

POLITICAL ENGINEERING: THE DESIGN OF INSTITUTIONS

Politics V53.0810
New York University
Spring 2005

Class: Mon. & Wed., 2 – 3:15 PM

TA: Patricia Silva (e-mail: pes225@nyu.edu; office hrs: Tues., 1-3 PM)

S. J. Brams, 726 Broadway, Rm. 754

Phone: (212) 998-8510

E-mail: steven.brams@nyu.edu

Office Hrs.: Mon., 3:30 – 6 PM

Description

Institutions are the rules by which societies govern themselves. In this course, the tools of economic theory, game theory, and social-choice theory will be applied to the rational-choice analysis of political, economic, and social institutions, whose consequences for society will be derived from assumptions about what individuals seek to maximize.

The product of such analysis, which is reflected in the title of this course, is normative: To design institutions that meet certain “engineering” specifications and, therefore, may be superior to institutions that, because they arose more haphazardly, may not satisfy these specifications. Like engineering in the natural sciences, which translates theory (e.g., from physics) into practical design (e.g., a bridge), engineering in the social sciences translates rational-choice analysis into the design of better political-economic-social institutions.

Examples of Institutions

Among the institutions that will be studied are the following:

1. *Fair-Division Procedures.* Various algorithms for dividing up goods, or determining who wins on what issues in a dispute, have been proposed that satisfy such fairness criteria as “envy-freeness” (everybody gets what he or she considers is a largest portion and hence does not envy anybody else). These include different cake-cutting procedures, divide-and-choose (one party divides a set of items into two portions, and the other part chooses one portion), and strict alternation (different parties take turns choosing items). New procedures, such as “balanced alternation” and “adjusted winner,” are discussed and applied to both hypothetical and real-life situations.

2. *Bargaining and Arbitration Procedures.* While bargaining is often an informal give-and-take process, specific procedures are increasingly invoked, such as in labor-management negotiations, divorce proceedings, and environmental disputes. In arbitration, structured procedures like “final-offer arbitration”—in which two sides can each make only one final offer, and the arbitrator must choose one or the other (not split the difference)—have become quite common. Auctions, as an alternative to negotiations, are also widely used (e.g., via the internet).

3. *Voting Procedures and Election Systems.* Periodic elections are the cornerstone of democracy, with a host of voting procedures used to conduct elections. Some of the best-known systems include plurality voting (with or without a runoff), approval voting, the Borda count, and the Hare system of single transferable vote (“instant runoff”). In the United States, the Electoral College, especially its winner-take-all feature in states, and sequential presidential primaries have had major effects on the outcomes of presidential elections.

Conflicting Criteria

A variety of criteria are used to assess institutions. For example, the egalitarian principle of “one person, one vote” is often applied to voting systems. But its validity in certain contexts is questionable. For example, is it fair that large countries, in institutions like the UN, have only one vote in the General Assembly? Doesn’t fairness demand that such countries have voting power tied to their contributions, or their influence on the world stage (e.g., by having a veto, which five countries on the Security Council do, or additional votes)? Thus, a principle of fairness in public elections may be inappropriate in bodies, like the UN, with actors of different size.

The problem of comparing institutions is a difficult one. Consider, as a case in point, the relative merits of the Electoral College—the formal institution for electing a president prescribed by the U.S. Constitution—and a frequently proposed election reform, direct popular-vote election of the president. Since the Constitution was ratified more than 200 years ago, attempts have been made to enact a constitutional amendment that would mandate direct popular-vote election of the president.

But if there is a popular-vote election, should there be a 40% or 50% threshold that a candidate must obtain in order to be elected, with a runoff held if nobody attains this threshold? Or should a different system of voting be used, such as approval voting, which would allow voters to vote for more than one candidate in multicandidate elections?

Informed answers to these questions require that we set forth criteria—the specifications of the engineer—for evaluating institutions. In this course, we will invoke such criteria as efficiency, equitability, freedom from certain paradoxes, etc. Particular emphasis will be placed on making institutions as invulnerable as possible to manipulation, which will be subjected to theoretical analysis and illustrated through a series of case studies.

Because one cannot in general guarantee all the good things that one might desire (called the “desiderata”), trade-offs are inevitable. Consequently, a major purpose of this course will be to analyze, theoretically, some of these trade-offs, showing which institutions satisfy what set of desiderata. But just as significant as this theoretical analysis will be more applied analysis, demonstrating the relevance of the theory to real-world institutions.

Requirements of the Course

Five books, all in paperback except one (*How to Change the World*), are required for the course. There will be week-to-week assignments of readings in the main theoretical work (*Public Choice III*), which will be supplemented by more substantive readings in the four other books. *How to Change the World* is about social entrepreneurs, whereas *The Art of Political Manipulation* is about political entrepreneurs; what is common to both kinds of entrepreneurs is that they try to manipulate the system to their advantage and, in the process, sometimes succeed in reforming its institutions. *Real Democracy* is about an existing institution—New England town meetings—and how they enable citizens to express their views democratically and, on occasion, implement change. Finally, *The Win-Win Solution* is about procedures for settling disputes, at all levels, and discusses how they can and do ameliorate conflict.

In addition to the required readings, further readings will be introduced in class as well as recommended throughout the course for those interested in pursuing particular topics in greater depth. No mathematical training beyond high school mathematics is assumed in the course; however, much of the reading is quite analytic and will require sustained reflection to absorb and understand.

The main written requirements of the course are a midterm examination, a final examination, and a short paper (up to 8 pages) on a topic chosen in consultation with the instructor. Each of the three written requirements will count approximately 25% towards the final grade; the remaining 25% will be based on homework and class attendance/participation.

Required Books

Bornstein, David (2004). *How to Change the World: Social Entrepreneurs and the Power of Ideas*. Oxford University Press. **CW**

Brams, Steven J., and Alan D. Taylor (1999). *The Win-Win Solution: Guaranteeing Fair Shares to Everybody*. W. W. Norton. **WW**

Bryan, Frank M. (2004). *Real Democracy: The New England Town Meeting and How it Works*. University of Chicago Press. **RD**

Mueller, Dennis C. (2003). *Public Choice III*. Cambridge University Press. **PC**

Riker, William H. (1986). *The Art of Political Manipulation*. Yale University Press. **PM**

Assignments Due

Jan. 19: Preface/Acknowledgments to all five books.

Jan. 24 & 26:	PC , pp. 1-18, 40-43; CW , pp. 1-97.
Jan. 31 & Feb. 2:	PC , pp. 67, 72-92; PM , pp. 1-51.
Feb. 7 & 9:	PC , pp. 104-127; PM , pp. 52-102.
Feb. 14 & 16:	PC , pp. 128-133, 136-158; PM , pp. 103-152.
Feb. 21:	PC , pp. 159-206 (skip technical parts)
Feb. 28 & Mar. 2:	PC , pp. 209-216, 230-236, 241-248; RD , pp. 1-105.
Mar. 7 & 9:	Review and midterm examination.
Mar. 21 & 23:	PC , pp. 264-284, 295-302; RD , pp. 83-160.
Mar. 28 & 30:	PC , pp. 303-332; RD , pp. 163-231.
Apr. 4 & 6:	WW , entire book.
Apr. 11 & 13:	Short papers due; oral reports on them in class.
Apr. 18 & 20:	PC , pp. 359-365, 386-405; CW , pp. 98-199.
Apr. 25 & 27:	PC , pp. 582-614, 657-681; CW , pp. 200-308.
May 2:	Review.
May 9 (?):	Final examination.

Selective Bibliography

The following books provide additional material on general topics related to institutions and their performance, and some of the more analytic readings on the design of fair-division, bargaining and arbitration, and voting and election systems.

General Topics

- Aggarwal, Vinod K. (ed.) (1998). *Institutional Designs for a Complex World: Bargaining, Linkages, and Nesting*. Cornell University Press.
- Basu, Kauslik (2000). *A Prelude to Political Economy: A Study of the Social and Political Foundations of Economics*. Oxford University Press.
- Brams, Steven J. (1985/89). *Rational Politics: Decisions, Games, and Strategy*. CQ Press/Academic.
- Cooter, Robert D. (2000). *The Strategic Constitution*. Princeton University Press.
- Eggertsson, Thráinn (1990). *Economic Behavior and Institutions*. Cambridge University Press.
- Goodin, Robert E. (ed.) (1996). *The Theory of Institutional Design*. Cambridge University Press.
- Grofman, Bernard, and Donald Wittman (eds.) (1989). *The Federalist Papers and the New Institutionalism*. Agathon.
- Hodgson, Geoffrey M. (1998). *Evolution and Institutions: On Evolutionary Economics*

- and the Evolution of Economics*. Edward Elgar.
- Knight, Jack, and Itai Sened (eds.) (1995). *Explaining Social Institutions*. Cambridge University Press.
- Koremenos, Barbara, Charles Lipson, and Duncan Snidal (eds.) (2004). *The Rational Design of International Institutions*. Cambridge University Press.
- Loehman, Edna Tusak, and D. Marc Kilgour (eds.) (1998). *Designing Institutions for Environmental and Resource Management*. Edward Elgar.
- Mueller, Dennis C. (ed.) (1997). *Perspectives on Public Choice: A Handbook*. Cambridge University Press.
- North, Douglas C. (1990). *Institutions, Institutional Change, and Economic Performance*. Cambridge University Press.
- Nurmi, Hannu (1998). *Rational Behaviour and the Design of Institutions: Concepts, Theories, and Models*. Edward Elgar.
- Ostrom, Elinor. (1990). *Governing the Commons: The Evolution of Institutions for Collective Action*. Cambridge University Press.
- Reynolds, Andrew (ed.) (2002). *The Architecture of Democracy: Constitutional Design, Conflict Management, and Democracy*. Oxford University Press.
- Riker, William H. (1982). *Liberalism Against Populism: A Confrontation Between the Theory of Democracy and the Theory of Social Choice*. W. H. Freeman.
- Sertel, Murat R., and Semih Koray (eds.) (2003). *Advances in Economic Design*. Springer-Verlag.
- Shepsle, Kenneth A., and Mark S. Bonchek (1997). *Analyzing Politics: Rationality, Behavior, and Institutions*. W.W. Norton.
- Schotter, Andrew (1980). *The Economic Theory of Social Institutions*. Cambridge University Press.
- Sunstein, Cass R. (2001). *Designing Democracy: What Constitutions Do*. Oxford University Press.
- Tsebelis, George (2002). *Veto Players: How Political Institutions Work*. Princeton University Press.
- Weaver, R. Kent, and Bert A. Rockman (eds.) (1993). *Do Institutions Matter? Government Capabilities in the United States and Abroad*. Brookings Institution.

Weimer, David L. (ed.) (1995). *Institutional Design*. Boston: Kluwer Academic.

Williamson, Oliver E. (1996). *The Mechanisms of Governance*. Oxford University Press.

Fairness, Bargaining and Arbitration, and Voting

Amy, Douglas J. (2000). *Behind the Ballot Box: A Citizen's Guide to Voting Systems*. Praeger.

Baird, Douglas G., Robert H. Gertner, and Randal C. Picker (1994). *Game Theory and the Law*. Harvard University Press.

Benjamin, Martin (1990). *Splitting the Difference: Compromise and Integrity in Ethics and Politics*. University Press of Kansas.

Bates, Robert H., et al. (1998). *Analytic Narratives*. Princeton University Press.

Brams, Steven J. (1990). *Negotiation Games: Applying Game Theory to Bargaining and Arbitration*. Routledge.

Brams, Steven J. (1978). *The Presidential Election Game*. Yale University Press.

Brams, Steven J., and Peter C. Fishburn (1983). *Approval Voting*. Birkhäuser Boston.

Brams, Steven J., and Alan D. Taylor (1996). *Fair Division: From Cake-Cutting to Dispute Resolution*. Cambridge University Press.

Colomer, Josep H. (2001). *Political Institutions: Democracy and Social Choice*. Oxford University Press.

Cox, Gary W. (1997). *Making Votes Count: Strategic Coordination in the World's Electoral Systems*. Cambridge University Press.

Donovan, Todd, and Shaun Bowler (2004). *Reforming the Republic: Democratic Institutions for the New America*. Prentice Hall.

Ellickson, Robert C. (1991). *Order without Law: How Neighbors Settle Disputes*. Harvard University Press.

Elster, Jon (1992). *Local Justice: How Institutions Allocate Scarce Goods and Necessary Burdens*. Russell Sage Foundation.

Elster, Jon (ed.) (1995). *Local Justice in America*. Russell Sage Foundation.

Faure, Guy Olivier (ed.) (2003). *How People Negotiate: Resolving Disputes in Different Cultures*. Kluwer Academic.

Felsenthal, Dan S., and Moshé Machover (1998). *The Measurement of Voting Power: Theory and Practice, Problems and Paradoxes*. Edward Elgar.

Filippov, Mikhail, Peter C. Ordeshook, and Olga Shvetsova (2004). *Designing Federalism: A Theory of Self-Sustainable Federal Institutions*. Cambridge University Press.

Franck, Thomas M. (1995). *Fairness in International Law and Institutions*. Oxford University Press.

Frohlich, Norman, and Joe A. Oppenheimer (1992). *Choosing Justice: An Experimental Approach to Ethical Theory*. University of California Press.

Goodwin, Barbara (1992). *Justice by Lottery*. University of Chicago Press.

Grillidi Cortona, Pietro (1999). *Evaluation and Optimization of Electoral Systems*. SIAM [Society of Industrial and Applied Mathematics].

Hinich, Melvin J., and Michael C. Munger (1997). *Analytical Politics*. Cambridge University Press.

Isenhardt, Myra Warren, and Michael Spangle (2000). *Collaborative Approaches to Resolving Conflicts*. Sage.

Kolm, Serge-Christophe. *Modern Theories of Justice*. MIT Press, 1996.

Krishna, Vijay (2002). *Auction Theory*. Academic Press.

LeDuc, Lawrence, Richard G. Niemi, and Pippa Norris (eds.) (2002). *Comparing Democracies 2: New Challenges in the Study of Elections and Voting*. Sage.

LeGrand, Julian (1991). *Equity and Choice: An Essay in Economics and Applied Philosophy*. HarperCollins Academic.

Massicotte, Louis, André Blais, and Antonio Yoshinka (2004). *Establishing the Rules of the Game: Electoral Laws in Democracies*. University of Toronto Press.

Merrill, Samuel, III. (1988). *Making Multicandidate Elections More Democratic*. Princeton University Press.

Milgrom, Paul (2004). *Putting Auction Theory to Work*. Cambridge University Press.

- Mnookin, Robert H., Scott R. Peppet, and Andrew S. Tulumello (2000). *Beyond Winning: Negotiating to Create Value in Deals and Disputes*. Harvard University Press.
- Moulin, Hervé J. (2003). *Fair Division and Collective Welfare*. MIT Press.
- Muthoo, Abhinay (1999). *Bargaining Theory with Applications*. Cambridge University Press.
- Nurmi, Hannu (1987). *Comparing Voting Systems*. D. Reidel.
- Nurmi, Hannu (1999). *Voting Paradoxes and How to Deal with Them*. Springer-Verlag.
- O’Leary, Brendan, Ian S. Lustick, and Thomas Callaghy (eds.) (2001). *Righting-sizing the State: The Politics of Moving Borders*. Oxford University Press.
- Raiffa, Howard (2002). *Negotiation Analysis: The Science and Art of Collaborative Decision Making*. Harvard University Press.
- Robertson, Jack, and William Webb (1998). *Cake-Cutting Algorithms: Be Fair If You Can*. A K Peters.
- Roemer, John E. (1996). *Theories of Distributive Justice*. Harvard University Press.
- Rush, Mark E., and Richard C. Engstrom (2001). *Fair and Effective Representation: Debating Electoral Reform and Minority Rights*. Rowman and Littlefield.
- Saari, Donald G. (2001). *Decisions and Elections: Explaining the Unexpected*. Cambridge University Press.
- Sen, Amartya (1996). *Inequality Reexamined*. Harvard University Press.
- “Symposium: Economics of Voting” (1995). *Journal of Economic Perspectives* 9, no.1 (Winter).
- Thompson, Dennis F. (2002). *Just Elections: Creating a Fair Electoral Process in the United States*. University of Chicago Press.
- Young, H. Peyton (1994). *Equity in Theory and Practice*. Princeton University Press.
- Young, H. Peyton (ed.) (1991). *Negotiation Analysis*. University of Michigan Press.
- Zajac, Edward E. (1995). *Political Economy of Fairness*. MIT Press.