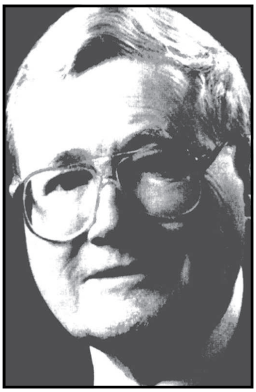

THE

SELECTED

WORKS OF

GORDON

TULLOCK

VOLUME 2

The Calculus of Consent

THE SELECTED WORKS OF GORDON TULLOCK

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Gordon Tullock

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VOLUME 2

The Calculus of Consent

Logical Foundations of Constitutional Democracy

JAMES M. BUCHANAN *and* GORDON TULLOCK

Edited and with an Introduction by

CHARLES K. ROWLEY

Liberty Fund

Indianapolis

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The cuneiform inscription that serves as our logo and
as the design motif for our endpapers is the earliest-known
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INTRODUCTION

The Calculus of Consent: Logical Foundations of Constitutional Democracy, by James M. Buchanan and Gordon Tullock, is a classic text that played a significant role in carving out two new disciplines from economics and political science—*public choice* (the analysis of politics as it is) and *constitutional political economy* (the analysis of politics as it should be).[1] *The Calculus of Consent* is, by a wide margin, the most widely cited publication of each coauthor and, by general agreement, their most important scientific contribution.

The foundations for the book were laid during the academic year 1958–59, when Gordon Tullock was a research fellow and James M. Buchanan was joint director (with Warren Nutter) of the Thomas Jefferson Center for Studies in Political Economy at the University of Virginia. The book was written during the academic year 1959–60, while Tullock was teaching in the School of International Studies at the University of South Carolina. Both political and economic climates were favorable to a magnum opus that would focus on the gains-from-trade available from a rationally constructed constitution and downplay the notion that politics is either a conflict-ridden, negative-sum game or a quest for some collective ideal.

Politically, the world was at peace, more or less, with the Cold War stabilizing tensions between East and West. The citizens of the United States were enjoying the largely bipartisan Eisenhower presidency, constrained by a Democratic majority in Congress. Vietnam was still just a dot on the map of Indochina. Civil rights had not yet surfaced as a divisive political issue. Economically, the United States was the dominant player in world trade as Europe and Japan slowly recovered from the devastation of the Second World War; unemployment and inflation rates remained low; the dollar was the undisputed world currency; federal budgets were balanced; and the positive rate of overall economic growth dampened redistributionist pressures. In such circumstances, Americans could be forgiven the measure of myopic complacency with which they viewed their lot.

The intellectual environment, however, was decidedly less favorable. Indeed, it was sufficiently hostile to the ideas set out in *The Calculus of Consent*

1. James M. Buchanan and Gordon Tullock, *The Calculus of Consent: Logical Foundations of Constitutional Democracy* (Ann Arbor: University of Michigan Press, 1962).

that only scholars endowed with originality, courage, and entrepreneurial zeal would stand any chance of penetrating the prevailing conventional wisdom that dominated the economic and political science academies. Buchanan and Tullock combined those qualities in full measure and together constituted a formidable team that would shake the foundations of the two professions.

During the 1950s and early 1960s, the economics profession was basking in the reflected glory of John Maynard Keynes, whose own 1936 magnum opus had inspired the vision that economists could guide benevolent governments into effectively smoothing out business cycles primarily through fiscal intervention.[2] This new role of "economists as philosopher-kings," while flattering to egos and supportive of professional advancement, rendered many of them uneasy about market process and suspicious of almost all forms of constraint on the size of government.

The economics profession was dominated to a lesser extent by the new welfare economics, as best elaborated in Abba Lerner's influential 1944 book *The Economics of Control*.[3] A lifelong socialist, Lerner wrote the text in the form of a handbook, presenting his propositions as rules to be followed by the planners and plant managers of a decentralized socialist economy. In such an environment, even Milton Friedman, the most effective contemporary purveyor of free-market ideas, was forced onto the defensive, facing the almost impossible task of defending real-world private markets against idealized concepts of collective action.[4]

Political scientists were also immersed in analytical modes that *The Calculus of Consent* would challenge. Political philosophers, for the most part, remained wedded to Platonic and organic notions of benevolent government. Many political scientists, to the extent that they were interested in theory at all, were enamored of behaviorist theories and strongly hostile to the rational-choice approach that would dominate *The Calculus of Consent*. Most institutionalists simply observed the evolution and the behavior of political institutions without attempting to evaluate those institutions in terms of relevant theory. Inevitably, *The Calculus of Consent* would threaten to devalue a large stock of human capital in political science and, for this reason alone, generate hostility.

2. John Maynard Keynes, *The General Theory of Employment, Interest, and Money* (London: Macmillan, 1936).

3. Abba P. Lerner, *The Economics of Control: Principles of Welfare Economics* (New York: Macmillan, 1944).

4. Milton Friedman, *Capitalism and Freedom* (Chicago: University of Chicago Press, 1962).

The Calculus of Consent is quintessentially a joint product based on the teamwork of two very different scholars. Buchanan in 1959 was already a well-established public-finance scholar with a significant publication record. A meticulous, thoughtful, highly original, and very courageous scholar, he had already affected the economics profession with a Virginia-blend classical liberalism that infuriated the left-leaning majority and enraged the Marxist wing. Tullock in 1959 was a little-known, self-trained economist; however, he brought to the project a powerful analytical mind, a passion for understanding the political marketplace, and an unorthodox, stubborn originality that enabled him to break down strongly held conventional wisdoms. Neither Buchanan nor Tullock could have written *The Calculus of Consent* alone. The book is a blend of their diverse skills.

The Calculus of Consent is divided into four parts, each consisting of several chapters. This introduction will provide a short overview of the book and identify the key insights that would forever disturb the border between economics and political science.

Part I establishes the conceptual framework of the book in four succinct chapters. Here, a number of important challenges to conventional wisdom ("hand grenades" may be a better description) pave the way for the more formal invasion of economics and political science that comes in later chapters.

Chapter 1, the introduction, identifies the central task of the book as defining what a state ought to be. To address this issue, the authors propose to construct a theory of collective choice out of the principle of methodological individualism (i.e., focus strictly on individual motivation and individual behavior as they relate to social, as contrasted to private, activity). In their construct, individuals are assumed to be diverse, thus rendering any political process of conflict resolution difficult. The authors also indicate that the mechanism used to resolve conflict will not be the usually accepted standard of the majority vote but rather the universal consensus. The bar is thus set much higher by Tullock and Buchanan than by those who rely on the majoritarian principle alone.

Chapter 2 expands on the nature of the individualistic postulate. The authors categorically reject the organic notion of the state that dominated both economics and political science in the middle years of the twentieth century. As part of their individualistic approach, they also reject any notion of the "general will" that purports to identify the public interest as something independent of the separate interests of the individuals participating in collective-choice decisions. Similarly, they reject any theory of the collectivity that embodies exploitation by a ruling class.

Instead, they view collective action as the action of individuals choosing from within a group setting. Individuals perceive the state as an artifact created to improve their individual well-being. In this sense, the book adopts a rational-choice approach—because the criterion of goodness is universal consent, the only definition of "truth" is conceptual unanimity. In 1962, neither economists nor political scientists had any notion that political outcomes could be resolved through unanimity.

Chapter 3 expands on the nature of politics-as-exchange and thus sets the scene for the economic analysis of political markets. The authors suggest that both economic and political relationships represent cooperation on the part of two or more individuals, because individual behavior, be it private or political, does not change between markets. Of course, the economic model cannot explain all collective action any more than it can explain all private action. However, as long as some part of individual behavior in collective-choice making is motivated by utility maximization, and as long as individual-utility functions are heterogeneous, an economic theory of political behavior offers valuable insights. This chapter is important because it displaced the widely held view that politics is based on conflict with the contrary view that politics is based on cooperation.

Chapter 4 develops the rational-choice approach as the basis for analyzing individual behavior in political markets. The authors adopt the working hypothesis that individuals can rank-order the alternatives of collective as well as market choice and that this ranking is transitive. However, in analyzing the behavior of the individual in the political process, an important element of uncertainty cannot be ignored. At the moment of choice, the individual has no way of knowing the final collective-choice outcome. There is no one-to-one correspondence between individual choice and final outcome. In this sense, the individual is less responsible for final decisions than he is in the private market, and for this reason he may be less fully rational in making choices. This insight was drawn from a highly original 1954 paper by Buchanan.[5]

Part II of the book, in four path-breaking chapters, defines the realm of social choice.

In chapter 5 the authors outline an externalities-based theory to explain why individuals adopt a political constitution. They assume that the rational

5. James M. Buchanan, "Social Choice, Democracy, and Free Markets," *Journal of Political Economy* 62 (1954): 114–23.

individual acts to minimize the expected cost of social interaction in one of three ways, namely (1) purely individualistic behavior; (2) private, voluntary, but jointly organized, behavior; and (3) collective action through the political process. They emphasize that externalities are not eliminated by collective action, indeed that they may be exacerbated by them. Only if collective action is considerably more efficient in decision-making costs will the rational individual choose the collectivity in preference to the private individual or voluntary contractual alternatives. This simple concept is significant in that it effectively levels the playing field in the debate over the respective advantages of private versus political markets.

In chapter 6, arguably the most important chapter in *The Calculus of Consent*, the authors use the framework provided in chapter 5 to outline the logical foundations of constitutional democracy. To simplify the model, the authors assume that the range of collective action is predetermined and that the specific institutions through which collective action occurs are already in place. On this basis, they analyze the nature of constitutional choice confronted by any random individual.

Using the rational-choice model, they assert that every individual seeks to minimize his overall expected costs when he chooses among alternative voting rules that can range from one (random) decision maker to the rule of unanimity. The expected cost function is a combination of expected external costs (that decline monotonically) and expected decision-making costs (that increase monotonically) as the voting rule increases from one to unanimity. The rational individual seeks to minimize these (vertically summed) expected costs. The voting rule reflected in this decision may be sub-, simple-, or supra-majority. The authors suggest that unanimity over the precise rule is attainable even among diverse individuals, because each individual makes his constitutional decision behind a veil of uncertainty. This chapter shocked a large number of social scientists who were irrationally wedded to the notion of simple majority rule.

Chapter 7 refocuses attention on the central role of the rule of unanimity on the political marketplace. While recognizing that individuals may unanimously support rules of less than unanimity for collective action, for the decision-making cost reasons advanced in chapter 6, the authors emphasize that such rules are less than ideal compromises. The unanimity rule, they argue, occupies the central place in any normative theory of democratic government. At best, majority rule is just one of many practical expedients made necessary by the costs of securing widespread agreement within a diverse polity. Convinced majoritarians were irrationally infuriated by this rational constitutional statement.

Chapter 8 reexamines the nature of decision-making costs. The authors note that such costs hitherto had been ignored in all discussions of the nature of constitutional rules. Yet, because collective choices are inherently more costly than private choices, decision-making costs play a central role in determining constitutional outcomes. The authors explain the consequences of population size and degree of heterogeneity for the predictable inclusiveness of a decision-making rule as well as for the degree of restrictivity over the range of collective action.

Part III of the book, in nine chapters, applies the logic developed in Part II to describe a range of decision-making rules, the most notable being the rule of simple majority.

Chapter 9 sets the scene as one in which the constitutional rules are determined, and the expected utility-maximizing individual participates in collective action within the constitutional framework that has been established. Chapter 10 elaborates on a 1959 paper by Gordon Tullock in order to examine the operation of the simple majority rule under certain highly restricted assumptions.[6] In particular, the authors explain why logrolling is important whenever minority voters have more intensive preferences for specific collective actions than do majority voters.

In chapter 11 the authors use game theory as another means of exploring the characteristics of simple majority rule. They demonstrate conclusively that when considered in terms of individuals' own evaluations of possible social alternatives, there is nothing inherent in the operation of this rule that produces "desirable" collective decisions. Predictably, simple majority rule results in overinvestment in the public sector, at least when the investment projects provide differential benefits or are financed by differential taxation. There is nothing in the rule itself that ensures that the games are positive sum. This conclusion fundamentally challenged the prevailing consensus that majority rule was the best of all decision-making rules.

Chapter 12 relates the game theoretic analysis of the simple majority rule to the concept of Pareto optimality. The authors demonstrate that only where side payments are introduced is there any assurance that majority-rule decision making will lead to positions on the Pareto frontier. Indeed, they go fur-

6. Gordon Tullock, "Problems of Majority Voting," *Journal of Political Economy* 67 (December 1959): 571–79.

ther than that, arguing that without side payments even the rule of unanimity does not guarantee Pareto-optimal outcomes.

In chapter 13, the authors explain why their analytical model is more extensive than the Paretian construction. External costs, in their model, are either allocational or redistributional. Only the former plays a role in the Paretian construction. This insight is important because it demonstrates, in yet another dimension, that collective choices differ radically from private choices.

In chapter 14, the authors distinguish between the range and the extent of collective action and explain why this distinction is central to any rational discussion of the allocation of economic resources between the public and the private sector of the economy. Because economists were unaware of this distinction in the early 1960s, most normative analyses of whether government was too large or too small amounted to a waste of time. Individuals in their constitutional roles do not choose directly the size and scope of the public sector: first, they choose the fundamental organization of activity; second, they choose the decision-making rules.

Chapters 9 through 14 focus attention on the simplified model of direct democracy. Chapters 15 through 17 extend the constitutional model to embrace more complex models of representative democracy.

Chapter 15 identifies four basic constitutional-choice variables relevant to representative democracy, namely (1) rules for choosing representatives, (2) rules for deciding issues in legislative assemblies, (3) the degree of representation, and (4) the basis of representation. The authors explore the nature of the interrelationships between these four constitutional variables and conclude that even this much more complex constitutional environment can be analyzed in terms of the two expected cost functions outlined in chapter 6. Once again the authors provide an entirely original insight into the logical foundations of constitutional democracy.

Chapter 16 deploys the expected cost-function model to explain under what circumstances bicameral legislatures are justified. Because bicameral legislatures increase expected decision-making costs, expected external costs must be lowered significantly in order to provide a net reduction in overall expected costs. Similar arguments also apply to presidential veto powers.

In chapter 17, the authors compare and contrast their own models with the mid-twentieth-century orthodox models of political theory. Their models of politics emphasize the importance of exchange in constitutional decision making and identify the principle of unanimity as the ultimate normative benchmark. In contrast, political scientists emphasized the importance of politics as a mechanism for conflict resolution and identified the principle of majority rule as an absolute doctrine of popular sovereignty.

Part IV of the book, in three chapters and two appendixes, turns to the economics and ethics of democracy.

Chapter 18 establishes the ethical basis for economic exchange, recognizing that some forms of economic exchange (for example, prostitution) may be outlawed because they impose negative externalities. The same ethic governs the exchange of political votes. Typically, vote trading is forbidden in general elections, in part because such a mechanism enables the rich to determine election outcomes. However, logrolling within a legislature typically is allowed, in part because it offers some protection to minorities. In principle, the presence or absence of externalities, negative and positive, should govern the constitutional choice of whether or not to allow vote trading. This insight helped to reshape research in this field among both economists and political scientists.

Chapter 19 focuses attention, from a constitutional perspective, on the role and behavior of pressure and special-interest groups. The authors challenge the conventional wisdom, based on the writings of Arthur Bentley (1908) and David Truman (1951), that endorsed pressure, or special-interest, groups as inevitable, and even desirable, components of the democratic political process.[7] They note that such groups had expanded their role dramatically during the first half of the twentieth century as a profit-based response to relaxed budget constraints and to growth in the range and extent of collective choice. For the first time, the behavior of interest groups was linked to constitutional change.

Chapter 20 concludes the book with a discussion of the politics of the good society. Here it is entirely appropriate to allow the authors the final word.

> With the philosophers of the Enlightenment we share the faith that man can rationally organize his own society, that existing organization can always be perfected, and that nothing in the social order should remain exempt from rational, critical, and intelligent discussion. Man's reason is the slave to his passions, and recognizing this about himself, man can organize

7. Arthur Bentley, *The Process of Government* (1908; reprint, Bloomington, Ind.: Principia Press, 1935); David B. Truman, *The Governmental Process* (New York: Alfred Knopf, 1951).

his own association with his fellows in such a manner that the mutual benefits from social interdependence can be effectively maximized. (p. 289)

CHARLES K. ROWLEY

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JAMES MCGILL BUCHANAN

Jim Buchanan and I first became acquainted in 1958 when I joined him as a research fellow at the Thomas Jefferson Center for Studies in Political Economy at the University of Virginia. For forty-five years we have remained friends and colleagues, working together to promote public choice and constitutional political economy through joint publications, intellectual interaction, and organizational entrepreneurship and as coparticipants in a great intellectual journey along the less-well-traveled path. I have benefited enormously from Jim's immense intellectual reach, his generous guidance, his willingness to comment on my scholarship, and his courage and ingenuity in overcoming an adverse intellectual environment. Our joint book, *The Calculus of Consent*, is undoubtedly our greatest intellectual achievement, an outcome of highly effective team production that helped to open important new subfields of economics and political science.

GORDON TULLOCK

Fairfax, Virginia
2003

PREFACE

This is a book about the *political* organization of a society of free men. Its methodology, its conceptual apparatus, and its analytics are derived, essentially, from the discipline that has as its subject the *economic* organization of such a society. Students and scholars in *politics* will share with us an interest in the central problems under consideration. Their colleagues in *economics* will share with us an interest in the construction of the argument. This work lies squarely along that mythical, and mystical, borderline between these two prodigal offsprings of political economy.

Because it does so, the book and the work that it embodies seem closely analogous to any genuine "fence-row" effort. As almost every farmer knows, there attach both benefits and costs to fence-row plowing. In the first place, by fact of its being there, the soil along the fence row is likely to be more fertile, more productive, when properly cultivated, than that which is to be found in the more readily accessible center of the field. This potential advantage tends to be offset, however, by the enhanced probability of error and accident along the borders of orthodoxy. Many more stumps and boulders are likely to be encountered, and the sheer unfamiliarity of the territory makes unconscious and unintended diversions almost inevitable. To those two characteristic features we must add a third, one that Robert Frost has impressed even upon those who know nothing of our agrarian metaphor. "Good fences make good neighbors," and neighborly relationships stand in danger of being disturbed by furrowing too near the border line. Orthodox practitioners in both politics and economics will perhaps suggest that we respect the currently established order of the social sciences. We can only hope that the first of these three features outweighs the latter two.

The interdisciplinary nature of the book raises problems of content. Precisely because we hope to include among our readers those who are specialists in two related but different fields of scholarship, some parts of the analysis will seem oversimplified and tedious to each group. The political scientists will find our treatment of certain traditional topics to be naïve and unsophisticated. The economists will note that our elementary review of welfare theory ignores complex and difficult questions. We ask only for ordinary tolerance, that which prompts the judicious selection of the interesting elements of analysis.

What are we trying to accomplish in this book? Perhaps by answering this question at the outset, we shall be able to assist certain of our readers in understanding our analysis and also forestall misdirected criticism from others. We are not attempting to write an "ideal" political constitution for society. Therefore, the reader will find in this book little more than passing reference to many of those issues that have been considered to be among the most important in modern political theory. We do not directly discuss such things as division of powers, judicial review, executive veto, or political parties. We try, instead, to analyze the calculus of the rational individual when he is faced with questions of constitutional choice. Our main purpose is not that of exploring this choice process in detailed application to all of the many constitutional issues that may be presented. We examine the process extensively only with reference to the problem of decision-making rules. To this is added a single chapter on representation and one on the bicameral legislature. These illustrative examples of the general approach should indicate that many of the more specific issues in constitutional theory can be subjected to analysis of the sort employed in this work.

This analysis can perhaps be described by the term "methodological individualism." Human beings are conceived as the only ultimate choice-makers in determining group as well as private action. Economists have explored in considerable detail the process of individual decision-making in what is somewhat erroneously called the "market sector." Modern social scientists have, by contrast, tended to neglect the individual decision-making that must be present in the formation of group action in the "public sector." In their rejection of the contract theory of the state as an explanation of either the origin or the basis of political society, a rejection that was in itself appropriate, theorists have tended to overlook those elements within the contractarian tradition that do provide us with the "bridge" between the individual-choice calculus and group decisions.

Methodological individualism should not be confused with "individualism" as a norm for organizing social activity. Analysis of the first type represents an attempt to reduce all issues of political organization to the individual's confrontation with alternatives and his choice among them. His "logic of choice" becomes the central part of the analysis, and no position need be taken concerning the ultimate goals or criteria that should direct his choice. By contrast, "individualism" as an organizational norm involves the explicit acceptance of certain value criteria. This work is "individualist" only in the first, or methodological, sense. We hope that we have been able to make it reasonably *wertfrei* in the second, or normative, sense.

As suggested, we discuss the "constitution" at some length in this book. We shall mean by this term a set of rules that is agreed upon in advance and within which subsequent action will be conducted. Broadly considered, a preface is the constitution of a jointly written book. Since each of us must agree at this point before going on our separate ways to other works, the preface is the appropriate place to describe, as fully as possible, the contribution of each author to the final product. If we apply the calculus attributed to our representative man of this book to ourselves, we must recognize that each one of us, when separately confronted on subsequent occasions, will be sorely tempted to accept private praise for all worthy aspects of the book and to shift private blame to our partner for all errors, omissions, and blunders. To set such matters aright, a brief and jointly authorized "constitutional" preface seems in order.

In the most fundamental sense, the whole book is a genuinely joint product. The chapters have been jointly, not severally, written. We believe that the argument is co-ordinated and consistent, one part with the other. We hope that readers will agree. To some extent this co-ordination results from the rather fortunate compatibility of ideas that have been separately developed, at least in their initial, preliminary stages. Both authors have long been interested in the central problem analyzed in this book, and, from different approaches, they have independently made previous contributions. Buchanan, in his two 1954 papers,[1] tried to explore the relationships between individual choice in the market place and in the voting process. Somewhat later, in 1959,[2] he tried to examine the implications of modern welfare economics for the political organization of society. Tullock, meanwhile, has been previously concerned with constructing a general theory of political organization from motivational assumptions similar to those employed by the economist. His earlier work, which was completed in a preliminary form in 1958,[3] concentrated largely on the problems of bureaucratic organization.

1. James M. Buchanan, "Social Choice, Democracy, and Free Markets," *Journal of Political Economy*, LXII (1954), 114–23; "Individual Choice in Voting and the Market," *Journal of Political Economy*, LXII (1954), 334–43. Both of these essays are reprinted in *Fiscal Theory and Political Economy: Selected Essays* (Chapel Hill: University of North Carolina Press, 1960), pp. 75–104.

2. James M. Buchanan, "Positive Economics, Welfare Economics, and Political Economy," *Journal of Law and Economics*, II (1959), 124–38. Reprinted in *Fiscal Theory and Political Economy: Selected Essays*, pp. 105–24.

3. Gordon Tullock, *A General Theory of Politics* (University of Virginia, 1958), privately circulated.