# **POLITICAL SCIENCE:**The Science of Politics

Edited by
HERBERT F. WEISBERG
The Ohio State University

Published in cooperation with the American Political Science Association

AGATHON PRESS, INC. New York © 1986 American Political Science Association 1527 New Hampshire Avenue, N.W. Washington, DC 20036-3669

#### All Rights Reserved

No portion of this book may be reproduced by any process, stored in a retrieval system, or transmitted in any form, or by any means, without the express written permission of the publisher.

Library of Congress Cataloging in Publication Data

Main entry under title:

Political Science

Collection of papers presented at the 1983 Annual Meeting of the American Political Science Association. Includes bibliographies.

1. Political science—Congresses. 1. Weisberg,

Herbert F. II. American Political Science Association.

Meeting (1983 : Chicago, Ill.) JA35 1983 320 85-15082

ISBN 0-87586-066-4 cloth 0-87586-075-3 paper

•

Printed in the United States

#### **PREFACE**

When American Political Science Association President-Elect William H. Riker appointed me Program Chairperson of the 1983 Annual Meeting of the Association, we chose as a theme for the meetings "The Science of Politics." The 1982 Annual Meetings had focused on "The State of the Discipline," leading to Ada W. Finifter's excellent collection of the theme papers from those meetings in the APSA book *Political Science: The State of the Discipline*. For the 1983 meetings we wanted to build on the very successful 1982 experience, while focusing attention more specifically on the scientific elements of the discipline and encouraging reflection on its scientific status.

Not only did papers presented at the 1983 meetings extend the science of politics, but several panels were specifically devoted to assessing the status of science in the study of politics. In particular, the Lasswell Symposium on the second evening of the convention had "The Science of Politics" as its topic, and special "theme panels" were organized for each of the 23 regular sections of the official program on the science of politics as applied to that section of the discipline. The theme papers included in this volume originated at those special sessions.

It seemed desirable to publish the theme papers from the 1983 meetings, given the excellent reception of the Finifter volume cited above. However, the Publications Committee of the Association wanted to further evaluate the success of that volume, so it was decided to seek a commercial publisher for a collection of the 1983 theme papers. Unfortunately, the large number of papers meant that the resulting volume would be too large. Rather than condense the many papers on all the topics into a single book, the decision was made to publish those papers which focus on political institutions and behavior. Thus the important scientific work being done in international relations, comparative politics, public policy, and the study of race, gender, and ethnicity issues cannot be considered here. While we regret that more comprehensive coverage was not possible, the in-depth analysis of the state of science in the areas included helps make up for this loss.

x PREFACE

The publication of this volume of papers inevitably owes much to the efforts of many people. As President of the Association, Bill Riker played an important role in the development of the 1983 Annual Meetings, the setting of the theme for the sessions, and the planning of the Lasswell Symposium and the program sections. The program committee found excellent people for writing theme papers on the science of politics in their areas of the discipline. The panel chairs and discussants at the theme panels helped the authors refine their views as presented in these papers, as did a special set of reviewers recruited for giving the authors final advice as to modifications of their papers. Regrettably it is impossible to list these reviewers for public gratitude while maintaining the commitment to anonymity, but at least they know the importance of their contribution to this effort. Tom Mann, Executive Director of the American Political Science Association was a valuable source of advice, solace, and encouragement throughout my service as program chair and my preparation of this volume. Terri Royed has helped prepare the manuscript. And finally, I should extend my own appreciation to the authors of these papers for sharing with us their views of the science of politics. All of these expressions of debt further make the larger point of this book: the study of the science of politics is now a collective enterprise in which a large number of people share the efforts. I hope that it is useful to summarize the status as of 1983 in this volume, fully realizing that this is only a prelude to our continuing development of the science of politics.

Herbert F. Weisberg

### **About the Contributors**

Paul Allen Beck is Professor of Political Science at Florida State University and Chairman of the department. He has written extensively on electoral behavior and public opinion, with recent articles appearing in *The American Political Science Review*, *The Journal of Politics*, and *Political Behavior*. His recent coedited book, *Electoral Change in Advanced Industrial Democracies* (Princeton University Press), focusses on the realignment and dealignment of contemporary electorates. Currently he is conducting research designed to explain the often contradictory attitudes of citizens towards local taxes and spending.

Lawrence C. Dodd is Professor of Political Science at Indiana University. He has written extensively on legislative politics and legislative-executive relations, and is concerned particularly with the conditions that foster institutional change and policy responsiveness. He is the author of *Coalitions in Parliamentary Government*, the coauthor, with Richard Schott, of *Congress and the Administrative State*, and the coeditor, with Bruce Oppenheimer, of *Congress Reconsidered*.

**Charles H. Franklin** is Assistant Professor of Political Science at Washington University in St. Louis. His research on the dynamics of party identification has appeared in the *American Journal of Political Science* and (with John E. Jackson) the *American Political Science Review*.

James L. Gibson is Associate Professor of Political Science at the University of Houston-University Park. His research interests are generally within American politics, with specific foci on judicial process and behavior, political parties, and public opinion (political tolerance). His articles have appeared in the American Political Science Review, the American Journal of Political Science, the Journal of Politics, Law and Society Review, and in several other journals. Recently he coauthored Party Organizations in American Politics and Civil Liberties and Nazis (both by Praeger). Currently, he is involved in additional research on the role of party organizations in the electoral process, and the implications of political intolerance for freedom, political repression, and democracy.

John E. Jackson is Professor of Political Science, Director of the Program in American Institutions, and a Program Director in the Institute for Social Research at the University of Michigan. His research interests include empirical methodology, political behavior, and political economy and institutions. He is the coauthor, with Eric A. Hanushek, of Statistical Methods for Social Scientists and of articles on Congress, public opinion, and political economy. He is currently working on a book on institutions and public policy.

Gerald Kramer received his Ph.D. at the Massachusetts Institute of Technology. He has taught at the California Institute of Technology, the University of Rochester, and Yale University. He has been a Ford Fellow and has been at the Center for Advanced Study in the Social and Behavioral Sciences. He has published extensively on positive political theory, including seminal articles on economics and voting behavior and on equilibrium in multidimensional voting.

**Duncan MacRae, Jr.** is William Rand Kenan, Jr., Professor of Political Science and Sociology at the University of North Carolina at Chapel Hill. He has written extensively on legislative behavior and on the foundations of public policy analysis. His most recent book is *Policy Indicators: Links between Social Science and Public Debate*.

Gary J. Miller is Associate Professor of Political Science at Michigan State University. His principal research interests are formal theories of bureaucracy and small group experimentation. He is author of *Cities by Contract: The Politics of Municipal Incorporation* and coauthor, with John H. Aldrich, Charles Ostrom, Jr., and David W. Rohde of *American National Government*.

**Terry M. Moe** is Associate Professor of Political Science at Stanford University and Senior Fellow at the Brookings Institution. His research interests include bureaucratic politics, organization theory, regulatory policy, and interest groups. He is author of *The Organization of Interests* and various articles, the most recent of which are "An Adaptive Model of Bureaucratic Politics" (with Jonathan Bendor) and "Control and Feedback in Economic Regulation: The Case of the NLRB," both in the *American Political Science Review*.

**Richard G. Niemi** is Professor of Political Science and Distinguished Professor of Graduate Teaching at the University of Rochester. He has written extensively on political socialization, voting behavior, and formal models of voting. He is currently engaged in work in all three areas along with studies of political districting.

Bert A. Rockman is Professor of Political Science at the University of Pittsburgh. His research interests encompass the American presidency and the comparative study of leadership, the comparative analysis of bureaucracy and civil servants, and foreign policy making. Among other works, he is the author of *The Leadership Question: The Presidency and the American System* and the coauthor of *Bureaucrats and Politicians in Western Democracies*.

Kenneth A. Shepsle is a Professor of Political Science and a Fellow in the Center for Political Economy at Washington University, St. Louis. His research interests include positive political theory and American politics, and currently focus on analytical models of political institutions. He is the author of *The Giant Jigsaw Puzzle: Democratic Committee Assignments in the Modern House* and, among his articles, are a series of papers on institutional equilibrium.

**Herbert F. Weisberg** is Professor of Political Science at The Ohio State University. His research interests include voting behavior, Congress, and research methods. He has served as coeditor of the *American Journal of Political Science* and has coedited Controversies in Voting Behavior and Theory-Building and Data Analysis in the Social Sciences.

# **CONTENTS**

Prefac	eix
The C	ontributorsxi
I. The	e Science of Political Science
1.	Introduction: The Science of Politics and Political Change  Herbert F. Weisberg
2.	Political Science as Science  Gerald H. Kramer
3.	The Science of Politics and Its Limits  Duncan MacRae, Jr
II. TI	ne Science of Political Institutions
4.	Institutional Equilibrium and Equilibrium Institutions  Kenneth A. Shepsle
5.	The Cycles of Legislative Change: Building a Dynamic Theory  Lawrence C. Dodd
6.	Presidental and Executive Studies: The One, The Few, and the Many Bert A. Rockman
7.	The Social Science of Judicial Politics  James L. Gibson
8.	The Positive Theory of Hierarchies  Gary J. Miller and Terry M. Moe167

viii CONTENTS

III	The	Science	of P	olitical	Rehav	ior
	1116	Ocience	OI I	Ullicul	Denuv	w

9.	Structural Estimation with Limited Variables  Charles H. Franklin and John E. Jackson	201
10.	The Dynamics of Public Opinion  Richard G. Niemi	225
11.	Choice, Context, and Consequence:	
	Beaten and Unbeaten Paths toward a	
	Science of Electoral Behavior	
	Paul Allen Beck	241
12.	Model Choice in Political Science:	
	The Case of Voting Behavior Research, 1946-1975	
	Herbert F. Weisberg	284
Autho	r Indev	301

# Part I The Science of Political Science



### CHAPTER 1

# INTRODUCTION: THE SCIENCE OF POLITICS AND POLITICAL CHANGE

Herbert F. Weisberg

In establishing "The Science of Politics" as the theme of the 1983 Annual Meeting of the American Political Science Association, no attempt was made to define or limit the meaning of the theme. Political science has come so far as a discipline that different schools and scholars have different interpretations of science in the study of politics, and that diversity is important to maintain. As a result, the papers from those meetings included in this collection do not employ any single approach to the study of the science of politics. Indeed, they are interesting as a collection precisely because they illustrate the multiplicity of interpretations that are presently given to the common enterprise. Each author is concerned with science, but each interprets science differently. Our collective notion of science in the study of politics has certainly changed over the decades, but science, like beauty, proves in many ways to be in the mind of the beholder. If at one time we thought that the movement to science would yield unification of the discipline, it is now apparent that there are many roads to science (though some would argue that this is a temporary situation). Still it is important for us to consider yet again what the appropriate goals are for our scientific enterprise. In what follows I muse about these concerns while introducing the essays in this book.

## THE SCIENCE OF POLITICAL SCIENCE

When political science began to be "scientific," this generally meant that political scientists were becoming concerned with objective description and generalization. Induction was the dominant mode of theory building, with the goal of explanation being paramount. But we have come far enough along in our scientific endeavor that some would now demand more for the science of political science.

An increasingly common view of science is the deductive approach to theory, as emphasized by Gerald Kramer in chapter 2 of this book. For Kramer, science is theory building. He speaks of prediction and control as "useful byproducts," but the "central object" to him is understanding, by which he means explanation in terms of a simpler set of principles. He finds the formal theory endeavors closest to this approach. While admitting that too much of the early formal work was devoted to impossibility theorems, he is heartened by the current trend toward positive models of processes. The lack of empirical testing is described as in large part due to poor measurement in empirical work, with insufficient attention to error in data and overuse of inadequate measuring instruments. Finally, he expresses his concern that we need less complexity in our theory combined with less simplicity in our measurement.

By contrast, others would consider successful prediction to be the ultimate goal of our scientific inquiry. Duncan MacRae makes this case in chapter 3. Certainly such prediction must be based on theory, but his test of success is prediction. His enjoyable idiom for this test is our inability to predict the next election when asked by friends from the natural sciences at cocktail parties. In part this is like looking at the most recent voting behavior articles and asking "Where's the politics?" After all, what could there be to the study of voting if we can't predict the results of elections? But it is also useful in forcing us to remember the questions of consequences and uses of our work. MacRae is arguing that discovery is not enough in political science, that we must be concerned with the use of our results. Because of the importance of that "practical action," political science to MacRae is more than just a science.

A further criterion for science in political science that goes beyond the debate between Kramer and MacRae is a capability for incorporating notions of political change. If our models are to be truly explanatory, they must be capable of explaining change as well as constancy and must be able to cope with change in the system. After all, change is inherent in politics, so a theory of politics should not be time bound. Ideally a theory of institutions would include a theory of institutional change while a theory of political behavior would incorporate behavioral change. Our first cut at theory development can be static, but as scientific observations accumulate, it becomes more important to be able to understand the over-time changes in those observations. Unfortunately, a science of political change can be even more challenging to construct than is a science of politics.

The existence of this multiplicity of criteria for science aptly points to a dilemma in our current development of science in political science. The pioneers in the scientific treatment of politics expected that the scientific revolution would lead to unity in the understanding of political science. That has not been achieved even if our means of data collection and analysis have become more scientific. In part, this is because we do not agree on what "theory" is. Thus there is still a debate between the "empirical theory," which has become common in some areas of the discipline, and the "formal theory" which Kramer supports, to which we might add the "predictive theory" that MacRae desires and the "dynamic theory" advocated in the preceding paragraph. True believers may see value in only one of these approaches, but many political scientists recognize the contribution of each and do not wish to choose a single road toward science. The dialogue as to the proper criteria for science and the proper role for theory in science is continued in the assessments of the state of science in the study of political institutions and behavior in the later chapters of this book, with different authors advancing the different approaches discussed in this section.

#### THE SCIENCE OF POLITICAL INSTITUTIONS

The second section of this book examines the familiar topic of political institutions, but often from new perspectives. At times it has seemed more difficult to establish science in the institutional realm than in the behavioral realm, as if there were a discontinuity between science and the study of institutions. These essays show that there has been real progress in developing the science of institutions, even if the enterprise is not completed.

The reexamination of the role of institutions is illustrated in chapter 4 by Kenneth Shepsle, who views institutions as providing an element of equilibrium into a political system where individual preferences might not otherwise lead to equilibria. Shepsle's chapter directly challenges the claim of discontinuity between science and the study of institutions. At one level, he examines the role of institutions in the policy process. Institutions are intermediary between voters and policy, and he focuses attention on that role. At another level, Shepsle considers science in the legislative area, showing how a formal model perspective can be useful in the study of legislative institutions. He is not content with an overly simplistic model of a legislature, but instead tries to incorporate the institutional characteristics that make legislatures special.

Legislatures are also Lawrence Dodd's topic in chapter 5. Dodd suggests a broadbased theory of legislative change which relates change in the legislature to change in the public. The vastness of the area of legislative politics is such that Dodd's essay just covers one of many possible topics; it does not review science in the study of legislative committees, science in the study of voting in legislatures, or science in the study of political representation. The development of science is probably further along in each of these areas, whereas the topic of change (whether in the legislative or other arenas) has proved to be more difficult for scientific study. Dodd finds an absence of theory on legislative change, and so he builds one.

His approach is not mathematical, but it is based on an understanding of the goals of political actors within an institutional setting. The work is exciting in terms of building a theory where one did not previously exist. Dodd does a nice

job of integrating diverse strands of insights in the literature, though one can still challenge some of his arguments. For example, his assertion that a policy image for the minority party helps it in elections conflicts with the usual survey finding that voters have limited information about issues in congressional elections. Dodd's theory is explicitly based on an interpretation of recent developments in the electorate and the Congress, though many electoral behavior scholars would disagree with the claim that a realignment occurred around 1964, a claim which is central to the dynamics of Dodd's model. This is not to take away from the excitement of the theory building exercise, for Dodd has found an area where theorizing is necessary, and he has put diverse elements together to begin to develop such a theory.

Moving on to the executive branch, in chapter 6 Bert Rockman provides a valuable review of the science in the study of the presidency. Rockman categorizes the work in the field in terms of whether it focuses on the one (the president and his personality or successfulness), the few (the president with his executive), or the many (the president and the public). His concern is with governability and from a scientific perspective, but he is less concerned with theory. His argument in favor of better science rather than better theory provides a fascinating glimpse of the difficulties that emerge when we really are concerned with explaining the politics of an institution.

By contrast, James Gibson's analysis of the science of judicial politics, chapter 7, demands theory as well as generalization and valid measurement. His criteria are stringent, so stringent that no area of the discipline meets all the tests. In fact, the judicial area stacks up very well in some respects, such as the extent to which researchers have moved beyond the national level to extend the scientific enterprise to the state and local levels. Too often our studies of institutions treat the national institutions as unique and miss the variance that exists below the national level. However, the judicial literature that Gibson cites does a better job of extending science to the state and local levels than is the case for the legislative literature cited by Dodd or the executive literature cited by Rockman, possibly because most legal cases begin at those levels. Yet Gibson's standards help remind us what we must all achieve to merit the designation of science.

The consideration of the institutional nexus concludes with Gary Miller's and Terry Moe's discussion in chapter 8 of the science of hierarchies as reflected in our understanding of organizations and public administration. This chapter reviews developments in the new economics of organization as well as social choice perspectives on hierarchy. It shows how firms and hierarchies can be examined as being composed of multiple decision makers with (possibly) conflicting values, so that the problem of control can be studied from a general theoretical perspective. The result is a theoretically exciting new framework for consideration of problems of hierarchy and bureaucracy.

The differences among the conclusions about the state of science reached in chapters 4-8 reflect the authors' different understandings of science as much as the different statuses of the subfields they review. Formal theory building is beginning in some institutional fields, but explanation is still the dominant mode. Prediction is rarely raised as a criterion, though there is beginning to be some sensitivity to the importance of understanding institutional change.

There is every reason to be excited by the new beginnings that are in evidence in the institutional areas, but caution remains necessary. There is a very real sense in which the best explanations of real political situations are still provided by less theoretical efforts. Rockman shows that one can be demanding scientifically without moving to a theoretical level. Unfortunately, the other efforts too often explain less even if they are more theoretical. Yet this may be a distinction between the short run and the long run, where formal theory building will lead to better explanations in the long run even if a more inductive approach is more useful in the short run.

#### THE SCIENCE OF POLITICAL BEHAVIOR

The final section of this book turns to the science of political behavior. We have come far in the development of the science of behavior, but this often just serves to highlight how much remains to be done substantively, but also methodologically. As political science has become more scientific, we have had to become more sensitive to matters of methodology. It has become clear that we must confront complex methodological issues ourselves rather than hope to leave them to other disciplines.

Methodologically, we have long been in the situation of borrowing from other disciplines sophisticated analysis procedures which are not fully appropriate for our data. As the most recent example of this continuing problem, the use of structural equation models is increasing in our data analysis, particularly through the use of such procedures as Joreskog's LISREL program for covariance structure analysis. However, political science data are often weaker than such modelling assumes. In particular, our dependent variables are frequently "limited" in the sense that they cannot assume any numeric value, but only a limited range of values as in the case of categoric variables. In chapter 9 Charles Franklin and John Jackson extend the science in our work by providing the first effort at a statistical model with the full complexity of structural equation modelling for such limited variables.

Although the mathematics of their effort can be difficult to follow, the Franklin and Jackson chapter is exciting as a first effort to solve an important statistical problem, and their solution will be useful in theory testing in political science. The chapter is theoretical rather than applied, with one potential example outlined. Hopefully, this work will soon be followed by presentation of a computer program embodying this procedure, along with a report on

Monte Carlo tests of how successfully such a program recovers structural relationships.

Another methodological problem in our research on political behavior is that our procedures too often preclude valid analysis of continuity and change over time. This methodological problem quickly becomes substantive in the sense that many of the most important substantive questions about dynamic processes cannot be studied without more appropriate data. In chapter 10, Richard Niemi considers the needs for the study of analysis of public opinion change over time. He argues the importance of more dynamic studies of public opinion, partly by pointing to some interesting cases of such work. At a very practical level he suggests methods which should be adopted to facilitate such work, though he does not provide a commentary on the comparative utility of different research designs for dynamic analysis of public opinion.

Turning directly to substantive matters, in chapter 11 Paul Allen Beck focuses on the science of electoral behavior research, an area which has often been regarded as the most scientific area in our study of politics. He considers questions of "choice, context, and consequence" in our decision as to how to approach the study of voting behavior. In particular, he discusses these questions as they have been handled in what he terms the dominant "Michigan Model" of voting behavior. His summary of the state of science in this field also includes a review of recent modifications in the Michigan Model, including the development of "realignment theory" to provide an analytical understanding of electoral change.

Another perspective on the state of science in political behavior research is given in the last chapter of this book with my analysis of model choice in political science. This essay retraces the development of the field of voting behavior during the period in which the inductive Michigan Model was formulated and shows that since then it actually has coexisted with an important deductive model of voting, the "Rochester Model," which limited its dominance. This chapter provides a case study of the history of science in one of our most scientific subfields.

If any element is common through these essays on science in the study of political behavior, it is the argument that we need more science in the field. We have made much progress, but more work is required in terms of analysis methods, design considerations, and model development. The inductive and formal approaches have both been insightful for our understanding of political behavior. If we have not yet achieved the goal of prediction, at least we better understand the importance of examining the dynamics of change. But the cure for the remaining weaknesses is seen as further development of the scientific approach.

#### THE SCIENCE OF POLITICAL CHANGE

One of the least developed areas of our understanding of the science of politics is dealing with political change. Yet change is an ever present feature of political life. Thus the worst nightmare for inductive science is the specter of finally achieving a perfect understanding of a political event, such as a complete explanation of the variance in the vote in the last presidential election, only to have the relevant factors change completely by the next event (or election in this instance).

Unfortunately, our models are generally more static than dynamic. Too rarely do they focus on change or permit parameters to change over time. Yet the political system is one that constantly changes. Indeed change is the politician's remedy for prediction, for perfect prediction would mean that everyone knows who the loser will be; so change must be introduced to make the system less predictable. Walter Mondale's selection of Geraldine Ferraro as his running mate in 1984 is just a single example of the use of change by politicians to increase unpredictability.

Change can be incorporated into scientific models in different ways. In inductive work, change sometimes just means the altered importance of certain variables, though the more important question is determining the factors that influence changes in causal parameters. Such models as the realignment theory that Beck describes now incorporate explicit typologies of change. Change can also be built into formal models, as by examining the effects of political candidates changing their positions on issue dimensions or changing their emphasis on different issue dimensions.

Several of the essays in this book reflect these concerns about incorporating change in our science of politics. This is most evident in Niemi's focus on the dynamics of public opinion and Dodd's selection of legislative change as a topic. Perhaps Shepsle is most sensitive to the role of change in institutions in focusing on equilibrium institutions.

Explaining change is a useful criterion for helping us to choose among the different approaches to theory and science, as inductive and deductive approaches often differ in their ability to cope with change. Thus if Rockman gains in explanation by trying to focus on science rather than theory in the study of the executive, his approach may lose the most if the governance changes radically since the vital distinction between unreliable observation and changed processes can be made only within the context of theory. The problem, as Dodd reminds us at the beginning of his chapter, is that we have too few theories of change.

In the end, change is the most challenging of the topics discussed here. Can