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SOCIAL SCIENCE, SCIENTISM, AND AMERICAN DEMOCRACY

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Andrew Jewett. *Science, Democracy, and the American University: From the Civil War to the Cold War.* New York: Cambridge University Press. 2012. xii + 402 pp. Footnotes and index. \$99.00.

Mark Solovey. *Shaky Foundations: The Politics-Patronage-Social Science Nexus in Cold War America.* Studies in Modern Science, Technology, and the Environment. New Brunswick: Rutgers University Press, 2013. x + 253 pp. Illustrations, notes, and index. \$39.95.

The turbulent 1960s and '70s witnessed widespread challenges to the practice and social function of science. Historians, then and later, played an active role exposing ways in which—at government-funded think tanks and universities alike—nominally scientific problem-choices and results were often skewed to serve powerful interests over some broader measure of the public good.¹ The Vietnam War, especially, challenged deeply ingrained presumptions about objectivity and disinterest as the essence of the scientific enterprise. In the years that followed, some historians of science gradually shifted from exposing earlier contradictions to examining the ramifications of their discoveries, specifically their connections to the so-called rightward and postmodern turns that were drawing so much attention within the political and intellectual history subdisciplines.² Conflicts and nuances of the previous era were of less immediate concern.

Recently a number of historians, including historians of science, have refocused attention on contested aspects of science before the turmoil of the 1960s.³ Although the impression has hardly been reversed that the latter twentieth century witnessed an enormous culturally, economically, and politically consequential disillusionment with important aspects of modern science, it has become increasingly apparent that there is also room for a much better understanding of earlier disparate public and elite views about the research enterprise. What was science thought to be good for? What defined it? And what special status, if any, was to be granted to scientific knowledge-claims? As the focus, organization, and practice of science modernized in nineteenth-

century America, and especially as the U.S. federal government expanded its use of and its support for science, there were multiple, competing answers to such questions. Although for some time those differences may have seemed less important than stark postmodern challenges to the very notion of scientific authority, it may well be that examining earlier differences more closely will provide a better understanding of how we have gotten to where we are, as well as the range of possibilities in front of us.

Andrew Jewett and Mark Solovey undertake just such an examination, setting new benchmarks for future study of the history of science, or at least the history of the social sciences, in America. Jewett asserts and then provides copious evidence for just how actively contested presumptions about science were in the United States for at least a century following the Civil War. Mark Solovey describes how, even at the height of the Cold War, the very prevalence of seeming consensus masked some very powerful opposing forces. Both authors use the term "scientism" to describe the claims that the social sciences were value-neutral and that their seemingly rigorous, systematic, and quantitative investigations implied objectivity and disinterestedness in the consideration of human behavior, economics, and political activity (Jewett, pp. 10n, 216–18; Solovey, p. 16). Mimicking the natural sciences (physics most specifically), scientism, in their analysis, highlights an assumed ability among social scientists to construct, based on empirical investigation, accurate predictions of individual, social group, and social system behavior—including the behavior of economic and political systems. At the same time, scientism (as defined) assumes a willingness to relegate the consequential issues of purpose, human values, power, and ethics variously to religion, humanists, politics, or even government officials.

As announced in the preface, Science, Democracy, and the American University, the more ambitious of the two books reviewed here, attempts "to explain what several generations of thinkers had in mind when they devoted their lives to the project of making America scientific" (p. vii). Jewett sees as both inaccurate and misleading a prominent tendency among contemporary intellectual historians to view "technocratic, managerial liberalism"—which features value-neutrality and the witting or unwitting furtherance of establishment interests—as a defining characteristic of mid-twentieth century science (p. 5). To be clear, Jewett does not claim that a strategic retreat to value-neutrality among professionalizing scientists was absent during this period (most notably, in the physical sciences closely associated with technological advances and later with warfare, but also in biology and the many disciplines and subdisciplines of social science). Rather, he describes how—especially within the leadership of evolving American institutions of higher learning—advocates of a far different set of assumptions engaged quite actively, both with advocates of the scientistic ideology of value neutrality and social engineering and with promoters of traditional religion or humanism as preferred sources of American social and political values. His goal is to reconstruct what he characterizes as "a forgotten tradition of thinking about the Democratic possibilities of modern science that dated back to the Civil War and extended forward to the Cold War." In the process, he offers "a new and relatively comprehensive—although hardly exhaustive—account of the relationship between the growth of scientific authority and changes in American political culture during the late nineteenth and early twentieth centuries" (pp. 7–8).

By exploring the arguments of "a heterogeneous group of American thinkers" (p. 8), most of whom were at least to some extent engaged with the ideas of John Dewey, Andrew Jewett forgoes what he sees as the more standard historical focus on debates over objectivity within scientific disciplines in favor of an examination of the long trajectory of "scientific democracy." Scientific democracy, in his account, was a common goal among intellectuals (public and academic) who shared Dewey's sense that the personal characteristics, methods, and modes of discourse characteristic of science could usefully serve as a model for effective democratic citizenship in an industrial and technologically advancing age. Jewett defines those who developed and promulgated such an understanding as "scientific democrats" (p. 9). His argument is that scientific democrats, so defined, were a key, if heretofore neglected, motivational force for the creation and expansion of the modern American university system and the organization of the still lingering disciplinary structure of American social science. Jewett sees scientific democrats at the center of an alternative reformist intellectual tradition quite distinct from the value-neutrality and engineering emphasis prevalent within the physical sciences and eventually aspired to by many associated with the human and social sciences.

Structured in three sections, the first part of Jewett's book is devoted to describing the hopes of the leaders who, in the decades immediately following the Civil War, worked to transform the traditional denominational universities and to create what has become the modern American research university. These figures—who include Andrew Dickson White and Ezra Cornell, Charles W. Elliott of Harvard, and Daniel Coit Gilman of the Johns Hopkins University—hoped that science-centered universities could take over much of the cultural work previously performed by the churches (p. 15). The second section details the concerted efforts of early twentieth-century scientific democrats to establish on firm footing systematic empirical exploration of culture and human behavior and to connect their research results with contemporary public concerns. Although researchers who identified themselves as biologists, philosophers, anthropologists, psychologists, psychiatrists, linguists, sociologists, political scientists, and even historians, had widely varying views on issues of epistemology, methods, and social, economic, and political theory, they shared, in this account, through the Progressive and post-Progressive eras, a

common commitment to inculcating within popular culture an increasingly scientific spirit. Finally, the third section of this rich and wide-ranging narrative chronicles shifts in scientific democracy between the 1930s and the 1950s, setting the stage for what Jewett sees as its gradual loss of relevance for a nation focused on surviving the series of existential challenges that dominated the past century: "first saving the nation from economic ruin, then defeating fascism, and lastly warding off the Soviet threat" (p. 16). In Jewett's view, it was the looming and evolving conflict between democracy and totalitarianism that caused many scientific democrats to considerably moderate their reformist agendas and instead to focus on defending from foreign alternatives and threats existing American ideals and institutions. Facing increasingly effective challenges from the self-styled patriots of the political Right, and once immersed professionally and institutionally within a growing welfare- and national security-state apparatus, such reformers were inclined to severely curtail cultural criticism and to devote both their research and their activism to demonstrating and promoting the fundamental importance of American leadership in the international arena.

That, for the most part, is where Mark Solovey takes up the story. Shaky Foundations: The Politics-Patronage-Social Science Nexus in Cold War America concentrates on the period beginning with the end of World War II and extending to the middle of the 1960s. Its focus is not so much on the eclipse of reformist agendas among social scientists as on the external influences (specifically, the funding sources) that helped cause it. Concerned not so much with the history of specific disciplines, ideas, or schools of thought within the "social and psychological sciences" as with detailing what he feels are heretofore neglected motivations, capacities, interconnections, and influence among their American postwar patrons, Solovey provides case studies of three nominally independent but "loosely integrated" patrons (pp. 3-4). Emphasized is the pressure these patrons exerted on recipients to mimic the physical sciences and emphasize social science's presumed ability to serve as key resources for industry, the state, or other interests when solving specific problems and accomplishing specific tasks. While, like Jewett, hardly denying the expanding influence of such scientistic attitudes—or the degree to which such attitudes shaped both problem choice and methodology within a wide range of social science—Solovey shows that, during the Cold War and coincident with the explosion of federal patronage, opposing forces and challenges were always present. Going further, he identifies in those contemporary challenges the forces that would eventually contribute to undermining much of the Cold War regime of social-science support.

To make his points, Solovey makes a number of specific claims. First and foremost is that the pervasive Cold War American social science commitment

to "scientism and social engineering" (p. 5) was driven in very large part by the patronage system dominated by three funding agencies: the National Science Foundation, the military, and the Ford Foundation. Reinforcing much of Jewett's narrative, Solovey recognizes that contemporary resistance to defining human or cultural sciences as both value-neutral and a source for state- or other interest-directed social engineering arose from experiences of the 1930s and '40s—for example, from forces bitterly opposed to New Deal policies or against extending World War II practices into the postwar era. Notably, in addition to continuing conservative rejection of science as a reliable source of fundamental truths about human behavior, Solovey sees pockets of support for some form of scientific democracy (although he does not use that term). Compounding these challenges from both the Right and the Left, there was also fear among scientists that their scientific and professional independence was threatened by increasing reliance on outside, goal-oriented organizations for money and by the sometimes bitter competition for status and influence with powerful members and organizations associated with the physical sciences. Solovey's conclusion is that it took a "significantly transformed and largely new extra-university funding system for the social sciences in Cold War America" (p. 188) to cement the move toward scientism and, in hindsight, he recognizes the considerable vulnerability associated with that move.

The first section of *Shaky Foundations* details the extensive debate leading up to the establishment of a postwar U.S. National Science Foundation (NSF), a debate that very much included the issue of whether the social sciences merited support alongside physics, biology, and other so-called natural sciences. Throughout the extended process, "social scientists, natural scientists, members of Congress, and various other parties engaged in contentious debates about the scientific identity, practical value, and national contributions of the social sciences" (p. 21). Those debates, according to Solovey, along with the development of specific funding policies and programs, became critical in establishing the widespread acceptance of the scientistic and social engineering commitments built into the new patronage system.

The second section of Solovey's study is devoted to the influence of military patronage on American social science research. Military support of scientific research was, of course, dominated by the physical sciences and engineering, which—buttressed by dramatic wartime successes and ongoing connections—placed a relatively large cadre of powerful individual scientists in positions of influence over future funding policies. The military nevertheless funded a wide range of social science research on problems specifically related to its Cold War responsibilities. These are categorized and described in some detail, showing how, despite conservative doubts about the entire enterprise, substantial support was available—especially for what Solovey labels "communication studies," "the decision sciences," and the "science of strategy"

(p. 58). Each of these areas emphasized quantitative and predictive analysis and was dedicated to the provision of supposedly value-neutral information that military planners were free to evaluate and deploy according to their judgments and interests.

Solovey's third chapter provides an overview of the support for the social sciences that came from the Ford Foundation, especially its focus on the so-called "Behavioral Sciences Program." Tracing the Foundation's extremely careful and tentative embrace of the behavioral sciences, and its adoption after 1949 of a vision that "assumed the social sciences could and should take the natural sciences as their model" (p. 145), Solovey provides a coherent account of how closely this vision mirrored the vision of the national defense establishment, as well as how narrow a tightrope its advocates had to walk to avoid controversy, especially from the American anticommunist Right.

The final section of Solovey's book is devoted to the gradual increase in NSF support for "hard-core" social science research. Tracing the program's establishment under the leadership of Harry Alpert, Solovey describes how the agency—nominally devoted primarily to basic research in the physical and biological sciences and led by "prominent men from the 'hard' sciences and top administrators at elite universities" (p. 152)—nevertheless gradually increased its support for rigorous, empirical social science research, research they insisted "could be separated from value laden inquiry and social action" (p. 155). The NSF required that the research it supported meet "the highest standards of 'objectivity, verifiability, and generality'" (p. 156). Like the Ford Foundation and its Behavioral Science Program, the NSF social science program was watched closely by conservatives inside and outside of Congress, and its leaders remained wary that anticommunist suspicions could engulf any efforts that smacked of social reform or cultural criticism. The most important result was that, limited as it was when compared to the natural sciences, NSF support for "basic" social science research supplemented the more "action oriented" research supported by the Defense Department while providing at least some additional measure of status and legitimacy for social science and sustaining many of the "scholars, projects, methodologies, and fields of study that met the agency's hard-core criteria" (p. 185).

Both Jewett and Solovey recognize that they are highlighting a particular set of views and actors based largely on their own sense that these views and actors had previously been underappreciated. For Jewett, the definition of and focus upon scientific democrats is meant as a corrective to prior focus on those who promulgated a far less normative understanding of the social role of science. For Solovey, the focus on funding organizations is a corrective to studies that have looked solely at the disciplinary and institutional structure of scientific practice within the various social science disciplines.

As mentioned, both authors are keenly aware that their histories involve complex issues and various, not always consistent, approaches to what constitutes science and the role science should play in human affairs. They are also aware that the actors, ideas, and organizations in these accounts hardly exhaust those relevant to a full appreciation of earlier ideas about evidence, predictability, and truth and the relationship of such things to politics and power. Jewett explicitly declares, for example, that discussions of "how scientific democracy operated," of "parallels between its American expressions and related impulses elsewhere" (p. 18), and of connections with both earlier and subsequent developments are still needed.

Limitations aside, however, separately and together, these two works provide a solid foundation for future research. They also provide historical perspective, if not inordinate optimism, to any who [like this reviewer] still cling to the hope that democratic processes are ultimately capable of establishing rigorous, empirical methods, logical reasoning, and the open and transparent presentation of conclusions as the preferred and routine basis for making public policy.

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- 1. See, among many examples, Paul Forman, "Behind Quantum Electronics: National Security as Basis for Physical Research in the United States, 1940–1960," *Historical Studies in the Physical Sciences* 18 (1987): 149–229; and Christopher Simpson, ed., *Universities and Empire: Money and Politics in the Social Sciences in the Cold War* (1998).
- 2. For an overview, see Kimberly Phillips-Fein, "Conservatism: A State of the Field," *Journal of American History* 98 (December 2011): 723–43; Steven Best and Douglas Kellner, *The Postmodern Turn* (1997).
- 3. See, for example, Robert Kohler and Kathryn Olesko, eds., *Clio Meets Science: the Challenges of History, Osiris* 27 (2012); and David C. Engerman, "Social Science in the Cold War," *Isis* 101 (2010): 393–400.