The Political Research
Experience
Readings
and Analysis

Marcus E. Ethridge



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# **Preface**

The idea for this book emerged from discussions over several years with colleagues, graduate students, and teachers. A recurring theme in these discussions was the superiority of scientific analysis over polemical, impressionistic, or journalistic efforts to understand political life. As zealous graduate students and earnest assistant professors, several of us took great pleasure in pointing out the errors of newscasters and essayists who analyzed politics without a foundation in scientific method.

Experience has demonstrated that these non-scientific political scientists, nonetheless, often have a great deal to offer. Many important questions cannot be resolved by scientific method. However, experience has also demonstrated the scientific study of politics *is* valuable; not only for the knowledge it produces, but also because it suggests that political behavior is, ultimately, understandable. Political instability, shifts in public opinion, policy innovation patterns among states, and many other matters of political significance are not entirely random. The scientific approach to politics teaches us this important lesson, an idea that endures long after we become rusty on the specific technical details of our methodological training.

This book is based on the notion that students will best appreciate both the basic importance of scientific political analysis and several important methodologies by seeing them in action, so to speak. Most instructors use published studies as illustrations, of course, but students typically find the works published by political scientists for their peers rather inaccessible. However, by exercising great care in selecting and editing articles and providing introductory and concluding essays that provide students with guidance, this difficulty can be overcome. This is the approach taken in this book, and it makes it possible for students to read published research with real understanding.

Several persons must be acknowledged as having contributed to the

work on this book. William A. Boyd played a very special role. At one time a projected co-author, he contributed a great deal to the planning and overall direction of the project. He also helped me to see that, above all, political science can be enormously entertaining.

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My daughter, who made no contribution at all, receives the dedication simply for being all that a seven-year-old should be.

Milwaukee, Wisconsin

# **Contents**

	Credits and Acknowledgments	ix
	Preface	xi
1.	Introduction: A Science of Politics	1
2.	The Logic of Research Design:	
	Experiments and Quasi-Experiments	14
	Excerpt 1. Roy E. Miller and Dorothy L. Robyn, "A Field	
	Experimental Study of Direct Mail in a Congressional	
	Primary Campaign: What Effects Last until Election Day?"	23
3.	Measurement and Operationalization I:	
	Variables Pertaining to Aggregate Units	35
	Excerpt 2. Thomas R. Dye, "Taxing, Spending, and	
	Economic Growth in the American States"	38
	Excerpt 3. Robert W. Jackman, "The Predictability of	
	Coups d'État: a Model with African Data"	56
4.	Measurement and Operationalization II:	
	Variables Pertaining to Individual Behavior	65
	Excerpt 4. Steven J. Rosenstone, "Economic Adversity and	
	Voter Turnout"	69
	Excerpt 5. Ole R. Holsti and James N. Rosenau,	
	"The Foreign Policy Beliefs of	
	Women in Leadership Positions"	79
5.	Sampling	89
	Excerpt 6. Eric M. Uslaner and Ronald E. Weber,	
	"Policy Congruence and American State Elites:	
	Descriptive Representation versus Electoral Accountability"	98
6.	Surveys	108
	Excerpt 7. David RePass, "Issue Salience and Party Choice"	117
	Excerpt 8. Harold D. Clarke and Marianne C. Stewart,	
	"Dealignment of Degree: Partisan Change in Britain, 1974–83"	128
7	Indexing	139
-	Excerpt 9. Jack L. Walker, "The Diffusion of Innovations	
	Among the American States"	143
	Excerpt 10. Robert L. Savage, "Policy Innovativeness as	
	a Trait of American States"	153

8.	Content Analysis	166
	Excerpt 11. James Glen Stovall, "Incumbency and News Coverage of the 1980 Presidential Election Campaign"	170
	Excerpt 12. Fred Smoller, "The Six O'Clock Presidency: Patterns of Network News Coverage of the President"	183
9.	Elite Interviewing  Excerpt 13. John H. Kessel, "The Structures of	193
	the Carter White House"  Excerpt 14. John H. Kessel, "The Structures of	196
	the Reagan White House"	202
10.	Mathematical Modeling  Excerpt 15. Marcus E. Ethridge, "Collective Action,	210
	Public Policy, and Class Conflict"	216
11.	Comparative Research Methodology  Excerpt 16. M. Kent Jennings, "Gender Roles and Inequalities in Political Participation: Results from	225
	an Eight-Nation Study"	230
12.	Univariate Analysis: Statistics of a Single Variable  Excerpt 17. Fred I. Greenstein, "The Benevolent Leader Revisited: Children's Images of Political Leaders in	245
	Three Democracies"	248
13.	Bivariate Analysis: Statistics of Two Variables  Excerpt 18. Edward R. Tufte, "The Relationship between	266
	Seats and Votes in Two-Party Systems"	269
14.	Multivariate Analysis: Statistics of More Than Two Variables	278
	Excerpt 19. Thomas R. Dye, "Taxing, Spending, and Economic Growth in the American States"	284
15.	Scientific Principles in Political Study: Some Enduring Controversies	293
	Index	305

#### CHAPTER 1

# Introduction: A Science of Politics

We do scientific research on politics for many reasons. Sometimes the impetus for research stems from an interest in a specific political problem. In other cases, we study government because of its impact on something important to us, like domestic political stability, economic prosperity, or national security. Some political inquiry is driven by a concern about ethical or moral values. And increasingly, political research is carried out for personal gain, as when a candidate surveys his or her image among registered voters or a multinational corporation hires a consultant to assess political stability in a country selected as a potential site for a major new manufacturing facility. Common to all these efforts is an underlying belief that scientific research can enhance our understanding of politics.

# Scientific Thinking and Politics

Most of our thinking about politics is not based on scientific evidence. Rather, we guess at the answers to most political questions—Who will win the election? Will women desert the Republican party?—using arguments or facts we happen upon. A great deal of our thinking about politics is concerned at least as much with values—about what ought to be—as with facts. We call such questions *normative* questions. Should government protect our privacy? Does government have an obligation to provide free medical care? These are questions that have not one but many answers depending on the views and values of the person responding.

Scientific thinking about politics is quite different. It is different from the haphazard guesses that most of us engage in, and it is also different from purely normative analysis, no matter how sophisticated or well informed. Scientific thinking about politics is based on the principles used in scientific research. Science is best understood as a process in which reasoned propo-

sitions about the world are formulated, precisely stated, and then tested through empirical observation. Scientific thinking differs from our pre-scientific guesses in that it is systematic and thorough; it differs from normative analysis in its emphasis on *empirical* (concrete or real world) observation and in its focus on what is, rather than on what ought to be. Political research based on such thinking is called *scientific political research*.

Three distinguishing characteristics of scientific political research are objectivity, verifiability, and quantification. Scientific research is objective in that its methods are designed to produce results that are unaffected by the prejudices of the researcher. Results can be interpreted very differently, of course, but the results themselves should be a reflection of actual conditions, characteristics, or behaviors as observed by any informed researcher. If one researcher finds that states with competitive party systems spend more on welfare than other states, other researchers should be able to obtain the same result. In contrast, normative political analysis often involves considerable subjectivity; the values, opinions, and beliefs of each analyst become an intrinsic part of the analysis itself.

Scientific political research is also verifiable, in that it is based on propositions that are supported by observable facts. By itself, it cannot provide us with an answer to a question such as "Do the rich deserve to be taxed at a higher rate than the poor?" Our answer to a question of this type must ultimately be based on value judgments. What empirical research can do is help us identify a variety of facts we may find useful in arriving at an answer. Empirical research can, for example, tell us whether wealthy people spend a smaller proportion of their income on food than poor people do. The verifiability of findings from empirical research makes progress in our understanding of politics possible; inaccurate suppositions are discarded as they are disproven by observation.

As we shall see in Chapter 2, verifiability is particularly crucial when our objective is to identify and explain causal relationships. For this reason, we must be certain that our propositions are clearly stated. Likewise, they must be falsifiable, or capable of being disproven. Verifiability requires that empirical research focus on statements that are either true or false and which, if false, can be shown to be so by the available evidence.

The third characteristic of scientific research is quantification. Scientific research normally involves quantification for two important reasons. First, many research questions involve comparisons of the magnitude of certain qualities or conditions, or the frequency of certain behaviors. We want to know how voter turnout changes over time or varies with social class; the differences, if any, in the political attitudes and opinions held by different ethnic groups; and how levels of military preparedness vary from one country to another. The point is that we are normally not interested in

simple yes or no questions—"Is the socialist system of government efficient?"—but in questions that have to do with how much or how much more (or less): "Is socialism more efficient than capitalism?"

Quantification is also common in scientific political research because it facilitates the use of powerful statistical tools that can significantly enhance our understanding of politics. If we are interested in knowing the extent of a particular candidate's support within a particular district, for example, one way to determine this would be by talking with passers-by in a local mall or reading the local newspaper. While this could prove valuable, we could make far more meaningful comparisons of the candidate's support over time and across different income and ethnic groups by employing modern survey research techniques featuring carefully designed questionnaires and scientifically constructed samples. Similarly, by employing such techniques for slightly different purposes, researchers are able to construct and test increasingly sophisticated models of the influences that shape public opinion, thus greatly extending our knowledge of politics. Quantification, therefore, makes it possible for us to employ statistical techniques such as correlation, regression, and other measures of association that in turn facilitate more meaningful and precise findings than would otherwise be possible.

As we will discuss at greater length in the concluding chapter, these three distinguishing characteristics of the scientific study of politics—objectivity, verifiability, and quantification—are a continuing source of controversy. A common criticism is that the claim of objectivity is merely a cloak beneath which the researcher's biases, both conscious and unconscious, are hidden. Another critique is that an emphasis on quantification leads to oversimplification and distortion of the concepts under study. In general, critics of scientific political research tend to claim that politics is so complex and so intrinsically related to fundamental values that any effort to apply scientific methods ultimately produces nothing but confusion or unimportant truths. However, most political scientists, including myself, feel that these problems are not insurmountable; they are issues of which we must be aware, but they do not make useful research impossible.

# An Overview of the Research Process

Scientific political research is often designed to do more than simply describe facts or characteristics. While it can help us determine whether rich people vote more regularly than poor people, and if so, by how much, such information is of limited value unless we also know why this is true. When scientific research attempts to identify the underlying causes of observed facts or relationships, it moves from the de-

scriptive to the analytical or explanatory.

Science is ultimately an attempt to explain: its objective is to find out why something happens, not merely to describe what happens or measure its magnitude. Thus, while much scientific work involves observation and measurement, real scientific progress occurs when our findings help us to increase our theoretical understanding of politics.

# The Role of Theory

Theory has been defined as "a collection of interrelated, warranted assertions about something . . . [in which] at least two (and usually more) fairly abstract concepts are related to each other through a series of lawlike statements" (Leege and Francis 1974; p. 4). When researchers offer an explanation of some political phenomenon, that explanation often takes the form of a discussion of how their findings confirm, disprove, or amend theory. It is through the development of theory that science seeks to explain things.

Scientists are not the only ones who use theory to explain, nor is scientific training a prerequisite to theory construction. Using our general understanding of politics, economics, and perhaps a bit of folk psychology, most of us could construct a preliminary theory of voter turnout. Our first step would probably be to list the factors we believe influence a person's decision to vote. Our second would be to attempt to identify and describe the significant relationships among those factors. The result would be a theory of voting behavior complete with a list of factors (variables) and lawlike statements linking those factors. While necessarily less sophisticated than the theories we might find in the literature on voting behavior, our "theory" would nonetheless possess the same basic attributes as its more sophisticated counterparts. It would also share with them the same basic purpose—to explain.

All theory is not created equal. One of the essential characteristics of a good theory is that its predictions must be clear and unambiguous. A theory that can be reconstructed or interpreted so it always accounts for facts that appear to disprove it is useless. As Abraham Kaplan explained, such a theory will tell "us nothing whatever about the world for it remains true no matter what is the case in the world" (Kaplan 1964; p. 100). As we have noted earlier, scientific research must focus on statements which, in principle, are either true or false, not both.

Of course, even useful theories can be misapplied in ways that generate nonverifiable hypotheses. Consider, for example, the case of a therapist who, applying Freudian theory, diagnoses a disturbed boy as suffering from an Oedipal complex (a romantic attachment to his mother) and predicts the boy will attempt to kill or injure his father only to discover subsequently that the boy is especially kind to his father. Suppose too that our therapist then defends his original diagnosis by explaining that the boy's Oedipal complex, instead of leading him to commit patricide, has forced him to deny his feelings of jealousy by acting in an exemplary manner toward his father—and thus avoid confronting the awful fact of his love for his mother.

However plausible at first glance, the net effect of this type of thinking is to make our therapist's hypotheses nonverifiable. If the boy kills his father, he is Oedipal. If he does not kill his father, he is Oedipal. Alas, the problem is not always hypothetical, and it most certainly is not restricted to attempts to employ Freudian theory.

Another critically important test of a good theory is its *generalizability*. Findings that apply to a single case are often a very useful—even a necessary—beginning point that can suggest a great deal to us about the theoretical notions under consideration. Normally, however, the value of a theory is a function of its generality.

Consider the following. Political observers have long recognized that Republican candidates are more popular with voters in New Hampshire than in Massachusetts. This fact is interesting, and it is certainly useful when making election predictions in these two states. In and of itself, however, it is of little value in explaining voting behavior elsewhere. If, however, we were to investigate further and to find that certain general factors—say population density and industrialization—account for these differences in voting behavior, we would have increased the generality, and the value, of our results. Now our findings could be used to help us account for voting behavior not only in Massachusetts and New Hampshire but in other states and at other times. By increasing the generalizability of our findings, we would have also enhanced the value of their contribution to theory.

Of course, theories vary in the extent of their generalizability. Our findings about the effects of population density and industrialization on partisan voting behavior in New Hampshire and Massachusetts, for example, might be relevant to an explanation of voting behavior in the United States but not to a general theory of voting behavior that applies to voters throughout the world. This is perfectly acceptable. While the ultimate aim of political science is to formulate a general theory of politics that would apply to all societies, most of our theories are far less general in scope. Nonetheless, they remain theoretical because they contain law-like statements that identify and describe relationships between two or

more concepts across some specified range of cases.

# The Special Problem of Causation

Confirming the existence of causal relationships is the ultimate objective of scientific research. This is a most difficult task. In political science, it may even be impossible, as we will discuss in the concluding chapter of this book. Nonetheless, there are ways in which the skilled researcher can maximize his or her ability to confirm the existence of causal relationships. In general, these ways involve the researcher's plan of attack, or research design, a concept that we will discuss in more detail in Chapter 2.

In scientific research, any causal relationship involves two or more *variables*. Variables, as the name implies, are characteristics which vary. We can, therefore, define them as characteristics that take on different values over time or across cases. Any characteristic that varies can become a variable. Size, shape, color, level of income, and standardized test scores are all examples of potential variables.

There are two important types of variables in a causal relationship, independent and dependent. *Independent variables* are factors or characteristics that we have reason to believe cause changes in some other factor(s) or characteristic(s) under study. *Dependent variables* are factors or characteristics that the independent variable presumably affects. To put it another way, the independent variable is the variable whose value determines (in whole or in part) the value of the dependent variable. Thus, if we were to hypothesize that a worker's starting salary level is determined by the level of his or her education, our independent variable would be the worker's level of education, e.g., high school, college, etc. Our dependent variable would be his or her starting salary.

Generally speaking, we can demonstrate causation if we can show that (a) changes in the independent variable precede the predicted changes in the dependent variable,

(b) the changes in the dependent variable are related in some nonrandom way to, or are associated with, changes in the independent variable, and

(c) no other independent variables are responsible for the observed changes in the dependent variable. Meeting the first two of these requirements is relatively easy in most political research. Meeting the third is often profoundly difficult.

Consider, for example, a study of politically active citizens, all of whom have recently joined one or more political organizations and also display high feelings of political efficacy. (People with high feelings of political efficacy are people who have confidence in their own ability to understand and participate effectively in political affairs.) Observing such people, we

might be tempted to conclude that joining a political organization leads to high feelings of political efficacy, in which case our independent variable would be joining a political organization and our dependent variable would be level of political efficacy. Without further evidence, however, it would be equally plausible to assert the reverse, that a high level of political efficacy leads to joining a political organization. Clearly then, it is crucial to establish the sequence of events before we can be certain we have discovered a causal relationship.

Once we have established that changes in the independent variable occur prior to changes in the dependent variable, we can use relatively straightforward statistical procedures to determine whether the observed changes in our two variables are associated in some way. If, for example, we find that subjects in our study with high scores on the independent variable also have high scores on the dependent variable, we have discovered a *positive* relationship. If high scores on the independent variable are associated with low scores on the dependent variable, we have a *negative* relationship.

Of course, we also may discover that there is no apparent relationship between our two variables. If, for example, we find that the dependent variable scores for those cases scoring highest on our independent variable are about the same as the dependent variable scores of all other cases, we would be likely to conclude there is no relationship at all between the two variables.

It is important to meet all three of the criteria for causality before claiming to have discovered a causal relationship. Many studies have shown that people who are heavy smokers (the independent variable) have a high incidence of lung cancer (the dependent variable). As long as we can be certain that the smoking behavior normally occurs before the lung cancer develops, we have satisfied two of the three requirements for demonstrating causality.

As the Tobacco Institute is fond of reminding us, however, the discovery of a strong relationship between changes in the independent variable (level of smoking) and changes in the dependent variable (incidence of lung cancer) is not sufficient to establish causation, even when the changes in the independent variable clearly precede changes in the dependent variable. Such a relationship may be *spurious*.

A spurious relationship is one caused by some variable other than the independent variable (or variables) we have observed and measured. It is, in other words, always possible that a third variable (or variables) may be responsible for the changes we observe in both the independent and dependent variables. For example, insurance statistics regularly indicate that Buick LeSabre station wagons have a very low accident rate. We might

conclude from this that Buicks are inherently safer than other cars, that owning a Buick *causes* the low accident rate observed among Buick owners. General Motors could hardly be blamed for wanting us to think so.

However, after a moment's reflection, most of us might rightly suspect that the low accident rate is actually attributable to another variable—differences in the driving habits of those who own different types of cars. After all, how likely is it that drivers with aggressive or dangerous driving habits will be attracted to Buick station wagons? Thus we might conclude that it is the varying safety-consciousness of the drivers involved (a third variable) that leads both to Buick ownership and to the driving habits that produce lower accident rates. The relationship between the car itself and the accident rate is apparent rather than real; in other words, it is spurious.

As we shall discuss at greater length in Chapter 2, the task of ruling out spurious relationships is best dealt with at the research design stage. Good research designs deal with this problem in one of two ways. The first, experimental design, involves the creation of two comparable groups—an experimental and a control—to equalize any extraneous influences and thereby eliminate the possibility that something other than the independent variable is responsible for any observed changes in the dependent variable. However, such designs are relatively uncommon in political research. The second, and far more common approach, is through a quasi-experimental design that simulates experimentation either by gathering additional data or employing statistical methods to help the researcher control for spurious influences. Effectively employed, either approach makes it possible to identify the proportion of variation in a dependent variable that can be attributed to changes in the independent variable.

# Hypothesis Construction and Operationalization

Political research does not begin in a vacuum. Invariably, it is influenced by theory for it is through theory that we seek understanding. Similarly, when our objective is to explain or investigate causal relationships, our research design must take the special requirements involved into consideration. The task then becomes one of determining how well our theory fits the real world of political behavior.

The first step in that process is *hypothesis construction*. Hypothesis construction is the translation of theories into testable propositions. The objective is to determine if the hypotheses logically derived from our theory can be confirmed by observation. If so, our research findings will have supported our theory. If not, if our observations are inconsistent with our hypotheses, our theory will have to be revised or rejected.

In constructing a testable hypothesis, one of our first tasks is to translate