

1

Introduction

A society is possible in the last analysis because the individuals in it carry around in their heads some sort of picture of that society.

—LOUIS WIRTH

It is something of an historical peculiarity that American sociology, an academic discipline charged with the objective of illuminating the substance of everyday life, has possessed such a comparatively low public profile among the social sciences. Sociologists' valuable investigations of and insights into the nature of work and the workplace, parenting and childhood, consumerism, sexuality and sexual identity, race and race relations, public health, economic inequality, criminality, substance abuse, gender roles, aging, athletic competition, and artistic expression have yet to receive the degree of public attention that is accorded the work of psychologists, economists, and political scientists. Moreover, the very awareness of sociological study and its contributions remains comparatively limited within American public life, so that the ordinary citizen's access to the formulation of social issues in sociological terms, and with the support of sociological findings and concepts, remains unnecessarily attenuated.

This book investigates the origins of this public marginalization of American sociology within the particular challenges its practitioners have faced since the end of World War II in defining who they are and what they do. Social scientists in general have of course struggled since their respective disciplines' professionalization amid the turmoil of late nineteenth-century industrialization and the bureaucratization of intellectual endeavor to determine their proper roles within the discourse on

and challenges of modernity, and in each instance they have sought to forge symbols and standards to validate their professional competence. In the case of American sociology, especially since 1945, scholars have relied upon particular conceptions of science and scientific work to provide that professional legitimation. As revolutionary postwar developments in the natural and physical sciences fortified science with a mystique that had grown steadily since the Enlightenment, the Comtean ideal of a “science of society” came to exercise a dramatic influence over the social scientist’s professional identity.

This study examines the forging of that scientific identity within American sociology in the years following the end of World War II, and through the professional struggles and public and private misunderstandings that this process engendered, it explores the scientific ideal’s consequences and implications for sociology’s role within broader public conversations about life and society in the United States. During that critical period of the late 1940s through the early 1960s, many of the most influential members of the profession not only discussed and debated their discipline’s scientific status in terms of the potential meanings and benefits of scientific work for professional social research, but they also addressed the matter of how the particular scientific identity they envisioned would define sociology’s relationship to the wider public sphere.¹ Ultimately, their pronouncements and prescriptions contributed profoundly to the diminution of academic scholars’ perceived responsibility for addressing public issues publicly in the name of an informed citizenry and healthy democratic institutions.

¹ This issue of scholars’ public responsibilities has become a salient one in the intellectual history of the United States, as historians, political scientists, journalists, philosophers, theologians, and others have attempted to clarify the proper roles of academic intellectuals and assess the prospects for their active engagement in the public discussion of public issues. Thomas Bender has written extensively on the relationship between academic intellectuals and the public sphere, particularly the institutionalization of twentieth-century intellectual life in universities, which he argues has exacerbated a rift between the two. See especially *Intellectuals and Public Life: Essays on the Social History of Academic Intellectuals in the United States* (Baltimore: Johns Hopkins University Press, 1993). The contributions of “public intellectuals” is also the theme of Richard H. Pells’s survey of the “New York intellectuals,” *The Liberal Mind in a Conservative Age: American Intellectuals in the 1940s and 1950s* (New York: Harper & Row, 1985). Michael Walzer, in *The Company of Critics: Social Criticism and Political Commitment in the Twentieth Century* (New York: Basic Books, 1988), explores the contributions of a diverse range of publicly engaged intellectuals, including Randolph Bourne, Martin Buber, Antonio Gramsci, George Orwell, Albert Camus, Simone de Beauvoir, Herbert Marcuse, and Michel Foucault. Russell Jacoby, in *The Last Intellectuals: American Culture in the Age of Academe* (New York: Noonday Press, 1987), laments the disappearance of the autonomous public intellectual with the expansion of universities and institutionalized financial rewards and forms of prestige. Richard Posner, in *Public Intellectuals: A Study of Decline* (Cambridge, MA: Harvard University Press, 2001), cites a diminution in the merit of academic intellectuals’ contributions to public discourse.

By 1945 the quest to define American sociology's professional identity had reached a new level of significance and urgency, as the discipline had then entered a highly consequential stage in its professional and intellectual maturation. Sociological researchers' participation in the New Deal and in the development and implementation of war-related programs in particular had provided a powerful impetus for its professional legitimation within the academic mainstream. Beginning with the release of *Recent Social Trends in the United States* in 1933 and culminating in the publication of *The American Soldier* in 1949 (Stouffer and Suchman 1949), sociologists demonstrated their utility to government as the United States confronted the economic challenges and social dislocations of the Great Depression and the threat of fascism. The social sciences' participation in such New Deal programs as Social Security, the Works Progress Administration, and the Department of Agriculture, together with President Roosevelt's enthusiasm for policy-oriented social science research, lent them new professional credibility.² The war, in turn, demonstrated the applications of social science research to the challenges of war mobilization, the management of troop and civilian morale, and wartime bureaucratic organization.³ With the war's end, the social sciences stood to benefit greatly from the windfall of economic recovery, new funding sources, the G.I. Bill and the expansion of American colleges and universities, and new defense-related service in the struggles of the nascent Cold War. This rapid expansion of opportunities and commitments thrust sociology, a young discipline lacking a sufficiently clear self-conception, into a position of increasing influence and responsibility. Its practitioners, anxious both to advance such achievements and to protect the discipline's successes from its detractors, articulated a vision of sociology as an emerging science that would both clarify and legitimate sociology's new role in American professional life.

A variety of postwar conditions influenced the character such a legitimation would assume, chief among which was the ascendance of scientific values themselves within American life. By the end of the war, the culmination of the American romance with science and scientific expertise most closely

²See Gene M. Lyons, *The Uneasy Partnership: Social Science and the Federal Government in the Twentieth Century* (New York: Russell Sage Foundation, 1969), 50–79; Mark C. Smith, *Social Science in the Crucible: The American Debate Over Objectivity and Purpose, 1918–1941* (Durham, NC: Duke University Press, 1994), 116–17.

³See Lyons, *The Uneasy Partnership*, 80–123; Christopher Simpson, *Science of Coercion: Communication Research and Psychological Warfare, 1945–1960* (New York: Oxford University Press, 1994), 22–30; Ellen Herman, *The Romance of American Psychology: Political Culture in the Age of Experts* (Berkeley: University of California Press, 1995), 17–123; Jean M. Converse, *Survey Research in the United States: Roots and Emergence, 1890–1960* (Berkeley: University of California Press, 1987), 162–236.

associated with 1950s American culture was well under way. The institutional growth the war had accelerated within government, the military, universities, and corporations combined with scientific revolutions in the realms of medicine, agriculture, consumer-product research and innovation, computer technology, and weapons-systems innovation to impose immense pressure upon the social sciences for methods and results consistent with the values of the age. The postwar sociological assertions of scientific status began apace amid the popular outlook expressed most emphatically six years earlier by the commercial exhibitors at the 1939 World's Fair, who proclaimed that scientific and technological innovation bequeathed by benevolent national corporations would usher in a new era of efficiency, social harmony, and personal freedom, and even more famously and succinctly that same year by the DuPont Corporation, when it initiated its promise of "Better Things for Better Living . . . Through Chemistry."⁴ Such fervently evangelistic assertions of the promise of science, combined with the advent of atomic and then nuclear technology, established modern science's supreme position within American civilization and its status as an emulative ideal for a myriad of institutionalized professional pursuits. By the mid-1950s, the laboratory scientist in the white lab coat had become the ultimate possessor of the latest tools and techniques for the objective investigation and illumination of phenomena, as well as the purveyor of linear human progress.⁵

A substantial generational shift within American sociology after 1945 also helped to solidify a common professional identity. During the Depression, employment opportunities in academic sociology were meager, the production of Ph.D.'s declined substantially, and membership in the American Sociological Society declined by a third. Moreover, the United States' entry into the war, although a boon to social researchers in need of employment, nevertheless interrupted the training of sociology graduate students entirely.⁶ Then, after 1945, the number of professionally trained sociologists grew

⁴Roland Marchand traces the origins of DuPont's elevation of the laboratory scientist to the status of "today's Prometheus" to the 1920s, in a campaign which General Electric, Western Electric, General Motors, and Ford quickly imitated. See pp. 194–96 of his *Creating the Corporate Soul: The Rise of Public Relations and Corporate Imagery in American Big Business* (Berkeley: University of California Press, 1998).

⁵At the same time, of course, this image carried connotations of a darker sort, as it was also modern science that had made human survival and human freedom open questions with the development of atomic weapons and the techniques of manipulation and control associated with totalitarianism, and these negative associations with science became liabilities for scientific sociology as well, as is indicated in a subsequent chapter.

⁶Nicholas C. Mullins, *Theories and Theory Groups in Contemporary American Sociology* (New York: Harper & Row, 1973), 49.

exponentially. Membership in the society increased two and one-half times between 1940 and 1949, and by the end of the 1950s, the number stood at 6,500, over six times the 1940 membership total.⁷ American sociology's rapid postwar expansion thus reveals a generational lacuna between the prewar sociologists and the much larger body of scholars who rose to prominence with the expansion of American universities and social science funding.⁸ The postwar generation of sociologists was therefore able to assert not only its theoretical and methodological orientations but also its professional identity over the various sociological visions of the leading prewar scholars. The sheer numbers of young sociologists joining the profession after the war helped produce a new orientation toward the perceived purpose of sociology itself.

Substantial institutional shifts played a key role in this vision's ascendance. By the war's end, the sociology departments at Columbia and Harvard had come to articulate the vision of sociology's identity and purpose that would dominate the discipline throughout the 1950s. These prestigious departments and their nationally recognized scholars began to exert an ever-greater influence over the meaning of sociological work, whereas the Chicago School of Sociology's dominance over the discipline's identity, which had peaked during the interwar years, began by the mid-1930s to recede.⁹ Thus, the prominent theorists and methodologists at both Harvard and Columbia, through their respective institutions' prestige and the training of large numbers of graduate students, forged sociological "schools" that became principal sources not only of sociology's major theoretical and empirical orientations, as Nicholas Mullins has shown, but also of its very identity as a profession and, in turn, of its role within American life.¹⁰ Leading scholars in these

⁷Martin Bulmer, "The Growth of Applied Sociology after 1945: The Prewar Establishment of the Postwar Infrastructure," in Terence C. Halliday and Morris Janowitz, eds., *Sociology and Its Publics: The Forms and Fates of Disciplinary Organization* (Chicago: University of Chicago Press, 1992), 319–20.

⁸Stephen Park Turner and Jonathan H. Turner, *The Impossible Science: An Institutional Analysis of American Sociology* (Newbury Park, CA: Sage, 1990), 86–87. Matilda White Riley finds that 61 percent of the members of the American Sociological Association in 1959 had received their Ph.D.s during the 1950s. See Riley, "Membership in the American Sociological Association, 1950–1959," *American Sociological Review* 25, 6 (December 1960): 914–26.

⁹Mullins, *Theories and Theory Groups*, 42–43, 45–46; Norbert Wiley describes Chicago's fall from preeminence during the early 1930s and, ultimately, with the founding of *The American Sociological Review* in 1936. See his "The Rise and Fall of Dominating Theories in American Sociology" in William E. Snizek, Ellsworth R. Fuhrman, and Michael K. Miller, eds., *Contemporary Issues in Theory and Research: A Metatheoretical Perspective* (Westport, CT: Greenwood Press, 1979), 57–63.

¹⁰Edward A. Tiryakian, "The Significance of Schools in the Development of Sociology," in William E. Snizek, Ellsworth R. Fuhrman, and Michael K. Miller, eds., *Contemporary Issues in Theory and Research* (Westport, CT: Greenwood Press, 1979). Tiryakian argues that a school solidifies around

departments not only played vital roles in normalizing functionalism and particular statistical methods of research throughout the discipline, but their programmatic statements in articles, presidential addresses, and books served to galvanize the profession behind a set of common principles, the most important of these being the idea that sociology was evolving into a true science.

Philanthropic foundations provided another institutional framework for this ascendant scientific identity, operating not only as “gatekeepers” by defining the contours of research but also by necessitating the defining of the nature of sociology itself. By the 1940s, the Rockefeller Foundation and the Ford Foundation in particular had forged personal relationships with particular sociological researchers in order to facilitate funding decisions in the absence of an established peer review process, and thus particular sociologists, such as Samuel Stouffer at Harvard and Robert Lazarsfeld at Columbia, became critical liaisons between the discipline and its private funding sources.¹¹ A relatively small number of scholars, especially those at large private universities like Harvard, Columbia, and Chicago, therefore bore a disproportionate influence upon sociology’s postwar self-conception as they became the “brokers” of much of the research funding during this critical period of sociology’s formal expansion.¹²

Indeed, historical studies of this critical period of sociology’s postwar evolution have emphasized the primacy of Harvard and Columbia and have explored the ways in which their scholars’ theoretical and methodological orientations and innovations became disciplinary norms.¹³ Thus, a central theme of such studies has been that of sociology’s theoretical development, in particular the ascendance of functionalist theory, from its roots in Durkheimian sociology and the anthropological work of Bronislaw Malinowski and Alfred Radcliffe-Brown to its dominant position in postwar sociological theory with

a charismatic leader, who formulates the school’s ideas and attracts “interpreters” and “converts” who promote and pursue these ideas further, thereby elevating them to paradigm status. In his short history of the Columbia department, Seymour Martin Lipset observes that most leading sociology departments had by the mid-1950s hired Columbia students, which illustrates the process of diffusion of Columbia sociology throughout the sociological profession as a whole. See Lipset, “The Department of Sociology,” in Lipset, ed., *A History of the Faculty of Political Science, Columbia University* (New York: Columbia University Press, 1955), 299.

¹¹Turner and Turner, *The Impossible Science*, 94.

¹²*Ibid.*, 94–96.

¹³A significant divergence from the consensus on the postwar Harvard-Columbia dominance of sociology is Gary Alan Fine, ed., *A Second Chicago School? The Development of a Postwar American Sociology* (Chicago: University of Chicago Press, 1995), which notes the impact of postwar symbolic interactionism on the profession, especially by the late 1950s.

the work of Talcott Parsons and Robert K. Merton.¹⁴ Similarly, the critiques of functionalism's preeminence have then taken sociology's theoretical character as their starting point and, since the mid-1950s, they have presented alternative theoretical models that range from an emphasis on social conflict to the Chicago School theory of symbolic interactionism, both of which challenge functionalism's putatively static conception of social systems and the values that exist within them.¹⁵

Another central theme in the historiography of postwar sociology has been that of the discipline's methodological development. Historical studies of social science survey research and public opinion polling in particular trace the development of sampling methods, scale analysis, significance testing, pattern variables, and other quantitative research techniques.¹⁶ Methodological innovators, the successful construction of new research institutes, and groundbreaking studies have provided the historical substance for such studies as they have explicated sociology's methodological evolution.

Consequently, both the historiography of and the challenges to mainstream postwar sociology have understood theory and methods to lie at the center of the discipline's identity. Postwar sociology tends to be studied according to its success in reconciling theory and empirical research, the scientific validity of its empirical methods, the degree to which the theories generated actually describe modern social conditions, and other questions rooted in

¹⁴Don Martindale, *The Nature and Types of Sociological Theory* (Boston: Houghton Mifflin, 1960); Mullins, *Theories and Theory Groups*; Robert Bierstedt, *American Sociological Theory: A Critical History* (New York: Academic Press, 1981).

¹⁵Conflict theory's challenge to functionalism's primacy began with the publication of Lewis Coser's *The Functions of Social Conflict* (New York: Free Press, 1956), and Ralf Dahrendorf's *Class and Class Conflict in an Industrial Society* (Stanford, CA: Stanford University Press, 1958). See Randall Collins, *Three Sociological Traditions* (New York: Oxford University Press, 1985) for a concise overview of the conflict tradition's evolution. Theoretical challenges continued with Dahrendorf's essay "Out of Utopia: Toward a Reorientation of Sociological Analysis," *American Journal of Sociology* 64, 2 (September 1958): 115–27, and George Homans's 1964 ASA presidential address, "Bringing Men Back In," *American Sociological Review* 29, 5 (December 1964): 809–18. By the end of the 1960s, attacks on functionalism had begun to focus on its professed value neutrality, culminating in Robert W. Friedrichs's *A Sociology of Sociology* (New York: Free Press, 1970), and especially Alvin W. Gouldner's *The Coming Crisis of Western Sociology* (New York: Basic Books, 1970). On symbolic interactionism, see J. David Brown, "Elaboration, Revision, Polemic, and Progress in the Second Chicago School," in Fine, ed., *A Second Chicago School?*

¹⁶John Madge, *The Origins of Scientific Sociology* (New York: Free Press, 1962) examines pivotal quantitative postwar research projects, including the landmark government studies of army morale and the Frankfurt School's study of fascism. Converse, in *Survey Research in the United States*, provides a thorough history of opinion polling and attitude surveys from their nineteenth-century origins to their modern commercial and academic institutionalization. A particularly critical overview of postwar quantitative research can be found in Turner and Turner, *The Impossible Science*, 114–18.

epistemology rather than in the flux and contingency of knowledge rooted in history.

This study does not attempt to test the validity of these aspects of modern sociology. It foregoes the analysis of postwar sociology's theoretical and methodological contours and instead examines the social and historical meaning of the professional ideology that accompanied them. Thus, it approaches sociology's postwar history in a manner similar to that employed in the major studies of prewar social science, which have analyzed the values social scientists have constructed or internalized to legitimate their work.¹⁷ These studies emphasize the centrality of the roles social scientists wished to assume in modern American life, dissecting the language, institutional arrangements, and research techniques they constructed in order not only to reveal the meaning of particular social phenomena but, equally important, to demonstrate the social scientist's social utility and professional competence.

This study examines how postwar sociology's professional discourse forged a scientific identity that could legitimate sociology as a distinct realm of professional competence and cumulative knowledge. Like the first generation of American sociologists who, as Thomas Haskell argues, sought to preserve their genteel class and moral authority through the institutionalization of scientific social inquiry, postwar sociologists articulated a professional identity that would insure the discipline's institutional autonomy and growth.¹⁸

¹⁷Thomas Haskell, *The Emergence of Professional Social Science* (Chicago: University of Chicago Press, 1977) traces social science's identity to the creation of the American Social Science Association (ASSA) during the industrial expansion of the late nineteenth century. The "crisis of authority" brought about by the dynamics of mass society and the decline of traditional patterns of deference led to the creation of formal institutions to certify and professionalize the study of society. The ASSA was thus created in 1865 to protect the prestige of experts, or "professional men," and the integrity of social science itself. Mary Furner, in *Advocacy and Objectivity: A Crisis in the Professionalization of American Social Science, 1865–1905* (Lexington: University Press of Kentucky, 1977) sees social science's entrance into the American university as creating a conflict between social scientists' desire to reform society and their self-conception as objective, disinterested experts. Like Haskell, Furner understands their concern over the maintenance of social status to have determined their choice of the latter identity. Dorothy Ross, in *The Origins of American Social Science* (Cambridge: Cambridge University Press, 1991), argues that professional social scientists' belief in American exceptionalism, or an exaggerated sense of America's uniqueness, led them to cultivate an ahistorical vision of scientifically derived knowledge about society. Mark C. Smith, in *Social Science in the Crucible*, examines the 1920s and 1930s struggle between "objectivist" social scientists, who believed in the objective, technical application of scientifically derived knowledge to social problems, and "purposivist" scholars, who insisted upon a moral framework for social science and the social scientist's active engagement in defining important social problems and offering solutions.

¹⁸The Victorian motivations behind the first generation of American social scientists' desire to retain genteel authority is also analyzed by David A. Hollinger in "Inquiry and Uplift: Late Nineteenth-

However, unlike these nineteenth-century progenitors, American sociologists have over the last century concerned themselves not with preserving deference to traditional class authority but with creating a new pattern of deference based on institutionalized scientific technique in a culture of highly refined professional expertise. By the end of World War II, as an expanding middle class accelerated the bureaucratization of social status and professional prestige, sociologists recognized that their fortunes were tied to their success in asserting for themselves the social status of the scientist. They therefore articulated for themselves a common vision for their profession that emphasized its ever-closer approximation of the status of a science akin to modern physics or biology.¹⁹ Thus, whereas the nineteenth-century social scientist perceived the scientific identity as the means to the preservation of traditional moral authority, the twentieth-century sociologist, particularly after the war, perceived it largely as the means to the attainment of the decidedly nontraditional status of the modern white-collar professional, embodied in the professionally trained scientist.

Of central significance to the scientific identity that sociology was forging for itself was the corollary that the discipline's scientific endeavors could only flourish if they took place in isolation from public discourse and insulated from publics. For many leading sociologists of the postwar period, performing truly scientific sociological work implied not merely the circumscribing of sociological communication to exclude laypersons, journalists, activists, and political officeholders but also the view that these groups constituted skeptical and potentially obstructionist adversaries of the discipline. This study thus follows Thomas Kuhn's conceptualization of modern science's evolution from a corpus of practical, common-sense knowledge with immediate applications to the world outside of the scientific community, to a rather hermetic activity practiced in greater isolation from that community.²⁰ Rather than attempting to determine whether postwar sociology, or social science in general, constituted a true science, this study explores the larger consequences of sociol-

Century American Academics and the Moral Efficacy of Scientific Practice," in Thomas Haskell, ed., *The Authority of Experts: Studies in History and Theory* (Bloomington: Indiana University Press, 1984).

¹⁹ Florian Znaniecki, co-author of the pathbreaking 1914 empirical study, *The Polish Peasant in Europe and America*, even compared the discipline to oceanography, "from the point of view of methods and results," in an effort to demonstrate a more appropriate natural science parallel to social science research. See "The Proximate Future of Sociology: Controversies in Doctrine and Method," *American Journal of Sociology* 50, 6 (May 1945): 520.

²⁰ Thomas S. Kuhn, *The Structure of Scientific Revolutions* (Chicago: University of Chicago Press, 1962).

ogy's scientific ethos as this movement away from public discourse and engagement with publics became the discipline's dominant self-conception.

One particular consequence as the scientific identity solidified into the prevailing postwar orientation of sociologists to their work and their society was the emergence of a growing body of dissenters and detractors within sociology itself. By the mid-1950s, the struggle over sociology's vision and purpose, which until then had received its most compelling statement in Robert S. Lynd's *Knowledge for What?* in 1939, intensified as dissenting sociologists such as Pitirim Sorokin and C. Wright Mills attacked sociology's scientific aspirations and, especially in the case of Mills, pondered the broader consequences of sociology's scientific self-conception for individual freedom and enlightenment in a mass society. These critics of the profession's ascendant identity emphasized frequently and sometimes emphatically the importance of an active engagement with nonsociologists over such crucial postwar issues as racial inequality, the intractability of entrenched urban and rural poverty, nuclear technology and the nuclear arms race, totalitarianism, consumerism, commercial mass media, youth culture, and the resurgence of radical rightist politics—issues that received astonishingly scant attention from mainstream sociologists.²¹

As the debate over sociology's self-image intensified within the discipline, a chorus of nonprofessional critics attacked it more publicly in newspapers, opinion journals, mass-circulation magazines, and other publications accessible to lay readers. Sociology's detractors seized upon a fundamental weakness in the sociological self-conception: as the profession distanced itself from public discourse in the name of science, it diminished its ability to communicate its *raison d'être* to the very groups to which it appealed for financial support and, equally important, intellectual and philosophical approval. As Henry W. Riecken, a member of the Program Analysis Office of the National Science Foundation, observed, social scientists seeking funding and professional respectability addressed clients and elites who lacked a clear understanding of the nature of social science work or even an remote awareness of methodological issues with which the social science disciplines concerned themselves.

²¹Patricia Wilner, in "The Main Drift of Sociology Between 1936 and 1982," *History of Sociology* 5, 2 (Spring 1985): 1–20, provides an inventory of articles published in the *American Sociological Review* and reveals that the journal neglected profound events and developments throughout its first 46 years of existence. Between 1936 and 1941, only 6.4 percent of the articles dealt directly with the Depression; between 1947 and 1956, only 1 percent of the articles addressed the Cold War and McCarthyism; and, perhaps most remarkably, between 1947 and 1975, only 2.6 percent of the articles dealt with citizen activism and demands for social or political change. Hans Gerth, meanwhile, observed that only two articles on Nazism appeared in *The American Journal of Sociology* between 1933 and 1947. See his "The Relevance of History to the Sociological Ethos," *Studies on the Left* 1, 1 (Fall 1959): 7–13.

Thus, the debate within sociology over its scientific character, which depended heavily upon the clarification of methodological standards, made little sense to potential allies of the discipline. The goal of operationalizing sociological concepts, for example—the building of a scientific terminology usable in repeatable experiments—appeared to many lay critics as an attempt to disguise the triviality of research subjects and conclusions rather than as the foundation of a truly scientific mission. Thus, Riecken observed:

Very few people outside of social science care about the “methodology” of social research. Not only are they not convinced by discussion of methods, but it usually makes their eyes glaze over. It may indeed be appropriate for the social sciences to resemble “natural” science in analytic methods, standards of proof, techniques of inquiry, and the like, but this does not materially abet their claim to valid knowledge in the eyes of legislators and the public at large.²²

The skepticism the discipline faced from other professionals—lawyers, legislators, administrators, financiers, and others—compounded its dilemma, for these could accuse sociology of belaboring the obvious. “As men of affairs,” Riecken noted, “members of the audience are likely to consider themselves well-informed about how society works and skillful at analyzing human behavior. Often, they are puzzled at the social scientist’s interest in what, to them, is obvious.”²³ By the early 1960s, these attitudes and perceptions had made their way into newspapers and magazines, as journalists and academics ridiculed sociology for its obscure terminology, its apparent obsession with trivia, and its tendency to belabor social questions that seemed amenable to common-sense interpretation. A science of society that, unlike the natural or physical sciences, existed more clearly *within* society, therefore faced legitimation obstacles unique unto itself.²⁴ The language postwar sociologists relied upon in constructing their profession’s postwar identity both solidified that identity within the profession and also constituted a political liability in sociology’s negotiations with the public sphere.

²²Henry W. Riecken, “Underdogging,” in Samuel Z. Klausner and Victor M. Lidz, eds., *The Nationalization of the Social Sciences* (Philadelphia: University of Pennsylvania Press, 1986), 222.

²³*Ibid.*, 221–22.

²⁴Riecken observed, “When social science is not concerned with public issues, when it goes about its own business of adding to the store of basic knowledge about human behavior and society,” critics indict it for its “frivolous expenditure of public funds on useless, pointless research” (Riecken, “Underdogging,” 223).

This study, in focusing on that language, shares elements of the hermeneutical, “postmodern” critiques of social science initiated by Michel Foucault, in which discourses are understood to operate as mechanisms that confer power and authority and exclude competing claims to that authority. However, whereas postmodern critiques focus on how language constructs these modes of domination instead of capturing the essence of the phenomena it purports to understand, this study concurs with pragmatist and neopragmatist critiques of language that retain a sanguinity about language’s liberating potential.²⁵ Richard Rorty in particular has shown that pragmatism offers a way out of postmodernism’s philosophical dilemma of power *versus* indeterminacy. Rorty’s pragmatism shares postmodernism’s rejection of the Cartesian dualisms that came to dominate Western philosophy with Kant—especially the separation of the “thing-in-itself” from humanity’s representation of it—but it rejects its capitulation to indeterminacy. Rorty agrees with the postmodernists that such dualisms lack any essential validity, but he transcends postmodernism’s pessimism to argue that they have also become an obstacle to the real business of intellectual inquiry, that of identifying and attempting to solve social problems. Denying an *a priori* world “out there” and another world consisting of human concepts, a decision which he terms the “end of Philosophy,” would liberate rather than defeat humanity’s attempts to construct meaningful, usable philosophical concepts.²⁶ Following William James and John Dewey, Rorty agrees that an idea’s truth and value, though possessing no distinct basis in some absolute “reality,” nevertheless possesses validity if it works in practice. The questions pragmatism asks of existence, Rorty argues, pave the way for a “post-Philosophical culture” which would require a new form of commitment from intellectuals. Who would have to renounce the search for conclusions with universal validity and instead accept the provisionality and, indeed, negotiability, within a democratic discursive context, of their every scholarly conclusion.

The contingency of all knowledge about society presents the prospect for a social science that negotiates over which questions address important social questions and which answers can resolve them, in a process Rorty describes

²⁵A succinct summary of pragmatism’s origins and its modern incarnations is James T. Kloppenberg, “Pragmatism: An Old Name for Some New Ways of Thinking?” *The Journal of American History* 83, 1 (June 1996): 100–38. Robert Westbrook offers a useful critique of Rorty’s antifoundationalism in *John Dewey and American Democracy* (Ithaca, NY: Cornell University Press, 1991), 539–42, as does John Patrick Diggins in *The Promise of Pragmatism: Modernism and the Crisis of Knowledge and Authority* (Chicago: University of Chicago Press, 1994), 453–56.

²⁶Richard Rorty, *Philosophy and the Mirror of Nature* (Princeton, NJ: Princeton University Press, 1979).

as “simply casting about for a vocabulary that might help.”²⁷ The post-philosophical approach would require that social scientists question both the validity and the efficacy of the scientific identity, because its reliance upon such dualisms as science and speculation, experts and laypersons, and professional discourse and democratic deliberation to demonstrate the social scientist’s special realm of professional competence has inhibited not only the vitality of public debate about social questions but also the broader utility of sociological work itself.

Neopragmatists like Rorty have embraced Dewey’s ideas not only as an antidote to poststructuralist nihilism but also because it offers a normative basis for valid understanding. The pragmatist denial of the idea of social science *qua* science has been criticized, as have the postmodern attacks, for having thrown all intellectual activity into a subjective realm that denies the validity of expert opinion and, more broadly, verifiable truths, so that all understanding becomes dangerously relativized. In fact, Dewey’s appeal to rational consensus offers an alternative to this epistemological dead end. In *The Public and Its Problems*, published in 1927, Dewey declared that generating useful ideas, or ideas that work in practice, requires the public’s active engagement in defining itself, its interests, and its relationship to the political institutions that represent it.²⁸ By refusing to dichotomize such concepts as “the public” and “the state,” Dewey demands that the relationship between the two be continually renegotiated so that the former continually legitimates the latter and, in so doing, actually becomes a part of the latter. Dewey’s argument responded to those of democratic realists, most notably Walter Lippmann, who had come to advocate a separation between the public sphere and the corps of experts who must manage its complex functioning. For Dewey, to exclude the public from the negotiation of usable knowledge was to deny the very existence of a public. “There can be no public,” he insisted, “without full publicity in respect to all consequences which concern it.”²⁹ Dewey’s public therefore exists when open channels of communication, the essence of democratic practice, also exist, much as Jurgen Habermas’s community of rational consensus exists with the removal of obstacles to an open community of inquiry. Habermas’s concept of the “ideal speech situation,” to

²⁷Ibid., 63.

²⁸Westbrook’s *John Dewey and American Democracy*, Chapter 9, provides an account of how Dewey’s public philosophy responded to the democratic realist rejection of participatory democracy during the 1920s.

²⁹John Dewey, *The Public and Its Problems* (Athens, OH: Swallow Press, 1954), 167.

which all communication must aspire, requires the same Deweyan acceptance of democratic testing of claims to truth.³⁰

American sociology, however, had by the end of World War II accepted Cartesian dualisms as necessary for defining social science as a scientific endeavor. The discipline embraced the goal of constructing a “science of society,” which leading sociologists defined as a cumulative process of assembling small-scale and repeatable empirical studies to form a larger whole. Sociology’s identity therefore depended upon an incrementalist and verificationist conception of science that adhered to the tradition of Western positivism.³¹ The discipline thereby accepted and proulgated the presumption that a realm of scientific work and communication existed separately from the nonscientific sphere of public discourse, a presumption which often contained a concomitant perception of the public and its elected representatives as obstructionist naysayers, necessarily passive beneficiaries of sociological research, or some combination thereof.

The scientific identity helped shape some of the salient theoretical and ideological currents in postwar sociology as well. Theoretically, functionalism’s primacy after the war de-emphasized the role of human agency in human affairs in favor of an emphasis on society as a system, in which individuals interacted according to prevailing norms and values rather than on the basis of independent, subjective interests and perceptions. On an ideological level, many American sociologists came to perceive the ideal of participatory democracy as untenable, adopting instead variations of the democratic realism that had emerged in American social science during the interwar years.³² Buttressed by empirical studies revealing high levels of public apathy and the presence of a working-class authoritarianism, they constructed theories that conceived of American politics as a competition between institutionalized elites and of decision making as informed optimally by service intellectuals rather than by public input or citizen activism. Allied with studies of apathy were various non-Marxian concepts of alienation that became more prevalent in sociological analysis by the 1950s and often deepened sociologists’

³⁰For connections between Habermas’s theory of communicative action and pragmatism, see Kloppenberg, “Pragmatism: An Old Name for Some New Ways of Thinking?” 135–36; Diggins, *The Promise of Pragmatism*, 444–45; and Richard J. Bernstein, *The New Constellation: The Ethical-Political Horizons of Modernity/Postmodernity* (Cambridge, MA: MIT Press, 1992), 48.

³¹For a useful critique of positivist assumptions in postwar American sociology, see Christopher G. A. Bryant, *Positivism in Social Theory and Research* (London: Macmillan, 1985), chap. 5.

³²Edward A. Purcell Jr. explores the ascendance of naturalistic conceptions of democracy, which abandoned traditional, participatory democratic ideals in favor of a scientifically derived, technocratic conception that placed far greater emphasis on expert-informed decision making. See Purcell, *The Crisis of Democratic Theory* (Lexington: University Press of Kentucky, 1973).

suspicion of participatory democracy and the potential of individuals to understand and defend their own interests. The scientific sociological identity, the functionalist paradigm, and sociological conceptions of a rarefied democracy thereby reinforced one another.

Professional sociology's postwar identity also fostered the active censure of nonsociologists who appropriated the language, research results, and theories of sociology for public consumption, as well as of academic sociologists who published texts for lay consumption. Popularization, already stigmatized by the late 1930s, was further discouraged as a growing network of university presses came to represent for social scientists an intellectual alternative to the larger commercial publishing houses and their production of mass-circulation paperback books. Journalists were thus discouraged from trespassing into professional sociology's turf, and sociologists' vigorous condemnations of their peers who addressed a broader, nonprofessional readership served to reinforce sociology's identification with scientific standards rather than with satisfying public curiosity about the nature and consequences of modernity.

American sociology's choice of moving away from the sphere of public discourse represented more than simply an institutional *fait accompli*, determined solely by funding sources' priorities, foundation directors' liberal-technocratic ideologies, or practical political considerations.³³ The sociologists who played vital roles in forging the discipline's postwar identity were as anxious to insulate their scholarly research from outside institutional pressures as they were to attract funding. As will be shown, leading scholars like Talcott Parsons were determined to legitimate sociology before the professional community and decision-making elites not only to guarantee the discipline's survival and funding but also sought to protect its autonomy against those who would interfere with its pursuit of scientific objectives. Similarly, Paul Lazarsfeld's interest in consumer preferences and public opinion led him to devise strategies for acquiring research funding that would not only satisfy clients but also pay for objective, disinterested studies that would add to the existing scientific understanding of society. The sociological commitment to scientific status transcended the practical need for public and private institutional support because this status was understood to depend upon sociology's independence

³³On the ties between sociology and its public and private funding sources, see Loren Baritz, *Servants of Power: A History of the Use of Social Science in American Industry* (Middletown, CT: Wesleyan University Press, 1960); Donald Fisher, "American Philanthropy and Cultural Imperialism: The Reconstruction of a Conservative Ideology," in Robert F. Arnove, ed., *Philanthropy and Cultural Imperialism: The Foundations at Home and Abroad* (Boston: G.K. Hall, 1980); and Donald Fisher, "The Role of Philanthropic Foundations in the Reproduction and Production of Hegemony," *Sociology* 17, 2 (May 1983): 206–33.

from the priorities and values of nonscientists. Foundations, for example, sought practical results from sociological research, not a cumulative body of knowledge about society and social behavior. They were policy-oriented and problem-focused, yet leading postwar sociologists persisted in defining their discipline's scientific progress in terms of its dedication to basic research.

Postwar sociology's retreat from concrete problem solving and the broader public sphere into a realm of "true science" cannot therefore be explained simply through the analysis of a hegemonic discourse shaped by funding sources. Sociologists' programmatic statements regarding sociology's proper identity and their professional secession from public discourse reflected more than merely the pressures exerted by interested parties. Rather, as Robert Bannister observes of prewar sociology's quest for objective knowledge, the quest itself took place within a context of rapid social change and a loss of faith in the individual's capacity to reason and thereby to reach meaningful conclusions about society. Sociology, with its short history, lack of a distinct body of subject matter, and absence of any long-standing theoretical or methodological traditions, approached the challenge of securing professional status by appealing to the relatively new authority of science and scientific expertise in an age of political and cultural uncertainty. As Bannister observes of American sociologists during the interwar years, their "creed" reflected "a distrust of self and alienation from society":

The result was an important difference between the "fact-gathering" of naive empiricism and a consensualist quest for "hard data," however much the two blurred in the sociologists' own discussions of the issue. In the first, the test of truth was the perception of the individual; in the second, it was the agreement of experts. . . . For the objectivists, as the sociologist Michael Schudson has written of journalism in the same period, a "person's statements about the world can be trusted [only] if they are submitted to established rules and values deemed legitimate by a professional community." Implicit in this view was a distrust of individual judgment, whether exercised in the voting booth or in the market place.³⁴

The postwar scientization of American sociology thus suggests a response to the condition Max Weber termed the "disenchantment of the world," in which "precisely the ultimate and most sublime values have retreated from public life," so that the social scientist must commit to rigorous, disinterested

³⁴Robert C. Bannister, *Sociology and Scientism: The American Quest for Objectivity, 1890–1940* (Chapel Hill: University of North Carolina Press, 1987), 237.

inquiry and avoid the premodern patterns of thought and discourse characteristic of the public sphere.³⁵ Postwar sociology in turn retreated from a public life that it perceived to have remained in the prescientific realm of superstition, prejudice, and nonempirical, common-sense responses to social questions.³⁶ The advance of a university-based culture of intellectual expertise therefore offered a way out of competing claims to truth and promised to reveal the connections between social phenomena that modernity had obscured from public perception.³⁷ As early as the 1880s, Thomas Bender has observed,

Valid social knowledge, formerly concretized in individual relationships or institutions, now seemed to call for definition in terms of processes and interconnections one step removed from direct human experience. The perceived need for such esoteric knowledge served, as it always has, as the basis for the creation of privileged intellectual authority.³⁸

It was thus a particular kind of knowledge that postwar social science sought, one that reveals its practitioners' faith in a particular form of social progress. Attaining such progress required the application of professional expertise to the specific problems of modernity. These problems, the social scientist declared, demanded not the reassertion of traditional values or a resort to transformative, revolutionary action, but rather the application of specialized scientific technique.³⁹ The social scientist, as the authority on the processes of

³⁵Max Weber, "Science as a Vocation," in Hans H. Gerth and C. Wright Mills, eds., *From Max Weber: Essays in Sociology* (New York: Oxford University Press, 1946), 155.

³⁶It is in fact a common practice within contemporary sociology textbooks to contrast the results of persuasive sociological inquiry into the nature of particular social problems with widely accepted and putatively "common-sense" understandings of those problems to illustrate the degree to which the public's understanding of social reality is suffused with myth and distortion.

³⁷Thomas Bender, "The Erosion of Public Culture: Cities, Discourses, and Professional Disciplines," in Bender, ed., *Intellect and Public Life: Essays on the Social History of Academic Intellectuals in the United States* (Baltimore: Johns Hopkins University Press, 1993), 44. For the European context of the struggle for the intellectual restoration of connections severed by industrialization, see Bruce Mazlish, *A New Science: The Breakdown of Connections and the Birth of Sociology* (University Park: Pennsylvania State University Press, 1989).

³⁸*Ibid.*, 45.

³⁹Christopher Lasch, *The True and Only Heaven: Progress and Its Critics* (New York: W.W. Norton, 1991). In Chapter 4, "The Sociological Tradition and the Idea of Community," Lasch describes the sociological abandonment of preindustrial world views based upon shared sentiments and provincial, prescientific values in favor of a cosmopolitan, scientific outlook and an unqualified faith in incremental social progress achieved through impersonal scientific and technological innovation.

modernity, therefore enjoyed a privileged status as the source of society's understanding and, ultimately, control and direction of those processes.

By 1945, the expansion of universities and university culture, methodological innovation, broadening public and private institutional ties, and an explosion of professional communication through professional journals and associations increased the momentum of this separation of intellectual work and public life. During the 1950s, the high degree of disciplinary consensus in American sociology caused this separation to deepen, as sociologists promised society and themselves that they would create order out of the chaos of social experience through the autonomous cultivation of professional expertise.

Of course, sociology did not exist separately from public life at all after World War II. During the 1950s, foundation, government, and corporate largesse fostered the rapid growth of applied sociology, in which academic researchers provided clients with useful information in policy making, market research, labor relations, and other endeavors unrelated to the project of constructing a science of society. That the scientific ethos and sociology's increasing interaction with interests outside the formal confines of the university existed side-by-side made the discipline's assertion of autonomy from the public sphere a problematic one. Postwar sociology thus professed a particular kind of public commitment, one which engaged a growing web of institutionalized interests like its own, but which generally eschewed communication with the disparate audiences of the wider public sphere. As Lewis Coser has observed, the audience for sociological communication had changed between the Progressive Era and the end of World War II from one consisting of "lawyers, reformers, radicals, politicians" to a professional clientele of "social workers, mental health experts, religious leaders, educators, as well as administrators, public and private."⁴⁰

The timing of American sociology's professional secession from public communication is compelling also for the fact that it coincided with a variety of other postwar changes that actually improved the prospects for a lively public debate about sociological issues germane to postwar American life. Nonacademic opinion journals such as *Partisan Review*, *Politics, Dissent*, *Harper's*, *The Nation*, *The New Republic*, and *Commentary* offered nonacademic readers access to a growing national forum for the discussion of salient political, economic, social and cultural concerns, while expanded local channels of communication offered yet-another communicative forum, as well as the opportunity to create one's own organ of opinion. The nation's literacy rate increased markedly after the war, as did the percentage of Americans with at least some college background, thereby enlarging the potential popular readership for sociology. The attention the mass media gave sociology during

⁴⁰Lewis A. Coser, *The Functions of Social Conflict*, 29.

the 1950s, moreover, stimulated and also reflected public interest in sociological questions, as the success of both scholarly and journalistic best sellers such as *The Lonely Crowd* and *The Status Seekers* attests. Such trends ran counter to the identity sociology was articulating for itself, revealing a public hunger for illumination of contemporary social life and social issues.

Responding to this need, many prominent sociologists did in fact acquire a significant popular readership after World War II. C. Wright Mills, Lewis Coser, Edward Shils, Seymour Martin Lipset, Daniel Bell, and others published regularly in the opinion journals of the 1950s, addressing the intractability of the Cold War arms race, suburbanization, the affluence of the new middle class, the implications of postwar liberalism, and other issues of interest to nonprofessional readers of social science, much as current scholars like Amitai Etzioni, Robert Bellah, William Julius Wilson, Theda Skocpol, Herbert J. Gans, Charles Derber and Todd Gitlin address for such readerships issues such as imperiled community life, the class dynamics within racial communities, downclassing, corporate power and globalization, and the ownership and control of the mass media. Their examples demonstrate that the postwar sociological identity indeed constituted a fragile consensus whose significant fissures finally engulfed it in the disciplinary crises and reassessments of the 1960s, in struggles that ultimately produced both greater leverage for public-spirited sociologists and a continued insistence on scientific, and therefore exclusive, patterns of identity.⁴¹

This study confines itself to the critical period of sociology's struggle for a coherent identity that lasted roughly from 1945 to 1963. The latter date marks the ascendance of competing sociological visions that challenged the scientific paradigm and its standards of objectivity, the dominance of quantitative research methods, the theoretical primacy of functionalism, and behaviorism's minimizing of the importance of social structure.⁴² Moreover, as political

⁴¹On these 1960s struggles within sociology, see Alan Sica and Stephen Turner, eds., *The Disobedient Generation: Social Theorists in the Sixties* (Chicago: University of Chicago Press, 2006). A broader intellectual view of the period is provided in Howard Brick, *Age of Contradiction: American Thought and Culture in the 1960s* (Ithaca, NY: Cornell University Press, 2001). It was during the 1960s that quantitative sociology—a primary emblem of the scientific identity forged in the 1950s—experienced its greatest expansion under the influence of such prominent practitioners of statistical analysis as Otis Dudley Duncan and William H. Sewell. See, for example, Peter M. Blau and Duncan, *The American Occupational Structure* (New York: Wiley, 1967).

⁴²Irving Horowitz's early 1960s critiques of sociology following the death of C. Wright Mills helped to stimulate the aggressive 1960s challenges to the prevailing postwar sociological assumptions, particularly with his publication of *Professing Sociology* in 1963, which contained "Sociology for Sale," his analysis of money-driven research priorities. In 1964, he edited *The New Sociology: Essays in Social Science and Social Theory in Honor of C. Wright Mills* (New York: Oxford University Press, 1964), an anthology of the writings of "radical sociologists."

consensus broke down in the United States with the escalating commitment in Vietnam and the disjuncture between the promise and the limitations of the Great Society, radical sociologists challenged their discipline's faith in the efficacy of liberal social policy and interest group-based political decision making, which they insisted were grounded not in empirical certitudes but in ideology. Another dissenting group demanding a more humanistic sociology emerged at roughly the same time and called for a less technical, bureaucratic approach to sociological discovery in favor of one that would address such moral concerns as humanity's need for expanded opportunities for freedom and creativity.⁴³ Meanwhile, as journalism adopted a more sociological orientation and even began appropriating sociological research in its reportage and analysis, dissenting sociologists called for a reciprocal turn in sociology, demanding a more participatory, journalistic sociology that would restore the investigator's personal engagement with ordinary people's experience and that understood the heart of the discipline's mission to include active confrontations with pressing social problems. American sociology's experience of the 1960s thus reflects its movement from consensus into fragmentation, in which the breakdown of the dominant theoretical and empirical paradigms of the 1950s dissolved disciplinary consensus into competing and often hostile theoretical, methodological, and political factions.

The study of sociology's professional and intellectual history involves inevitably the consideration of its contemporary roles and responsibilities, both of which have remained unnecessarily limited as a consequence of its exclusionary professional identity. Recent developments within the profession, however, suggest a sea change with regard to the public role of the discipline. Over the last few years, public-spirited scholars have produced fruitful statements and formulations of the promise of public sociology that have fostered a growing awareness of its achievements and future potential. They have dedicated entire conferences and symposia to the issue, and in 2004, American Sociological Association president Michael Burawoy made public sociology the theme of the association's annual meeting.⁴⁴ The ASA

⁴³Robert A. Nisbet, considered an exemplar of the humanistic outlook, articulated his perspective in the mid-1960s in *The Sociological Tradition* (New York: Basic Books, 1966). In it, he advocated a more community-centered, morally committed sociology akin to those of Tönnies, Weber, Durkheim, and Simmel. Other statements included Peter Berger and Thomas Luckmann's *Invitation to Sociology: A Humanist Perspective* (New York: Anchor Books, 1963) and Alfred McClung Lee's ASA presidential address, "Sociology for Whom?" *American Sociological Review* 41, 6 (December 1976): 925–36.

⁴⁴See Michael Burawoy, "For Public Sociology," address to the American Sociological Association, San Francisco, August 15, 2004; *American Sociological Review* 70 (February 2005): 4–28; Burawoy, William Gamson, Charlotte Ryan, Stephen Pfohl, Diane Vaughan, Charles Derber, and Juliet Schor,

subsequently added a Task Force on Institutionalization of Public Sociology, and, since 2002, it has published a quarterly journal, *Contexts*, to disseminate, in readily accessible forms, analyses of contemporary social issues of discernible public interest and of immediate national and often global importance, such as Social Security reform, poverty policy, the balancing of work and home life, English-only initiatives, the exportation of American popular culture, incarceration and economic inequality, Islamic radicalism, corporate conduct, social activism, and the politicization of scientific research. Significantly, the journal promptly won the American Association of Publishers' prestigious award for the best journal in the social sciences for 2002, an auspicious beginning for this effort to build bridges between sociological research and a general audience. Sociologists have also promoted the ideal of public sociology, as well as particular projects, on Web sites and blogs.

As the debate over the sociology's public role evolves and expands, the historical investigation of the scientific professional ideology that still informs the discipline's identity sheds light on both the avenues taken in the past and those that remain available. The historian's task is to explore the origins, contours, and meaning of ideas that have given form to particular identities and have provided the legitimation for particular roles and courses of action over time. In the case of American sociology, C.P. Snow's warning regarding the gulf between scientific and humanistic cultures illuminates the contemporary challenge of surmounting obstacles to American society's improved self-understanding.

"Public Sociologies: A Symposium from Boston College," *Social Problems* 51, 1 (February 2004): 103–30. An extended discussion of Burawoy's conception of "public sociologies" is available in *Social Forces* 82, 4 (June 2004): 103–30. An international discussion of Burawoy's presidential address is published in the *British Journal of Sociology* 56, 3 (September 2005): 333–524. Craig Calhoun, the president of the Social Science Research Council, advocates a broader public role for the social sciences writ large in "Toward a More Public Social Science" (president's report, Social Science Research Council, 2004), 13–17; available at http://www.ssrc.org/programs/publications_editors/publications/PresReport/SSRC_PresReport.pdf (accessed 25 September 2005).