

Syllabus Conflict and Cooperation

Sandeep Baliga baliga@kellogg.northwestern.edu

WINTER 2011

Version December 18, 2010

Time and Location: Tuesdays 3-6, Room TBD

Prerequisites: Economics Core Microeconomics sequence 410.1-410.3 or Permission of Instructor

Useful background reading:

1. Robert Gibbons, *Game Theory for Applied Economists*, Princeton University Press, 1992. [Advanced Undergraduate]
2. Andreu Mas-Colell, Michael Whinston, and Jerry Green, *Microeconomic Theory*, Oxford University Press, 1995. [PhD Core; Chapters 7-9, 11-14 and 23]
3. Drew Fudenberg and Jean Tirole, *Game Theory*, MIT Press, 1991. [Advanced; Chapter 10]
4. Abhinav Muthoo (1999): *Bargaining Theory with Applications*, Cambridge University Press.
5. Joseph Nye (2007): *Understanding International Conflict (6th Edition)*. Longman Classics in Political Science. Longman: New York City [Undergraduate introduction to conflict studies]

Description of the Course

This course will offer a theoretical treatment of conflict. Strategic interaction within and across nations involves conflict and cooperation. Disagreement between a country's population and its leadership can cause internal conflict, oppression and terrorism. Disagreement between countries can lead to war, costly arms races and impede economic development. Conflict often arises even though there is some cooperative solution that would have satisfied all the relevant actors. We will study the fundamental causes of conflict (positive analysis) and possible solutions that create cooperation (normative analysis).

Positive analyses will focus on conflict caused by payoff uncertainty or asymmetric information, the inability to commit to honor agreements, income inequality, fractionalization of the population into distinct and antagonistic groups and extremists who attempt to manipulate conflict to achieve their ends. This part of the course will cover topics such as the reciprocal fear of surprise attack, global games, wars of attrition, bargaining and coalition-formation.

Normative analyses will focus on communication, mechanism design and institutions and their impact on cooperation. Communication of motives or confidence-building measures, such as allowing arms inspections, may diffuse tension. Or they may increase the chances of conflict by exposing motives or the strength or weakness of a country's arms capabilities. Asymmetric information may preclude implementation of cooperation even when transfers are available and it is possible to fully commit. Similarly, "moral hazard" arising from a leader's desire for political survival will affect the chances of conflict or cooperation. Different institutions have different commitment properties. For example, democratization gives the

citizens a permanent voice in collective decision-making. This influences their incentives to revolt or accept the decisions of a leader.

These issues apply equally across countries and can cause war or within a country and cause civil war. While the course is theoretical, we will offer stylized facts about war and civil war as motivation and a guide to interesting unexploited questions and puzzles. Unlike many topics in economics and political science, these issues are under-explored. We hope to generate interesting research questions.

Grading

The grade will mainly be based on a project. The project should provide the basis for a paper. You will need to turn in a five page proposal at the midpoint of the course and then a more detailed fifteen page writeup at the end of the course. This will involve identifying an area of study and a specific research question within that area. You should indicate what aspect of the analysis will be new and not already covered by the previous literature and why this will provide an important contribution. Why is it important to know the answer to the question? Next, you should provide the foundations of a model and some preliminary results. The latter part of the course may include some student presentations of papers.

1. Hobbesian Models

Thomas Hobbes (1651): *Leviathan, or the Matter, Forme, and Power of a Commonwealth, Ecclesiasticall and Civil*, http://www.earlymoderntexts.com/f_hobbes.html [Focus on Chapters 13, 14, 15, 17-24, 26, 29, (they are short)]

Dagobert Brito and Michael Intriligator (1985): “Conflict, War and Redistribution”, *American Political Science Review*, 79:943-957

Jack Hirshleifer (1994) “The Dark Side of the Force”, *Economic Inquiry*, 32: 1-10.

Matthew Jackson and Massimo Morelli (2007): “Strategic Militarization, Deterrence and War between Nations”, <http://www.stanford.edu/jacksonm/gunsbutter.pdf>

James Jordan (2006): “Pillage and Property”, *Journal of Economic Theory*, Vol. 131, No. 1, November, pp. 26-44.

James Jordan (2001): “Majority Rule with Dollar Voting”, *Review of Economic Design*, 6: 343-352

Boaz Moselle and Benjamin Polak (2001): “A Model of a Predatory State”. *J Law Econ Organ.* 17: 1-33

Robert Powell (1993): “Guns, Butter and Anarchy”, *American Political Science Review*, Vol.87, No. 1, pp. 115-132.

Stergios Skaperdas (1992): “Cooperation, Conflict and Power in the Absence of Property Rights”, *American Economic Review* 82: 720-739.

2. Mutual Fear and Spiral Models

Sandeep Baliga and Tomas Sjöström (2009): “Conflict Games with Payoff Uncertainty”, mimeo.

Hans Carlsson and Eric van Damme (1993): “Global Games and Equilibrium Selection”, *Econometrica* 61, 989-1018.

Sylvain Chassang and Gerard Padró-i-Miquel (2010): “Conflict and Deterrence Under Strategic Risk”. forthcoming *Quarterly Journal of Economics*, NBER Working Paper No. 13964, <http://www.nber.org/papers/w13964.pdf>

Robert Jervis (1978): “Cooperation Under the Security Dilemma,” *World Politics* 30, 167-214.

Andrew Kydd (1997): “Game Theory and the Spiral Model”, *World Politics* 49, 371-400.

Stephen Morris and Hyun Shin (2003): “Global Games: Theory and Applications,” in *Advances in Economics and Econometrics (Proceedings of the Eighth World Congress of the Econometric Society)*, edited by M. Dewatripont, L. Hansen and S. Turnovsky. Cambridge: Cambridge University Press, 56-114.

Stephen Morris and Hyun Shin (2005): “Heterogeneity and Uniqueness in Interaction Games,” in *The Economy as an Evolving Complex System III*, edited by L. Blume and S. Durlauf; Oxford University Press, Santa Fe Institute Studies in the Sciences of Complexity.

Thomas Schelling (1963): *The Strategy of Conflict*, London and New York, Oxford University Press. **Chapter 9, first two pages**

Thucydides (1972). *The History of the Peloponnesian War*, Penguin Classics, London. [Chapter 1 is a classic]

2.1 Communication and Deception

Robert Aumann (1990): “Nash Equilibria are Not Self-Enforcing”, in J. J. Gabszewicz, J.-F. Richard and L. A. Wolsey (eds.), *Economic Decision-Making: Games, Econometrics and Optimization* (Amsterdam: Elsevier).

Sandeep Baliga and Tomas Sjöström (2004): “Arms Races and Negotiations”, *Review of Economic Studies* 71: 351-369.

Sandeep Baliga and Tomas Sjöström (2009): “Strategic Ambiguity and Arms Proliferation”, *Journal of Political Economy*, 116 (6), 1023-1058.

3. Bargaining Models

Ronald Coase (1960): “The Problem of Social Cost”, *Journal of Law and Economics*, Vol. 3, pp. 1-44.

James Fearon (1995): “Rationalist Explanations for War”, *International Organization*, Vol. 49, No. 3, pp. 379-414.

3.1 Asymmetric Information and Mechanism Design

Jeff Banks (1990): “Equilibrium Behavior in Crisis Bargaining Games”, *American Journal of Political Science* 34(3).

Helmut Bester and Karl Wärneryd (2006): “Conflict and the Social Contract”, *Scandinavian Journal of Economics*, 108: 231-249

Mark Fey and Kristopher Ramsay (2010): “Uncertainty and Incentives in Crisis Bargaining: Game-Free Analysis of International Conflict.”, forthcoming, *American Journal of Political Science*.

Mark Fey and Kristopher Ramsay (2009): “Mechanism Design Goes to War: Peaceful Outcomes with Interdependent and Correlated Types”, *Review of Economic Design*.

3.2 Shifting Power and Lack of Commitment

James Fearon (1996): “Bargaining over Objects that Influence Future Bargaining Power”, mimeo, Stanford.

3.3 Bargaining and Commitment

John Nash (1950): “The Bargaining Problem,” *Econometrica*, 18 (2), 155-162.

Thomas Schelling (1963): *The Strategy of Conflict*, London and New York, Oxford University Press. **Chapter 2**

Sandeep Baliga and Tomas Sjöström (2010): “Conflict and Cooperation”, mimeo, Northwestern.

Vincent Crawford (1982): “A Theory of Disagreement in Bargaining”, *Econometrica*, 607-638

Abhinay Muthoo (1996): “A Bargaining Model Based on the Commitment Tactic”, *Journal of Economic Theory*, 134-152

4. Moral Hazard/Democratic Peace

Sandeep Baliga, David Lucca and Tomas Sjöström (2009): “Domestic Political Survival and International Conflict: Is Democracy Good for Peace?”, forthcoming *Review of Economic Studies*.

Bruce Bueno de Mesquita, James Morrow, Randy Siverson and Alastair Smith (1999): “An Institutional Explanation of the Democratic Peace,” *American Political Science Review*, Vol. 93, No. 4, pp.791-807.

Michael Doyle (1986): “Liberalism and World Politics”, *American Political Science Review*, Vol. 80 No.4, pp. 1151-169.

James Fearon (1994): “Domestic Political Audiences and the Escalation of International Disputes”, *American Political Science Review*, 88, 577-592.

Matthew Jackson and Massimo Morelli (2007): “Political Bias and War,” *American Economic Review*, 97: 1353-1373

Immanuel Kant [1795] (1991): “Toward Perpetual Peace: A Philosophical Sketch”. in Reiss, Kant’s Political Writings, Cambridge University Press, pp. 93-130.

Gilat Levy and Ronny Razin (2004): “It takes Two: An Explanation for the Democratic Peace”, *Journal of the European Economic Association*, 2, 1-29.

Bruce Russett (1993): *Grasping the Democratic Peace: Principles for a Post-Cold War World*, Princeton University Press: Princeton N.J.

5. Wars of Attrition and Bargaining

Dilip Abreu and Faruk Gul (2000): “Bargaining and Reputation”, *Econometrica* 68(1), 85-117.

Kenneth Hendricks, Andrew Weiss and Charles Wilson (1988): “The War of Attrition with Complete Information in Continuous Time”, *International Economic Review*, 29: 663

Roger Myerson (1991): *Game Theory: Analysis of Conflict*. Harvard University Press. Chapter 8, sections 8.7 and 8.8.

Clara Ponsati and Josef Sakovics (1995): “The War of Attrition with Incomplete Information”, *Mathematical Social Sciences*, 29: 239-254.

6. Terrorism and Counterterrorism/Insurgency and Counterinsurgency

Sandeep Baliga and Tomas Sjöström (2010): “The Strategy of Manipulating Conflict”, mimeo, Northwestern.

Sandeep Baliga and Jeff Ely (2010): “Torture”, mimeo Northwestern

Eli Berman, Jacob Shapiro and Joseph Felter (2010): “Can Hearts and Minds be Bought? The Economics of the Counterinsurgency in Iraq”, mimeo, UCSD.

Eli Berman and David Laitin (2008): “Religion, Terrorism and Public Goods: Testing the Club Model,” *Journal of Public Economics*.

Ethan Bueno de Mesquita (2005): “The Quality of Terror”, *American Journal of Political Science* 49:3, 515-530

Ethan Bueno de Mesquita (2010): “Regime Change and Revolutionary Entrepreneurs,” *American Political Science Review*

Laurence Iannaccone and Eli Berman (2006): “Religious Extremism: The Good, the Bad and the Deadly,” *Public Choice*

7. Fractionalization, Inequality and Conflict

Duclos, Jean-Yves, Joan Esteban & Debraj Ray (2004): “Polarization: Concepts, Measurement, Estimation”, *Econometrica* 72(5): 1737–1772.

Joan Esteban and Debraj Ray (2008): “On the Salience of Ethnic Conflict, *American Economic Review*, 98(5), 2185-2202.

Joan Esteban and Debraj Ray (2010): “Linking Conflict to Inequality and Polarization, forthcoming, *American Economic Review*.

7. Democratization and Foundations of the State

Daron Acemoglu and James Robinson (2000): “Why Did the West Extend the Franchise? Democracy, Inequality and Growth in Historical Perspective”, *Quarterly Journal of Economics* 115: 1167-99.

Daron Acemoglu and James Robinson (2001): "A Theory of Political Transitions", *American Economic Review* 91 (4): 938-963.

Daron Acemoglu and James Robinson (2006),: *Economic Origins of Dictatorship and Democracy*, Cambridge University Press.

Alessandro Lizzeri and Nicola Persico (2004): "Why Did the Elites Extend the Suffrage? Democracy and the Scope of Government, With an Application to Britain's 'Age of Reform,'" *Quarterly Journal of Economics* 119 (2): 707-65.

Roger Myerson, "The Autocrat's Credibility Problem and Foundations of the Constitutional State," *American Political Science Review* 102 (2008), 125-139.

Robert Powell (2006): "War as a Commitment Problem," *International Organization*, 60, 1 (Winter), 169-203.