

**Government 2006  
Formal Political Theory II**

**Horacio Larreguy**

February 3, 2014

This course is intended as an introduction to the application of game theory to questions in political science and political economy. The focus of the applications will mostly on comparative politics.

We assume that you will have already taken an introductory course in game theory, such as Government 2005 Formal Theory I I taught last semester. In addition to this there will be heavy use of calculus and basic optimization theory. At the beginning we will discuss some foundational issues and in formal theory and some of the canonical models that I will later use in applications.

**Textbook:** There is no textbook as such but as you will see from the readings I will work through many chapters of:

1. Acemoglu, Daron and James Robinson. 2006. *Economic Origins of Dictatorship and Democracy*. New York: Cambridge University Press.
2. David Austen-Smith and Jeffrey S. Banks. 1999. *Positive Political Theory I: Collective Preference*. Ann Arbor: University of Michigan Press.
3. David Austen-Smith and Jeffrey S. Banks. 2005. *Positive Political Theory II: Strategy and Structure*. University of Michigan Press.
4. Fudenberg, Drew and Jean Tirole. 1991. *Game Theory*. Cambridge: The MIT Press.
5. Persson, Torsten and Guido Tabellini. 2000. *Political Economics: Explaining Economic Policy*. Cambridge: The MIT Press.

**Grading:** The course grade will be a combination of a final exam and problem sets, with 50% weight on problem sets.

**Course Information:**

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Office Hours: By appointment.  
Lecture: Thursday 10-12, K354.

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Office Hours: Wednesday, 6-7, CGIS cafe.  
Section: 3-5, K401 (except K031 on 21st February).

Due to the Spring break there will be no lecture on March 20th.

## Lecture 1: Introduction and Motivation (January 30th)

The goal of formal theory is to build mathematical models which can help to explain the type of variation central to political science and political economy.

This lecture will discuss the basic building blocks of formal theory: preferences (utility functions), behavior (rational), how behavior is aggregated into a mathematical model of politics, and how we can use such models to make predictions by studying the nature and comparative statics of the equilibria of models. We start to look at the simplest methods of aggregation.

1. **David Austen-Smith and Jeffrey S. Banks.** 1999. *Positive Political Theory I: Collective Preference*. Ann Arbor: University of Michigan Press. Chapter 1.
2. **Chiappori, Pierre-Andre, Steven Levitt, and Timothy Groseclose.** 2002. "Testing Mixed-Strategy Equilibria When Players Are Heterogeneous: The Case of Penalty Kicks in Soccer." *American Economic Review*, 92(4): 1138-1151.
3. **Fudenberg, Drew and Jean Tirole.** 1991. *Game Theory*. Cambridge: MIT Press. Chapter 1 has the fundamental material on Nash Equilibrium we will discuss.
4. **Mas-Colell, Andreu, Michael D. Whinston, and Jerry R. Green.** 1995. *Microeconomic Theory*. Oxford University Press. Chapter 1 has the fundamental material on preferences we will discuss.

### Section 1: Math Review

## Lecture 2: Basic Models of Democracy (February 6th)

The most common assumption in the literature on formal theory is that the state is democratic, implying that a democratic decision-making process determines in whose interests the state functions. We discuss basic models of how democracy aggregates preferences/behavior. We cover the Hotelling-Downs model, the probabilistic voting model, and the citizen-candidate model.

1. **Acemoglu, Daron and James Robinson.** 2006. *Economic Origins of Dictatorship and Democracy*. New York: Cambridge University Press. Chapter 4 is an overview of similar models.
2. **David Austen-Smith and Jeffrey S. Banks.** 1999. *Positive Political Theory I: Collective Preference*. Ann Arbor: University of Michigan Press. Chapter 4 develops the notion of single-peaked and order-restricted preferences extensions and applications.

3. **David Austen-Smith and Jeffrey S. Banks.** 2005. *Positive Political Theory II: Strategy and Structure*. University of Michigan Press. Chapter 7 is an overview of basic models of democratic electoral competition.
4. **Dixit, Avinash, and John Londregan.** 1996. “The Determinants of Success of Special Interests in Redistributive Politics.” *Journal of Politics* 58: 1132-1155.
5. **Lindbeck, Assar, and Jorgen W. Weibull.** 1987. “Balanced-Budget Redistribution as the Outcome of Political Competition.” *Public Choice* 52(3): 273-297.
6. **Persson, Torsten and Guido Tabellini.** 2000. *Political Economics: Explaining Economic Policy*. Cambridge: The MIT Press. Chapters 2 and Chapter 3 is an overview of similar models.

## Section 2: Citizen-Candidate Model

1. **Besley, Timothy and Stephen Coate.** 1997. “An Economic Model of Representative Democracy.” *The Quarterly Journal of Economics* 112(1): 85-114.
2. **Duflo, Esther and Raghavendra Chattopadhyay.** “Women as Policy Makers: Evidence from a Randomized Policy Experiment in India.” *Econometrica* 72(5): 1409-1443.
3. **Osborne, Martin J. and Al Slivinski.** 1996. “A Model of Political Competition with Citizen-Candidates.” *The Quarterly Journal of Economics* 111(1): 65-96.

## Lecture 3: The Paradox of Voting (February 13th)

We present models that explain the paradox of voting and evidence on the importance of information for turnout.

### Theoretical Work

1. **Feddersen, Timothy J.** 2004. “Rational Choice Theory and the Paradox of Not Voting.” *Journal of Economic Perspectives* 18(1): 99-112.
2. **Feddersen, Timothy and Wolfgang Pesendorfer.** 1996. “The Swing Voter’s Curse.” *The American Economic Review*, 86(3): 408-424.
3. **Feddersen, Timothy and Alvaro Sandroni.** 2006. “A Theory of Participation in Elections.” *The American Economic Review*, 9(4): 1271-1282.
4. **Palfrey, Thomas, and Howard Rosenthal.** 1983. “A Strategic Calculus of Voting.” *Public Choice* 41, 7-53.

5. **Ledyard, John.** 1981. "The Paradox of Voting and Candidate Competition: A General Equilibrium Analysis, in *Essays in Contemporary Fields of Economics*. George Hoorwich and James P. Quick, eds. Lafayette: Purdue University Press, 5480.
6. **Ledyard, John.** 1984. "The Pure Theory of Two Candidate Elections. *Public Choice*. 44(1): 741.
7. **Palfrey, Thomas, and Howard Rosenthal.** 1985. "Voter Participation and Strategic Uncertainty." *American Political Science Review* 79, 62-78.
8. **Riker, William and Peter Ordeshook.** 1968. "A Theory of the Calculus of Voting." *American Political Science Review*. March, 62, pp. 2542.

## Empirical Work

1. **Banerjee, Abhijit V., Selvan Kumar, Rohini Pande and Felix Su.** 2010. "Do Informed Voters Make Better Choices? Experimental Evidence from Urban India."
2. **Cagé, Julia.** 2013. "Media Competition, Information Provision and Political Participation."
3. **Chong, Alberto, Ana De la O, Dean Karlan, and Leonard Wantchekon.** 2011. "Looking Beyond the Incumbent: The Effects of Exposing Corruption on Electoral Outcomes."
4. **DellaVigna, Stefano, John A. List, Ulrike Malmendier, and Gautam Rao.** 2013. "Voting to Tell Others."
5. **Funk, Patricia.** 2010. "Social Incentives and Voter Turnout: Evidence from the Swiss Mail Ballot System." *Journal of the European Economic Association*, 8(5): 1077-1103.
6. **Gentzkow, Matthew.** 2006 "Television and Voter Turnout." *The Quarterly Journal of Economics*, 121(3): 931-972.
7. **Gerber, Alan S., Donald P. Green, and Christopher W. Larimer.** 2008. "Social pressure and voter turnout: Evidence from a large-scale field experiment." *American Political Science Review* 102(1): 33-48.
8. **Abrams, Samuel, Iversen, Torben, and Soskice, David.** 2010. "Informal Social Networks and Rational Voting." *British Journal of Political Science*, 41(2): 229-257.
9. **Larreguy, Horacio and John Marshall.** 2013. "The Effect of Education on Political Engagement in Weakly Institutionalized Democracies: Evidence from Nigeria."
10. **Leon, Gianmarco.** 2013. "Turnout, Political Preferences and Information: Experimental Evidence from Perú."

11. **Milligan, Kevin, Enrico Moretti and Philip Oreopoulos.** 2004. Does education improve citizenship? Evidence from the United States and the United Kingdom. *Journal of Public Economics* 88:16671695.

### Section 3: Special Interest Groups

1. **Grossman and Helpman.** 1996. "Electoral Competition and Special Interest Politics." *Review of Economic Studies* 63(2), pp.265-286.
2. **Groseclose and Snyder.** 1996. "Buying Supermajorities." *American Political Science Review* 90(2), pp.303-315.
3. **Persson, Torsten and Guido Tabellini.** 2000. *Political Economics: Explaining Economic Policy*. Cambridge: The MIT Press. Chapter 7.

## Lecture 4: Weakly Institutionalized Democracies (February 20th)

In most standard models of democracy there is a civilized process of voting and the aggregation of preferences into winners and losers. Most really existing democracies however allow for all sorts of other strategies, violence, intimidation, fraud, vote buying and clientelism which can over-ride the standard forces. We look at some models of this process.

### Theory

1. **Baland, Jean-Marie and James A. Robinson.** 2008. "Land and Power: Theory and Application from Chile." *American Economic Review*, 98 (5): 1737-1765.
2. **Dekel, Eddie, Matthew O. Jackson and Asher Wolinsky.** 2008. "Vote Buying: General Elections." *Journal of Political Economy*, 116(2): 351-380.
3. **Robinson, James A. and Ragnar Torvik.** 2009. "The Real Swing Voters Curse." *American Economic Review*, 99(2): 310-315.
4. **Robinson, James A. and Thierry Verdier.** 2013. "The Political Economy of Clientelism." *Scandinavian Journal of Economics* 115(2): 260-291.

### Empirical

1. **Cruz, Cesi.** "Social Networks and the Targeting of Illegal Electoral Strategies." Working Paper.

2. **Finan, Frederico and Laura Schechter.** 2012. "Vote-buying and Reciprocity." *Econometrica*, 80(2): 863-882.
3. **Finan, Frederico, Horacio Larreguy and Laura Schechter.** 2014. "Vote Buying and Networks: Information, Enforcement or Both?" Working Paper.
4. **Larreguy, Horacio.** 2013. "Monitoring Political Brokers: Theory Evidence from Clientelistic Networks in Mexico."
5. **Querubin, Pablo.** 2012 "Political Reform and Elite Persistence: Term Limits and Political Dynasties in the Philippines."

## Section 4: Cover Problem Set 1

## Lecture 5: Review of Dynamic Games and Basic Model of Dictatorship (February 27th)

We will provide a brief overview of basic concepts from the analysis of dynamic games, in particular, emphasizing differences between Markov Perfect Equilibria and Subgame Perfect Equilibria, their properties and how they can be computed in simple games. We will I apply these tools to develop a simple model of dictatorship.

1. **Acemoglu, Daron and James A. Robinson.** 2006. *Economic Origins of Dictatorship and Democracy*. New York: Cambridge University Press. Chapter 5 develops a simple model of dictatorship in a dynamic setting.
2. **Fudenberg, Drew and Jean Tirole.** 1991. *Game Theory*. Cambridge; MIT Press. Chapters 4,5 and 13 have the material on repeated game theory relevant to this lecture.

## Section 5: Electoral and Executive Institutions

1. **Persson, Torsten and Guido Tabellini.** 2000. *Political Economics: Explaining Economic Policy*. Cambridge: The MIT Press. Chapters 8 and 10.
2. **Persson, Torsten, Gerard Roland and Guido Tabellini.** 2000. "Comparative Politics and Public Finance," *Journal of Political Economy* 108(6), pp.1121-1161.
3. **Lizzeri, Alessandro and Nicola Persico.** 2001. "The Provision of Public Goods under Alternative Electoral Incentives," *American Economic Review* 91(1), pp.225-239.
4. **Persson, Torsten, and Guido Tabellini.** 2004. "Constitutions and Economic Policy." *Journal of Economic Perspectives*, 18(1), pp.75-98.

## Lecture 6: Models of Democratization (March 6th)

We will introduce basic models of institutional change in the context of transitions from nondemocratic to democratic politics. The Acemoglu and Robinson (2006) develops a particular mechanism which leads to the creation of democracy. One can imagine that other mechanisms are also important. Here we discuss some of these.

1. **Acemoglu, Daron and James A. Robinson.** 2006. *Economic Origins of Dictatorship and Democracy*. Cambridge University Press. Chapter 6 develops a model of democratization.
2. **Lizzeri, Alessandro 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): 707-765.
3. **Llavador, Humberto and Robert J. Oxoby.** 2005. “Partisan Competition, Growth, and the Franchise.” *Quarterly Journal of Economics*, 120 (3) 1155-1192.
4. **Moore, Barrington.** 1966. *The Social Origins of Dictatorship and Democracy: Lord and Peasant in the Making of the Modern World*. Boston: Beacon Press. Chapter VII “The Democratic Route to Modern Society”.

### Section 6: Cover Problem Set 2

## Lecture 7: A Model of Coups and Democratization Consolidation (March 13th)

This lecture discusses the other side of institutional change, the issue of transitions from democracy to nondemocracy and democratic consolidation.

1. **Acemoglu, Daron and James A. Robinson.** 2006. “Economic Origins of Dictatorship and Democracy.” Cambridge University Press. Chapter 7 develops the model of coups and democratic consolidation.
2. **Acemoglu, Daron and James A. Robinson.** 2008. “Persistence of Power, Elites and Institutions” *American Economic Review*, 98(1), pp. 267-93.

### Section 7: Dynamic Voting in Clubs

1. **Acemoglu, Daron, Georgy Egorov and Konstantin Sonin.** 2012 “Dynamics and Stability of Constitutions, Coalitions, and Clubs.” *American Economic Review*, 102(4), pp. 1446-1476.

2. **Alesina, Alberto, Ignazio Angeloni and Federico Etro.** 2005. "International Unions." *American Economic Review*, 95(3), pp. 602-615.

Due to the Spring break there will be no lecture on March 20th.

## Lecture 8: Types of State and Democracy (March 27th)

We examine models of different types of state and political competition: patrimonialism, clientelism and populism and think about how one might transition away from them.

1. **Acemoglu, Daron, Gyorgy Egorov and Konstantin Sonin.** 2012. "A Political Theory of Populism." *Quarterly Journal of Economics*, forthcoming.
2. **Acemoglu, Daron, James A. Robinson and Ragnar Torvik.** 2011. "Why do Citizens Vote to Remove Checks and Balances?" *Review of Economic Studies*, forthcoming.
3. **Levitsky, Steven and Kenneth Roberts.** 2011. "Introduction," in Levitsky and Roberts eds. *The Resurgence of the Latin American Left*, Baltimore: Johns Hopkins University Press.
4. **Padro i Miquel, Gerard.** 2007. "The Control of Politicians in Divided Societies: Politics of Fear." *Review of Economic Studies*, 74(4): 1259-1274.

## Section 8: Adding Other Relevant Features

1. **Acemoglu, Daron, Davide Ticchi and Andrea Vindigni.** 2010. "A Theory of Military Dictatorships." *American Economic Journal: Macroeconomics*, 2(1), pp.1-42.
2. **Dunning, Thad.** 2008. *Crude Democracy*. New York: Cambridge University Press. Chapters 1 and 3.

## Lecture 9: State Capacity Models (April 3rd)

This lecture discusses different models of state formation.

1. **Acemoglu, Daron.** 2005. "Politics and Economics in Weak and Strong States." *Journal of Monetary Economics* 52: 1199-1226.
2. **Besley, Timothy and Torsten Persson.** 2009. "The Origins of State Capacity: Property Rights, Taxation and Politics." *American Economic Review*, 99(4): 1218-44.



3. **Gennaioli, Nicola and Hans-Joachim Voth.** 2013. "State Capacity and Military Conflict."
4. **Herbst, Jeffery I.** 2000. "States and Power in Africa: Comparative Lessons in Authority and Control." Princeton, NJ: Princeton University Press.
5. **Tilly, Charles.** 1985. "War Making and State Making as Organized Crime, in P. Evans, D. Rueschmeyer and T. Skocpol eds. *Bringing the State Back In*, Cambridge University Press.
6. **Tilly, Charles.** 1990. "Coercion, Capital and European States, AD 990-1990." Cambridge, MA: Blackwell
7. **Vansina, Jan.** 2004. "Towards the Centralization of Power." Chapter 3 in *Antecedents of Modern Rwanda*, Madison: University of Wisconsin Press.

## Section 9: Cover Problem Set 3

## Lecture 10: Principal-Agent Models (April 10th)

1. **Barro, Robert J.** 1973. "The Control of Politicians: An Economic Model." *Public Choice*, 14: 19-42.
2. **Duggan, John.** 2000. "Repeated Elections with Asymmetric Information." *Economics and Politics* 12: 109-136.
3. **Fearon, James.** 1999. "Electoral Accountability and the Control of Politicians: Selecting Good Types Versus Sanctioning Poor Performance." in Przeworski, A., Susan C. Stokes and Bernard Manin (ed.) *Democracy, accountability, and representation*, Ch.2.
4. **Ferejohn, John.** 1986. "Incumbent Performance and Electoral Control." *Public Choice* 50: 5-25.
5. **Holmstrom, Bengt.** 1990. "Managerial Incentive Problems: A Dynamic Perspective." *Review of Economic Studies* 66(1): 169-182.
6. **Myerson, Roger B.** 1993. "Effectiveness of electoral systems for reducing government corruption: A game theoretic analysis." *Games and Economic Behavior*, 5: 118-132.
7. **Persson, Torsten and Guido Tabellini.** 2000. *Political Economics: Explaining Economic Policy*. Cambridge: The MIT Press. Chapter 4, 9 and 16.
8. **Rogoff, Kenneth.** 1990. "Equilibrium Political Budget Cycles." *American Economic Review* 80: 21-37.

## Section 10: TBD

### Lecture 11: Models of Media (April 17th)

We examine models that rationalize equilibrium media bias and models that illustrate the importance of media for political accountability.

#### Theory, and Applied Theory and Empirical

1. **Besley, Timothy and Robin Burgess.** 2002. "The Political Economy of Government Responsiveness: Theory and Evidence from India." *The Quarterly Journal of Economics* 117(4): 1415-1451.
2. **Gentzkow, Matthew, and Jesse M. Shapiro.** 2006, "Media Bias and Reputation." *Journal of Political Economy.* 114(2): 280-316.
3. **Larreguy, Horacio, and Joana Monteiro.** 2014, "The role of media networks in compensating political biases: evidence from radio networks in Brazil."
4. **Mullainathan, Sendhil and Andrei Shleifer.** 2005. "The Market for News." *American Economic Review*, 95 (4): 1031-1053.
5. **Stromberg, David.** 2004. "Radio's Impact on Public Spending." *The Quarterly Journal of Economics*, 119(1): 189-221.

#### Empirical

1. **DellaVigna, Stefano and Ethan Kaplan.** 2007. "The Fox News Effect: Media Bias and Voting." *The Quarterly Journal of Economics*, 122(3): 1187-1234..
2. **Gentzkow, Matthew and Jesse M. Shapiro.** 2010. "What Drives Media Slant? Evidence from U.S. Daily Newspapers." *Econometrica*, 78(1): 3571.
3. **Snyder, James M. and David Stromberg.** 2010. "Press Coverage and Political Accountability." *Journal of Political Economy*, 118(2):355-408.

## Section 11: Cover Problem Set 4

### Lecture 12: Models of Conflict (April 24th)

This lecture discusses different models conflict.

1. **Baliga, Sandeep, David Lucca and Tomas Sjöström.** 2011. "Domestic Political Survival and International Conflict: Is Democracy Good for Peace?" *Review of Economic Studies*, 78(2): 458-486

2. **Fearon, James.** 1995. "Rationalist Explanations for War." *International Organization*, 49: 379-414.
3. **Fearon, James D. and David D. Laitin.** 2003. "Ethnicity, Insurgency, and Civil War." *American Political Science Review*, 97(1):75-90.
4. **Garfinkel, Michelle R. and Stergios Skaperdas.** 2007. "Economics of Conflict: An Overview" Chapter 22 in the *Handbook of Defense Economics 2*: 649-709.
5. **Jackson, Matthew O., and Massimo Morelli.** 2007. "Political Bias and War." *American Economic Review* 97 (4): 1353-1373.
6. **Powell, Robert.** 2004. "The Inefficient Use of Power: Costly Conflict with Complete Information." *American Political Science Review* 98(2): 231-241.

## **Section 12: Review**