

## The Minimax Constitution as Democracy

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For two millennia lawyers and legal theorists in the West used the same reasoning as the man in the street to predict how people will respond to laws. Legal scholarship knew no behavioral theory beyond common sense. This dismal situation improved dramatically after 1960 when law imported price theory from economics. By analyzing legal sanctions as if they were market prices, microeconomics yielded abundant predictions about the consequences of alternative laws. In addition, economic efficiency provided lawmakers with a clear standard of judgment that is always relevant, although seldom dispositive. With a superior behavioral theory and a clear policy standard, economists pried open a niche in legal scholarship and rapidly filled it, rather like rabbits in Australia. The areas of law reworked by economics so far include contracts, property, crimes, corporations, and bankruptcy. My brief remarks concern how to rework constitutional law.

During the marginalist revolution of the late nineteenth century, economists began formalizing the rationale for markets suggested by Adam Smith's metaphor of the "hidden hand." Formalization culminated in general equilibrium theory in the 1950s and 1960s, whose great accomplishment was a rigorous defense of competitive markets and a framework for analyzing market failures. Ideally, collective choice theory would do for democracy what general equilibrium did for capitalism—rigorously justify the general institution and provide a framework for analyzing its specific failures.

General features of democracy include representative government, rule of law, entrenched rights of individuals, an independent judiciary, open elections, and a universal franchise. A justification would show that these features are best for promoting important values. Relevant values include the preferences of ordinary citizens and those special values such as liberty and prosperity that are central to Western political theory.

Collective choice theorists often take the impossibility theorems, which show that democracy is inefficient or irrational, as a starting point. These profoundly unsettling proofs describe a necessity that shapes democratic institutions. However, it is difficult to build a critique and justification from such negative results. The foundation of democracy must be a more affirmative vision, such as proofs that a government with certain democratic features will achieve a certain measure of optimality.

I want to suggest an understanding of results in game theory that might serve as such a foundation. By definition, the core of any game is the set of undominated allocations of resources. An allocation is undominated if no coalition of people can

impose another allocation that makes all of its members better off. Game theory has no generally accepted way to choose among core allocations.<sup>1</sup> The larger the core, the greater the indeterminacy. Indeterminacy provides scope for strategy and bargaining. A typical equilibrium in a bargaining game is a mixture of strategies that result in a positive probability of cooperation, and also a positive probability of non-cooperation.<sup>2</sup> The results may be harmonious and productive, or acrimonious and destructive.

Small economies with few participants have large cores. As such an economy grows, the core may shrink to the perfectly competitive allocation, in which case the economy is naturally competitive. Alternatively, the core may not shrink very much, in which case the economy contains natural monopolies. If politics were like a competitive economy, competition for public office would intensify as the state grew larger and political power would shrink until it disappeared. However, the state is conventionally defined as the institution with a monopoly on force. This definition makes economic sense because politics is more like natural monopoly than perfect competition. Competition for public office constrains and checks political power but does not eliminate it.

Can democracy be justified as the optimal organization of the state's monopoly on force? Such an argument can be made on the basis of some principles from game theory. To organize a bargaining game optimally, the probability of cooperation must be maximized. The Coase theorem provides a point of reference for discussing obstacles to cooperation. Applied to lawmaking, the Coase theorem asserts that inefficiencies in an initial allocation of legal entitlements will be cured by fresh laws, provided that the transaction costs of bargaining are low.

Democratic government lowers the transaction costs of political bargaining. Transaction costs are low when communication is cheap. Representative government reduces communication costs among political factions. Transaction costs are also low when the threat positions of the parties are clear. The rule of law clarifies threat positions by basing the rights of citizens and the powers of officials upon definitive public pronouncements.

The Coase theorem points to the role of democracy in lowering the transaction costs of political bargaining among various social groups. However, political bargaining often fails even in the best circumstances. A pessimist would design a constitution that is best given that politicians fail to cooperate with each other and act rapaciously in advancing their own interests. I define the "minimax constitution" as one that maximizes the welfare of citizens under the assumption that politicians are self-interested and uncooperative.

The minimax constitution would include central features of democracy. To protect citizens from the politically powerful, the minimax constitution would presumably include a bill of rights interpreted by an independent judiciary. In addition, the min-

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<sup>1</sup>A parade of solution concepts is in R. Duncan Luce and Howard Raiffa, *Games and Decisions* (Dover 1957). A more modern treatment is in David Kreps, *A Course in Microeconomic Theory* (Princeton University Press 1990), part III. Applications to law are in Eric Rasmusen, *Games and Information: An Introduction to Game Theory* (Basil Blackwell 1990).

<sup>2</sup>Examples of Bayesian equilibria applied to law that produce efficient results only part of the time are in Jack Hirshleifer, "Evolutionary Models in Economics and Law: Cooperation versus Conflict Strategies," *Economic Behaviour in Adversity* (University of Chicago Press 1987), 211-72.

imax constitution would presumably subject politicians to competitive elections to discipline office holders.

I have argued that the minimum-transaction-cost constitution commends representative government and the rule of law, and the minimax constitution commends a bill of rights, separation of powers, and electoral competition. Game theory thus provides a foundation for justifying and criticizing central features of democracy. Now I relate these positive conclusions to the negative implications of the impossibility theorems.

Democracy seeks to achieve cooperation by lowering transaction costs of political bargaining. When political bargaining fails, the impossibility theorems generally predict that democracy results in intransitive voting cycles. It is impossible for uncooperative people to design a constitution that combines democracy and efficiency. In response to these facts, the minimax constitution minimizes the destructiveness caused by uncooperative politicians. Compared to consensus legislation, voting cycles seem very bad, but compared to democracy's alternatives, such as the contending parties' shooting at each other, voting cycles seem benign.

So far I have said nothing about political equality. Where do universal rights and a universal franchise fit into collective choice theory? Equality concerns distribution. Ordinalist utility theory locates distributive ideals outside of economics, leaving no basis for deriving an ideal of political equality. In contrast, cardinal utility theory locates distributive ideals inside economics. Space restrictions prevent me from exploring whether the ideal of political equality could be derived from cardinal utility theory.

The framers of the American Constitution often spoke as if it were an incentive structure designed to produce good government by self-interested people.<sup>3</sup> Collective choice theory should support this vision with theorems derived from a compelling behavioral theory and a clear normative standard. The minimax constitution explains some key features of democracy. Others are explained by the minimization of the transaction costs of legislative bargaining, or by the ideal of political equality. Constitutional law and economics is filling in this outline with a detailed institutional analysis. When theorems supplant metaphors, knowledge replaces intuition.

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<sup>3</sup>See, for example, James Madison, "The Federalist No. 51," *The Federalist Papers* (2d ed., Johns Hopkins University Press 1981), 160. Or the letter from John Adams to Richard Henry Lee (Nov. 15, 1775, reprinted in 4 *The Works of John Adams* 185, 186 (C.F. Adams ed. 1851), quoted in Diane-Michele Krasnow, "The Imbalance of Power and the Presidential Veto: A Case for the Item Veto," 14 *Harvard J. Law & Public Policy* 582-613, at 582 (1991).