# POLS 604 (600): Conceptualization and Theory in Political Analysis Spring 2018 Tuesday and Thursday 10:20-11:35 a.m. Allen 1003

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# 1 Course Overview

This course builds on POLS 601 (which is a prerequisite) and is a second course in game theory. The course is a combination of applied and advanced game theory. It is applied in that the primary focus will be to study and understand prominent game-theoretic models that have been used to study many important substantive topics in political science, in both domestic politics and international relations. It is advanced in that many of these models are quite technically sophisticated, and introduce game-theoretic concepts that we may not have fully encountered yet (additional equilibrium refinements, etc.). In addition, the solution to these models can be quite technically challenging. A major goal will be for students to learn how to construct parsimonious models that capture the core strategic features of political phenomena of interest. This is well-learnt by studying many such models that others have constructed and analyzed, and thinking carefully about why these authors made the assumptions and modeling choices that they did. A second major goal will of course be to further develop your technical ability to solve such models and find their equilibria. A third goal is to develop a knack for identifying the substantive importance of features of those equilibria—being able to realize which results are interesting and worth emphasizing, and being able to convince readers why they should care about your formal analysis and why it should be published. Besides further developing your game-theoretic "toolkit", the logical deductive reasoning you will be engaged in throughout the course should enhance your ability to develop coherent and convincing theoretical arguments regardless of whether these arguments are formalized or not.

# 2 Course Requirements

Your grade will be based on weekly homework assignments and two exams, a midterm and a final (either in-class or take-home; this will be decided later). The homework assignments will together account for 40% of your grade, and each exam will account for 30% of your grade.

# **3** Required Texts

- Gehlbach, Scott. 2013. Formal Models of Domestic Politics. Cambridge University Press.
- Kydd, Andrew. 2015. International Relations Theory: The Game-Theoretic Approach. Cambridge University Press. [This is actually recommended as a reference, and is not really required. The IR section of the course will mainly be based on a textbook that I am writing (which is quite a bit different from Kydd's), although we may cover some topics from the Kydd text. Bottom line: buy it.]

# 4 Recommended Game Theory Texts

• Tadelis, Steven. 2013. *Game Theory: An Introduction*. Princeton University Press. (An excellent intermediate-level text, with lots of applications from political science. Has an especially excellent treatment of decision theory. Provides formal statements of propositions and proofs, which is a slight advantage over the Osborne text.)

- Osborne, Martin J. 2004. An Introduction to Game Theory. Oxford University Press. (Another excellent intermediate-level text, with lots of applications from political science. Is perhaps a slightly gentler introduction than Tadelis, but is basically at the same level.)
- Gibbons, Robert. 1992. *Game Theory for Applied Economists*. Princeton University Press. (Another excellent intermediate-level text. This has no applications from political science, but is an absolute gem. Provides perhaps the most clear verbal explanations of solution concepts of all the texts on this list.)
- McCarty, Nolan, and Adam Meirowitz. 2007. *Political Game Theory: An Introduction.* Cambridge University Press. (This is an advanced-level text, and is written explicitly for political scientists. Therefore, contains the most political science applications. Covers social choice theory, which is unique among the texts on this list. Also provides a rigorous treatment of decision theory, which is also unique.)

# 5 Some Other Game Theory Texts

- Osborne, Martin J., and Ariel Rubinstein. 1994. A Course in Game Theory. MIT Press. (An excellent advanced-level text. If you want to pursue game theory at an advanced level, you should own this text, and work through it. Doesn't provide much verbal discussion, and is not for the faint of heart.)
- Fudenberg, Drew, and Jean Tirole. 1991. *Game Theory*. MIT Press. (Another advanced-level text. Is probably the most comprehensive out there; covers almost every topic under the sun. Therefore is very useful as a reference if you want to pursue game theory at an advanced level. Not for the faint of heart.)
- There are other game theory texts out there, which I don't comment on simply because I am not as familiar with them. Some may be excellent.

# 6 Course Schedule

The following is the order in which we will cover topics. This is subject to minor changes and clarifications throughout the semester. For example, we won't really be covering entire chapters from the Gehlbach text, but parts of them; specific page numbers will be given the week before. Similarly, we won't be covering each chapter; the exact chapters we will cover will be clarified later. Similarly, I may be overestimating how many IR topics we will have time to cover: **the following list is aspirational**. Roughly speaking, the midterm will cover IR models and the final will cover domestic models. In the IR section, I have included some general game theory topics that we need to cover but that aren't really IR, just game theory in general. The supplemental readings are optional and are meant to point you to important articles/books on topics that you are especially interested in; many important works are not included, so don't take these lists as comprehensive. (Credit to Ian Turner for coming up with the supplemental readings in the domestic politics section.)

# 6.1 Formal Models of International Relations

# 6.1.1 Static Games of Incomplete Information With Two-Sided Uncertainty and a Continuum of Types (BNE Again)

- (We covered this with one-sided uncertainty and 2 types in POLS 601)
- Gibbons p.152-154 ("Mixed Strategies Revisited")

#### Supplemental reading:

• Gibbons p.155-157 ("An Auction")

# 6.1.2 Dynamic Games of Incomplete/Imperfect Information (Perfect Bayesian Equilibrium; PBE)

- Tadelis Chapters 15-16, or
- Osborne Chapter 10, or
- Gibbons Chapter 4

#### Supplemental reading:

• Cho, In-Koo, and David Kreps. 1987. "Signaling Games and Stable Equilibria." *Quarterly Journal of Economics* 102(2):179-221.

## 6.1.3 Extended Deterrence: Uncertainty and Credible Signaling

• Lecture notes

#### Supplemental reading:

- Fearon, James D. 1994. "Signaling Versus the Balance of Power and Interests: An Empirical Test of a Crisis Bargaining Model." *Journal of Conflict Resolution* 38(2):236–69.
- Huth, Paul K. 1988. *Extended Deterrence and the Prevention of War*. New Haven: Yale University Press. [or his APSR article that same year]
- Zagare, Frank C., and D. Marc Kilgour. 2000. *Perfect Deterrence*. Cambridge: Cambridge University Press. [or their multiple articles on deterrence]
- Powell, Robert. 1990. Nuclear Deterrence Theory: The Search for Credibility. Cambridge, UK: Cambridge University Press. [or his various APSR articles on this topic]
- Werner, Suzanne. 2000. "Deterring Intervention: The Stakes of War and Third-Party Involvement." *American Journal of Political Science* 44(4):720-732.
- Yuen, Amy. 2009. "Target Concessions in the Shadow of Intervention." Journal of Conflict Resolution 53(5):745-773.

#### 6.1.4 Crisis Bargaining Under Complete Information

• Lecture notes (we largely covered this in POLS 601)

- Brito, Dagobert L., and Michael D. Intriligator. 1985. "Conflict, War, and Redistribution." American Political Science Review 79(4):943-57.
- Bueno de Mesquita, Bruce, and David Lalman. 1992. *War and Reason*. New Haven: Yale University Press.
- Garfinkel, Michelle R., and Stergios Skaperdas. 2000. "Conflict Without Misperceptions or Incomplete Information: How the Future Matters." *Journal of Conflict Resolution* 44(6):793-807.
- Langlois, Catherine C., and Jean-Pierre P. Langlois. 2006. "When Fully Informed States Make Good on the Threat of War." *British Journal of Political Science* 36:645-69.

• Slantchev, Branislav. 2003. "The Power to Hurt: Costly Conflict with Completely Informed States." *American Political Science Review* 97(1):123-133.

#### 6.1.5 Crisis Bargaining Under Incomplete Information

• Lecture notes

- Fearon, James. 1995. "Rationalist Explanations for War." International Organization 49(3): 379–414.
- Leventoglu, Bahar, and Ahmer Tarar. 2008. "Does Private Information Lead to Delay or War in Crisis Bargaining?" International Studies Quarterly 52(3): 533–553.
- Fey, Mark, and Kris Ramsay. 2011. "Uncertainty and Incentives in Crisis Bargaining: Game Free Analysis of International Conflict." *American Journal of Political Science* 55(1): 149-169.
- Meirowitz, Adam, and Anne Sartori. 2008. "Strategic Uncertainty as a Cause of War." *Quarterly Journal of Political Science* 3(4):327-352.
- Jackson, Matthew, and Massimo Morelli. 2009. "Strategic Militarization, Deterrence, and Wars." *Quarterly Journal of Political Science* 4(4):279-313.
- Banks, Jeffrey S. 1990. "Equilibrium Behavior in Crisis Bargaining Games." American Journal of Political Science 34(3):599-614.
- Morrow, James D. 1989. "Capabilities, Uncertainty, and Resolve: A Limited Information Model of Crisis Bargaining." *American Journal of Political Science* 33(November):941-972.
- O'Neill, Barry. 2001. "Risk Aversion in International Relations Theory." *International Studies Quarterly* 45(4):617-40.
- Powell, Robert. 1996. "Stability and the Distribution of Power." World Politics 48(January):239-67.
- Reed, William. 2003. "Information, Power, and War." American Political Science Review 97(4):633-641.

## 6.1.6 Credible Signaling in Crisis Bargaining

• Lecture notes

#### Supplemental reading:

- Fearon, James. 1997. "Signaling Foreign Policy Interests: Tying Hands Versus Sunk Costs." Journal of Conflict Resolution 41(1): 68–90.
- Kurizaki, Shuhei. 2007. "Efficient Secrecy: Public Versus Private Threats in Crisis Diplomacy." American Political Science Review 101(3): 543–558.
- Sartori, Anne. 2002. "The Might of the Pen: A Reputational Theory of Communication in International Disputes." *International Organization* 56(1): 121–149.
- Schultz, Kenneth. 1998. "Domestic Opposition and Signaling in International Relations." American Political Science Review 92(4): 829–844.
- Slantchev, Branislav. 2005. "Military Coercion in Interstate Crises." American Political Science Review 99(4): 533–547.
- Fearon, James. 1994. "Domestic Political Audiences and the Escalation of International Disputes." *American Political Science Review* 88(3): 577–592.
- Smith, Alastair. 1998. "International Crises and Domestic Politics." American Political Science Review 92(3): 623–639.
- Guisinger, Alexandra, and Alastair Smith. 2002. "Honest Threats." Journal of Conflict Resolution 46(2):175-200.
- Ramsay, Kristopher W. 2011. "Cheap Talk Diplomacy, Voluntary Negotiations, and Variable Bargaining Power." *International Studies Quarterly* 55(4):1003-23.
- Tarar, Ahmer, and Bahar Leventoğlu. 2013. "Limited Audience Costs in International Crises." *Journal of Conflict Resolution* 57(6):1065-1089.
- Trager, Robert. 2010. "Diplomatic Calculus in Anarchy." American Political Science Review 104(2):347-68.

#### 6.1.7 Shifting Power and Commitment Problems

• Lecture notes

- Powell, Robert. 2006. "War as a Commitment Problem." *International Organization* 60(1): 169–203.
- Chadefaux, Thomas. 2011. "Bargaining Over Power: When Do Shifts in Power Lead to War?" International Theory 3(2): 228–253.
- Debs, Alexandre, and Nuno P. Monteiro. 2014. "Known Unknowns: Power Shifts, Uncertainty, and War." *International Organization* 68(1):1-31.
- Leventoğlu, Bahar, and Branislav Slantchev. 2007. "The Armed Peace: A Punctuated Equilibrium Theory of War." *American Journal of Political Science* 51(4):755-71.
- Tarar, Ahmer. 2013. "Military Mobilization and Commitment Problems." International Interactions 39(3):343-66.

#### 6.1.8 Intra-War Bargaining

• Lecture notes

- Filson, Darren, and Suzanne Werner. 2002. "A Bargaining Model of War and Peace." *American Journal of Political Science* 46(October):819-38.
- Langlois, Jean-Pierre P., and Catherine C. Langlois. 2011. "Does the Principle of Convergence Really Hold? War, Uncertainty, and the Failure of Bargaining." *British Journal of Political Science* 42:511-36.
- Powell, Robert. 2004. "Bargaining and Learning While Fighting." American Journal of Political Science 48(2):344-361.
- Slantchev, Branislav. 2003. "The Principle of Convergence in Wartime Negotiations." American Political Science Review 97(4):621-632.
- Smith, Alastair, and Allan C. Stam. 2004. "Bargaining and the Nature of War." *Journal of Conflict Resolution* 48(6):783-813.
- Wagner, R. Harrison. 2000. "Bargaining and War." American Journal of Political Science 44(July):469-84.
- Wittman, Donald. 1979. "How a War Ends: A Rational Model Approach." *Journal of Conflict Resolution* 23(December):743-63.
- Wolford, Scott, Dan Reiter, and Clifford J. Carrubba. 2011. "Information, Commitment, and War." *Journal of Conflict Resolution* 55(4):556-79.

# 6.1.9 The Military Fait Accompli

• Lecture notes

#### Supplemental reading:

- Tarar, Ahmer. 2016. "A Strategic Logic of the Military Fait Accompli." International Studies Quarterly 60(4):742-52.
- Altman, Dan. 2017. "By *Fait Accompli*, Not Coercion: How States Wrest Territory From Their Adversaries." *International Studies Quarterly* 61(4):881-91.

# 6.1.10 Repeated Games (SPE; The One-Stage Deviation Principle; The Folk Theorem)

- McGillivray, Fiona, and Alastair Smith. 2000. "Trust and Cooperation Through Agent-Specific Punishments." *International Organization* 54(4): 809–824.
- Tadelis Chapters 9-10 (sections 2.4.2, 2.5.2, and 8.3.4 may also be useful), or
- Osborne Chapters 14-15

- Bendor, Jonathan, and Piotr Swistak. 1997. "The Evolutionary Stability of Cooperation." American Political Science Review 91(2): 290–307.
- Schultz, Kenneth A. 2005. "The Politics of Risking Peace: Do Hawks or Doves Deliver the Olive Branch?" *International Organization* 59(1): 1-38.
- Signorino, Curtis. 1996. "Simulating International Cooperation Under Uncertainty." Journal of Conflict Resolution 40(1):152-205.

# 6.2 Formal Models of Domestic Politics

# 6.2.1 Electoral Competition Under Certainty

• Gehlbach Chapter 1

## Supplemental reading:

- Selections from An Economic Theory of Democracy by Anthony Downs.
- Wittman, Donald A. 1973. "Parties as Utility Maximizers" American Political Science Review 67(2): 490–498.
- Callander, Steven. 2008. "Political Motivations." *Review of Economic Studies* 75(3): 671–697.

# 6.2.2 Electoral Competition Under Uncertainty

• Gehlbach Chapter 2

# Supplemental reading:

- Calvert, Randall L. 1985. "Robustness of the Multidimensional Voting Model: Candidate Motviations, Uncertainty, and Convergence." *American Journal of Political Science* 29(1): 69–95.
- Selections from *Political Economics: Explaining Economic Policy* by Persson and Tabellini.
- Lindbeck, Assar and Jorgen Weibull. 1987. "Balanced Budget Redistribution as the Outcome of Political Competition." *Public Choice* 98(1–2): 59–82.

#### 6.2.3 Special Interest Politics

• Gehlbach Chapter 3

# $Supplemental\ reading:$

• Grossman, Gene, and Elhanan Helpman. 1994. "Protection for Sale." American Economic Review 84(4): 833–850.

- Grossman, Gene, and Elhanan Helpman. 1996. "Electoral Competition and Special Interest Politics." *Review of Economic Studies* 63(2): 265–286.
- Grossman and Helpman. 2001. Special Interest Politics. MIT Press.
- Ashworth, Scott. 2006. "Campaign Finance and Voter Welfare with Entrenched Incumbents." *American Political Science Review* 100(1): 55–68.

# 6.2.4 Veto Players (and Agenda-Setting)

• Gehlbach Chapter 4

#### Supplemental reading:

- Romer, Thomas and Howard Rosenthal. 1978. "Political Resource Allocation, Controlled Agendas, and the Status Quo." *Public Choice* 33(4): 27–43.
- Selections from Tsebelis, George. 2002. Veto Players: How Political Institutions Work.
- Selections from Krehbiel, Keith. 1998. Pivotal Politics.
- Crombez, Christophe, Tim Groseclose, and Keith Krehbiel. 2006. "Gatekeeping." *Journal of Politics* 68(2): 322–334.
- Austen-Smith, David and Jeffrey S. Banks. 1990. "Stable Governments and the Allocation of Policy Portfolios." *American Political Science Review* 84(3): 891–906.
- Laver, Michael and Kenneth A. Shepsle. 1990. "Coalitions and Cabinet Government." American Political Science Review 84(3): 873–890.
- McCarty, Nolan. 1997. "Presidential Reputation and the Veto." *Economics and Politics* 9(1): 1–26.

#### 6.2.5 Delegation

• Gehlbach Chapter 5

#### Supplemental reading:

• Bendor, Jonathan and Adam Meirowitz. 2004. "Spatial Models of Delegation." American Political Science Review 98(2): 293–310.

- Bendor, Jonathan, Ami Glazer, and Thomas H. Hammond. 2001. "Theories of Delegation." Annual Review of Political Science 4: 235–269.
- Epstein, David and Sharyn O'Halloran. 1994. "Administrative Procedures, Information, and Agency Discretion." American Journal of Political Science 38(3): 697–722.
- Selections from Huber, John D., and Charles Shipan. 2002. Deliberate Discretion? The Institutional Foundations of Bureaucratic Autonomy.
- Huber, John D. and Nolan McCarty. 2004. "Bureaucratic Capacity, Delegation, and Political Reform." *American Political Science Review* 98(3): 481–494.
- Bawn, Kathleen. 1995. "Political Control versus Expertise: Congressional Choices About Administrative Procedures." *American Political Science Review* 89(1): 62–73.
- Gailmard, Sean and John W. Patty. 2007. "Slackers and Zealots: Civil Service, Policy Discretion, and Bureaucratic Expertise." *American Journal of Political Science* 51(4): 873–889.
- McCubbins, Mathew D. and Thomas Schwartz. 1984. "Congressional Oversight Overlooked: Policy Patrols versus Fire Alarms." *American Journal of Political Science* 28(1): 165–179.
- Calvert, Randall L., Mathew D. McCubbins, and Barry Weingast. 1989. "A Theory of Political Control and Agency Discretion." *American Journal of Political Science* 33(3): 588–611.
- Gilligan, Thomas W. and Keith Krehbiel. 1987. "Collective Decisionmaking and Standing Committees: An Informational Rationale for Restrictive Amendment Procedures." Journal of Law, Economics, and Organization 3(2): 287–335.

# 6.2.6 Coalitions

• Gehlbach Chapter 6

- Baron, David P. and John A. Ferejohn. 1989. "Bargaining in Legislatures." *American Political Science Review* 83(4): 1181–1206.
- Banks, Jeffrey S. and John Duggan. 2000. "A Bargaining Model of Collective Choice." American Political Science Review 94(1): 73–88.
- Deiermeier, Daniel and Timothy J. Fedderson. 1998. "Cohesion in Legislatures and the Vote of Confidence Procedure." American Political Science Review 92(3): 611–621.

- Baron, David P. and Daniel Deiermeier. 2001. "Elections, Governments, and Parliaments in Proportional Representation Systems." *Quarterly Journal of Political Science* 116(3): 933–967.
- Groseclose, Tim and James M. Snyder. 1996. "Buying Supermajorities." American Political Science Review 90(2): 303–315.
- Bueno de Mesquita, Bruce, James D. Morrow, Randolph M. Siverson, and Alastair Smith. 1999. "An Institutional Explanation of the Democratic Peace." *American Political Science Review* 93(4): 791–807.

#### 6.2.7 Political Agency

• Gehlbach Chapter 7

- Barro, Robert. 1973. "The Control of Politicians: An Economic Model." *Public Choice* 14(1): 19–42.
- Ferejohn, John A. 1986. "Incumbent Performance and Electoral Control." *Public Choice* 50(1–3): 5–26.
- Fearon, James D. 1999. "Electoral Accountability and the Control of Politicians: Selecting Good Types versus Sanctioning Poor Performance." In Przeworski, Adam, Susan C. Stokes, and Bernard Manin (eds.), *Democracy, Accountability, and Representation.* New York: Cambridge University Press.
- Hölmstrom, Bengt. 1982. "Managerial Incentive Problems A Dynamic Perspective." In *Essays in Economics and Management in Honor of Lars Wahlbeck*. Helsinki: Swedish School of Economics.
- Fox, Justin and Kenneth W. Shotts. 2009. "Delegates or Trustees? A Theory of Political Accountability." *Journal of Politics* 71(4): 1225–1237.
- Besley, Timothy. 2006. Principled Agents? Oxford: Oxford University Press.
- Canes-Wrone, Brandice, Michael C. Herron, and Kenneth W. Shotts. 2001. "Leadership and Pandering: A Theory of Executive Policymaking." *American Journal of Political Science* 45(3): 532–550.

## 6.2.8 Regime Change

• Gehlbach Chapter 8

- Acemoglu, Daron and James A. Robinson. 2000. "Why Did the West Expand the Franchise? Growth, Inequality, and Democracy in Historical Perspective." *Quarterly Journal of Economics* 115(4): 1167–1199.
- Acemoglu, Daron and James A. Robinson. 2001. "A Theory of Political Transitions." American Economic Review 91(4): 938–963.
- Morris, Stephen and Hyun Song Shin. 2003. "Global Games: Theory and Applications." In Dewatripont, Mathias, Lars Peter Hansen, and Stephen J. Turnovsky (eds.) Advances in Economics and Econometrics: Theory and Applications, 8th World Congress of the Econometric Society. New York: Cambridge University Press.
- Shadmehr, Mehdi and Dan Bernhardt. 2011. "Collective Action with Uncertain Payoffs: Coordination, Public Signals, and Punishment Dilemmas." *American Political Science Review* 105(4): 829–851.