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THE NEW SOCIOLOGY OF KNOWLEDGE

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Abstract

The new sociology of knowledge examines how kinds of social organization make whole orderings of knowledge possible, rather than focussing on the differing social locations and interests of individuals or groups. The review begins with the effects on knowledge of the media through which it is preserved, organized, and transmitted. We then analyze collective memory, examining social conditions that shape how knowledge is transmitted through time. The review then examines how patterns of authority located in organizations shape both the content and structure of knowledge, looking at how authority affects the scope, generality, and authoritativeness of knowledge. We then review recent work on how social power, particularly that embodied in institutional practices, shapes knowledge. We examine how knowledge reinforces social hierarchies and how the boundaries and categories of systems of knowledge are constituted. Looking at power, gender, and knowledge, we discuss new versions of the standpoint theories that characterized the traditional sociology of knowledge. Finally, we briefly review recent work on informal knowledge.

INTRODUCTION

The older sociology of knowledge epitomized by Mannheim asked how the social location of individuals and groups shapes their knowledge. Elements of this tradition became institutionalized in sociology and political science as attitude and opinion research. The sociology of knowledge proper, however, concerned with the social sources of knowledge and political ideologies, fell out of favor. Mannheim's work has continued to inspire current scholarship

("The Problem of Generations" [1952 (1928)] as stimulus for Wuthnow [1976] or Schuman & Scott [1989]), but the tradition has come under criticism. Its image of the relationship of knowledge and social position seems reductionist (Geertz 1983:152–3), and it has too thin a conception both of knowledge and of the social positions or interests that affect knowledge.

Recently sociologists interested in culture, religion, science, and ideology, along with scholars in social history, philosophy, anthropology, and the history of science, have begun to revitalize the field. The expansion of cultural studies throughout the social sciences has also greatly enriched the materials a sociologist of knowledge has to work with. While there is as yet no unified field, many diverse strands of theory and research have begun to crystallize around common themes.

Changes in the phenomena encompassed by the term "knowledge" are symptomatic of changes in the field. The traditional sociology of knowledge focussed on formal systems of ideas, concentrating especially on such matters as the world-views and politics of intellectuals. (This review largely neglects the sociology of intellectuals, though we note the lively debates about the interests and social locations of contemporary intellectuals—Ehrenreich & Ehrenreich 1977, Gouldner 1979, Eyerman et al 1987, Szelenyi & Martin 1988, Brint 1994). The search for social interests that bias even supposedly neutral, disinterested, objective understanding of the world—what the very term "knowledge" connoted—was central to the agenda of the field.

Newer work in sociology and cultural studies suggests that formal systems of ideas are linked to broader cultural patterns—what we might think of as social consciousness. We focus not only on the ideas developed by knowledge specialists, but also on structures of knowledge or consciousness that shape the thinking of laypersons. We do not, however, attempt to cover all aspects of culture. The sociology of culture has focussed largely on works of art and entertainment. In cultural studies, culture connotes symbolic systems that are deeply embedded, taken-for-granted, often enduring, and sometimes invisible. The sociology of knowledge instead directs attention to cultural elements that are more conscious, more explicitly linked to specific institutional arenas, and more historically variable.

The new sociology of knowledge examines how kinds of social organization make whole orderings of knowledge possible, rather than focussing in the first instance on the differing social locations and interests of individuals or groups. It examines political and religious ideologies as well as science and everyday life, cultural and organizational discourses along with formal and informal types of knowledge. It also expands the field of study from an examination of the contents of knowledge to the investigation of forms and practices of knowing.

This review begins with a fundamental factor that shapes the ways knowl-

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edge can be structured---the media through which knowledge is preserved, organized, and transmitted. It then turns to the analysis of collective memory, examining social conditions that shape how knowledge is transmitted through time. The review then examines how patterns of authority located in organizations shape both the content and structure of knowledge. We bring together work on how forms of authority affect the scope, generality, and authoritativeness of knowledge. We then review recent work on how social power, particularly that embodied in institutional practices, shapes knowledge. In the next section, we examine how knowledge reinforces social hierarchies and how the boundaries and categories that define the basic terms of systems of knowledge are constituted. Looking at the recent literature on power, gender, and knowledge, we discuss revitalized versions of the standpoint theories that characterized the traditional sociology of knowledge, exploring how new approaches deepen the understanding of what a social standpoint involves. Finally, we turn briefly to recent work on informal knowledge, that knowledge ordinary people develop to deal with their everyday lives.

MEDIA AND THE STRUCTURE OF KNOWLEDGE

Perhaps the most dramatic example of how social factors affect the basic structure of knowledge is what Goody & Watt (1963) called "The Consequences of Literacy." Historians, anthropologists, and psychologists have examined how the introduction of new media for the recording, transmission, and cumulation of knowledge changes knowledge itself. Walter Ong (1971, 1977, 1982), in a set of sweeping arguments, has contrasted the organization of literate and oral cultures, arguing that the media in which words are transmitted have repeatedly transformed consciousness.

Others (Olson 1977, Goody 1986, Graff 1987, Finnegan 1988) have drawn the contrast between orality and literacy less starkly. Akinnaso (1992) notes the presence of both formal and informal learning in literate and nonliterate societies, showing that formal learning can create intellectually disciplined, specialized, decontextualized knowledge even in nonliterate societies. Ewald (1988), arguing that writing conveys authority only when state power privileges it (Clanchy 1979), examines the fascinating case of an African kingdom whose rulers actively resisted writing in order to maintain the flexibility and ambiguity of the gift exchanges on which their power depended.

Eisenstein (1969, 1979) has argued that print, which multiplied and thus preserved identical copies of texts, decisively transformed the shape of scholarly knowledge: corrected texts could be assembled and replicated, freed from the inevitable corruptions of scribal transmission; rediscovered texts could be permanently rather than only temporarily recovered; authorship of texts could be established; texts and authors could be placed in a firm historical sequence;

and knowledge could be redefined as cumulative progress, rather than as inevitable decay from a pristine past. Marc Bloch (1961[1940]) vividly describes how feudal elites, often dependent on oral transmission of knowledge, jumbled chronologies and unwittingly assimilated new practices into an apparently unchanging tradition.

Because literacy and especially print so profoundly altered both knowledge and knowing, the early-modern period has proven particularly fruitful for study. Eisenstein (1969) notes that the first effect of print was to give a new lease on life to medieval books, creating a flood of texts of mixed provenance. Mukerji (1983) traces the influence of printed objects, from pictorial prints to printed maps and books, on materialism in European culture. She argues that print stimulated both production and consumption and that ways of appropriating printed books became a metaphor for scientific exploration of the natural world.

Print culture infused by a still vigorous oral tradition appears to have a special vitality (Bakhtin 1984, Thompson 1963, Levine 1977). Ginzburg (1980) offers a remarkable account of how literate and oral cultures interacted when print made the richly fabulous world of medieval books more widely available and reading began to give ordinary people confidence in their own ideas. People who read very few books read them in a radically different way than modern readers do, elaborating particular passages out of context and filtering what they read through the screen of oral culture.

Historically specific modes of reading have been explored by numerous scholars. Darnton (1984:215-56) describes the intimate, passionate reading of prerevolutionary French readers. Grafton (1991, 1992) has analyzed the reading practices of scholars in earlier eras, while other historians (Chartier 1987, 1989, Vincent 1989, McKitterick 1990) have explored print and reading in both popular and elite contexts.

Marshall McLuhan (1962, 1964) speculated that television would again alter human consciousness as print had done, creating instantaneous, immediate, globally shared communication. But the effects of new media on knowledge remain unclear despite decades of mass communications research, perhaps because formal knowledge remains bound by print and reading even while popular knowledge is increasingly visual, multi-channeled, and interactive. We do not yet know whether and how the computer revolution will alter formal knowledge, perhaps eventually supplanting the book and undoing the "fixity" Eisenstein attributed to print.

COLLECTIVE MEMORY

Studies of collective (Halbwachs 1980 [1950]) or social (Fentress & Wickham 1992) memory ask how social groups retain, alter, or reappropriate social

knowledge. This work has developed in two important directions. First, researchers have shown that much presumed tradition is in fact "invented" to serve current social purposes (Hobsbawm & Ranger 1983, Wilford 1990), especially defining nations and the character of national communities (Anderson 1983, Schwartz 1987, Hobsbawm 1990, Kammen 1991). Students of the French revolution have shown how new traditions and rituals helped create new political realities (Hunt 1984) and, less charitably, how memories such as that of the storming of the Bastille (Schama 1989) were concocted by political entrepreneurs. On the other hand, Schwartz (1991:234) has emphasized how, in shaping the present, memories of the past provide "a stable image upon which new elements are superimposed."

The second important line of research on collective memory involves systematic analysis of the factors that lead events or objects to be retained or lost as part of the stream of collective memory. Schudson (1992) has carefully analyzed how Watergate entered and influenced collective memory. Using the image of culture as a repertoire or repository (Swidler 1986), he asks why some things are retained and others forgotten. He notes that events are more likely to be remembered if they happened during one's lifetime, if they are commemorated, if they touched people personally, and if they concern the public center of national life, as Watergate did. He also notes that events may be remembered indirectly (as when new scandals are dubbed " gate") or institutionally (when new rules or procedures, like that of the "special prosecutor" are created). Schudson (1989:175) has systematized arguments about the power of culture, arguing that "a cultural object is more powerful the more it is within reach, the more it is rhetorically effective, the more it resonates with existing opinions and structures ... the more thoroughly it is retained in institutions, and the more highly resolved it is toward action."

Interest in the uses and practical determinants of cultural memory come together in the study of literary or artistic canons—what is preserved as part of a cultural heritage. Escarpit's (1971) brilliant work made clear that "external" factors as well as the qualities of aesthetic works themselves affect what will be retained in the culture. He demonstrated that political upheavals strongly influenced whether works entered the French literary canon, and that whether a book was likely to be preserved as a "great work" depended on whether its author was part of a cohort young enough to keep the work alive until a new generation could rediscover it. Lang & Lang (1990), in an analysis of the reputations of English etchers, point out that survivors who preserve, catalog, and promote an artist's work greatly increase its chances for renown.

Barbara Herrnstein Smith (1983) argues somewhat polemically that what enters the literary canon depends on the interests of those who control it. Tompkins (1985) has shown how Hawthorne's work was systematically promoted by those whose status claims he embodied, and Tuchman & Fortin

(1984) have examined the effects of gender on literary reputation. Haskell (1976) for art and Griswold (1986) for theater have examined social conditions that lead to revivals or rediscoveries of objects from the artistic corpus. Griswold's systematic exploration of why specific genres of English renaissance plays resonated with the social dilemmas of later centuries is echoed in Schwartz et al's (1986) analysis of the revival of Masada in Jewish collective memory.

Hareven (1979) has suggested that basic demographic structure—whether children have living parents, grandparents, or great-grandparents to pass on firsthand accounts of the past—will affect the possibilities of historical memory. Howard Schuman and collaborators (Schuman & Scott 1989, Schuman & Rieger 1992a,b) have used open-ended survey questions about important events and changes during the past 50 years to explore relationships between generation and the events that stand out in memory (they find that adolescence and early adulthood are a formative period for historical memory, as Mannheim [1952 (1928)] hypothesized) and between such memories and other attitudes.

While the factors shaping collective memory have been most clearly specified for art worlds, others have examined how organizations preserve and retrieve memory (Powell 1986) and how whole societies remember (Connerton 1989). These studies raise the tantalizing possibility that similar research could be done on knowledge more narrowly conceived, asking how structural or institutional factors influence which work by philosophers, economists, or physicists will be disseminated, preserved, or made canonical.

AUTHORITY AND ORGANIZATION

New models of how social organization influences ideas are at the heart of the new sociology of knowledge. A major pioneer has been David Zaret (1985, 1989, 1991, 1992). *The Heavenly Contract* (1985) argued that theological change in English Puritanism derived from organizational "pressures" and intellectual "precedents." Challenges to the authority of Puritan clerics led them to develop "covenant theology" which refocussed ministers' authority on helping laypersons monitor their inner lives rather than on seeking radical reforms which would put Puritan clerics in open conflict with the Anglican church. Covenant theology made salvation a predictable outcome of a covenant between God and man. It drew on intellectual precedents, such as widespread knowledge of the mutual obligations commercial contracts entailed, to make its ideas plausible to lay listeners.

Zaret (1989, 1991, 1992) extends these ideas, arguing that liberal-democratic ideology emerged in seventeenth-century England as "a collective response to the problem of contested authority" (1989:165). Sectarian conflict and religiously inspired radicalism following the triumph of Puritanism in the English

Civil War provided the "episodic context" that bore upon "ideological producers." Liberal ideology substituted religious toleration for efforts to build a "Godly Commonwealth" and natural religion for sectarian doctrinal commitments. Zaret shows also that the English proponents of liberal-democratic theory and of natural religion were loosely linked by "networks of friendship, patronage, and formal organizations" and that they shared "access to the intellectual precedents for the new ideology" (p. 65).

A focus on problems of authority in contexts that directly affect ideological producers contains the seeds of a powerful, general approach to the sociology of knowledge. To take authority first: It seems reasonable to believe that the authoritativeness of knowledge is grounded in patterns of social authority. To have authoritative knowledge is to have an institution, group, or person which can settle disputes and establish truth. Swidler (1979:118–30) observed that alternative schools that renounced authority had to dispense with right and wrong answers to intellectual questions. Arditi (1994) has traced broad transformations in theories of manners in eighteenth-century England to a shift in the structure of authority within which social elites operated. Walzer (1973) noted that sixteenth-century English Puritanism appealed to "sociologically competent" elites anxious about challenges to their authority. Martin (1993) speculates that the authoritativeness of any belief system depends ultimately on the authority of persons and that a group's authority structure affects its epistemological assumptions.

The post-Kuhnian (1970) sociology of science, particularly comparisons of organizational practices across academic disciplines, suggests that the coherence of intellectual "paradigms" is related (whether as cause or effect) to the extent of hierarchy and coordination in the social organization of various fields (Lodahl & Gordon 1972, Hargens 1988, Levitt & Nass 1989, Konrad & Pfeffer 1990). Indeed, Crane (1976) and Kuhn (1969) have suggested that what distinguishes science from other cultural enterprises such as art or religion is its institutional autonomy, and particularly its relatively autonomous control over its own reward system, in contrast to the dependence of the arts and religion on lay audiences and powerful patrons. Wuthnow (1987, 1989) has emphasized that the growing authoritativeness of seventeenth- and eighteenth-century science depended on its acquiring a single, secure source of patronage in the nation state.

While this is not the place to review the broad spectrum of work in the sociology of science, new research on scientific practice and scientific work organization (Knorr-Cetina 1981, Latour & Woolgar 1979, Latour 1987) begins to link substantive features of scientific knowledge to scientific work organization. Gerson (1993), for example, has analyzed the organizational dynamics involved in the "segmentation," "intersection," and "legitimation" of lines of scientific work. Gumport (1990, 1991), examining the case of

feminist scholarship, explores how new academic fields are created and legitimated. Star (1989) analyzes the basis for the simultaneous "plasticity" and "coherence" of scientific theories. "Successful scientific theories reflect commitments to work practices that are not easily changed. This does not occur as the result of some self-propelling quality of ideas, but rather as the consequence of commitments to training programs, technologies, standards, and vocabularies [which are] difficult to disentangle or dismantle" (p. 22).

These lines of work in the sociology of science converge with work by Zaret and others to suggest that knowledge derives many of its features from the way it organizes knowledge-producing communities. Star (1989:116) asks how scientific knowledge coheres without a central authority, observing that multiple, localized practices and findings are "joined across sites and ... transformed to certainty at larger scales of organization." While Star, Latour & Woolgar, and others observe that the actual practices of scientific laboratories are highly local and that they undergo extreme simplification and reification before they are constituted as scientific fact, this picture of a localized, negotiated order must be balanced against the forces promoting hierarchy and order within scientific communities. The unequal distribution of academic rewards such as employment, career mobility, salaries, fellowships, and prestige mean that even though scientific communities lack unified authority, their basic social organization forces them to act as if some ideas are better than others, some problems and problem solutions more important then others, and so forth. Thus the manufacture of scientific certainty may well be a product of such central activities as departments deciding whom to hire, fellowship committees assessing research proposals, and young scientists seeking grounds for selecting problems. A unifying hierarchy among ideas is built into the structures that allocate academic rewards, even while local variations in the routines that organize scientific work make dissensus both possible and invisible.

The theoretical focus on authority relations is just one example of a broader movement in the sociology of knowledge toward attention to the specific organizational contexts in which knowledge producers work. Robert Darnton's work on *The Business of Enlightenment* (1979) and on the consequences of royal censorship in Old Regime France (1982) demonstrates how the contexts in which culture is produced and distributed affect its intellectual content. Important work in the sociology of religion (Butler 1990, Finke & Stark 1992, Warner 1993) provides evidence that, at least for America, religious participation may be better explained by "supply"—that is, what religious providers offer—than by "demand"—that is, independent changes in religious needs or aspirations.

The "production of culture" perspective (Peterson 1976), developed in the study of the arts, is now bearing fruit in the general sociology of knowledge. Wuthnow's (1989) ambitious work suggests that broad economic changes and

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changes in class structure influence ideas through the institutions that organize culture production. For example, political bodies independent of traditional landowning classes incubated and defended Reformation reforms (pp. 81–82); state patronage created the public sphere which was the seedbed of Enlightenment thought; and European socialism was more successful where liberal parties were too weak to compete for working class support. Critics (Calhoun 1992, Gould 1992) have challenged some of Wuthnow's historical arguments, but his work is pathbreaking in two respects: first, he distinguishes several stages in the process by which any new ideology emerges: "processes of ideological production, of selection among competing ideologies, and of institutionalization" (p. 538). Second, *Communities of Discourse* links the institutional settings of knowledge production to the content and form of bodies of ideas.

An intriguing question is what institutional supports make plausible the authoritative, universal rationality characteristic of modern thought. Both Weber (1958 [1904–1905]) and Durkheim (1965 [1912]) explored this question. Weber argued that Calvinism spurred rationalization in all spheres of life, including modern science (Merton 1970 [1929], Cohen 1990). Durkheim argued that the development of an increasingly universal world society made it possible for ideas to take universal form, to claim a universalized truth.

Wuthnow's (1989) analysis of Enlightenment discourse gives empirical substance to such a Durkheimian claim by suggesting that the "dispersed, overlapping, yet segmented character of social relations" (p. 320) in the eighteenth-century public sphere contributed to distancing public roles from personal lives for Enlightenment figures and also to emphasizing universal argument and abstract generalization (pp. 342–343 ff). Universalism also "fit well with the increasing levels of communication, trade, and diplomacy that were creating a stronger sense among educated elites of Europe as a single, or potentially single cultural zone" (p. 343). Zaret (1989) makes clear that enshrining rationality as the objective ground of public debate was part of an effort to transcend divisive religious and political conflict. As Wuthnow (1989: 343) puts it: "In trumpeting the general over the particular, writers from Locke to Rousseau were directing strong criticism at the parochial passions that had caused much of the seventeenth century to be dominated by war and were siding with the voice of tolerance and peace."

Recent work on global culture also suggests reappropriating Merton's (1957) distinction between locals and cosmopolitans (Hannerz 1990). Scattered evidence suggests that those who must regularly deal with an impersonal, distant cultural world organized by abstract principles such as individualism or rationality construct knowledge differently than do those located socially and intellectually in more parochial settings (see Lerner 1958, Horton 1971, Bernstein 1975, Roof 1978, Hewitt 1989). Deemphasizing local

or regional variations, Benavot et al (1991) stress increasing global strandardization, pointing out that modern nation states, despite differing internal needs and different histories, have tended to adopt similar educational systems and school curricula.

Several scholars (Moore 1966, Meyer 1980, Thomas et al 1987, Featherstone 1990) discuss the intellectual consequences of a global culture. Robertson (1992) sketches the concrete historical turning points in the formation of a global culture, such as the creation of global competitions (Nobel prizes, the Olympics), agreement on world time, and the near-universal adoption of the Gregorian calendar. These international intellectual agreements in effect institutionalize and make real the universal authority of the rational to which Durkheim referred (and indeed Durkheim wrote during the period [1870–1920] in which, according to Robertson, these important elements of a global culture were institutionalized). If we take for granted that a minute is really a minute, or a meter a meter, or that we really can know what time it is in Tokyo or Addis Ababa, the apparent objectivity of the world we inhabit rests on an institutionalized global culture.

POWER AND PRACTICES

The contemporary sociology of knowledge has been deeply concerned with power (Ortner 1984, Lamont & Wuthnow 1990), especially the work of Michel Foucault. Despite difficulties in interpreting Foucault's work, his fundamental insights may be put simply: First, historical eras differ not only in what people think, but in what is thinkable. Foucault (1973) has written of changes in "epistemes"—not simply systems of classification, but the logic in terms of which these classifications are constructed. Different epistemes are characterized by discrete rules of separation and association among things—similarity through resemblance in the classical age and by causal association in the age of reason. Second, for Foucault (1965, 1977, 1980), power is embodied in practices or techniques which have their own histories (Mann 1986). Foucault's "genealogical" method traces historical transformations in techniques of power, rather than seeking causal links between forms of power and other social formations.

Third, for Foucault (1977, 1978, 1980), techniques of power are also, simultaneously, forms of knowledge. So, for example, the monastic practice of confession made real corresponding forms of knowledge, such as the varieties of sin or techniques for recognizing and recounting these, just as the ability of asylums to confine and segregate the mentally ill enact psychiatric knowledge of diagnosis and cure. Studies of such institutions as prisons, mental hospitals, or clinics show how institutional practices make categories of knowledge real. "Dividing practices" such as those of modern psychiatry define the characteristics by which the normal may be recognized and separated from the "deviant"; practices of "objectification," such as the academic disciplines, turn aspects of human life into objects of analysis; and other practices, such as psychotherapy or self-labeling, create "subjects" who define and categorize themselves (Foucault 1983).

New forms of knowledge also create new sites where power can be applied (and where resistance can form). Only, for example, when individuals are seen as endowed with complex, interiorized psyches can a battle ensue over whether to liberate or repress unconscious drives.

It has now become almost commonplace to argue that new categories of persons are created historically (see Hacking 1986). Foucault's arguments have stimulated varied work on how institutional practices ground systems of knowledge. For example, the modern state's need to define and control populations led to new statistical techniques and new ways of categorizing persons (Hacking 1982, Rabinow 1989, Woolf 1989). Hacking (1990) has traced the concatenation of intellectual and practical problems—the use of mortality data to calculate profits from government sale of annuities or the use of social statistics to characterize nations—which by the nineteenth century had transformed a causally determinist world into a probabilistic one.

The academic disciplines have come under scrutiny for the ways their basic theories and methods reflect larger structures of power (MacKenzie 1981). Talal Asad (1973) has explored how the British empire's practice of indirect rule led British anthropology to discover autonomous traditions and stable, functional institutions among native peoples. (We note that the French practice of direct rule, with its project of making natives into Frenchmen, led French anthropology to be preoccupied with the structure, and particularly the capacity for rationality, of "primitive thought.") Along with others (Clifford & Marcus 1986), Asad (1986) has argued that the basic intellectual and methodological presuppositions of anthropology are permeated by the unequal power of colonizer and colonized.

Variation in the authoritativeness and centrality of knowledge across societies raises broad theoretical issues in the sociology of knowledge. Particularly fascinating is the contrast between France, on the one hand, and England and the United States, on the other. First, one can note that Bourdieu and Foucault, the contemporary theorists who have drawn the strongest links between knowledge and power, are both French. Their work seems to resonate with that of their French forebear, Durkheim, in stressing the overwhelming power of society vis à vis its members. Second, as Michele Lamont (1987) has pointed out in examining the career of Jacques Derrida, intellectuals have a more central cultural role and play to a broader public than do academic intellectuals in the United States. In a fascinating study, Priscilla Clark (1987) points to the distinctiveness of French literary culture, the central role intellectuals play in

French life, and some of the infrastructure, such as government patronage, that supports French writers (see Clark & Clark 1977).

There are persistent differences in the intellectual directions of French versus Anglo-American intellectual life (see Wuthnow 1989). Enlightenment skepticism took an abstract, radical form in France while remaining staunchly empiricist in England (Krieger 1970). Payer (1988) offers rich anecdotal evidence that contemporary French medical research and practice privilege theory over empirical findings, while British physicians accept only the most narrowly drawn empirical claims. Lamont (1992) finds that members of the French middle class make much sharper and more hierarchical cultural distinctions than equivalent Americans do.

A focus on institutional authority can account for both the intellectual predilections and the relative centrality of French versus Anglo-American intellectual cultures. One can begin by noting the very different histories of the core institutions that supported knowledge production in France versus those in England. The Academie Francaise, founded in 1635, was the first of several academies established by the French state to enhance French science and culture. Its eight members (shortly expanded to forty), "Les Immortels," were appointed for life and received substantial stipends. Their primary task was to formalize the rules of the French language, to maintain its "purity," and to develop it for the arts and the sciences. The Academie awarded literary prizes and directed the flow of other government sinecures, thus guaranteeing that elite approval of literary work would provide financial rewards even in the face of commercial failure. The Paris Academy of Sciences, founded in 1666, had fifteen members who gave scientific advice to the royal administration, becoming "France's acknowledged arbiter of scientific and technological activity" (Hahn 1971:21).

The Royal Society of London, chartered by the British Crown in 1662, received no royal financial support and thus became a prestigious gathering of leisured gentlemen who conducted experiments and shared the results of their scientific work. Thus intellectual authority in England was based on shared observation and mutual exchange of ideas among a cultivated elite, while in France knowledge was grounded in a hierarchical system of intellectual authority.

It is instructive to contrast the histories of the first great national dictionaries produced in France versus those in England. The French Academy's forty members immediately set about producing an authoritative dictionary of the French language, beginning the work in 1639 and completing it in 1694. A major English dictionary waited a hundred years until Samuel Johnson, between 1746 and 1755, sponsored by a group of commercial publishers who sold subscriptions to finance the venture, single-handedly wrote his *Dictionary* of the English Language, aided only by a few helpers paid from his own pocket and by friends who loaned the many books from which he extracted illustrative quotations (Bate 1975:240–60). Thus even in its conception of language, French practice created an authoritative codification of "pure" French, while Johnson's English dictionary offered an individual rendition of the best English usage.

Progress in the new sociology of knowledge has come especially from what we might call the "middle" level of analysis. Focussing neither on large-scale forces like class or the capitalist economy, nor on influences such as the intellectual milieu or interests of individual actors, recent theoretical and empirical work has explored how authority, power, and practices within institutions shape knowledge.

IDENTITY, BOUNDARIES, AND DIFFERENCE

The concern with power has taken a second form in the work of Pierre Bourdieu and his collaborators. Bourdieu (1988) has turned his powerful anthropologist's eye on the practices that define prestige and maintain power within his own academic milieu as well as on the cultural strategies of Algerians (1977) and of the French (1984). Reminiscent of Weber's (1968 [1920]) analysis of status group competition (Collins 1975), Bourdieu (1984, Bourdieu & Passeron 1977) has examined how status groups benefit from having the knowledge they possess defined as valued or legitimate knowledge.

Bourdieu's work extends the sociology of knowledge in several respects (despite some criticisms of his empirical claims—Lamont & Larreau 1988, Lieberson 1992:6–7). First, through his concept of the "habitus," Bourdieu (1977, 1984) treats formal, academic knowledge as similar to other kinds of social knowledge—less knowledge of the world than knowledge of how to operate within it. He extends social knowledge more deeply into the person, examining learned habits of using and inhabiting space, the body, and time. By focussing on "practice" (Bourdieu 1977, Bourdieu & Wacquant 1992), he treats knowledge, including the valued knowledge of academia or of the cultural elite, as an embodied set of skills and habits that people use with more or less dexterity to achieve strategic advantage. But that same knowledge reproduces the larger system of social distinctions and social hierarchies within whose terms people actively maneuver.

At the same time, Bourdieu (1969, see Ringer 1990) has argued that all knowledge is located within larger "intellectual fields" so that the meaning of knowledge depends on its relation to the field as a whole. Thus "orthodox" and "heterodox" positions exist in relation to a field of intellectual power relations. Intellectual fields are, in turn, embedded in larger "cultural fields"; both orthodox and heterodox positions share taken-for-granted "doxa."

In Distinction (1984), Bourdieu examines the internalized "taste" people

from different social milieus use to make social and cultural distinctions. Like Meyer (1977), Bourdieu emphasizes the larger lessons conveyed by a hierarchical, stratified system of education, rather than simply the relatively advantaged or disadvantaged position of particular social groups within it. Class or status group advantage, captured by Bourdieu's (1984) term "cultural capital," is not simply accumulated cultural expertise. Rather, like economic capital, cultural capital includes the taste, confidence, and familiarity that allows the culturally advantaged to reap a higher return on cultural investments than do those who begin with less.

In a brilliant Americanization of Bourdieu's arguments, DiMaggio (1987) examines the source of distinctions among artistic genres. He argues that social groups invent and maintain bounded cultural genres in order to communicate status group membership in face-to-face interaction (Collins 1981). DiMaggio (1992) has analyzed the historical process of creating "institutions with the power to establish authoritatively the value of different forms of culture: in effect to create and to defend the boundaries among varying kinds of aesthetic ... products and practices" (p. 21). DiMaggio (1982) has shown how nineteenth-century Boston elites constructed the distinction between high and popular culture by founding organizations that could monopolize cultural objects (a high-culture repertoire), sacralize high culture (in distinct spaces with an awe-filled atmosphere), and legitimate the high-culture/popular-culture distinction. Related work by Levine (1988) traces the complex nineteenth-century process of bounding off high from popular culture. Beisel (1992) analyzes the active effort by nineteenth-century American reformers to construct a moral boundary between literature and obscenity.

As the work collected in Lamont & Fournier (1992) suggests, distinctions are often drawn to reinforce social inequalities. Schwartz (1981) considers a deeper issue at the intersection of the cognitive and the social: why do vertical classifications universally connote social and moral inequality? Pointing out that the original Durkheimian attempt to root social classifications in social structures is circular (Durkheim & Mauss 1963 [1903]), Schwartz looks to the universal dependence of children on larger, more powerful adults for the source of "vertical classification."

Zerubavel (1991) catalogs the varied ways in which human beings make distinctions in everyday life. In *Terra Cognita* (1992) he traces the complex process through which European knowledge of the new world was reconfigured as people attempted to integrate new experiences into established cognitive structures. A big gap nonetheless remains between cognitive and social accounts of the ways people form and maintain boundaries. Goffman's (1974, 1983) later work moved toward a formal analysis of the ways cognitive frames bound and organize social interactions. But sociologists have thus far made less use than they might of work by social psychologists on how people make and use social categories. Baron & Pfeffer (1993:14) note that social categories "can be readily induced and need not rely on ... permanent or ascriptive distinctions. The social psychological literature is replete with studies invoking strong group identification and intergroup polarization, even with only the slightest and most transitory experimental manipulations (Kramer & Brewer 1984)." They note further that "[o]rganizations are certainly very much in the business of creating categories, such as departments, ranks, and job titles" (see Baron 1986, Lansberg 1989).

Boundaries of race, nationality, and religion are of special interest because they appear as naturalized, primordial categories even when they are clearly socially constituted (Barth 1969, Calhoun 1993). Fredrickson (1981) has described how different systems of racial categories developed in the United States and South Africa. Anthropologists like Abner Cohen (1969; 1974) have shown how groups sharpen ethnic and religious boundaries as they move into new economic niches. Olzak (1992) has used ecological arguments to account for heightened ethnic group conflict.

Researchers have shown how larger organizational actors influence the form of cognitive categories and social boundaries. Sexual boundaries are accentuated when political leaders seek to tighten group boundaries (Davies 1982). Following Aries (1962), historians have suggested that heightened gender boundaries early in the modern period (Laqueur 1990) were part of a general European process of social segregation, drawing sharper distinctions among classes and ages as well as between the sexes (see Farge & Davis 1993). Cornell (1988) has examined how American Indians came to define themselves as tribes in response to the American state's insistence on negotiating only with tribal groups. Montejano (1987) has analyzed how racial divisions crystallized in twentieth-century Texas, reinforcing an understanding of racial categories as dynamic and historically contingent (Omi & Winant 1986). One of the most powerful ways of categorizing persons in the contemporary world is that of national citizenship. Brubaker (1992:1) contrasts the French understandings of nationhood and citizenship ("state-centered and assimilationist") with those of Germany ("volk-centered amd differentialist"), tracing the historical sources of these differences. Sahlins (1989) has examined national boundaries, looking at how the hardening of national boundaries affected the identity and experience of frontier populations, while Watkins (1991) has documented the increasing articulation between nation and demographic behavior.

One of the most ambitious attempts to think about boundaries in fresh ways is Abbott (1988). Abbot conceptualizes professions as actors in a system, competing to define and establish exclusive control over jurisdictions. An academic knowledge system allows a profession to defend its jurisdiction, in part by more clearly defining its borders (p. 56). When professions attempt to

raid others' jurisdictions, they develop intellectual strategies, such as abstraction or reduction, to subsume or displace the knowledge claims of their rivals (pp. 98–108). Thus jurisdictional claims and knowledge frames are intimately linked (see Gieryn et al 1985, Halpern 1992). Gieryn (1983) has shown, for example, that scientists demarcate science from nonscience differently in different circumstances to justify claims for authority, autonomy, and resources.

Power, knowledge, and boundaries are brought together in new ways in two recent literatures, those of "postmodernism" and "feminist epistemology." While the topic of postmodernism is much too large to be addressed here (see Arditi 1993), in essence postmodernists argue that a new "order of things" has emerged in which the traditional categories that separated kinds of knowledge—or that separated truth from fiction, high from popular culture, and the sacred from the profane—no longer hold. Baudrillard's (1983, 1988) postulate of a new hyperreality created not as a representation of already existing realities but from the power of signs themselves and Donna Haraway's (1991) arguments for the embeddedness of cybernetics in every aspect of social reality today provide examples of such arguments.

The motif of the constituted subject suggested by Foucault has been developed along independent lines by contemporary feminists. In some ways these developments can be seen as a return to earlier concerns of the sociology of knowledge, in particular Mannheim's (1936) efforts to find a correlation between ideas and their location within the social structure. For feminist theorists, however, differences in ideas are not consequences of the different "interests" of social groups, but of the differential effects of power in the constitution of subjects. Feminists (Haraway 1991) have criticized Foucault for his failure to recognize differences in the ways power penetrates people belonging to different social categories (gender, race, sexual preference), thereby constituting subjects differently, including the generation of gendered, or racialized, "knowledges." For them, the constitution of "difference" has to be made a fundamental element of analysis, along with the always partial and situated nature of knowledge.

The search for a feminist epistemology has taken several forms, which provide an interesting illustration of the varied ways knowledge may be socially shaped or determined. First are "standpoint theories," like those of Marx, Mannheim, and other pioneers in the sociology of knowledge. Feminist scholars (Smith 1979, Hartsock 1987, Collins 1990) argue that the oppressed, or those excluded from power, have a unique vantage point from which to understand aspects of the world that may be invisible to dominant groups.

One explanation of putative differences between men's and women's ways of knowing traces these differences to childhood experience (Chodorow 1978, Benjamin 1988). If girls differentiate less from their mothers than boys do and women remain enmeshed with their mothers or their children, they are less likely to experience themselves as separate from the things they study (subject-object distinction, see Keller 1983), to use modes of thought that sharply separate or disaggregate what is studied (analytic reasoning), or to organize knowledge hierarchically (deductive reasoning). A related position is a variant of arguments linking knowledge to authority structures: If men are vested with social authority, then authoritative knowledge is "what men have to say" and it "carr[ies] forward the interests and perspectives of men" (Smith 1987:18). If women are responsible for the private, relational aspects of social life and are excluded from public systems of authority, they are less likely to participate in what is currently taken to be universal, analytic, objective knowledge. These arguments focus less on women as knowers than on the purported maleness of modern science. Dorothy Smith (1987), Evelyn Fox Keller (1985), and others (Schiebinger 1993) have argued that the modern sciences were specifically constructed as male enterprises, accruing prestige and power from male styles of thought. In this way, many recent explorations of feminist epistemology transcend the distinction between old and new sociologies of knowledge by analyzing both how women's knowledge differs systematically from that of men (although most of this work is speculative rather than empirical) and how the very nature of what is taken to be knowledge is shaped by male gender (Flax 1983).

INFORMAL KNOWLEDGE

There has also been a resurgence of work on informal knowledge (Geertz 1983), that is, the knowledge ordinary people develop to deal with their everyday lives (Gramsci 1971). Whether such literature is properly sociology of knowledge, or whether it belongs within a broadened sociology of culture or a sociology of consciousness remains to be seen. But at least some works are of interest here because they examine how ordinary people actually take up and use (or reject) the knowledge generated for them by elites (Gamson 1992, Swidler 1995). Billig (1987, 1992) analyzes the intellectual structure of ordinary thinking and the uses people make of popular culture. Riessman (1990) has examined how people construct narratives of their lives.

The sociology of formal and informal knowledge has converged, partly through the work of the new cultural historians who have drawn explicit links between folk knowledge and high culture (Greenblatt 1988, Hunt 1989, Mukerjee & Schudson 1991), and partly because of intellectual innovations, like attention to "discursive fields" which allow scholars to discover larger organizing principles within popular forms of knowledge.

The emphasis on "practice" in cultural studies (Ortner 1984) has had a salutary effect in making explicit the problem of how ideas become plausible to those who hold them. William Sewell, Jr. (1992) has made an important

contribution by clarifying how people reproduce social structures by acting on the cultural "schemas" embedded in the world they inhabit. The fact that cultural schemas are "capable of being transposed or extended means that the resource consequences of the enactment of cultural schemas is never entirely predictable. A joke told to a new audience, an investment made in a new market, an offer of marriage made to a new patriline, a cavalry attack made on a new terrain, a crop planted in a newly cleared field or in a familiar field in a new spring—the effect of these actions on the resources of the actors is never quite certain" (p. 18). Just as cultural schemas provide the bases for practices that reproduce structures, so Sewell has shown in earlier work (1974) how the plausibility of a new ideology—in this case, socialism among the workers of nineteenth-century Marseille—depends upon existing social and cultural arrangements that make the ideology seem enactable in practice (see Mann 1973).

CONCLUSION

Little of the work reviewed here explicitly locates itself in the sociology of knowledge. Despite diverse disciplines, perspectives, and substantive foci, however, these literatures allow at least some preliminary conclusions. First, social authority shapes the authoritativeness of knowledge, affecting both the authority knowledge can effectively claim and the forms that knowledge claims take (see Asad 1993). Second, distinctions, social and intellectual, are made along lines of social differentiation, particularly hierarchical ones. Third, shifts in the media through which knowledge is transmitted, especially the transition to print, have dramatic effects on the entire organization of knowledge systems. Fourth, to explain why new knowledge emerges and to account for the social effects of ideas, scholars need to pay careful attention to factors that directly affect the institutions and actors that produce and distribute knowledge. Fifth, analysis of how the social location of actors affects their knowledge must account for the constitution of actors themselves. Sixth, knowledge and power are intimately related because power allows people to enact realities that make their knowledge plausible.

The new sociology of knowledge, not yet a unified field, does not have a single problematic around which debates revolve. Nonetheless, there are opportunities for fruitful research along the many lines where the literatures brought together here converge and diverge. For example, the issue of the "authoritativeness" of different kinds of knowledge raises many questions, among them for whom and to what extent officially approved forms of knowledge really do have authority. Hoggart (1957) argued many years ago that English working-class culture remained predominantly oral into the twentieth century, and Whitehead's (1974) study of occultism suggests widespread re-

jection of the authority of modern science. But this raises the question of what it means for knowledge to be "authoritative." Is it necessary that most laypersons actually share it? Or, like medieval Catholicism, are forms of knowledge authoritative because established political authorities accept them? Or because they define public discourse, whatever people may think privately? And do the officially authoritative forms of knowledge structure the claims even of heretics and dissenters?

If social authority structures knowledge, it is important to ask precisely what about authority influences either the form or content of knowledge. Laitin (1986), for example, has made a strong case that British colonial rule had enduring effects in Nigeria, making "ancestral village" a central political identity while deemphasizing the political significance of religion. But how precisely did British rule privilege village identity, and why did this identity remain salient in post-colonial Nigerian politics? More generally, is it an authority's control over specific incentives and sanctions, or rather control over central symbols that anchors systems of knowledge? Or do authorities influence knowledge through their control over the institutions of intellectual life? How do conflicts between political and intellectual power affect the structure of knowledge?

Similar questions can be asked about how social inequalities structure categorical distinctions. Most intriguing is how social categories become naturalized. Is it only, as Foucault claims, because powerful institutions enact distinctions that they come to appear incontrovertibly real? Or can classifications crystallize on more purely cognitive or interactionist grounds? And under what circumstances do distinctions remain hazy?

These questions and others like them—about how media of intellectual transmission structure knowledge or how differing standpoints influence definitions of what constitutes knowledge—suggest that researchers would benefit from greater awareness of the cumulative gains being made in the sociology of knowledge. Such awareness might stimulate explicit attention to the concepts and causal models that underlie particular historical or comparative arguments.

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