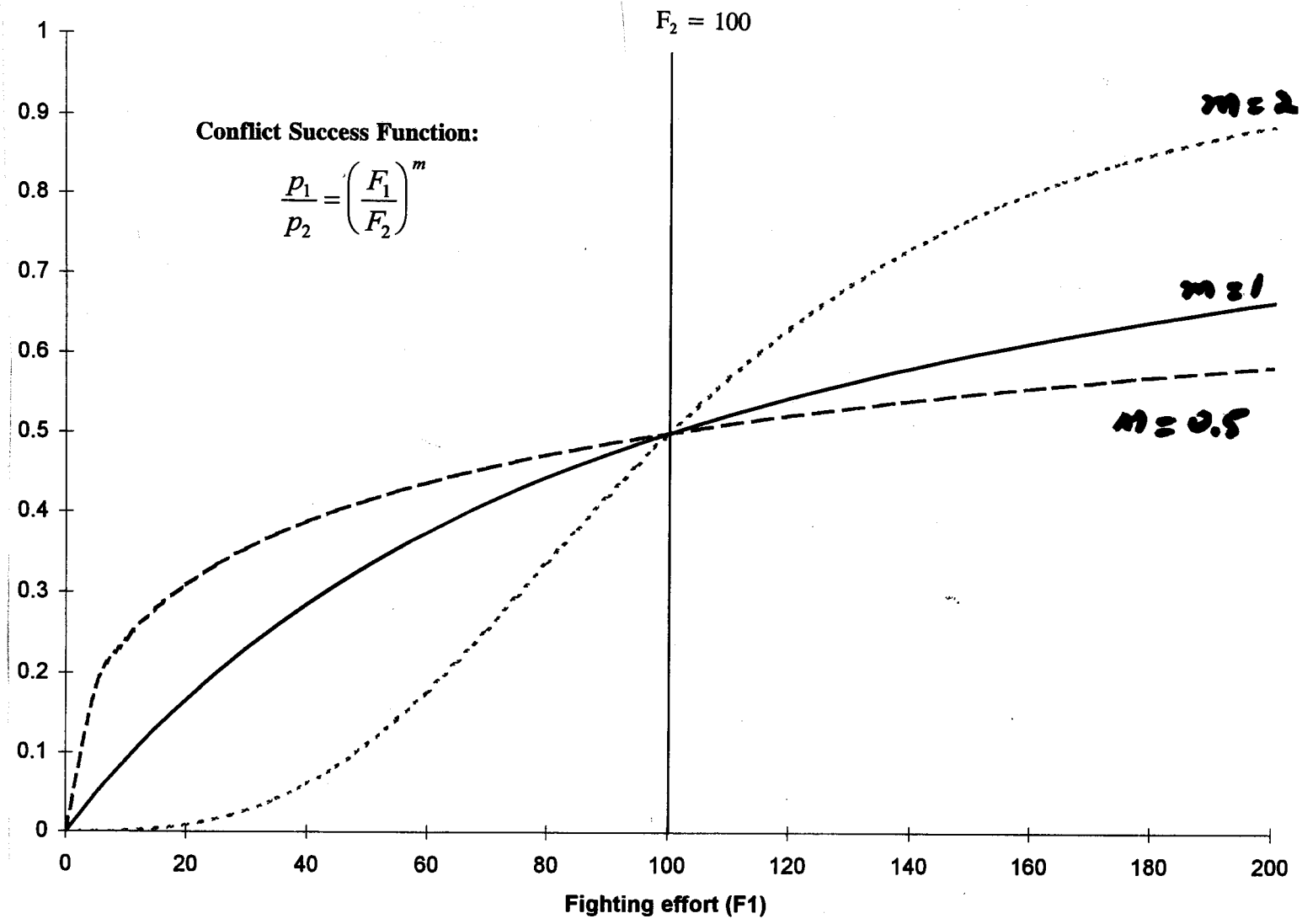


F: Foreseen cost of the war to North (% of actual)

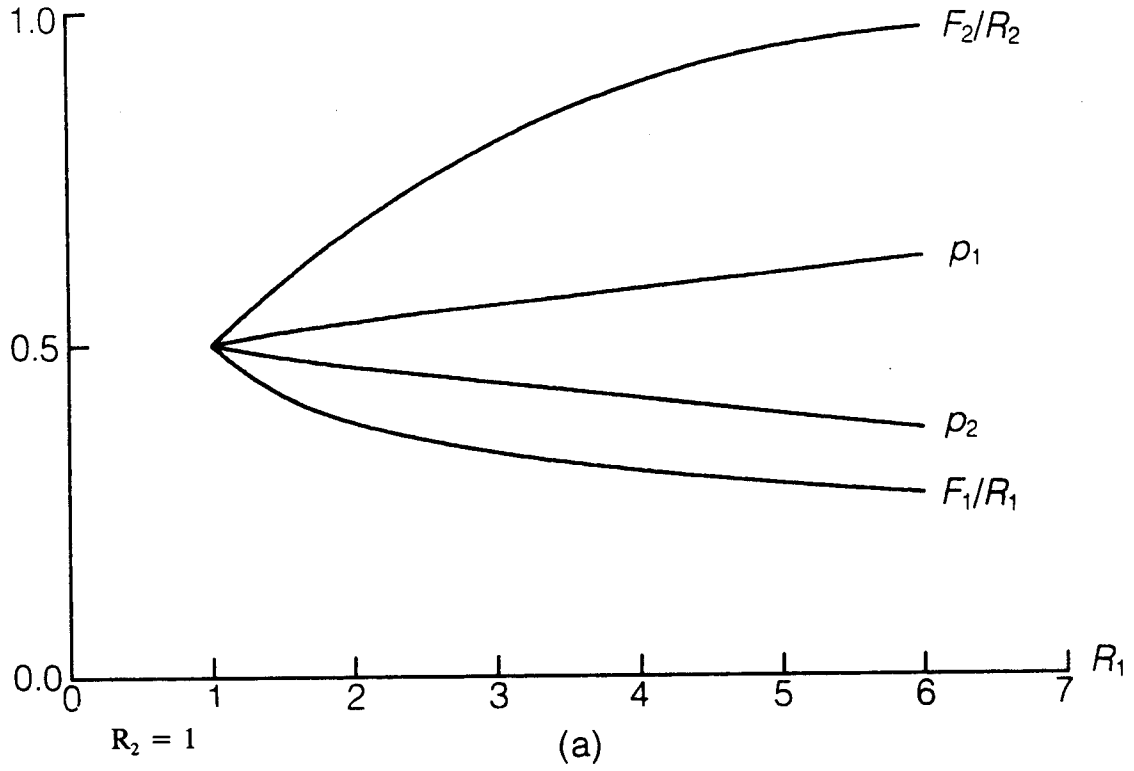
Estimated probability of Southern defeat

Jack Hirshleifer, "The paradox of power", Economics and Politics (Nov. 1991), 3: 177-200.

p_1: Proportionate success of contender #1



As the mass effect parameter (m) rises, fighting superiority becomes more decisive.



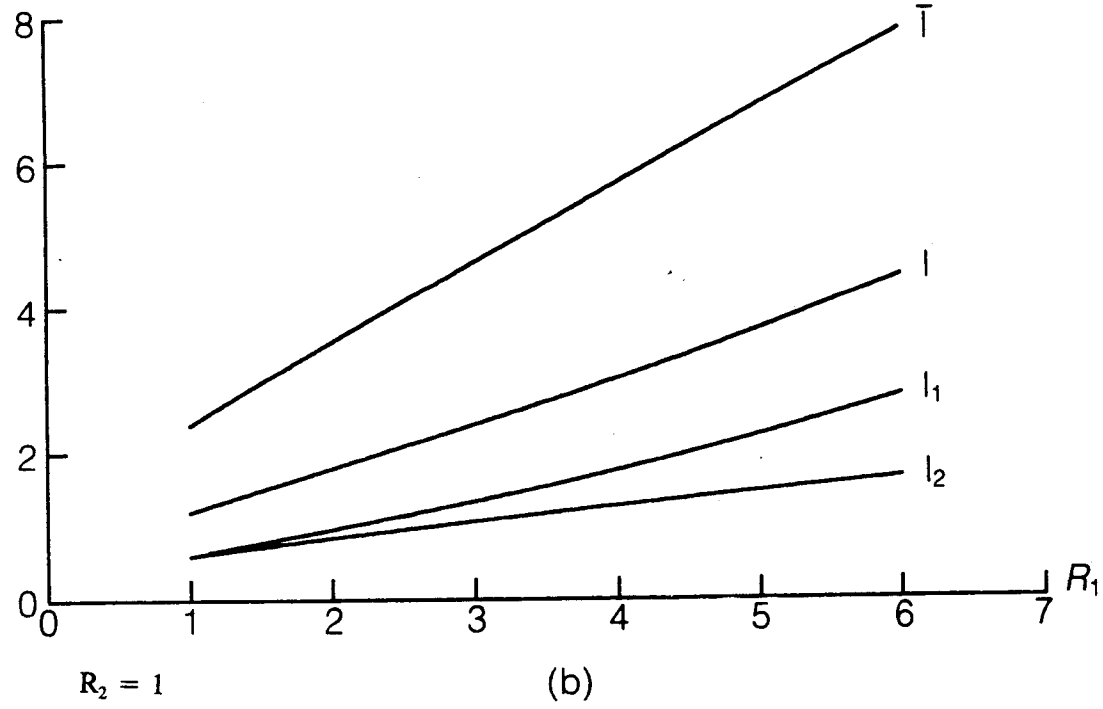


Figure 6. Proportionate allocations to fighting, fractional shares, and achieved incomes—$m = 1$, $s = 1.25$.

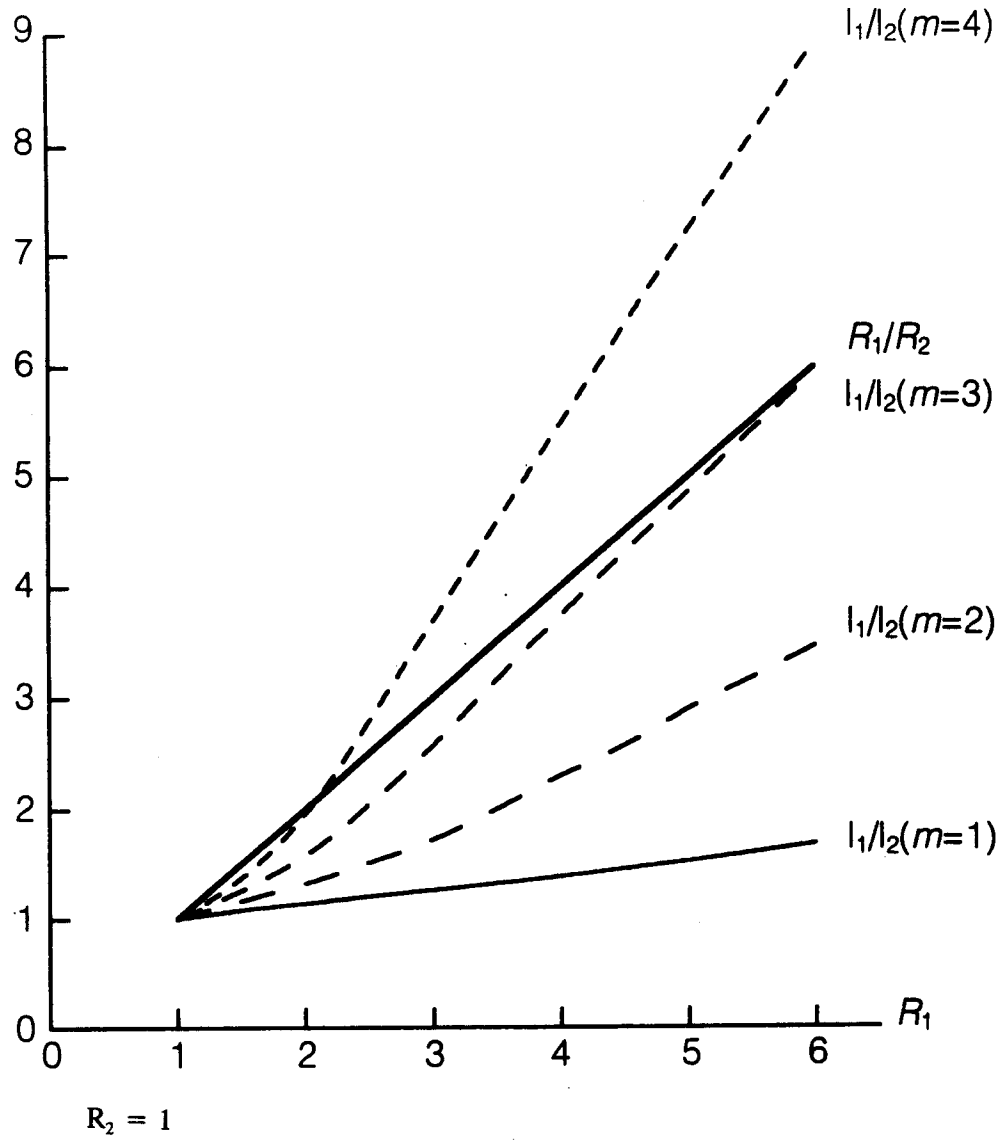


Figure 9. Income ratio versus resource ratio, varying m (for $s = 1.25$).

Lars-Erik Cederman, "Emergent polarity: Analyzing state-formation and power politics", International Studies Quarterly (1994), 38: 501-533.

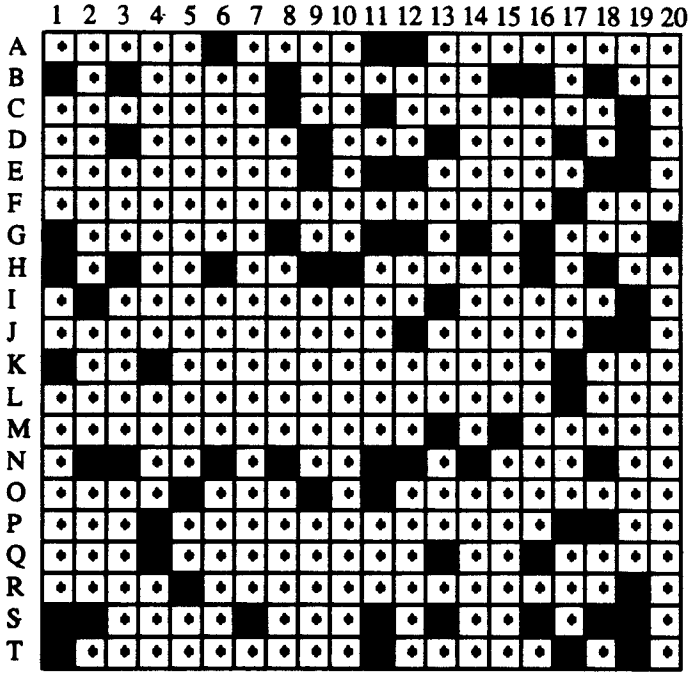


FIG. 3. A 20 x 20 geopolitical system with 20% predator states.

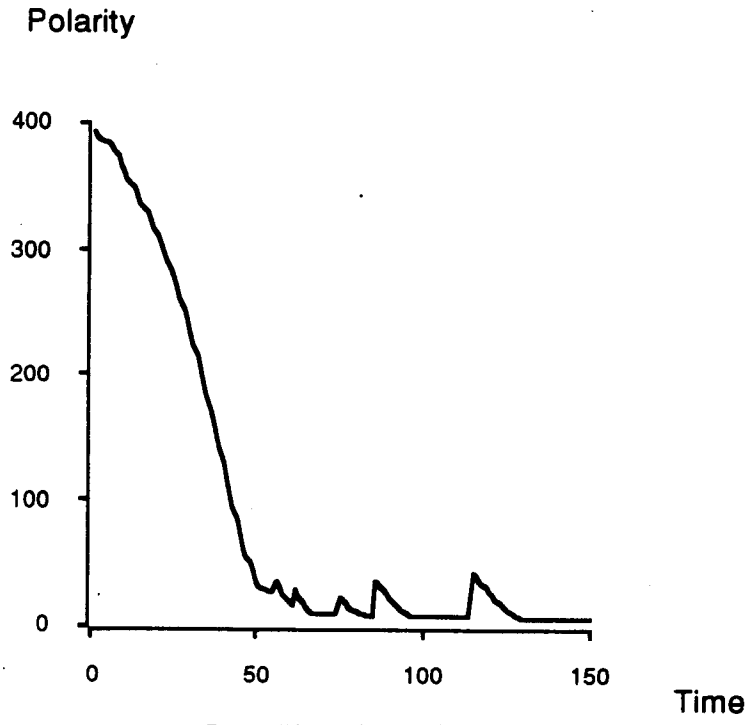


FIG. 4. The evolution of the 20 x 20 system.

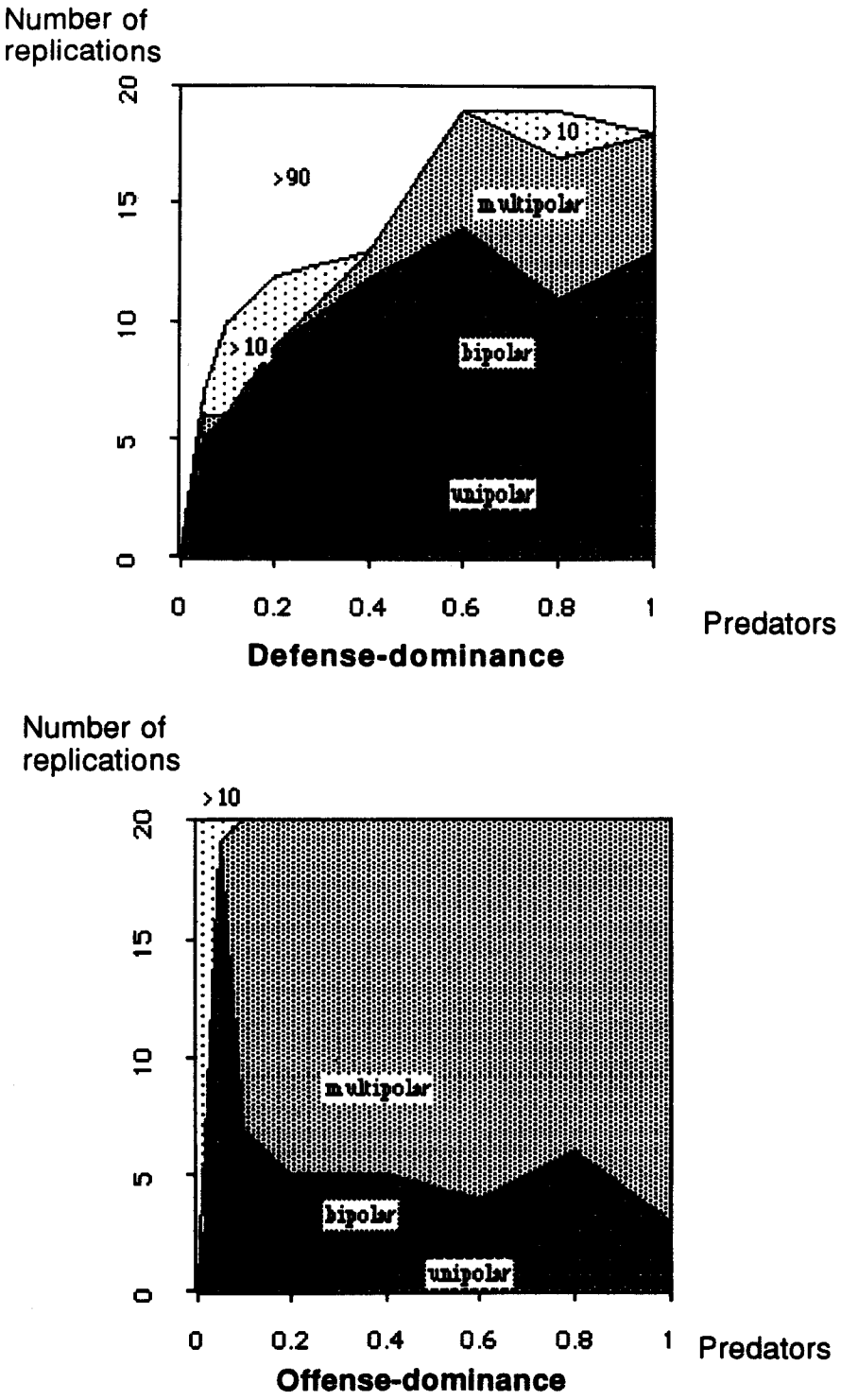


FIG. 11. Emergent polarity without alliances.

ENVOI – WORDS OF WISDOM (?)

Adam Smith:

An industrious, and upon that account a wealthy nation, is of all nations the most likely to be attacked ...

Wealth of Nations (ML 659)

The security of every society must always depend, more or less, upon the martial spirit of the great body of the people ..

Wealth of Nations (ML 738)

In ancient times the opulent and civilized found it difficult to defend themselves against the poor and barbarous nations. In modern times the poor and barbarous find it difficult to defend themselves against the opulent and civilized. The invention of firearms, an invention which at first sight appears to be so pernicious, is certainly favorable both to the permanency and to the extension of civilization.

Wealth of Nations (ML 669)

Thus we have seen how small republics, whether conquering or defensive, came at length to a dissolution, from the improvements in mechanic arts, commerce, and the arts of war.

Lectures on Jurisprudence, (LC 413.

Karl Marx:

In proportion as the antagonism between classes within the nation vanishes, the hostility of one nation to another will end.

Manifesto of the C.P.

The history of all hitherto existing society is the history of class struggles.

Manifesto of the C.P.

Niccolo Machiavelli:

It is not gold, but good soldiers that insure success ... for it is impossible that good soldiers should not be able to procure gold.

Carl v. Clausewitz:

The decision by arms is, for all operations in war ... what cash settlement is to trade.

Sigmund Freud:

It is always possible to bind together a considerable number of people ... so long as there are other people left over to receive the manifestations of their aggressiveness.

NON-MILITARY CONFLICTS

Arenas of human conflict:

- Constitutional (as opposed to revolutionary) politics
- Litigation
- Strikes and lockouts
- Family struggles: Battle of the sexes, battle of the generations, sibling rivalry
- Promotion ladders and the rat-race
- Destructive commercial competition

Biological conflict:

- Predation
- Disease
- Territoriality
- Dominance
- Battle of the womb (mother-fetus conflict)
- Sperm wars

ELEMENTS OF SMT AND ECT COMPARED

STANDARD MICROECONOMIC THEORY (SMT)

Preferences: Time-preference, risk-aversion, "tastes" for goods

Perceptions [common knowledge usually assumed]

Opportunities and constraints

1. Productive (separate and joint)
2. Exchange

Equilibrium

Large numbers: perfect competition

Small numbers: oligopoly etc.

ECONOMIC CONFLICT THEORY (ECT)

Preferences: Time-preference, risk-aversion, interpersonal (malevolence/benevolence, etc.)

Perceptions [very often diverging]

Opportunities and constraints

1. Productive (separate and joint)
2. Exchange
3. Exploitation and defense

Equilibrium

Small numbers usually assumed [Nash-Cournot solutions]

SOME IDEAS I COULDN'T SQUEEZE IN

Biology as source of models and applications:

1. Evolutionary theory indicates that benevolence/ malevolence correlated with kinship. Example: homicide and step-parents. Also "linked fates" favors group selection for cooperation.

2. Mixed-motive interactions:
   Battle of the generations: weaning conflict, mother-fetus conflict
   Battle of the sexes: more intra-sex homicide than inter-sex homicide.

3. Extensive (territorial) versus intensive (dominance) conflict. Determined by richness and patchiness of resources.

Legal conflict:

For outcome of trial, not only "effort" but also "truth" matters.
Possible CSF:

$$\frac{p_1}{p_2} = \left(\frac{F_1}{F_2}\right)^{\alpha} \left(\frac{Y}{1-Y}\right)^{\beta}$$

Implication: **Right makes might!** (To some extent.)

Appeasement: Can it pay?

To be successfully "appeased", the target – although initially hostile – must become less so upon receipt of a benefit or enrichment. Then a transfer of wealth to him tends to reduce his fighting effort directed against you.

Application to Munich: Hitler's Germany was not only hostile, but non-appeasably so.