

Game Theory, Law, and Politics

Wed. 4-7pm, Room 83 Dwinelle Hall

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Game theory can be fun and challenging, while teaching us about life, and perhaps even about ourselves. We will learn the basic models of game theory and their applications to legal and political decision-making, both ‘within’ and ‘about’ policy. ‘Within’ refers to interaction and decision-making by representatives who choose policy. ‘About’ refers to social discussion of legal and political issues, often divisive and triggering.

We will focus on social interaction in private and political life, with special emphasis on how laws and social norms shape our interaction. We’ll separate between methods of devising policy, and methods of devising ‘rules of the game’, such as representation, voting mechanisms, separation of powers, speech governance, and the like.

A special emphasis will be placed on interactive learning through participating in games (both online and in-class) and discussion of the dynamics of decision-making present within each game. Towards this purpose, students will be asked to register to a course-specific website through which problem sets will be posted. Participation in games should facilitate learning – both in pushing students to tackle strategic questions within each game, and in requiring thought as to real-life situations in which similar dynamics arise. Students will be encouraged to tease out how people of opposing views might interpret and answer similar questions differently. Finally, students will be asked to devise conversational norms that would allow productive discussion of contentious issues they are familiar with. We’ll stress the difficulty of respecting opposing views and life experiences, while debating the issues and deepening understanding.

Course material:

We will cover non-cooperative game theory (where each actor is presumed to further self-interest), as well as cooperative game theory (methods of coalition-forming among members). *Application to social and political issues will be discussed, based both on scholarly writings and on students' input as to real-life situations where similar strategic interactions arise.* We will assume a diverse polity, where members differ in their opinions, beliefs, and social identification groups. To this end, students will be asked to role-play and find solutions based not on their preferences for specific political action, but on long-term ‘game rules’ which would allow cooperation even in the face of severe disagreement.

No prior knowledge of game theory is presumed, and all technical know-how necessary for understanding, presenting, and solving game structures will be covered in class. The focus

of this course is on **understanding** and being able to **apply** game theory's insights, rather than theoretical knowledge alone. While terminology might be daunting to the uninitiated, my job as instructor is to ensure that each and every student both understands and is able to apply these concepts. This is achieved through participation in games, and discussing how these issues play out in day-to-day life experiences. It really is much simpler than it may initially look...

Reading Material

Some of these are fun and accessible, others are more challenging. We will tackle the harder ones together through 'reading pairs' and presentations in class. All will be understood and no one will be left behind...

GAME THEORY AND THE LAW / Baird, Gertner, and Picker

THE ART OF STRATEGY / Dixit and Nalebuff

STUMBLING ON HAPPINESS / Gilbert

FACTFULNESS / Rosling

Colin F. Camerer, "Progress in Behavioral Game Theory", 11 *Journal of Economic Perspectives* 167 (1997)

Alan G. Sanfey, "Social Decision-Making: Insights from Game Theory and Neuroscience", 318 *Science* 5989 (2007)

Mahoney & Sanchirico, "Norms, Repeated Games, and the Role of Law", 91 *California Law Review* 1281 (2003)

Oren Bar-Gill, "The Evolution and Persistence of Optimism in Litigation", 22 *Journal of Law, Economics & Organization* 390 (2006)

Dullek and Kerschbamer, "On Doctors, Mechanics, and Computer Specialists: The Economics of Credence Goods", 44 *Journal of Economic Literature* 5 (2006)

Alvin Roth, "Repugnance as a Constraint on Markets", 21 *Journal of Economic Perspectives* 37 (2007)

Moresi and Salop, "A Few Righteous Men: Imperfect Information, Quit-for-Tat, and Critical Mass in the Dynamics of Cooperation", in *ECONOMICS FOR AN IMPERFECT WORLD* (2003)

Assignments and Grading

We will focus on real-world applications and developing original and critical thought. To this end, each week some of you will present portions of the assigned reading, and choose an additional non-academic source that connects to the theme discussed (e.g. online article, blog, or video). I will help you think about appropriate sources, but will stress your own initiative and originality in sourcing relevant material and thinking about real-world applications.

Grading will be based on several parameters:

- Points gained in class games (both in-class and online): 20%
- Active participation in discussions and in-class simulations: 20%
- Presentation of assigned and self-chosen reading materials: 20%
- Final paper (including pre-approval of topic and sources): 40%

Week	Topics
1	Introduction to Game Theory Prisoners' Dillema in legal analysis and social interaction
2-3	Seperating conflict of interests from coordination failures Battle of the Sexes, General's Game, Chain-Store Paradox Formal terminology and informal applications in law and politics Approximation and evaluation in non-measurable applications
4-6	Group interaction: cooperative vs. non-cooperative Negotiation, compromise, and "hard-lining" Litigation and settlement Building "rules of the game" in political discourse
7-9	Auction theory and allocation of scarce resources Externalities, internalities, and moral principles Coalitions and cooperative games
10-12	Competition policy as moral and economic ideology Political vs. agency oversight Checks and balances in politics and everyday life
13-14	Dealing with imperfect and incomplete knowledge Voting and allocation of power in political systems Signaling, screening, and manipulation of "game rules"