I. The Necessity of Collective Decision Making

A. In principle, every time a group of individuals undertakes 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."

   ii. In some cases, as where one person of the dinner party is considered and expert, the collective decision made be made by one person, a "dictator."

   iii. In larger groups, decisions may be made by casting and counting votes. A restaurant could be chosen by majority rule.

   iv. 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.

   v. 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*.

   vi. 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 are stable and remain in place (are durable), they can be regarded as "constitutional" in nature. That as to say, as **Rules for Making Rules**.

   i. Note that such constitutional procedures do not have to be written down to satisfy this condition.

   ii. 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.

   iii. However a constitution, written or otherwise that was not durable would not be a constitution in this sense of the word.

C. In spite of this very general domain, the public choice literature has mainly focused on the properties of political decision making procedures.

   i. Most of this work focuses on the operation of democratic systems based more or less on the US model.

   ii. (This reflects the origins or employment of most public choice analysts.)

   iii. Smaller literatures exist on Dictatorship, constitutional choice, and other forms of democracy such as parliamentary systems based on other voting rules such as Proportional Representation.

D. There are both positive and normative branches of the public choice literatures

   i. The positive branch attempts to understand the implications of public choice procedures on collective outcomes.

   ii. The normative branch attempts to determine which decision rule works best based on various systematic normative theories such as utilitarianism and contractarianism.

   iii. The normative and positive branches are not entirely separate in the case of constitutional choices where individuals may rely partly on norms in selecting constitutional arrangements.

   iv. (It also bears noting that "constitutional" choices are commonplace within the broader interpretation of public choice. Every time a group agrees to a durable group decision process, a constitution has been chosen. Of course political constitutions are chosen much less frequently, but still are more common than the US experience suggests.)

II. Anthropological Origins of Collective Choice in Practice

A. Insofar as all group choices are public choices, it is clear that the original ideas about collective decision making methods are ancient. Every family, band, tribe, town, city, state, country, alliance, etc. uses some form of collective decision making to choose particular courses of action.

   i. This is partly tautological. A group of individuals does not share the fundamental hardware of choice, a central nervous system, essentially by definition.

   ii. So, decision making can not be (fully) intrinsic to the biological necessities.

   iii. Evidently, until fairly recently most people on earth associated with one another in relatively small bands (a few dozen people), who used a form of consensus based decision making (Diamond, 1999).

B. This suggests that there are survival advantages to being affiliated with groups, and insofar as groups "do things together," they would have long have devised methods for collective decision making.

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. (A group that could never choose a restaurant or method of hunting would starve.)

   ii. Consequently, there are reasons to expect that this "technology" has been evolving for far longer than written language has been--as long as groups have existed.

III. 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. Two Reductionist Theories of the Origin of the State

A. There are two pure theories of the origin of government.

  i. One postulates a state that emerges out of skill in organized force. Such a state is created when one party conquers all those within a given territory. The rulers of such a state, simply impose their will on all those within its domain. 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.

  ii. The other pure theory of the state conceives a state as emerging out of voluntary agreement. That is to say, individuals find it in their interest to create a state as a means of advancing common ends that can best be accomplished with collective means. Under this theory, any coercive means used by the state to collect taxes and assure national defense are grounded in an agreement that in the absence of such methods, free rider problems would prevent the state from advancing the interests of all that agree to the social compact.

B. Mancur Olson has pioneered work on the productive, but coercive state. He demonstrates that any 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. James Buchanan has 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.

  i. 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).

  ii. That is to say, there are at least occasionally mutual gains that can be realized by agreeing to be "coerced" by a third party--rule enforcing government or tax collector.

D. (These two theories of the state may both operate simultaneously. Note that an invading army can be a very strong reason to join forces under a social compact. Alliances are often voluntary agreements to repel a dictatorial invader!)

E. Both theories of the state imply that governmenatal decision making arrangements are chosen. Both groups of Pirates and democracies tend to have constitutions.

V. The Policies of a Secure Dictatorship (Olson)

A. The coercive theory of the state is the most straightforward, and surprisingly is the more recent of the two theories of the state to be studied by public choice theorists. We start with this theory because it is relatively straightforward, and because it represents a, more or less, worse case theory of the state.

B. A second reason to begin with the case of dictatorship is that until very recently, such governments have been the dominant form of large scale governance on the earth.

  i. Democracies have historically been a very small minority of the governments in existence.

  ii. Thus dictatorships are an important type of government to analyze and also, as it turns out a fairly easy one to examine.

  iii. (In spite of this, surprisingly little work has been done on dictatorship. Wintrobe, Tullock, and Olson have recent books and papers on dictatorship which account for most of the literature.)

C. The Olsonian model assumes that a dictator exists and models the fiscal policies that a profit maximizing dictator would adopt.

  i. The assumed rationale for political power is analogous to that of a slave holder in the old south, except that the plantation can not be sold.

  ii. 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%.

  iii. The latter implies that his subjects share in any prosperity induced by the dictator's public policies.

  iv. 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.)

D. (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.)

E. The simplest model is one where the dictator acts as an income maximizing Leviathan (as assumed in Brennen and Buchanan, and in Olson and McGuire).

  i. A secure dictator, whose rule is unchallenged by potential rivals or invaders, will select tax and expenditure policies to maximize his income:

- $Y = t \, Ny(G,t) - c(G)$

  ii. 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.

  iii. First order conditions of ii characterize t* and G* for the dictator.

    a. $Y_t = t + tN \, y_t = 0$ at t*   e. g. given G* set t to maximize tax receipts

    b. $Y_G = tNy_G - c_G = 0$ at G*   e. g. given t* set G to maximize tax receipts

    c. 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.

  iv. 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 $\mathbf{t}Ny_G - c_G = 0$
- the marginal benefits from government programs should be set equal to the marginal cost of G.

F. **Practice Problem**

  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 $(Gi = k)$ 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.

VI. A Digression on Constitutions as Social Contracts

A. Proponents of the productive theory of the state argue that an ideal state is like a club or cooperative that forms because its members all agree that such an organization would improve their lives.

  i. Such governments are literally formed by voluntary contract.

  ii. However, it is often difficult to imagine a procedure by which all "club members" actively participate in the process of designing their "club's" institutions.

  iii. However, to assume that a group of leaders is delegated the task of designing an acceptable constitution (as often happens in practice) creates agency problems that contractarian normative theorists want to avoid.

B. They imagine a constitutional convention in which all can participate without significant bargaining problems or negotiation costs.

C. To facilitatte their analyses, contractarians often appeal to the "veil of uncertainty," or "veil of uncertainty," or even to a "veil of insignificance."

  i. Contractarian theorists often conduct their analysis in an imaginary setting in which no government exists.

  ii. In this case, the alternative to a social contract is some hypothetical state of nature, often the unpleasant Hobbesian anarchy. ("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.")

  iii. It is clear that nearly any social contract, even Leviathan, may be an improvement if the initial state is so inhospitable.

D. The assumption of uncertainty, often stressed in contractarian normative theories (see, for example, Buchanan and Tullock [1962] or Rawls [1971]) is invoked to increase the likelihood that umutally advantageous agreements can be found.

  i. If those making constitutional choices can better predict the average result of a constitutional reform than predict their own narrow self-interests, not only do the individual decisions become more encompassing in the Olson (1990, 2000) sense, but estimated advantages and disadvantages tend to become more similar, which itself facilitates broad agreement.

E. Applied to real world modern democratic states, contractarian logic implies that amendments or constitutional revolutions should be judged relative to the existing constitutional setting, rather than anarchy.

i. Rather than ask whether a constitution or social compact makes one better off than a state of anarchy, one should ask whether a new constitution (normally an amendment of the existing one) is generally expected to yield better policies and, therefore, private lives, than the existing one. See, for example, Buchanan (1975, ch. 5).

ii. This approach is taken throughout the present course.

VII. Contractarian Dictatorship(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. 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. (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. (In fact, all such powers were reserved from early constitutional monarchies like those of England and Sweden.)

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 constitutional design is a relatively new (rediscovered) activity.

ii. For example, 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. Contractarian Democracy: Advantages of Elected Rulers (Democracy?)

A. The contractarian rationale for ranking parliamentary democracy over dictatorship in these worse case scenarios can be developed as follows:

i. The interest of even a secure dictator or king in the welfare of all his subjects is not great.

   a. Within the Olson, Tullock, and Wintrobe models, the dictator's most preferred outcome is the complete subjugation or enslavement all those within his domain.

   b. It is clear that such an "efficient" kingdom may be prosperous without most subjects enjoying significant fruits from their labor. (A less confident regime may find that reducing the income of some groups—especially that of likely opponent—is to its advantage.)

   c. It is quite possible that a king can retain power as long as the "elite" of the kingdom benefits from the "king's favor." In this case, the encompassing interest of the king extends only to the most powerful 1 percent of his subjects.

ii. In contrast, the government of a parliamentary democracy will need much broader support to retain power. In order to secure this minimal support, a parliamentary democracy normally advances the interests of at least 25-50 percent of the electorate—depending on election laws, as developed above.

B. From behind a veil of ignorance, *or uncertainty*, a person who does not know whether he or she would have the king's favor or be a member of the majority coalition is in a position similar to a person buying a lottery ticket.

i. An even moderately risk-averse voter would prefer a 25 percent chance of receiving the fruits of membership in a majority coalition to a 1 percent chance of receiving a prize twenty-five times as large from the king.

ii. Consequently, in the case where a king-dominated government generates the same income level as a parliamentary democracy, risk aversion implies that *parliamentary democracy is unanimously preferred to monarchy* by self-interested risk-averse citizens, because it generates higher expected utility, after accounting for risk.

C. Of course, insofar as parliamentary democracies manage to increase national income over that of dictatorships, as those in the West have, or democratic ideology is broadly believed, this lean contractarian case for parliamentary democracy can be further strengthened.

D. (See Congleton [1992, 1997] and Olson [1993] for an explanation of the superior economic performance of democracies).

IX. Democracy and Dictatorship in Practice

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 "dictataor" 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).

- $c(G) = tNy(G,t)$ which implies that $t \approx c/Ny$

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:

- $V = (1-t)v(G,t)$ which given the balanced budget constraint is
- $V = (1-c/Ny) v(G,t)$ or
- $V = v(G,t) - (c/N)(v/y)$

v. Differentiating yields:

- $v_G - c_G/N (v/y) - (c)[v_G/y - vy_G/y2] = 0$
- and $v_t - (c/N)[v_t/y - vy_t/y2] = 0$

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

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

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

   b. while selecting the t that **minimizes** tax burden of providing G*! $v_t = (c/N)$ with $t*Ny = c(G*)$