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11

Aligning Ontology and Methodology in Comparative Research

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Some of the liveliest debates about methodology in the social sciences center on comparative research. This essay concentrates on comparative politics, a field often defined by reference to the use of a particular "comparative method," but it also bears on sociology, where there is active controversy about methodological issues. I use the term "methodology" to refer to the means scholars employ to increase confidence that the inferences they make about the social and political world are valid.[1] The most important of these are inferences about causal relationships, where the object of a methodology is to increase confidence in assertions that one variable or event (x) exerts a causal effect on another (y).

One of the curious features of contemporary debates is that they pay more attention to methodology than to issues of ontology.[2] "Ontology"

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[1] I refer to both "internal" and "external" validity, where the former refers to confidence that the relationship the researcher posits between x and y actually exists in the case at hand and the latter refers to confidence that, ceteris paribus, the same relationship exists in other cases as well (see Cook and Campbell 1979). Although a mainstream formulation, this definition of methodology is deliberately oriented to the issues on which the essay concentrates and so is somewhat restrictive. Social science also involves other tasks, such as the development of theory and the establishment of limiting cases, to which a set of methodological issues not covered here apply.

[2] There are a few exceptions to this assertion, including the pioneering work of Ragin (1987, 2000). In sociology, there is also a lively debate about epistemology, which I define as the study of what we can know. It is inspired by interest in scientific realism and postmodernism and touches, at points, on issues of ontology (cf. McDonald 1996; Goldthorpe 1997; Archer et al. 1998).

refers to the character of the world as it actually is. Accordingly, I use the term to refer to the fundamental assumptions scholars make about the nature of the social and political world and especially about the nature of causal relationships within that world. If a methodology consists of techniques for making observations about causal relations, an ontology consists of premises about the deep causal structures of the world from which analysis begins and without which theories about the social world would not make sense. At a fundamental level, it is how we imagine the social world to be.

Used as it is here to refer to a set of assumptions, of course, an ontology is a theoretical construct, and the line between it and the "theories" of social science is a fine one. However, I use the term to refer to especially fundamental assumptions about the causal structures of the social or political world that may or may not be explicit in a theory but are always implicit in the "middle-range" theories on which most comparativists concentrate. In this respect, ontologies are analogous to the "socioeconomic machines" that Cartwright (1997) posits as the indispensable antecedent for more specific causal statements. Many theories about a phenomenon, such as stable democracy, neocorporatist arrangements, or political tolerance, share the same overarching ontology, but different theories can also reference different ontologies.

Ontology is ultimately crucial to methodology because the appropriateness of a particular set of methods for a given problem turns on assumptions about the nature of the causal relations they are meant to discover. It makes little sense to apply methods designed to establish the presence of functional relationships, for instance, if we confront a world in which causal relationships are not functional. To be valid, the methodologies used in a field must be congruent with its prevailing ontologies. To some this will seem obvious.

However, my analysis is motivated by the observation that a substantial gap has opened up between the methodologies popular in comparative politics and the ontologies the field embraces. Comparative politics is a river with many currents but, as Lijphart (1975, p. 165) notes, there has been "a postwar trend in comparative politics" toward statistical methods, based preeminently on the standard regression model.[3] Influential texts now give priority to such approaches, and many scholars have become critical of other methods (Geddes 1990; King, Keohane, and Verba 1994;

[3] The current popularity of pooled cross-sectional time series regressions is one manifestation of this trend.

Goldthorpe 1997). Over the same period, the ontologies of the field have moved in a different direction: toward theories, such as those based on path dependence or strategic interaction, whose conceptions of the causal structures underlying outcomes are at odds with the assumptions required for standard regression techniques and conventional comparative method to provide valid causal inferences (cf. Bates, Greif, Levi, Rosenthal, and Weingast 1998; Pierson 2000a). The ontologies of comparative politics have substantially outrun its methodologies.

The purpose of this essay is to reexamine the alignment of ontology and methodology in comparative politics with a view to establishing the magnitude of the problem and potential solutions for it. It begins with a brief account of the development of the field in order to show how ontologies and methodologies developed in tandem. I then examine the contemporary divergence between ontology and methodology in more detail. After reviewing several responses to that divergence, I argue that small-*N* research designs based on systematic process analysis offer considerable potential for resolving the dilemmas posed by this divergence. I conclude by noting the implications of these developments for conventional understandings of case studies and the comparative method.

The Development of Ontology and Methodology in Comparative Politics

A complete survey of how the intricate relationships between ontology and methodology developed in comparative politics is beyond the scope of this essay. However, a synoptic review will illustrate how these two sides of scholarship developed in tandem. At the cost of some simplification, we can see how the field has moved to its current crossroads.[4]

The Initial Institutionalism

As Eckstein (1963) points out, the modern field of comparative politics originated with the study of constitutions and legal systems. This was the original "institutionalism." The approach focused on the formal institutions of governance and, while appropriately cynical about their more ceremonial features, tended to assume that one could say most of what needed to be

[4] For more extensive reviews of theoretical developments in the field of comparative politics see Eckstein and Apter (1963), Bill and Hardgrave (1973), Chilcote (1981), and Lichbach and Zuckerman (1997).

said about the politics of a nation by describing its legal system and national history (cf. Bagehot 1867; Wilson 1890; Friedrich 1950; Eckstein and Apter 1963). From the perspective of causality, the ontology underlying the field was circumscribed. Although the natural world was said to be governed by lawlike regularities, the institutions of the political world were seen primarily as the product of national histories. In this respect, the incipient field of comparative politics was less developed than those of sociology or economics, where Marx, Weber, Durkheim, Marshall, and others had begun to posit general causal forces driving social and political outcomes.

The methods adopted by the pioneers in this field were appropriate to such an ontology. Their analyses were largely descriptive, often idiographic in the sense that they sought a complete understanding of one case rather than generalizations that could travel across cases, and their orientation was frequently normative. Where the early comparativists engaged in causal explanation, they adopted the methods of historians focused on detailed narrative about the chain of events leading up to a phenomenon. Cross-national comparison concentrated primarily on formal institutions. Although the study of American politics became more sophisticated in the interwar years, following the paths blazed by Bentley (1908), Lasswell (1936), and Schattschneider (1935), the ambitions of comparative politics remained circumspect. Its methods were appropriate to its ontology, but the latter militated against systematic cross-national generalization.

The Comparative Revolution

In this context, developments in the field during the 1950s and 1960s were genuinely revolutionary. Although often construed as methodological, they were initially ontological. Following American studies that found whole new dimensions to politics hidden beneath the formal governmental system, in the clash of social interests and the operation of political machines, the field expanded its conception of what lay within the purview of political inquiry. Seeking terms with which to characterize the broader ambit of this new politics, Easton (1953, 1965) and Almond (1956; Almond and Powell 1966) turned for inspiration to Parsons's (1951) view of social relations as structured patterns of roles and beliefs fostered by an overarching social system (cf. Merton 1949). They emerged with a concept of the "political system" whose operation was structured not only by governmental institutions, but by a wide range of formal and informal relationships among individuals, rooted in the secondary associations of a nation or its political

culture, understood as a set of values or attitudes often affective or normative in nature (Almond and Verba 1963). This expansion in the scope of political inquiry was the first key postwar development revolutionizing the study of comparative politics.

The second was a movement toward views that saw the political world in terms normally applied to the natural world, namely, as a sphere governed by causal relationships that take the form of lawlike regularities operative across space and time. With this ontological shift, the new political science became a nomological inquiry, oriented to the discovery of causal generalizations expected to hold across a diverse range of cases. Explanation was construed as a process of identifying "covering laws" under which specific cases could be subsumed; and causation was usually understood, in conventionalist terms, to imply something like logical necessity or, in empiricist terms, as constant conjunction, that is, to denote the fact that wherever one finds x one finds y (Hume 1748; Hempel 1965; Nagel 1961; Moon 1975). Comparative politics found a new mission.

The third development central to ontological shifts of the 1950s and 1960s, drawing on biology rather than physics for inspiration and not entirely compatible with the others, was the growing popularity of functionalist conceptions of causation. Generally speaking, a functionalist view assumes that the presence of a phenomenon can be explained by its consequences (Elster 1983). The presence of a specific set of political institutions, for instance, might be explained by the contribution it makes to the efficient functioning of a social or political system. The holism characteristic of postwar views of the political system encouraged functionalist perspectives. If the polity forms a coherent whole of interrelated parts, it is but a short step to see the relationships among these parts as functional ones.

These ontological shifts encouraged a set of methodological developments that continue to influence the discipline today. They led many to attach new importance to comparative inquiry. If the character of political institutions or endeavor is to be explained as the requisite of an overarching political system, one needs general knowledge about how such systems operate that cannot be based entirely on a single national case. The new emphasis on finding causal laws valid across time and space sent scholars in search of diverse cases from other venues in which to test their propositions. For more than a decade, some of the most exciting work in the discipline was sponsored by the SSRC Committee on Comparative Politics that developed a famous set of propositions about modernization

based on the transformation of "traditional" societies into "modern" ones (Lerner 1958; Apter 1965; Binder et al. 1971; Chilcote 1981, ch. 7). Scholars soon produced a large literature on political regimes (Almond and Powell 1966; Greenstein and Polsby 1975). Characteristically, these works tied political science closely to sociology by linking political developments to a range of other social phenomena. The drive was to characterize phenomena around that world that were once seen as distinctive in terms that were genuinely comparable so that national cases could be subsumed under general theories of modernization, revolution, democracy, or political stability.

In methodological terms, this project attached high value to effective concept formation and the development of cross-national taxonomies (Holt and Turner 1970; Frey 1976; cf. Collier and Adcock 1999). Eckstein (1965) argued that the formation of effective typologies is a central methodology of comparative politics, and lively debate ensued about the level of abstraction at which one's concepts and typologies should be pitched (cf. Sartori 1970; MacIntyre 1978).

Contemporary interest in functionalism reinforced the taxonomic emphasis of the field. Scholars attempted to specify the functions a polity had to perform in order to be effective and the institutions that performed such functions. Political development was often approached as a problem of specifying the processes any nation would experience en route to stable democracy and of comparing such conceptions with the paths nations actually followed. Lively debate ensued about whether the timing of a process, such as industrialization, would affect its impact (Gerschenkron 1962; Binder et al. 1971; Grew 1978).

In one of the most influential methodological statements of the time, Verba (1967) described the methodology appropriate to comparative politics as one of "disciplined, configurative inquiry," construed as a search for systematic patterns of similarity and difference in the features of political systems transcending idiographic studies that privilege full description of the distinctive features of a polity. Comparative inquiry was distinguished by efforts to relate the features of each nation to a set of categories and causal mechanisms designed to apply across nations. The key challenge, as Verba identified it, was one of characterizing the relevant developments in terms that do not do distort their contextual character but still locate them within the categories of an overarching theory (cf. Verba 1971). This challenge remains a touchstone for comparative politics, one amplified by George's (1979) call for "structured, focused comparison."

However, the field was bedeviled by problems intrinsic to functional analysis. It is easy to posit functional relationships but difficult to establish their causal force relative to other factors. Visions of the polity as a system in equilibrium foundered on fuzziness about how equilibrium is distinguished from disequilibrium and on the apparent ease with which new equilibria could be attained. Where some saw stability, others saw flux. Functional equivalence became a major problem for explanation: if several institutions can perform the same function, it is difficult to explain the presence of any one of them by reference to those functions (Merton 1949). To cope with such problems, the categories of functional analysis became increasingly abstract, and, faced with their growing elasticity, scholars began to demand that the field move down the conceptual "ladder of abstraction" to focus on middle-range categories with limited fields of denotation that were more closely connected to actual events (Sartori 1970).

The Comparative Method

In the face of withering critiques, functionalist analysis was discredited during the 1960s and 1970s, and the ontology of the field shifted again. Political scientists began to move away from holistic conceptions of the polity and from the previous focus on complex interaction effects among its parts. More of them began to embrace the view that the ultimate causes for political outcomes lie in individual behavior. Structural-functionalist images of the causal structures in the political world gave way to "variables-oriented" images in which variation in a "dependent" variable is said to be caused by variation in another set of variables construed as ones that vary independently of the variable to be explained and of each other. The search remained a nomothetic one, focused on discovering causal regularities, but those regularities were now construed in new terms.

The methodologies of comparative politics changed in tandem with these shifts in ontology. The influential textbook by Przeworski and Teune (1970) exemplifies the methodological emphasis of the era. It reflected growing interest in the methods of agreement and difference devised by Mill (1872) that establish the existence of a causal relationship between two variables by comparing cases that are similar in all respects except for the values taken by the two variables of interest or that differ in all relevant respects but the correspondence among such variables. Reflecting the interest in political explanations rooted in individual-level behavior popular at that time, Przeworski and Teune evinced a preference for the latter, which they

termed a "most different systems" design, because it allows one to examine relationships among variables below the level of the nation or system in a diverse range of contexts. Building on the work of Smelser (1966, 1976), this book substantially advanced the practice of what became known as the "comparative method" – the method normally applied when a small number of cases are being examined, namely, in small-*N* research designs.

The quintessential expression of the comparative method was provided by Lijphart (1971, 1975), whose views exemplify what became the dominant understanding in the field. Lijphart defined the comparative method by contrasting it to two other methods. The "experimental" method is one in which investigators actively alter the variables with which they expect to explain an outcome in cases randomly assigned to a treatment group, comparing the outcomes there with those in cases randomly assigned to a control group where the relevant variables have not been altered. This is a powerful method for testing causal inferences, but it is rarely practical in the sphere of comparative politics, where Lijphart suggested that the best substitute would be the "statistical" method. Practitioners of the statistical method inspect a large number of cases showing various combinations of values on a number of explanatory variables and calculate the partial correlations between them and a dependent variable, using the rules of probability to establish the likelihood that each potential explanatory variable has an effect on the dependent variable as well as the magnitude of each effect.

Lijphart's conception of the comparative method was deeply influenced by his framing of it. This framework led him to see the comparative method as one analogous to the statistical method and different from it largely because only a small number of cases are inspected. Again, the bases for that inspection are Mill's methods of agreement and difference.[5] The investigator looks across a range of cases for the similarities in explanatory variables that would explain similarities in outcomes or for difference on one or two explanatory variables that would explain corresponding differences in outcomes. The key point is that, as portrayed by Lijphart and most others, the comparative method is essentially correlational. It bases inference about causal relations on covariation between a dependent variable and a small set of independent variables, and inspection of the cases is used primarily to determine the presence or value of such variables in them.

[5] Lijphart (1971, p. 688) notes, as have many others (cf. Smelser 1976, pp. 62, 141), that neither Mill nor Durkheim believed these methods could be applied in the social sciences, but he rejects their objections for being "founded on too exacting a scientific standard."

This conception of how small-*N* comparison should be conducted and of the comparative method became highly influential. It conditioned both the character of debate and the gradual methodological movement in the field. Construed in these terms, the comparative method is a distinctly fragile one for establishing causal inferences, fraught with problems of "omitted variable bias" that arise when one has many variables and few cases to consider (Lieberson 1985). The method yields strong inferences only if the explanatory variables can be seen as "necessary" or "sufficient" causes of the relevant outcome and causal relations as deterministic, even though scholars now tend to view many such relations as probabilistic.[6] Lijphart (1971, 1975) responded heroically to these concerns, suggesting several ways to improve comparative research designs, essentially by increasing the number of cases, reframing the variables to reduce their number, or focusing on cases that provide "critical" tests for a theory. But it is not difficult to see why he and many others concluded that "because the comparative method must be considered the weaker method, it is usually advisable to shift to the statistical method if sufficient cases are available for investigation" (1975, p. 165).

This stance set the tone for much of the subsequent debate. Some scholars have suggested important refinements to the comparative method, and many continue to rely on it (Campbell 1975; George 1979; Skocpol and Somers 1980; Collier 1991). But there is a growing tendency to regard statistical methods as superior for establishing causal inferences (Geddes 1990; King et al. 1994; Goldthorpe 1997). In practice, this means a heavy emphasis on regression analysis. The vast majority of studies in comparative politics employing statistical techniques use some form of regression analysis, whether probit, logit, generalized, or ordinary least squares. The drive to secure enough cases to employ such methods now leads many scholars to privilege studies based on pooled cross-sectional time-series data.

The Contemporary Dilemma

What then is the contemporary dilemma facing the field? Standard regression analysis and the comparative method understood in conventional terms

[6] This follows whether causal relations are ontologically probabilistic, i.e. operative only in a certain proportion of the cases, or deterministic but observable only in a proportion of the observations because of errors in measurement or research design. The problem arises because, if *x* causes *y* in only 80 percent of the cases, when we find one or two cases of *y* without *x*, we do not know whether *x* does not cause *y* or whether these cases are part of the exceptional 20 percent.

provide strong bases for causal inferences only when the causal structures in the world to which they are applied conform to an exacting set of assumptions. Both methods imply specific ontologies.

The comparative method requires especially demanding assumptions. It provides effective tests only where the world conforms to a Humean ontology that associates causation with constant conjunction or where the causal variables being sought are necessary causes of an outcome, that is, so important to it that they must be present for that outcome to occur (see Braumoeller 2000).

Regression analysis is more flexible. It is well adapted to an ontology that envisions probabilistic causation and, given enough cases, it can cope with some interaction effects (cf. Jackson 1996). However, the types of regression analyses commonly used to study comparative politics provide valid support for causal inferences only if the causal relations they are examining meet a rigorous set of assumptions (see Wallerstein 2000). In general, this method assumes unit homogeneity, which is to say that, other things being equal, a change in the value of a causal variable x will produce a corresponding change in the value of the outcome variable y of the same magnitude across all the cases. It assumes no systematic correlation between the causal variables included in the analysis and other causal variables omitted from it but correlated with the dependent variable. It assumes that all the relevant interaction effects among the causal variables have been captured by interaction terms in the regression. It assumes that the cases are fully independent, such that the values of the causal variables in one case are unaffected by the value of the causal variables or outcomes in other cases.[7] Although instrumental variables can sometimes be used, most regression analyses assume that there is no reciprocal causation, that is, that the causal variables are unaffected by the dependent variable.

In short, the comparative method, as it is usually understood, and the standard regression models employed in comparative politics make strong sets of assumptions about the nature of the causal relations they are being used to examine. They do not assess causal relationships well if the world does not conform to that ontology.

The problem is that the world may not have this causal structure. Even when the standard regression model was on the rise, some argued that it did

[7] In other words, most such analyses assume no "diffusion effects" of the sort to which Galton drew our attention. Although there are techniques for assessing such effects, they are used rarely in comparative political inquiry.

not (Macridis 1968; Wolin 1969; Richter 1970). In recent years, however, more and more of the models embraced by comparative politics violate the assumptions about causal structures that must be valid if methods based on the standard regression model or conventional comparison are to be valid. Consider how different the complex models now advanced to explain transitions to democracy are from the parsimonious generalizations of an older literature about the conditions for stable democracy (cf. Lipset 1959; O'Donnell and Schmitter 1986). The causal relationships on which scholars now focus are different from those posited two decades ago, and many acknowledge forms of multicausality that previous work ignored.

Ragin's (1987) pioneering work identifies many of these causal complexities under the rubric of "multiple conjunctural causation" (see also Lieberson 1985). In most cases, the problems arise from *interaction effects* among causal or contextual variables that standard analyses tend to assume away.[8] Traditional methods focused on identifying a set of independent variables ($x_1 \ldots x_n$) that exert consistent causal effects on an outcome (y) tend to miss the following types of causal relationships:

i. We find instances in which an increase in x (level of economic development) causes an increase in y (movement toward democracy) in some cases but does not have this effect in others, where y is caused by an entirely different set of variables, w.
ii. We find cases in which an increase in x (social democratic governance) is associated with an increase in y (social spending) at one point in time, t_1, but not at another point in time, t_2.
iii. We find instances in which an increase in x (social protest) causes an outcome y (government turnover) in some cases but an entirely different outcome (repression) in other cases.
iv. We find instances in which an outcome y (successful wage coordination) depends on the value of many other variables – v (union density), w (social democratic governance), and x (social policy regime) – whose values are in turn jointly dependent on each other.
v. We find cases in which increases in x (support for democracy) increase y (the stability of democracy) and in which increases in y also tend to increase x.

[8] Here as elsewhere in this essay, I adopt a variables-oriented approach to causation both to relate recent approaches to older ones and because I believe it remains the most fruitful perspective on causation. But readers should note the literature that rejects this approach in favor of others, including case-oriented approaches (cf. Ragin 1987, 2000).

If causal structures of this sort were unusual, it might be feasible to relegate them to the realm of the unknowable in order to concentrate on simpler relationships that can be assessed. But growing numbers of scholars have concluded that these types of causal structures are common features of the political world. Some of the most prominent theories in comparative politics now understand the world in terms that do not conform to the assumptions required by standard regression analysis. Two major lines of theorizing are especially important. Each is distinctive and influential among a different group of scholars, but both advance ontologies that pose singular problems for conventional methods of analysis.

The first of these two lines of theoretical development regards political outcomes as the result of strategic interaction among actors of a sort that can often be modeled by noncooperative game theory. Now applied to many issues, this perspective sees political outcomes as the result of chains of choices that the actors make in response to each other through iterated rounds of interaction. At each point in time, the choices of the actors may be influenced by the presence of specific types of institutions, but the latter rarely specify a unique equilibrium. As a result, the outcome usually depends on a further set of conditions – social, economic, or cultural – that can be complex or evanescent. In the tree diagrams of games presented in extensive form, there are many branches. A shift in the conditions underpinning strategic choice at one juncture can have radical effects on later outcomes. As a result, although some elements of these theories, including conjectures about the equilibrium impact of various types of institutions, can be tested using standard comparative analysis, it is usually difficult to reduce the chains of causation envisioned by such theories to a simple set of independent variables (cf. Knight and Sened 1995; Milner 1998; Bates et al. 1998).

The second line of theory that is transforming our understanding of causal structures is advanced by an influential literature about path dependence (Collier and Collier 1991; Thelen 1999, 2000; Mahoney 2000a; Pierson 2000a). Although their views about how path dependence should be defined and what propels a unit along a path vary, analysts taking this perspective tend to agree on two points with serious implications for causal analysis. First, they agree that causal developments of great import for the character of an ultimate outcome often occur early in the long causal chain that leads to that outcome, perhaps even in the distant past. If the impact of subsequent developments in all the relevant cases were homogeneous across them, this observation would not be a major problem for

conventional methods: variables representing early developments could be incorporated into a standard regression analysis. However, path-dependent approaches to politics usually advance a second contention. They suggest that a key development in the distant past (whether a fateful choice or a crucial event) often affects a case so deeply that it alters the impact of subsequent developments there, thereby vitiating the assumption that such developments x, y, z can be expected to have the same impact across cases. In effect, this is a contention that interaction effects occur over time and can multiply.

Among analysts of path dependence, there is debate about whether the key developments are typically contingent or predictable and whether they occur mainly at critical junctures that are broadly transformative in character or at multiple points in time, with effects that are initially incremental but increase over time. However, path-dependent images of the world challenge traditional methods because they contend that early developments can change the context of a case so radically that subsequent developments will have different effects in each of the cases. Interaction effects build up over time, carrying cases down such different paths that it becomes unreasonable to suppose that an x occurring today has the same effect, y, across all settings.

In short, theories of strategic interaction and of path dependence both see the world not as a terrain marked by the operation of timeless causal regularities, but as a branching tree whose tips represent the outcomes of events that unfold over time (cf. Sewell 1996). If this is true, the timing of a particular development can matter a great deal to its effect. The sequence in which developments occur becomes important to the effects that they generate (Pierson 2000b; Thelen 2000; cf. Binder et al. 1971). The prototypical contention is that the impact of x will depend on whether it occurs before or after w. The effect of industrialization depends on whether it occurs in the late eighteenth or nineteenth century (Gerschenkron 1962). The overarching premise is that context matters: the impact of x will rarely be independent of the value of other variables (u, v, w), and contextual heterogeneity is a function of events unfolding over time.

Theories of path dependence explicitly draw our attention to the importance of history. They imply that current outcomes can rarely be explained by reference only to the present or the immediate past. But theories of strategic interaction also reference a chain of iterated choices, often extending into the distant past. Both approaches militate against analyses into

which past developments are simply imported as an independent variable because they imply that the causal impact of such developments depends on where they are located within the historical chain.

Although claims of this sort pose profound challenges to mainstream analysis, they have a great deal of intuitive plausibility. Six years of social democratic governance in the 1930s had a lasting impact on policy regimes, but it almost certainly did not have the same impact as six years of social democratic governance in the 1980s. Moreover, because the impact of social democratic governance can be conditioned by other factors, it may not be the same across cases even at one point in time.[9] When the effects of a few variables are very strong and measurable in a substantial number of cases, regression analyses can assess some of these types of interaction effects. In practice, however, the interaction effects are often so complex and the data so limited that regression analysis cannot test the relevant propositions. Many analysts simply assume them away.

The new theories in comparative politics based on strategic interaction or path-dependent models of the world also carry implications for what can be said to constitute adequate explanations for a given political outcome. This is an issue about which social scientists can disagree. Weber (1949), for instance, argued that an explanation for a particular set of events is adequate only if it can account for the views that contemporary participants had of those events. Friedman (1968) argued just the opposite: that an explanation is adequate if it predicts subsequent occurrences of the events regardless of whether it portrays the beliefs and motivations of the actors accurately. One of the principal divisions in such debates falls between those who believe explanation requires a relatively full account of the developments leading up to an outcome and those who believe that a good explanation is parsimonious, that is, one that cites only a few causal variables (Shively 1974, p. 15; Abbott 1988; cf. Bennett and George 2001). Historians are closely associated with the first view, and political scientists are often associated with the second.[10]

For many years, a substantial number of scholars of comparative politics have seen explanation as a matter of attaching weights to a small set of

[9] See the observation of Donald Winch (1989) that the economic policies of the Swedish social democrats were deeply conditioned by the conclusions they drew from watching the efforts of a British Labour government that preceded them.

[10] For illuminating discussions that explore some of the similarities between explanation in history and social science, see Bennett and George (in press).

causal variables seen as consistent predictors of a given outcome. Ontologies that saw the political world as a sphere governed by immutable causal regularities based on a few forceful causal variables, often socioeconomic in nature, were conducive to such views. Methods based on regression analysis and conventional forms of comparison reinforced this stance because they produced precisely these kinds of results. During the formative moment in the field that occurred during the 1960s and 1970s, scholarly views about ontology, methodology, and appropriate modes of explanation converged into a cohesive package with continuing influence.

Because they advance new ontologies, however, theories of path dependence and strategic interaction are also shifting conventional conceptions of what constitutes adequate explanation in the field of comparative politics. If important political outcomes depend not on a few socioeconomic conditions but on complex chains of strategic interaction, they cannot be explained except by reference to that chain. If contemporary outcomes reflect the outermost tips of a branching tree of historical developments, allusions to one or two causal variables of putative importance will not constitute an adequate explanation for them. Accordingly, parsimony is no longer seen as a key feature of explanation in political science, and views about what constitutes an acceptable mode of explanation have shifted toward the historical (cf. Shiveley 1974; King et al. 1994, p. 20; Bates et al. 1998).

In sum, our ontologies have outrun both our methodologies and standard views of explanation. Comparative politics has moved away from ontologies that assume causal variables with strong, consistent, and independent effects across space and time toward ones that acknowledge more extensive endogeneity and the ubiquity of complex interaction effects. Many scholars now see the world in terms that do not conform to the assumptions required if standard regression methods are to provide valid tests of causal contentions. Many substantive problems now seem to involve reciprocal causation. Scholars are positing interaction effects too complex to model fully in regressions. Some argue that the impact of causal variables is so context dependent that it is meaningless to assume unit homogeneity, and that multicausality is so important that it does not makes sense to focus causal analysis on the identification of individual independent variables (cf. Ragin 1987, 2000).

Given these developments, scholars of comparative politics must now search for new methods. But which ones should they adopt? It is to this problem that I now turn.

Toward Solutions

There is no single solution to the methodological quandaries posed by contemporary ontologies. That they pose genuine dilemmas is reflected in the growing range of responses from thoughtful scholars. A full review of these responses is beyond the scope of this essay, but I will survey a few of the most prominent ones.

Some Recent Proposals

Some eminent analysts of major social and political processes have reacted to such problems by proposing a shift in the focus of inquiry away from the search for direct explanations of macropolitical outcomes such as revolutions, modernization, and regime change that were once the subjects of grand theory in the field and toward a lower level of analysis where the effort is to identify recurrent microlevel processes that contribute to many such outcomes (Tilly 1995). Although the rationale for this move is multifaceted, many argue that major political events are generated by causal processes that are so complex or context dependent that they cannot be explicated in general terms. Instead, analysis should concentrate on "social mechanisms" construed as basic forms of human behavior or recurrent forms of collective action that are constitutive components of the causal chains leading to broader political outcomes (Elster 1998; Hedström and Swedberg 1998; cf. Mahoney 2001). The premise is that such mechanisms appear with sufficient frequency to be feasible objects of generalization and carry enough causal significance to merit the interest shown in them. There are advantages and disadvantages to this approach. The new focus promises useful analyses of collective action, but it is difficult to greet a retreat from the search for direct explanations of such important outcomes without regret (cf. Katznelson 1997).

Others are attempting to improve statistical analyses in order to cope with the problems afflicting standard regression approaches. Some are exploring new ways in which to estimate interaction effects, using structural equation models, for instance, to overcome problems of endogeneity (Jackson 1996; Franzese 2001). Others suggest that scholars in the field of comparative politics should draw from a wider statistical repertoire, either making more use of familiar techniques, such as discriminant analysis, or devising new ones, such as agent-based modeling (Braumoeller 2000; Cederman 1997). Some argue that statistical analysis should invariably be combined with in-depth investigation of the cases, careful attention to how

cases distribute themselves across the relevant cells in a tabular analysis, and greater effort to account for the residuals (Shalev 1998). Statistical analysis that is attentive to such matters certainly has a role to play in the understanding of causal complexities.

A third approach to the types of ontological issues identified here has been devised by Ragin (1987), who was one of the first to draw attention to such problems. He is especially concerned about "multiple conjunctural causation," broadly speaking, the possibility that an outcome may be caused not by the same one or two variables operating in all cases independently of other variables, but by diverse combinations of factors, each operative in some of the cases. Noting that the parameter estimates of regression models do not normally identify such effects, he has sought techniques to specify which combinations of factors constitute necessary and/or sufficient conditions for the occurrence of a particular outcome. Ragin has devised techniques in which the researcher divides the cases into sets according to their values on the outcome of interest and the values taken by potential explanatory variables, with a view to identifying the frequency with which particular combinations of explanatory variables are associated with a given outcome. He elaborates a Boolean algebra for reducing these comparisons to manageable summaries and, in a recent advance, increases the level of information that can be included in such analyses by adopting a "fuzzy-set" approach to the construction of categories that allows the variables to take on continuous values (Ragin 2000).

This approach offers many insights. It is especially effective for revealing how conditions combine to generate particular outcomes and for assessing which conditions are necessary or sufficient for these outcomes. Standing between the conventional comparative method and regression analysis, Ragin's approach draws strengths from each. The fuzzy-set approach, for instance, demands deeper knowledge of the cases than standard regression analysis does but offers conclusions that are often richer. From the perspective of this essay, however, it should be noted that these methods retain a key feature of regression analysis and of the comparative method conventionally understood: they test causal inferences largely through inspection of covariance across cases between a few explanatory variables of theoretical interest and the outcomes to be explained.[11]

[11] Although Ragin (1987) contrasts his case-oriented approach to a variables-oriented approach, to draw out some of its distinctive features, I use the language of variables here to describe the basic features of the approach.

At its edges, Ragin's (1987) analysis can be interpreted in radical terms, as one that rejects the concept of causal *variables* in favor of seeing social science as an enterprise that compares *cases* by building up accounts of the cases whose generality lies in the categories the analysis generates and the grouping of the cases into sets that represent distinctive causal trajectories. Movement in this direction takes the field back toward the "disciplined, configurative analysis" characteristic of the best work of the 1960s. Those who criticized the studies of this era for being "merely descriptive" missed the generalizing power of works that identified new types of political phenomena and created general concepts for them that could be applied across nations.[12]

In the face of these ontological shifts, some scholars would go even further to press fundamental critiques of positivism that view the search for variables with consistent causal force across national settings as a fruitless enterprise. Influenced by "critical realism' and "constructivist" approaches to the social world, many have become skeptical about the categories of political analysis, sensitive to how the objectives of the analyst influence them, and more interested in explanations that focus on the interpretations actors develop of their own world (Somers 1996; Archer et al. 1998; Wendt 1999; cf. Abbott 2001). There is much to be said for such views.

Even this brief survey shows that there is no easy consensus about the methods available to the field of comparative politics today. Issues that have long lain just below the surface of the field have become prominent again, partly because new ontologies have come to the fore. Rather than conclude with a statement about dilemmas, however, I want to take some steps in the direction of solutions. In essence, I will argue for the usefulness of a method, based on small-*N* comparison, that has long been available to the field but underappreciated because small-*N* comparison has too often been seen as a terrain for the application of "weak" versions of the statistical method rather than as one on which a robust but different kind of method can be practiced.

My claim is not that this method is superior to all others, even for coping with the structures of causality implied by recent theoretical shifts in the field. To justify such a claim would require an extended discussion that is not

[12] Stanley Hoffmann's (1963) magisterial analysis of Third Republic France is a case in point. Although focused on a single case, his account of how a "stalemate society" was constituted and how that regime worked offers insights that reorganized thinking about many other nations and categories that can be applied to many regimes.

possible here, and, as I have indicated, one can make several methodological moves in response to the new ontologies. However, this method has the advantage that it does not depart radically from the mainstream positivism of contemporary political science. It retains a "variables-oriented" approach to causal relationships, and it can readily be embraced by the mainstream of the field, even if others will prefer a different route. However, this method also offers advantages over the standard regression model or the conventional comparative method for assessing the types of causal relationships posited by the new ontologies of comparative politics. Indeed, I suggest that we reframe our understanding of the "comparative method" applied to comparison across a small number of cases in order to place this method at its center.

Systematic Process Analysis

I term the method I have in mind "systematic process analysis." It bears some resemblance to the approaches described by Campbell (1975) as "pattern matching" and by George and McKeown (1985) as "process tracing" (Collier 1991, p. 23; Mahoney 2000b; Bennett and George in press). Because I want to outline the requisites of the method in highly specific terms, with which some of these scholars might disagree, however, I adopt a distinctive label for it. The method is far from new: with some variations, it has long been practiced to great effect by more than a few analysts (cf. Moore 1966; Skocpol 1979; Collier and Collier 1991). But it is undervalued by a field mesmerized by a standard regression model whose limitations are now becoming clear.

To understand what systematic process analysis entails and to appreciate its value, it is useful to recall the fundamental character of (social) scientific inquiry, as specified by the mainstream positivism that dominates the field. From this perspective, social science is an effort to identify the causal factors (or variables) that tend to produce a particular kind of outcome. One begins such an inquiry by formulating a set of theories that identify the relevant causal factors and how they operate, along with a rationale for their operation generally couched as deductions from more general contentions about the world based both on previous observations and on axiomatic premises. From each theory, the investigator then derives predictions about the patterns that will appear in observations of the world if the causal theory is valid and if it is false, with special attention to predictions that are consistent with one theory but inconsistent with its principal rivals so as to discern

which among a set of competing theories is more likely to be valid.[13] Relevant observations are then made of the world (past or present) using a range of technologies and the specialized body of advice associated with their use. By general agreement, the investigator should seek as many and as diverse a set of observations as possible (cf. King et al. 1994, ch. 6). The patterns present in these observations are then inspected for consistency with the predictions of each of the relevant theories with a view to reaching a judgment about which causal theory is superior to the others.

Because observations are never fully independent of the theories they are being used to test, as Lakatos (1970; Kuhn 1970) reminds us, this judgment entails drawing simultaneous conclusions about the accuracy of the observations and the value of the theory. A theory with substantial deductive power that has survived many anterior observations might not be rejected simply because it is inconsistent with recent observations. Instead, the adequacy of the observations (in terms of measurement, sampling, and the like) must be weighed against the attractiveness and plausibility of the theory.[14] The theories may be refined and further observations made before one theory is declared superior to another. Progress in social science is ultimately a matter of drawing fine judgments based on a three-cornered comparison among a theory, its principal rivals, and sets of observations.

Although this is a very brief synopsis of the social scientific enterprise, missing some nuances and open to challenge from those with radically different conceptions of science, it should be uncontroversial for the mainstream positivist. Therefore, it is important to note that nothing in this account implies that the only observations relevant to testing a theory are ones drawn on the values of the outcome (or "dependent" variable) and on a small set of variables designated the ultimate "causes" of that outcome (often termed "independent" variables).[15] Observations on the latter will be

[13] Note that when I use the term "predictions," I refer not only (or even primarily) to future developments but to predictions about patterns observable in data gathered about past events.

[14] This point raises the important issue of what criteria should be used for judging the adequacy of a theory, especially when the observations are not congruent with it, as well as issues about what criteria should be used for judging observations. But discussion of these issues is beyond the scope of this essay.

[15] It can be argued that if the purpose of social science is primarily to generate predictions about the future, it may be useful to focus on the association between a small set of (independent) variables and an outcome. However, this is a rationale based on contentions about the *purpose*, rather than the *nature*, of social science; and many argue that the principal objective of social science is to understand the world, with prediction a secondary exercise

valuable, but a viable theory should also generate predictions about many other facets of the case on which observations can be drawn to test the theory. In particular, good theories specify a set of causal processes associated with the operation of particular variables. These include predictions about the events that can be expected to occur, the sequence of those events, and the public and private positions actors are likely to take, as well as many other features of the relevant causal chain.

The basic point should be clear: observations bearing on a theory's predictions about the process whereby an outcome is caused provide as relevant a test of that theory as predictions about the correspondence between a small number of causal variables and the outcomes they are said to produce. This is true even when the main object of the theory is to identify a small number of "causal variables" because even such an argument about causes must specify a process whereby these ultimate causes generate the outcome.[16] The explanatory power of a theory rests, in large measure, on the specification of such a process. Given the movement in comparative politics toward ontologies that envision multiple interaction effects, this point becomes especially significant. The validity of arguments about path dependence or strategic interaction can often be assessed only by comparing predictions about process to observations of process in the cases at hand (cf. Bates et al. 1998).[17]

In short, systematic process analysis examines the processes unfolding in the cases at hand as well as the outcomes in those cases. The causal theories to be tested are interrogated for the predictions they contain about how

at best. Others argue that even if the purpose of social science is prediction, that objective is best served by developing theories that comprehend complexity and can withstand tests that extend beyond inspection of the correlations between a putative set of causal variables and an outcome.

[16] It is not enough, for instance, to say that the "presence of social democrats in government" explains the "development of neocorporatist arrangements." To have explanatory power, any theory to this effect must contain some account of the causal chain whereby one leads to the other. As Waltz (1979) points out, a theory consists of substantially more than a set of hypotheses.

[17] I take this to be the fundamental point of Bates et al. (1998), which is another example of the search now underway in the discipline for methods appropriate to the new ontologies. There are many respects in which their account parallels mine, although my conception of systematic process analysis puts more emphasis on ensuring an even confrontation among rival theories deliberately rendered as brittle as possible and on searching for observations that test the full range of a theory's postulates, including assumptions about attitude and motivation that form part of the (untested) core heuristic of the rational choice theories in which Bates et al. are primarily interested (cf. Lakatos 1970; Elster 2000).

events will unfold. The point is to compare these predictions with observations drawn from data about the world. The theory should be rendered as "brittle" as possible against observations and other theories, that is, it should be formed so as to yield predictions that could be shown to be false by available data and that are distinguishable from the predictions of rival theories. As usual, the analyst should seek as many and as diverse a set of predictions and observations as possible. In general, this means predictions not only about ultimate outcomes and the general shape of processes but about the specific actions expected from various types of actors, statements that might reveal their motivation, and the sequences in which actions should occur.[18] When other things are equal, a theory that survives tests against more observations and more observations of different kinds is more likely to be valid than one that is tested on a smaller or more homogeneous set of observations (cf. King et al. 1994).

The systematic process analyst then draws observations from the empirical cases, not only about the value of the principal causal variables, but about the processes linking these variables to the outcomes. Because each theory is being tested against others, the investigator should focus special attention on phenomena about which the predictions of the theories diverge. This is not simply a search for "intervening" variables. The point is to see if the multiple actions and statements of the actors at each stage of the causal process are consistent with the image of the world implied by each theory.[19]

In the final stages of the investigation, the observations drawn from the cases are compared with the predictions of the theories and a judgment about the superiority of one theory over the others is made, largely on the basis of congruence between predictions and observations. If there are

[18] This injunction runs counter to the argument of Friedman (1968) that theories should be judged primarily by the adequacy of their predictions about ultimate outcomes without inspecting the realism of a theory's assumptions about the actors' motivations. Although systematic process analysis leaves open the possibility that a theory might be accepted because of the superiority of its predictions about outcomes, even if its assumptions about motivation are untested or apparently unrealistic, I argue that the realism of a theory's assumptions should be assessed on the grounds that it is difficult enough to test one theory against another without denying the investigator this basis for comparison. Testing in social science should make full use of available information.

[19] Although systematic process analysis does not necessarily entail it, the perspective suggests some sympathy for Weber's (1949) argument that the researcher should ask whether the theory is consistent with evidence about the meanings the historical actors themselves attributed to their actions.

reasons to doubt the adequacy of the data or to attach high value to a theory that seems contraindicated, further observations can be made in existing cases or new cases examined to improve the judgment.

Although process tracing has sometimes been denigrated as a simple injunction to "study history," it should be apparent that systematic process analysis is a very different project from the one in which most historians engage. It demands examination of the histories behind outcomes but one guided more extensively by theory than are most of those undertaken by historians. Although every researcher should remain open to serendipitous discovery, this enterprise is not an inductive one. It is focused on the testing of propositions derived from a deductive process of theory formation. Moreover, the results yielded by this kind of investigation are quite different from those sought by most historians. If they seek explanations, historians generally seek relatively complete accounts for a particular set of events, usually couched in the form of detailed narratives that spell out all the antecedent events relevant to the one they want to explain within a richly embroidered context. Systematic process analysis, by contrast, is an effort to elaborate and assess the validity of theories capable of explaining a broad class of events or outcomes. It seeks generalizations that are both more simple and more portable than those at which historians typically aim. Despite points of tangency between the two enterprises, they are distinct (cf. Roberts 1996; Bennett and George in press).

Reconsidering Case Studies and the Comparative Method

This analysis contains important implications about the value of case studies and about how the comparative method should be understood. The role of the case study has been obscured for years by pervasive confusion about what constitutes a case and what constitutes an observation pertinent to the testing of theory. The origins of this uncertainty go back to the pioneering articles of Eckstein (1975) and Lijphart (1971) when it was often assumed that the only observations pertinent to the testing of a theory were those based on observations of a dependent variable and a few independent variables cited to explain it. From this perspective, where the outcome of interest was a system-level variable, the concept of a case could be assimilated to a single observation.

From such formulations, many scholars concluded that research based on a single case study has no role to play in causal inference: after all, there is little basis for causal inference when one can make only a single observation.

Eckstein (1975) argued that one could use a single case to falsify a theory by identifying a "crucial case" in which a theory is "most likely" to hold if it is valid anywhere; but others pointed out that this is viable only when causes are deterministic, rather than probabilistic, and when testing claims about "necessary" causes (Lieberson 1992, p. 117). Many retreated to the claim that single case studies are useful for generating new hypotheses or refining theories, by virtue of their inductive richness, but not for testing causal propositions. The result has been pervasive skepticism about the value of case studies, despite a revival of interest in them (cf. Ragin and Becker 1992).

To dispel the confusion surrounding these issues, a sharp distinction must be drawn between the concept of a *case* understood as a single unit where the outcome being investigated is unit-level variation and the concept of an *observation* understood as a piece of data drawn from that unit and pertinent to the theories being examined.[20] A single unit may provide only one observation on the principal outcome of interest, but it can yield a diverse array of other observations pertinent to the testing of a theory, including ones bearing on the causal processes specified by the theory. In other words, when systematic process analysis is applied to them, single case studies have an important role to play in the testing of causal theories. As Campbell (1975) noted some years ago, because they allow for more careful measurement and the tracing of causal processes, which statistical methods cannot normally accommodate, single case studies can be superior to aggregate analysis for testing some theories.

The implications of this analysis for small-*N* comparison are equally striking. They suggest that small-*N* comparison is far more useful for assessing causal theories than conventional understandings of the "comparative method" imply. As I have noted, the comparative method is often treated as a subsidiary version of statistical analysis, in which the only important observations to be drawn from the cases are taken on the values of the dependent variable and a few explanatory variables (cf. Lijphart 1971, 1975). From this perspective, because the number of pertinent observations available from small-*N* comparison is seriously limited, the analyst lacks the degrees of freedom to consider more than a few explanatory variables, and the value of small-*N* comparison for causal inference seems distinctly limited.

[20] King et al. (1994) are attentive to this distinction. In general, the concept of a case study should be used to refer to the study of a single case as defined here, although some use the term loosely to refer to a study of a nation, region, organization, or other unit that may encompass many cases.

However, we need not see small-*N* comparisons or the comparative method exclusively in these terms. Instead of viewing comparison primarily as an exercise in correlating a few independent variables with a dependent variable, we should understand the comparative method as a technique in which inspection of this kind is combined with systematic process analysis of the cases. Precisely because such research designs cover small numbers of cases, the researcher can investigate causal processes in each of them in detail, thereby assessing the relevant theories against especially diverse kinds of observations. Reconceptualized in these terms, the comparative method emerges not as a poor substitute for statistical analysis, but as a distinctive approach that offers a much richer set of observations, especially about causal processes, than statistical analyses normally allow. As a method, it is especially appropriate to the ontologies of comparative politics in recent years.

My point is not to denigrate statistical analysis but to suggest that research based on small-*N* comparison can be substantially more useful than many acknowledge. The emphasis in systematic process analysis on considering multiple types of observations builds fruitfully on practices in the natural sciences. Few biologists would consider their theories adequately tested if they examined only macrolevel correlations between ultimate outcomes and a few causal factors. Even when they cannot apply experimental methods, natural scientists normally seek many kinds of observations pertinent to the causal processes they are studying.[21] So should social scientists.

When should scholars apply systematic process analysis and when should they use regression analysis? Much will depend on the character of the theories to be tested and the ontologies they imply. Standard regression methods will be especially useful when the cases available are large in number and genuinely independent of each other, the relevant outcomes heavily dependent enough on a small set of causal variables that are independent of each other and so powerful that their impact shows up consistently across cases, and the relevant interaction effects limited enough to be modeled within the available degrees of freedom. In many studies, statistical techniques may be useful for assessing some aspects of the causal relations specified by a theory, while systematic process analysis is employed to test other aspects of those relations.

As Abbott (1988) observes, however, the conditions required for effective regression analysis are often not met. In such contexts, systematic

[21] I owe this point to a comment of Paul Steinberg.

process analysis can have distinctive value. It allows scholars to assess more complex causal processes and to move beyond modes of explanations that turn on statistically significant coefficients and relatively thin causal theories toward ones that contain more extensive specifications of causal processes (cf. Archer et al. 1998; Mahoney 2001). In these respects among others, small-*N* comparison based on systematic process analysis offers substantial potential for resolving the methodological dilemmas posed by the new ontologies of comparative politics.

Conclusion

This essay considers the relationship between ontology and methodology in comparative research. Although the relationship is always a crucial one, I have argued that the dilemmas facing comparative politics today are especially intense because its ontologies have outrun its methodologies. Many important theories in the field are now based on ontological views that see political outcomes as the result of causal processes in which distant events, sequencing, and complex interaction effects play important roles. However, the most prominent methodologies in the field are still based on a standard regression model that was more appropriate to the ontologies of thirty years ago, when many theories implied that political phenomena are caused by a few powerful factors operating independently of context and with roughly similar force everywhere. Modernization theories built on socioeconomic determinants provide a classic example.

I have reviewed several responses to this dilemma, each with some promise and some with radical implications for how we do research. But I have also argued that the field has long had available a methodology appropriate to the new ontologies, which I label systematic process analysis. Taking seriously the principle that "correlation is not causation," this methodology assesses the adequacy of a theory not only by inspecting key causal variables and outcomes but by comparing a theory's predictions about causal processes with multiple observations about such processes in the cases at hand. The method puts substantial demands on theories, asking that they do more than specify a few causal variables, and distinctive requirements on empirical research, asking investigators to make multiple kinds of observations about how events unfold over time.

This perspective emphasizes the value of research designs based on case studies and small-*N* comparison. For too long, such research designs have been seen as weak variants of statistical analysis. When used as a site for

systematic process analysis, however, intensive comparison of a small number of cases can provide rigorous assessments of any kind of theory, and such research designs are indispensable for assessing theories of comparative politics whose ontologies specify complex causal structures incompatible with the assumptions required by regression analysis. I have also suggested that it is time to reconceptualize the comparative method. We should see it not as another version of the statistical method, but as a form of comparison that entails systematic process analysis. Seen in this light, the comparative method emerges as a powerful technique, and one used by scholars for some time with excellent results.

Although I have emphasized the limitations of regression analysis, especially in the face of new ontologies, I am not suggesting that it should be abandoned. For some types of problems, statistical methods have great value. The point of this essay is not to narrow the range of methods used in comparative politics but to argue that we should expand them. Social science is a difficult endeavor. We perceive the world only dimly, and all techniques for testing causal theories are imperfect. In this context, we need more, not fewer, weapons in our methodological arsenal, including those based on case studies, small-*N* comparison, and historical analysis.

My ultimate objective is to suggest that, when choosing research designs in comparative inquiry, we should pay as much attention to what I have called ontology as we normally do to methodology. The value of a method will depend on its congruence with causal structures in the world. The field of comparative politics will be stronger if those who work within it can transcend the separation that often occurs between discussions of methodology and ontology to give careful consideration to issues of ontology before deciding what method is appropriate for the problems at hand.

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Conclusion