

Introduction

VICTORIA E. BONNELL AND LYNN HUNT

Since World War II new intellectual fashions in the social sciences have emerged in rapid succession. For all their variations, until recently they generally fell into two broad categories: research paradigms¹ that proposed to organize the study of society on the model of the natural sciences and those approaches that belonged to the interpretive and hermeneutic tradition, with its emphasis on human subjectivity and contextual meaning. Important works of scholarship appeared in both categories, but among American social scientists, the dominant trend has been to provide a better key to social explanation, and social explanation was often understood to be a version—however imperfect—of scientific explanation.

Whether derived from classical economics, Marxism, or some version of modernization theory, most new theories and methods claimed for themselves a special purchase on understanding the mainsprings, if not the laws, of social life. The means might differ from what came before, but the ends and the presuppositions of inquiry remained much the same. Prominent among those presuppositions was the conviction that interdisciplinary work offered the best prospect for the final integration of the social sciences.

In the course of the past two decades, the confidence of the social sciences has been sorely tested. The scientific search for presumably objective or at least impartial explanations of social life has been queried on every front: the social sciences have been criticized as not scientific, not objective, and indeed not in the business of explanation. Not only is there disagreement about the paradigm to be chosen to organize social scientific research, but there is even controversy about whether such research should be organized and about whether a unifying paradigm is a good thing. The epistemological, disciplinary, political, and even moral foundations of the social sciences are very much at issue.

Many different forces have combined to alter the terrain on which social scientists go about their business. To grasp the context and significance of these developments in the 1980s and 1990s, we must remember what preceded them. While intellectual trends can seldom, if ever, be attributed to a single cause, there can be little doubt that movements advocating "civil rights, antiwar, welfare rights, and parallel movements for the rights of women and others—placed both agency and history back on the agenda" in the 1960s and 1970s.² In those years, social history attracted many practitioners among historians and a small but growing number of historical sociologists. By the early 1980s, however, new modes of analysis had begun to displace social history, inaugurating what come to be known as the linguistic or cultural turn.³

It is not possible to identify a single author or text that precipitated the shift in orientation, but in 1973 two books appeared that profoundly influenced the orientation to the study of culture among American social scientists. Hayden White's *Metahistory: The Historical Imagination in Nineteenth-Century Europe* made the case that all historical texts, regardless of the type of research and methodology, are basically constructed by the author in "a poetic act." Drawing on the work of literary scholars Kenneth Burke and Northrop Frye, among others, he argued that the historian's deep structure of thinking prefigured the field of research by the selection of a linguistic mode, that is, a tropological strategy. The linguistic mode, in turn, shaped other aspects of the research design, including the modes of emplotment and explanation. White can be considered "the patron saint" of the cultural turn that was just getting under way.⁴

Clifford Geertz's phenomenally influential volume, *The Interpretation of Cultures: Selected Essays*, also appeared in 1973.⁵ This collection, containing essays originally published between 1957 and 1972, has had a singular impact on how social scientists think about culture. Geertz used his extraordinary gifts as a writer to make the case that "the culture of people is an ensemble of texts"; the task in studying culture, he argued, is to use a semiotic approach "to aid us in gaining access to the conceptual world in which our subjects live so that we can, in some extended sense of the term, converse with them."⁶ Geertz's work led to a reconfiguration of theory and method in the study of culture—from explanation to interpretation and "thick description." Henceforth, symbols, rituals, events, historical

artifacts, social arrangements, and belief systems were designated as “texts” to be interrogated for their semiotic structure, that is, their internal consistency as part of a system of meaning. In Geertz’s well-known formulation: “Believing, with Max Weber, that man is an animal suspended in webs of significance he himself has spun, I take culture to be those webs, and the analysis of it to be therefore not an experimental science in search of law but an interpretive one in search of meaning.”⁷

During the 1970s, when social history was still attracting many eager practitioners among historians and historical sociologists, a remarkable array of seminal books appeared that altered conceptions of the “social” and the “cultural.” In addition to the 1973 works by White and Geertz, important studies by Roland Barthes, Pierre Bourdieu, Jacques Derrida, Marshall Sahlins, Raymond Williams, and especially Michel Foucault changed the intellectual landscape.⁸ English translations of two major works by Foucault (*The Order of Things: An Archaeology of the Human Sciences* and *The Archaeology of Knowledge and the Discourse on Language*) appeared in the early 1970s, but it was the 1977 English translation of *Discipline and Punish: The Birth of the Prison* that first brought many social scientists into contact with his work. His concept of discourse and his “radical form of cultural interpretation that combined features of both structuralism and phenomenology, the leading methodological alternatives for sociologists seeking a path away from positivism,”⁹ exerted particularly far-reaching influence on social scientists.

During the 1980s and 1990s, cultural theories, especially those with a postmodernist inflection, challenged the very possibility or desirability of social explanation. Following the lead of Foucault and Derrida, poststructuralists and postmodernists insisted that shared discourses (or cultures) so utterly permeate our perception of reality as to make any supposed scientific explanation of social life simply an exercise in collective fictionalization or mythmaking: we can only elaborate on our presuppositions, in this view; we cannot arrive at any objective, freestanding truth.

Poststructuralism and postmodernism have come under attack; but twenty-five years after Geertz and White published their highly acclaimed works, attentiveness to culture remains a distinctive feature of much of the research undertaken by historians and sociologists. The impact of the cultural turn can be gauged from a 1996 ret-

respective in *Contemporary Sociology*, the American Sociological Association's journal of reviews, commenting on the "ten most influential books of the past twenty-five years." Editor Dan Clawson explains in his introduction the decision of the editorial board "to focus on social science influence, including influence on both academic disciplines and the world."¹⁰ Three of the ten books—Geertz's *Interpretation of Cultures* (1973), Foucault's *Discipline and Punish* (1977), and Bourdieu's *Outline of a Theory of Practice* (1977)—are foundational works underlying and facilitating the turn to cultural forms of analysis. The evident importance of Bourdieu for sociologists—he introduced the concepts of "habitus" and "cultural capital" into the social science lexicon and "played a major role in bringing cultural analysis back into the center of sociological analysis in general"—has no parallel among historians, perhaps because Bourdieu's research is mainly focused on contemporary topics.¹¹

The cultural turn and a more general postmodernist critique of knowledge have contributed, perhaps decisively, to the enfeebling of paradigms for social scientific research. In the face of these intellectual trends and the collapse of communist systems in Eastern Europe and the former Soviet Union, Marxism as an interpretive and political paradigm has suffered a serious decline. The failure of Marxism has signaled a more general failure of all paradigms. Are the social sciences becoming a branch of a more general interpretive, even literary activity—just another cultural study with claims only for individual authorial virtuosity rather than for a more generally valid, shared knowledge?¹²

Some of the social sciences, at least in the United States, have proved very resistant to postmodernism or cultural critique. Economists and psychologists have clung stubbornly to their scientific claims, the former by emphasizing mathematical modeling and the latter by emphasizing their links to biology. Rational choice theories and formal modeling are becoming increasingly central for political scientists. Historians and sociologists, by contrast, have been much more receptive to the cultural turn without embracing, however, the most extreme relativist or anti-positivist arguments of anthropologists or literary scholars. It is this midpoint that interests us in this volume: the sometimes uncomfortable middle between disciplines regarded, or regarding themselves, as securely and immutably scientific and disciplines that see themselves as resolutely interpretive,

closely tied to the creative arts, and definitely not modeled on the natural sciences.

Although the cultural turn has swept through the precincts of both historians and historical sociologists, practitioners of these disciplines have not always moved in the same direction; nor has the relationship between these disciplines always been comfortable. In the 1960s and 1970s, historians were encouraged to draw their theories from sociology, particularly the middle-range theories advocated by Robert Merton.¹³ Sociologists, for their part, began turning to historical research in these decades, and many were swept up by the same enthusiasm for social history that animated historians.¹⁴ Despite the greater engagement of historians with sociology and sociologists with history, however, the much-discussed convergence of the two disciplines remained elusive.¹⁵ Several fundamental disciplinary differences continued to separate historians and historical sociologists, the most important being the sociologists' commitment to explicit testing, formulation, and application of social theory and the privileging of comparative analysis.¹⁶ Even more vehemently than historians, sociologists have insisted on the scientific foundations of their research, and they have been somewhat slower than historians to embrace discursive understandings of culture and to undertake research on the various forms of cultural representation.¹⁷

Most of the contributors to this volume, like its two editors, were originally trained in social history and/or historical sociology.¹⁸ Most of them have also participated in some way in the cultural turn of the last decades. The essays and the afterword in this collection consequently demonstrate how historians and sociologists are grappling with the issues raised by cultural analysis. The authors do not offer precise prescriptions, but taken together the essays do point to current concerns and possible future directions for the study of culture.

THE CULTURAL TURN

To situate this introduction, it will be useful to focus briefly on just what constituted the cultural turn in sociological and historical analysis.¹⁹ There is no one answer to this question; indeed, we might have simply said, "Read the essays that follow for different

responses," for each author has a somewhat different understanding of what is at issue. Nevertheless, some general lines of convergence can be discerned: (1) questions about the status of "the social"; (2) concerns raised by the depiction of culture as a symbolic, linguistic, and representational system; (3) seemingly inevitable methodological and epistemological dilemmas; (4) a resulting or perhaps precipitating collapse of explanatory paradigms; and (5) a consequent realignment of the disciplines (including the rise of cultural studies). As will quickly become evident, these are not easily separated one from the other, and it is their mutual interaction and reinforcement that shapes our current predicament.

THE STATUS OF THE SOCIAL

Historical sociology and social history both depended on a seemingly self-evident definition of what constitutes social life.²⁰ The practitioners of both subfields within their disciplines got much of their original purpose and drive from what they opposed. Historical sociologists disputed the dual hegemony within sociology of present-minded empiricism (quantitative survey studies of present social patterns) and theoretical abstraction that relied on formal conceptualization rather than historical study. They sought a more historically nuanced and comparative basis for building and testing social theory. Social historians waged their battles against the traditional disciplinary focus on political elites, political memoirs and official documents, party politics and elections. They focused on lower-class groups and on the previously neglected sources that might provide information about them.

Although their points of departure were different, historical sociologists and social historians converged on the use of social categories made salient by the work of the founders of social theory: Karl Marx, Max Weber, and Emile Durkheim. Workers and artisans, state makers and intellectuals, social deviants and society's dispossessed—the theories and their objects differed but they all provided social categories that could focus historical and comparative analysis. Historians and sociologists alike assumed that the study of social groups, social movements, or ideologies as the expression of social interests would necessarily illuminate the workings of economic trends, political struggles, and religious transformations. While few

were prepared to attribute all these to a conflictual position in the mode of production, in Marxist fashion, nevertheless it appeared only commonsensical to locate individual motivation within a social context of some sort. Thus even if factory workers, for example, did not always prove to be militants in the labor movement, as Marx predicted they would, surely some other *social* explanation could be found for patterns of labor activism. Because they assumed that social context and social attributes gave much of modern Western life its decipherable meaning, historical sociologists and social historians spent much more time studying the effects of social position and social interrelationships than they did querying the meaning or operation of social categories themselves.

Several factors combined to undermine this confidence in social explanation. In his essay, William Sewell, Jr., describes his own dissatisfaction with "hardheaded, utilitarian, and empiricist materialism," his sense that "there was more to life than the relentless pursuit of wealth, status, and power." Perhaps most important, the projects grounded in a commonsense notion of the social did not deliver on their promises. Multimillion-dollar studies of census records, huge collaborative endeavors to investigate everything from medieval religious orders to the incidence of collective violence in the nineteenth century, and thousands of individual case studies came up with contradictory rather than cumulative results. Social categories—artisans, merchants, women, Jews—turned out to vary from place to place and from epoch to epoch, sometimes from year to year. As a result, the quantitative methods that depended on social categories fell into disrepute almost as soon as they came into fairly widespread usage (and were dropped just when they became truly feasible thanks to the personal computer).²¹

Many of the original proponents of the scientific study of the social, perhaps especially among historians, eventually turned away from their early enthusiasms. Some focused instead on singular stories and places, what the Italians call *microstoria*, microhistory. After completing a massive study of the peasantry of southern France in order to trace long-term economic, demographic, and social trends over two centuries or more, Emmanuel Le Roy Ladurie captured public attention with a lively narrative of the sexual mores and familial conflicts in a single village at a particular moment of religious crisis. Natalie Zemon Davis turned from her systematic study of the

social differences between sixteenth-century Protestants and Catholics in Lyon, France, to look at the lives of individually remarkable men and women. Even stalwart defenders of social explanation such as Charles Tilly began to write narrative histories.²² The same story could be—and was—repeated again and again. The social began to lose its automatic explanatory power.

CULTURE AS A SYMBOLIC, LINGUISTIC, AND REPRESENTATIONAL SYSTEM

Frustrated with the limitations of social history and historical sociology—frustrated, that is, by the constraints of a commonsensical, usually materialist notion of the social—social historians and historical sociologists began to turn in a cultural direction and to look at the cultural contexts in which people (either groups or individuals) acted. More and more often, they devised research topics that foregrounded symbols, rituals, discourse, and cultural practices rather than social structure or social class.²³ As we have seen, they often turned to anthropologists for guidance.²⁴ This linguistic turn was further fueled by the emergence first of structuralism and then of its successor, poststructuralism.

The influential French anthropologist Claude Lévi-Strauss incorporated many of the insights of structural linguistics into his work in the 1950s and 1960s and helped spawn a “semiotic revolution,” which increasingly traced all meaning to the functioning of systems of signs or symbols (the “structures” of structuralism). In the structuralist view, culture itself could be analyzed much like a language, and all behavior got its meaning from often unconscious or implicit structural codes embedded in it. As Lévi-Strauss claimed, it was not a question “whether the different aspects of social life (including even art and religion) cannot only be studied by the methods of, and with the help of concepts similar to those employed in linguistics, but also whether they do not constitute phenomena whose inmost nature is the same as that of language.”²⁵ Structuralism or semiotics, as it was often known, soon claimed fields from music to cooking, from psychoanalysis to literature, as its own.²⁶

Poststructuralism (or postmodernism, as it came to be known) originated in a critique of structuralism, as the name suggests. It had been taking shape in France since the 1960s but became more promi-

ment in the 1970s with the growing influence of Foucault and Derrida. Poststructuralism, whether in the manner of Foucault, Derrida, or Barthes, stressed the ways language shapes knowledge and our conception of reality even while criticizing structuralism's emphasis on fixed and highly elaborated structures of meaning. Where structuralism had insisted on its objective, scientific status (still relying on the positivist paradigm), poststructuralism turned its techniques on science itself, thereby raising questions about the objectivity and truth of scientific knowledge. In the poststructuralist view, language or discourse did not mirror some prior social understanding or positioning and it could never penetrate to the truth of existence; it itself configured the expression of social meaning and functioned as a kind of veil between humans and the world around them. Despite their differences, structuralism and poststructuralism both contributed to the general displacement of the social in favor of culture viewed as linguistic and representational. Social categories were to be imagined not as preceding consciousness or culture or language, but as depending upon them. Social categories only came into being through their expressions or representations.

METHODOLOGICAL AND EPISTEMOLOGICAL DILEMMAS

This emphasis on language and culture soon produced some thorny problems about knowledge more generally. If analysis of culture, as Geertz insisted, depended on the interpretation of meaning rather than a scientific discovery of social explanations, then what served as the standard for judging interpretation? If culture or language entirely permeated the expression of meaning, then how could any individual or social agency be identified? Were prisons or clinics, two of Foucault's particular sites of analysis, produced by universally shared mind-sets rather than by concrete actions taken in the interest of certain social and political groups? Could "culture" be regarded as a causal variable and did it operate independently of other factors, including the social or institutional?

To make a long and complicated story overly schematic, the cultural turn threatened to efface all reference to social context or causes and offered no particular standard of judgment to replace the seemingly more rigorous and systematic approaches that had predominated during the 1960s and 1970s. Detached from their previ-

ous assumptions, cultural methods no longer seemed to have any foundation.²⁷

THE COLLAPSE OF EXPLANATORY PARADIGMS

The cultural turn might be viewed as either the cause or the effect of the collapse of explanatory paradigms. Before blaming the turn toward culture for the breakdown of paradigms, however, we should remember that the cultural turn itself came out of a general dissatisfaction with the paradigms, many of them positivistic, that had presided over the establishment of the academic disciplines since the end of the nineteenth century. The founders of history and sociology as disciplines, like other social scientists, justified their endeavors by explicitly modeling their research on the natural sciences. It was perhaps inevitable that this attempt would eventually provoke discontent, whether from those who concluded that the social sciences were not scientific enough or from those who insisted that they should never have aimed to be scientific in the first place.²⁸

The cultural turn only reinforced the sense of breakdown. To some extent research inspired by positivism and Marxism collapsed of its own weight: the more that has been learned, the more difficult it has become to integrate that knowledge into existing categories and theories. The expansion of knowledge itself has ineluctably fostered fragmentation rather than unity in and between the disciplines.

REALIGNMENT OF THE DISCIPLINES

The cultural turn, and the accompanying collapse of explanatory paradigms, has produced a variety of corollaries. One is the rise of "cultural studies," a term that covers a range of analytic approaches including feminist, postcolonial, gay and lesbian, multicultural, and even revived versions of materialist inquiry inspired by British Marxism.²⁹ The most important characteristic of cultural studies is that they depend on a range of explanatory paradigms and deal fundamentally with issues of domination, that is, contestations of power. There is no queen of the cultural studies disciplines and, in fact, they have no necessary disciplinary center. Almost anything can fall under the rubric of cultural studies, since culture plays such a ubiquitous role in its conceptualization; almost everything is cultural

in some way, and culture impacts on everything, so the causal arrow can point in any and all directions at once. In cultural studies, causal explanation takes a back seat, if it has a seat at all, to the demystification and deconstruction of power.

By casting doubt on the central concept of the social, the cultural turn raises many problems for historical sociology and social history, not least the question of their relationship to each other. Yet as scholars in both disciplines confront the issues raised by the breakdown of the positivist and the Marxist paradigms, they may well find common ground again in a redefinition or revitalization of the social. Although the authors in this collection have all been profoundly influenced by the cultural turn, they have refused to accept the obliteration of the social that is implied by the most radical forms of culturalism or poststructuralism.³⁰ The status or meaning of the social may be in question, affecting both social history and historical sociology, but life without it has proved impossible.

Indeed, while dissatisfaction with prevailing paradigms of social scientific explanation helped fuel the turn toward culture, disappointment with some aspects of the cultural turn has produced another shift of direction—not back toward previous understandings of the social but rather forward toward a reconceptualization of the category. One of the important conclusions of this volume is that the social as a category itself requires research: how did historians and social scientists come to give it such weight, how did past societies employ it as a category of understanding, how has the category been lived and remade through concrete activities? Surely it is no accident that much exciting work by younger scholars now focuses on material culture, one of the arenas in which culture and social life most obviously and significantly intersect, where culture takes concrete form and those concrete forms make cultural codes most explicit. Work on furniture, guns, or clothing—to name some of the most striking recent examples—draws our attention to the material ways in which culture becomes part of everyday social experience and therefore becomes susceptible to change.³¹

CULTURE AS CONCEPT AND PRACTICE

The most obvious question raised by the cultural turn is the definition and status of culture itself. Many critics have pointed to the

vagueness of the concept of culture, especially within cultural studies. Is it an aspect of life, like society or politics, or a way of defining a certain set of beliefs and practices, as in Balinese or middle-class culture? If it permeates every other aspect of life (the stock exchange, for example, depends on certain cultural beliefs and practices about money), then how can it be isolated for analysis in a meaningful way? And how can culture, which defines how a group represents itself, also contain the potential for conflict, struggle, and change? William Sewell, Jr., discusses anthropology's own ambivalence about culture and reviews the many meanings of culture in anthropological, sociological, and historical writing. He argues that culture is most fruitfully conceptualized as a dialectic between system and practice. It is a system of symbols and meanings with a certain coherence and definition but also a set of practices; thus the symbols and meanings can and do change over time, often in unpredictable fashion. Rather than simply throw in his lot with those who have recently emphasized the importance of practice, Sewell insists on a necessary tension between system and practice, a tension often erased in the polemics about culture.

"Practice" can be as ambiguous conceptually as culture, of course, and like culture its function is sometimes primarily rhetorical. Scholars emphasize practice in order to oppose what they see as an overly linguistic or discursive definition of culture. But then scholars who concentrated on culture also had their rhetorical purposes: they wanted to challenge the naturalized or commonsensical reliance on materialist social explanation. As Sewell explains, the focus on practice is meant to counter a notion of culture as self-enclosed, static, completely coherent, and impervious to challenge. But he cautions against throwing out all sense of coherence in culture, arguing instead for "thin" coherence, that is, coherence viewed as contested, changing, and not very clearly delimited. The system in culture might not be all that systematic, but it still has its place in any cultural analysis.

There is no one cultural approach, and there seems to be no limit to possible proliferations or mutations. Richard Biernacki nonetheless detects a common philosophical orientation in cultural approaches. In his view, cultural investigators seek nothing less than a real and irreducible ground of the social world. They simply find it

in another place than did their socially minded predecessors. Cultural analysts supplant the social and economic with the cultural and linguistic; "sign" replaces "class" as the key concept of analysis but actually serves the same function. In the process, cultural analysts maintain the belief in a grounding reality and thereby lose sight of the conventionality of their own concepts. They take those concepts, such as sign, for the ultimate constituents of reality rather than for what they are: artificial terms that serve heuristic purposes.

Biernacki concentrates on the practical consequences of this cultural "realism," that is, the belief that culture is an ultimate constituent of social reality. He maintains that it actually blocks the study of cultural differences by assuming culture's organizing power rather than inspiring research to verify that power.³² It also tends to rely on the unexamined metaphor of "reading a text" to explain the deciphering of signs in a culture. Biernacki advocates a cultural approach that is less intellectualist and mentalist and more corporeal (a theme taken up in more than one essay here). But more important, he shifts attention to comparative analysis designed to test the power of culture against other possible explanations. He wants to examine how cultural investigation can explain differences in historical outcomes more effectively than other kinds of analysis. In short, by developing a cultural historical sociology he harnesses a focus on cultural differences to the search for causal explanation. Rather than arguing that the conventionality (the "nominalism") of analytical terms makes all analysis equally fictional, in the manner of post-modernists, Biernacki maintains that a recognition of culture as a "nominal tool" of analysis will liberate it to do the work of social explanation.

Although Biernacki's essay is bound to provoke controversy, it shows that epistemological and even ontological issues are invariably raised by the cultural turn. He himself argues for a nonrealist or nominalist understanding of culture, one which proclaims that there is no ultimate foundation for history or the social sciences (though he does not fully resolve the question of how any method, such as a comparative one, could then be legitimized). Historians and sociologists can no longer retreat to a kind of philosophical know-nothingism; any method, even an emphasis on comparison or non-intellectual practice, inevitably poses fundamental philosophical

problems. It is one of the virtues of the cultural turn to have pushed these issues front and center, and the essays in this volume show that they cannot be easily dismissed.

KNOWLEDGE IN THE SOCIAL SCIENCES

Dialogue among the disciplines depends in part on a strong sense of their differences from each other: exchange is not needed if everything is the same; interdisciplinarity can only work if there are in fact disciplinary differences. Thus a renewed emphasis on disciplinary difference, or "redisciplinarization," seems to be in order. At the same time, historians and sociologists have learned to appreciate the historicity not only of their disciplines but also of their procedures, without thereby giving up on the possibility of objective—that is, verifiable—comparable results. This historicization has opened the way to experimentation with both the objects and the means of study: investigation of micro versus macro levels of analysis, as well as reconfigurations of quantitative methods to study the formation of social categories rather than assuming their defined and fixed existence ahead of time. In sum, interest has been renewed in the social, but now as an object of study rather than as an already-defined presupposition.

Weaving in and out of the debates about culture and the future of the social sciences is science itself. At the same time that some have claimed that the social sciences cannot hope to be scientific, others have argued that even science is not as scientific as it has been cracked up to be. The social history and social studies of science (sometimes known as "science studies") are among the most controversial areas of the social sciences today. This is not surprising, as science has provided the standard of truth in Western culture for several centuries. When science is questioned, truth as a value is put into doubt. If science reflects the play of ideological and subjective interests, then what grounds our notions of objectivity and scientific knowledge?

In other words, science can now be viewed as part of culture, not above it. Margaret Jacob looks at the influence of "social constructionism" in the study of science. She shows how short the step was from the social and linguistic contextualization of science to philosophical relativism: if the work of scientists reflected the social and

cultural prejudices of their settings, then scientific truth did not transcend the social or cultural milieu of its practitioners. In this way, social and historical studies of science prefigured the more general epistemological crisis of recent years, as even science could not provide an infallible paradigm of explanation. Indeed, it was an influential study of the process of scientific change, Thomas Kuhn's *Structure of Scientific Revolutions*, that first gave currency to the concept of "paradigm" and raised troubling questions about the truth status of the natural sciences.³³

Yet while social and historical studies of science have shown the situatedness of scientific activity, they have not been able to explain the most important feature of science: it is not bound to the contexts in which it first took shape. Newton's science, for example, may reflect his religious, political, and cultural views, but the law of gravity works outside the time and space of seventeenth-century England. What makes this generalization possible? Like Biernacki but for a different set of problems, Jacob argues for more comparative study of the workings of science. By examining science comparatively and in a global context, investigators can determine the sources of both the generalizability of science and its salient differences across time and place. This kind of study promises to break down the isolation of the natural sciences from the social sciences, gives more complexity to the definition of science, and thereby makes possible a more telling conversation about truth and objectivity. The fundamental philosophical issues cannot be addressed without giving attention to the cultural and social meaning of science, but such studies need not lead inevitably to "science bashing." Instead, they can provide a model for analyzing how knowledge can be configured by a particular cultural setting and still work in other ones. The goal is not to deny the social construction of science but rather to understand both the limits on that construction and the sometimes surprisingly global spread of scientific knowledge.

One important way that knowledge works is through narrative power—establishing authority by means of a story. Scientists derived their authority, after all, not just from their experimental and theoretical successes, which were still in doubt in the early seventeenth century, but also from their ability to persuade rulers and literate elites with their arguments. Those arguments rested on narratives about the presumed conflict between science and tradition and