

I. Overview and Short Intellectual History

- A. Economists have long been interested in public policy questions. Indeed, it can be argued that economics as a field emerged as a method for persuading others about the merits of liberal policy reforms in the eighteenth and nineteenth century.
- i. In those early days, there was not much distinction between positive and normative analysis, nor was there much distinction between economic, political, and legal analysis.
 - ii. In the late nineteenth century, the social science field started to become more specialized and separate departments for the study of economics, political science, and sociology became commonplace in academia. Economists after that partitioning of social science focused more narrowly on markets and economic development.
 - iii. Economists remained interested in public policy issues, the politics behind public policy became a topic for political scientists rather than economists. Consequences of both the division of social science and economist interest in public policy are very evident in most text books that deal with public policy issues.
 - a. For example, most public finance, environmental economics, and macroeconomic text books assume that public policies are “exogenous” (beyond their analysis) rather than part of the subject.
 - b. Text books in these fields often criticize contemporary public policies and make suggestions about how those policies can be improved, but, with minor exceptions, part they do not discuss why those policies have or have not been adopted.
- B. During the late 1940s and 1950s, a small group of economists began to study how public policies come to be adopted using rational choice models from economics.
- i. Here we may point to the contributions of Duncan Black, Kenneth Arrow, James Buchanan, and Charles Tiebout.
 - ii. Their work was “naturally” considered to be political science rather than economics by most other economists. And, although it was not entirely discounted, it did not attract broad interest among economists for many decades. On the other hand, political scientists regarded the work, for the most part, to be part of economics, rather than political science.
 - iii. At about the same time, a handful of political scientists began to be interested in rational choice models of political action. For the most part, political science had been empirical (inductive) rather than theoretical (deductive) after the field was founded in the late nineteenth century. The early rational choice analysis of Condorcet and his French associates and rivals in the late Eighteenth century had largely been forgotten, until Duncan Black worked out the median voter theory.
 - iv. Here we may point to the work of William Riker, and Vincent and Elinor Ostrom. Fellow travelers from sociology and philosophy included James Coleman and John Rawls.
 - v. During the 1960s and 1970s, the use of rational choice (self interest) models to explain public policy accelerated and the field of public choice emerged. For the most part, the research was largely undertaken by economists--often right-of-center economists--although significant contributions were also made by political scientists during this period.
 - vi. The classics of public choice are largely from the first two decades of public choice research: Duncan Black’s *Theory of Committees and Elections*, Kenneth Arrow’s *Social Choice and Individual Values*, Anthony Downs’s *Economic Theory of Political Action in a Democracy*, William Riker’s *Democracy in the United States*, James Buchanan and Gordon Tullock’s *Calculus of Consent*, Mancur Olson’s *Logic of Collective Action*.
 - vii. Classics and near classics from the 1970s and early 1980s include: , William Niskanen’s *Bureaucracy and Representative Government*, Gordon Tullock’s *the Social Dilemma*, James Buchanan’s *Limits of Liberty*, Susan Rose Ackerman’s *Corruption*, Mancur Olson’s *The Rise and Decline of Nations*, and edited volumes on Anarchy (Tullock), the Rent-Seeking Society (Buchanan, Tullock, and Rowley), and the first broad surveys of the public choice literature by Dennis Mueller.
- C. These early works and the scholars that wrote them helped to stimulate an enormous volume of research by public choice scholars, Chicago political economists, rational choice political scientists, and in the past decade or two by members of the new political economy research circle.
- i. The public choice research program did not invent very much that was entirely new, apart from the rational choice models, themselves. (There is a surprising overlap between the conclusions of the new work and a significant subset of political science and historical research going back to Aristotle and Plato.)
 - ii. However, by applying modeling tools from economics and game theory and applying new statistical techniques, it developed a new methodology that shed

a good deal of new light on very old questions concerning the manner in which (i) public policies tend to be chosen, (ii) the manner in which alternative political institutions operate, and (iii) the prospects and best directions for reform.

iii. This course attempts to provide an overview of the main strands of the public choice literature, its core models, and its main results and controversies.

- Although a lot of good research has been done in the past five or six decades, a surprisingly large range of unanswered questions and unexplored data sets remain.

II. The Logic of Public Choice and Public Choice Research

A. In principle, every time a group of individuals undertake a joint enterprise of some kind: choose a restaurant, play a game, create a firm, lobby for a particular public policy, found a state, they engage in public choice, or collective decision making. Every *group* requires some formal or informal method of making decisions.

- i. In small groups, the decision rule may be a matter of unanimous agreement. A dinner party may hunt for a consensus restaurant which all might consider “acceptable.”
 - a. In some cases, as where one person of the dinner party is considered an expert, the collective decision may be made by one person, a “dictator.”
 - b. In larger groups, decisions may be made by casting and counting votes. A restaurant could be chosen by majority rule.
 - c. In still larger groups, or regarding more complex decisions, the groups may create a formal institution for making collective decisions, as a firm makes a variety of decisions that affects all with “rights” to the company’s output.
- ii. To the extent that the decision making method is a formal and durable procedure for making group decisions, it may be regarded as grounded on a *constitution*.
- iii. In this very general framework, it is clear that even markets may be regarded as a possible procedure for making group decisions regarding the allocation of resources, the prices paid for goods and services, and the right to transfer ownership rights via production and sale.

B. To the extent that procedures for making collective decisions remain in place, they may be regarded as “constitutional” in nature. That as to

say, the procedures for making policy choices can be regarded as the **Rules of the Game**, or as the **Rules for Making Rules**.

- i. Note that such constitutional procedures do not have to be written down to satisfy this condition.
 - a. It is sufficient that the basic pattern of “rule making” or “collective choice” is itself determined by rules that remain unchanged during day-to-day collective decision making.
 - b. However a constitution, written or otherwise that was not durable would not be a constitution in this sense of the word.
 - c. Constitutions affect collective decisions (e.g. public policies) by affecting the kinds of political equilibria that tend to emerge in a given society.
 - ii. It bears noting that “constitutional” choices are commonplace for small organizations and that constitutional reforms are fairly common within larger ones.
 - a. Every time a group agrees to a durable group decision process, a constitution has been chosen.
 - b. Every time a core procedure for making public policies is modified, a constitutional reform takes place. Political constitutions are chosen far less frequently than they are reformed. (Indeed, reforms are more common than most constitutional histories suggest.)
- C. Public policies, themselves, from this perspective are very rarely “accidents” or mistakes, but reflect the interests and constraints of persons with authority to adopt public policies.
- D. Most of the academic public choice literature has focused on the political decisionmaking and public policies in modern more or less democratic states.
- i. For the first thirty or forty years, most of the research was focused on US institutions and policies, because that is where most of the researchers lived.
 - ii. For the past twenty or thirty years, research has focused on other democratic countries (Europe, Japan, etc.) and also begun to explore earlier political systems.
 - iii. Smaller literatures exist on Dictatorship, constitutional reform, and the institutions democracy (parliamentary vs presidential systems, PR versus plurality voting, judicial systems, and so on).

- E. There are essentially three subject areas of public choice research, which operate more or less independently of each other: (i) the theory of elections and electoral driven politics, (ii) the theory of interest groups and interest group driven public policies, and (iii) the theory of constitutional design and reform.
- F. In all three areas, there are a variety of positive and normative theories that have been developed and debated.
- i. The positive branch attempts to understand the implications of public choice procedures on public policies and other collective outcomes.
 - ii. The normative branch attempts to determine which decision rule works best based on those models using systematic normative theories such as utilitarianism and contractarianism frameworks.
 - iii. The normative and positive branches are not entirely separate in the case of interest group theory or constitutional analysis, because individuals may rely partly on norms (ideology) in joining groups and in selecting constitutional arrangements.

III. Precursors to Public Choice Research

- A. Insofar as all group choices are “public choices,” it is clear that the original ideas about collective decision making methods are ancient.
- i. Every family, band, tribe, town, city, state, country, alliance, etc. uses some form of collective decision making to choose particular courses of action.
 - a. A group of individuals does not share the fundamental hardware of choice, a central nervous system, essentially by definition.
 - b. So, decision making can not be (fully) intrinsic to the biological necessities. There is another sense in which only individuals can make choices.
 - ii. However, economies of scale, public goods, coordination problems, and demands for fellowship often make “collective enterprises” very useful for individual decision makers.
 - a. Consequently, individuals choose to be--or find themselves--part of groups that engage in activities of various kinds.
 - b. Continued affiliation with such groups is largely voluntary, in the sense that exit is normally possible. Exit tends to be costly in large part because of advantages of continued association with one’s current group (family, club, tribe, community, etc.).

- B. There are survival advantages to being affiliated with groups, and insofar as groups “do things together,” they have always had methods for collective decision making.
- i. Diamond (1999) and others suggest that until fairly recently most people on earth associated with one another in relatively small groups (a few dozen people), who used a form of consensus based decision making.
 - ii. However, as towns and cities formed to take advantage of specialization and trade, the groups became larger and other collective decisionmaking procedures (including the “king and council” form) came to be widely used.
- C. It is clear that decision making rules are an important input into the productivity (survival advantage) of groups.
- i. A group that could not make decisions, would not have an advantage over individual decision making, because it could not realize economies of scale, produce public goods, solve coordination problems, etc.. (A group that could never make a decision about a restaurant or method of hunting would starve.)
 - ii. Consequently, there are reasons to expect that the “technology” of collective decisionmaking has been evolving for far longer than written language has been--that is to say, for as long as groups have existed.
- D. Nonetheless, in order to understand some of the survival (economic) advantages of groups, it is often useful analytically to begin with the assumption that unaffiliated individuals find themselves in a setting of anarchy where no groups exist and no collective choice mechanism are employed.

IV. Some Quotes on Anarchy, Leviathan, and State

- A. On the nature of anarchy: from Thomas Hobbes, *Leviathan* (1651)
- "Whatsoever therefore is consequent to time of Warre, where every man is Enemy to every man; the same is consequent to the time wherein men live without other security than what their own strength, and invention shall furnish them withal. In such condition .. the live of man [will be] solitary, poor, nasty, brutish and short.
- B. From John Locke, *First Tract on Government* (1689)

- “‘Tis not without reason that tyranny and anarchy are judged the smartest scourges [that] can fall upon mankind, the plea of authority usually backing the one, and of liberty inducing the other...All the remedy that can be found is when the prince makes the good of the people the measure of his injunctions, and the people...pay a ready and entire obedience.”

C. From Mancur Olson, "Anarchy, Autocracy and Democracy" (1991)

- "The conqueror of a well defined territory has an encompassing interest in that domain given by the share of any increase in the territorial income that he collects in taxes. This encompassing interest gives him an incentive to maintain law and order and to encourage creativity and production in his domain. Much of the economic progress since the discovery of settled agriculture is explained by this "incentive."

D. From James Buchanan, Limits to Liberty, 1975.

- "The state serves a double role, that of enforcing constitutional order and that of providing "public goods." This duality generates its own confusions and misunderstandings. "Law," in itself, is a "public good," with all the familiar problems in securing voluntary compliance. Enforcement is essential, but the unwillingness of those who abide by law to punish those who violate it, and to do so effectively, must portend erosion and ultimate destruction of the order that we observe. These problems emerge in modern society even when government is ideally responsive to the demands of citizens. When government takes on an independent life of its own, when Leviathan lives and breathes, a whole set of additional control issues cone into being. "Ordered anarchy" remains the objective, but ordered by whom? Neither the state nor the savage is noble, and this reality must be squarely faced.

V. Two Reductionist Theories of the Origin of the State

- #### A. There are two pure theories of the origin of government, neither of which is entirely satisfactory, but each of which points to some essential features of government.

B. One postulates a state that emerges out of skill in the organization of force. According to this theory, a state is created when one party conquers all those within a given territory.

- In the limiting case, the ruling group is a single individual, a dictator, who finds it in his interest to form a state as a method of enjoying the fruits of power.
 - The ruler(s) of such states, simply impose their policies on all those within its domain.
 - Another more realistic, but less analyzed structure for authoritarian regimes, includes a “king” and an advisory “council” of some kind.
- Mancur Olson (1993) demonstrated that a dictator has an encompassing interest in the welfare of his "citizens" insofar as by increasing their welfare the coercive regime may secure greater tax revenue or security.

C. The other pure theory of the state conceives of a state as emerging out of a voluntary contract among equals.

- According to this productive theory of the state, individuals create a state as a method for advancing common ends: to realize economies of scale, and to solve public goods and coordination problems.
 - The organization of such states is a voluntary action by a group of individuals or a community.
 - In such “contractarian” states, the coercive means used by the state to collect taxes, enforce laws, and assure national defense are all grounded in voluntary agreement, rather than imposed by outsiders.
 - The contractarian theory of the state suggests that combination of property rights and a state (property right enforcer) can allow groups to escape from the dilemma of the thieves in a manner that potentially make all better off (net of the cost of the state).
- James Buchanan (1975) extended the social contract theory of Hobbes by applying modern tools of economic analysis and game theory to the design problem of social contracts.
 - His concept of social contracts is more optimistic than that of Hobbes in that he believes that leviathan can be constrained by a constitution.
 - Buchanan argues that there are often mutual gains that can be realized by agreeing to be "coerced" by a third party, which helps to explain the existence of both a rule-enforcing government and the tax collector.

- c. In the absence of coercive methods, free rider problems would prevent the state (or a club) from advancing the interests of its citizens (members).
- D. Historically, these two theories of the state can operate simultaneously. An invading army can be a very strong reason to join forces under a social compact.
- (Military alliances are often voluntary agreements by communities to repel an authoritarian invader or to secede from an authoritarian regime.)

VI. A Model of the Policies of a Secure Dictatorship

- A. We start with the coercive theory of the state for three reasons: first, it is a relatively straightforward model of the state. Second, it represents a, more or less, worse-case theory of the state that implies better public policies than might have been expected (indeed better than observed in most places). Third, until very recently, such governments have been the dominant form of large scale governance on the earth.
- That is to say, dictatorships are an important type of government to analyze and also a fairly easy one to model.
 - In spite of this, surprisingly little work has been done on dictatorship.
 - (The books and papers of Gordon Tullock, Mancur Olson, and Ronald Wintrobe account for most of the rational-choice based literature on dictatorship.)
 - Democracies have historically been a very small minority of the governments on earth.
- B. The Olsonian model assumes that a dictator exists and analyzes the kinds of fiscal policies that a profit maximizing dictator would adopt.
- The assumed goal of the dictator is analogous to that of a slave holder in the old south, except that the plantation can not be sold.
 - It turns out that a revenue maximizing dictator's interest in tax revenue leads him to provide public goods that increase national wealth (taxable wealth) and to tax at less than 100%.
 - The latter implies that his subjects share in any prosperity induced by the dictator's public policies.
 - And, moreover, insofar as the dictator can not fully capture the fruits of his subjects' labor, the "ruled" are made better off by the dictator, at least relative

to what they would have realized under Hobbesian anarchy. That is to say, the conquered parties realize greater net of tax income than required for subsistence. (Of course, their alternative state might not have been the Hobbesian jungle.)

- (Note that security interests may make a dictator less interested in the interests of groups whose support is difficult to obtain at the margin or if he has a short time horizon.)
- The simplest model is one where the dictator acts as an income maximizing Leviathan (as assumed in Brennan and Buchanan (1977), and in Olson and McGuire (1996).
 - A secure dictator, whose rule is unchallenged by potential rivals or invaders, will select tax and expenditure policies to maximize his income:
 - ▶ $Y = tNy(G,t) - c(G)$
 - where y a function representing *average* or per capita national income and N is the number of subjects within the kingdom. Average income rises as G increases and falls as t increases. t is the tax rate and G is a national service that costs $c(G)$ to provide.
 - First order conditions of ii characterize t^* and G^* for the dictator.
 - $Y_t = t + tN y_t = 0$ at t^* e. g. given G^* set t to maximize tax receipts
 - $Y_G = tNy_G - c_G = 0$ at G^* e. g. given t^* set G to maximize tax receipts
 - Because the tax base can be increased by services, and the dictator has an interest in the tax base, he can be said to have an encompassing interest in the wealth of his subjects. After all that is where his taxes come from.
 - On the other hand, this is not a complete encompassing interest. Note that G tends to be *underprovided* by the dictator insofar as he receives less than the complete marginal benefit from the service. The national income maximizing level of government services requires
 - ▶ $Ny_G - c_G = 0$ not $tNy_G - c_G = 0$
 - ▶ the marginal benefits from government programs should be set equal to the marginal cost of G .

E. Practice Problem(s)

- i. It bears noting that two dictators can be worse than one.
- ii. To see this consider the case of two toll collectors on the Rhine.
- iii. Each knows that the shipping along the river increases as public services are provided and falls as tax rates (tolls) increase other things being equal.
- iv. Let shipping be simply $S = K - b(t_1 + t_2) + c(G_1 + G_2)$ and net tax revenue be $T_i = t_i S - c(G_i)$
- v. Holding public services constant ($G_i = k$) determine each river baron's optimal tariff rate. (Assume that neither river baron knows what the other is doing.)
- vi. Compare this rate with that under a single ruler.
- vii. Now, hold taxes constant, and determine the public service levels that will be forthcoming under the two vs. single river baron cases.

VII. Institutions for a Contractarian Dictatorship: Beyond Hobbes

- A. It is possible that a group of individuals would agree to use a dictatorial (one man rule) collective decision making procedure--especially in times of war (supreme commander) or on occasions when that person could be removed from "office" very easily (as with a CEO or town manager). Hobbes suggests this solution as an escape from the endless war that he believes will be associated with anarchy.
- B. On the other hand, if a group decides to use one man decision making for ordinary collective decision making, it is clear that they would prefer that the ruler abide by a variety of constraints, as noted by Buchanan (1975) and Buchanan and Brennan (1977). For example:
 - i. Some method of aligning the interests of the ruler and the ruled might be adopted. (Elections)
 - ii. There might be guarantees of property rights and due protection. (Rule of Law)
 - iii. The domain of policy might be constrained. (Civil and Political Rights)
 - iv. Only tax instruments with a relatively high deadweight loss might be permitted, or veto power over such policies may be retained. (Referenda)
 - v. Alternatively, the authority to make public policy may be divided between a king and a council or parliament. (This was true of most early constitutional monarchies in medieval Europe and east Asia.)

- C. Many of the features of modern states with elected governments can be thought of as the result of gradual institutional innovations that came to be adopted over the centuries to address the problems associated with delegating authority to "the crown."
 - i. However, it bears noting that the creation of written constitutions is a relatively new (or at least recently rediscovered) activity.
 - ii. Settle agriculture began more than ten thousand years ago, but the oldest constitution in the world is presently the US constitution which is just over 200 years old.
 - iii. (Constitutional law and constitutional theory can be said to be older than the modern constitutions. For example, the Magna Charta of England was signed in 1215. Greek city states all had formal constitutions. Aristotle's the politics includes a broad overview of the relative merits of alternative constitutions.)
 - iv. The Constitutional designers of the United States created a very new form of large scale government, based on elections, rights, the separation of powers and federalism.
 - v. In less revolutionary states, such as England, Sweden, Norway, Denmark, and so forth, the gradual evolution of control over the state is clearly evident.

VIII. Advantages of Elected Rulers (Democracy)

- A. The general sense that we in the West have that democracies are superior to dictatorships should be apparent in policies. One can observe, for example, that the western democracies have been wealthier places than anywhere else for the past century or two. Thus, they must be doing something right.
- B. A lean model of policy formation in a democracy implies that the policies adopted tend to be those which maximize the welfare of the median voter. (The next lecture develops the logic that underpins this claim.)
- C. A model comparable to the dictatorship model just developed can be constructed where the "dictator" is elected:
 - i. Suppose that the median voter is restricted to similar fiscal policies: proportional taxes and public goods and is interested in maximizing his own after tax income.

ii. Since the median voter can not keep net tax receipts, she faces a balanced budget constraint. (We assume this for now, but the ability to keep net receipts would tend to make "her" a voter with other than the median demand for tax rates and government services).

$$\blacktriangleright c(G) = tN_y(G,t) \quad \text{which implies that } t \approx c/N_y$$

iii. The median voter's after income is similar to that of the average voter's income although not necessarily identical unless the distribution of income is symmetric. Let $v(G,t)$ be her pretax income. (Note that $v(G,t)$ is implicitly a "reaction" function that describes how job opportunities or wage rates are affected by government policies and how her family income is then affected by the leisure-labor choice made.)

iv. The median voter's after tax income is:

$$\blacktriangleright V = (1-t)v(G,t) \text{ which given the balanced budget constraint is}$$

$$\blacktriangleright V = (1-c/N_y) v(G,t) \text{ or}$$

$$\blacktriangleright V = v(G,t) - (c/N) (v/y)$$

v. Differentiating yields:

$$\blacktriangleright v_G - c_G/N (v/y) - (c) [v_G/y - v y_G/y^2] = 0$$

$$\blacktriangleright \text{and } v_t - (c/N) [v_t/y - v y_t/y^2] = 0$$

vi. An interesting **special case** of the median voter model is that where the median voter's income is approximately the average income: $v=y$.

a. In that case, $V = v(G,t) - (c(G)/N)$.

b. Notice that the median voter now sets G such that $N_y G = c_G$
(sets G^* to **maximize** national income)

c. while selecting the t that **minimizes** tax burden of providing G^* !

$$v_t = (c/N) \text{ with } t^* N_y = c(G^*)$$

d. This is one case where democracy will have broad appeal.