

Reviewed by Scott Peters

Andrew Jewett. *Science, Democracy, and the American University: From the Civil War to the Cold War*. New York, NY: Cambridge University Press, 2012. 413 pp. Cloth \$99.00.

The central topic of this impressive book is the democratic possibilities and political meanings of science. This will likely sound odd to the general public, given the common narrow and apolitical view of science as, in the author's words, "the disinterested, experimental study of physical and biological phenomena" (p. 226). It will also sound odd to many scholars in cultural studies and other fields, who often identify science with anti-democratic projects. Yet as Andrew Jewett convincingly argues, during the century between the Civil War and the early period of the Cold War many scholars held expansive and positive views of science's cultural promise.

Jewett uses an archeological metaphor to characterize his main project. He writes that his book "excavates one of the most important and least examined dynamics in American intellectual and political history: a massive effort to mobilize science, so successful in its industrial applications, as a resource for strengthening American democratic practices" (p. 1). In Jewett's view a key reason this dynamic has been neglected has to do with the dominant narrative in recent literatures about the history of the American human sciences. The dominant narrative traces a story of disengagement from public culture on the part of human scientists and the universities at which many of them worked, along with the rise and triumph of a value-neutral professionalism that, as Jewett writes, "became the ideological bulwark of a powerful new structure of social hierarchy" (p. 3). According to Jewett, this dominant narrative reflects a tendency among critical scholars not only "to doubt that science can be a progressive force in society," but also to assign responsibility to it for a host of negative social phenomena, including rationalization, bureaucracy, and materialism (p. 4). In Jewett's view the problem with this critique is that it "treats science as synonymous with an instrumental rationality that buttresses the rule of the dominant elite by claiming to offer only technical means to externally determined ends" (p. 4).

Whatever truths this critique may help reveal, Jewett not only argues but also shows that both it and the larger narrative contemporary critical scholars have constructed about the political potential and implications of science in American culture miss the ideas and work of what he calls "scientific democrats." These are people who saw science not only as a means of generating instrumentally useful knowledge and technologies, but also as a force for cultural change. They include John Dewey, who is pictured on the book's dust jacket, along with hundreds of well-known and lesser-known others who "viewed science as a species of ethical practice rather than an expression of instrumental reason" (p. 13). Jewett's book recounts and interprets their ideas and arguments through a narrative arc that traces a century-long story of their *engagement in* rather than disengagement from public culture and discourse.

While noting antecedents, Jewett sets his story of the appearance and work of scientific democrats within a scene that is centered on the founding of new American universities during the 1860s and 70s—especially Cornell and Johns Hopkins—and the reforming of older institutions such as Harvard under Charles Eliot's long presidency. In his opening

scene he identifies a split among those who wanted to build scientific universities. On one side was a group of vocationally minded reformers who focused on the technical dimensions, industrial applications, and economic promise of science. On the other was a group of scholars who mainly emphasized science's ethical, political, and culture promise. Jewett identifies this latter group as the first generation of scientific democrats.

In Jewett's words, the aim of the first generation of scientific democrats was "to remake American culture by spreading the ethical virtues, character traits, and social practices that scholars increasingly associated with science" (p. 28), including a "particular style of free and open dialogue" that embodied principles of free interpretation and voluntary conviction from liberal Protestantism (p. 40). For them, the "scientific method" was the enactment in the public realm of these and other closely related virtues, traits, and practices, such as employing evidence and reasoning and exhibiting humility about one's own ideas and arguments. Instead of seeing science as a "set of empirical techniques" with economic and material value to be applied in industrial affairs, they saw it as a "spirit" to be adopted in all realms of society, with both the aim and promise of producing not only "the model citizen for an industrialized American republic" (p. 29) but also "social agreement" (p. 55).

Ironically, the story Jewett tells in the first and subsequent sections of his book is a story of fractious *disagreement* among scientific democrats, as they moved from an embrace of virtue ethics and a "common sense" theory of knowledge to consequentialist ethics and forms of positivism and pragmatism. As he recounts and examines the ideas and debates of scientific democrats during first three decades of the twentieth century, he argues (and again convincingly shows) that the human or "cultural" sciences—including philosophy, anthropology, psychology, history, linguistics, political science, sociology and economics—were not by the 1920s completely dominated by a technocratic mindset, as many intellectual historians have mistakenly portrayed them to be. While deeply disagreeing about a whole host of increasingly complex technical, theoretical, methodological, and philosophical issues, Jewett shows that a critical mass of scientific democrats during this period continued to believe and be motivated by a conviction that science—as an ethical and social process to be practiced rather than a body of expert knowledge to be applied—could "remake American culture and thereby restore the conditions for self-government" (p. 115).

In the book's final section, which covers the period from the New Deal through the 1950s, the narrative moves from what Jewett refers to as the "high water mark" of a "post-Progressive version of scientific democracy" to a retreat from "lofty cultural ambitions" (p. 226). In the process, Jewett writes, the cultural sciences gave way to the "behavioral sciences," which were narrowly defined and politically restrained. Policy debates largely shrank to a set of choices between alternative means to predetermined ends. Sobered and influenced by the rise of fascism, the brutality of the Second World War, and a conservative backlash to the New Deal, human scientists retreated from their engaged stance in civic life, embraced the narrow and still commonly-held view of science as "a politically and morally detached form of inquiry," and passed "the torch of democratic culture-building" to humanists (pp. 226, 230).

The story Jewett tells ends in frustration and failure. The “golden age of science” that was inaugurated in the post-World War Two era was not a triumphant moment of success for scientific democrats. It only served to reify a flat, narrow, instrumental, and apolitical conception of science. Its embrace in the behavioral sciences meant that scholars now had a choice between two roles: to either be pure theorists, or neutral technologists of human affairs whose work—intentionally or not—advances the economic and political aims and interests of the state and industry.

For scientific democrats, whose hopes and aims placed them in a long lineage of civic-minded work that dated back to the Civil War, all this was not just depressing; it was unacceptable. “After all,” Jewett writes, the ultimate aim of scientific democrats “had not been to produce high-tech consumer goods or even new tools of public administration. Instead, they had sought a transformation of the ways in which ordinary Americans thought about themselves, one another, and their social and political institutions” (p. 14).

There are exclusions and interpretations in this book that intellectual historians in education, science and technology studies, and other fields will take issue with. For example, it excludes the distinctive public philosophy and cultural and ecological aims that generations of scientific democrats in the land-grant system have developed and pursued, which was and still is deeply relational and populist, expressed less through high-end public discourse than through gritty, context-specific work in everyday settings. One potential impact of this book is that it will spur scholars to address such exclusions.

In concluding his book, Jewett mentions the resurgence of a public engagement “impulse” in American universities. But he notes what he sees as a problem: this impulse “is rarely linked to scientific ambitions these days” (p. 366). If we limit our view to certain strands of work in cultural studies and related fields, Jewett’s observation is accurate. But from another view, he misses two areas of work that contradict it: efforts to develop democratic varieties of citizen or civic science in many fields, and the emergence—with massive financial support from NIH—of translational research in the health sciences. Practitioners in these areas of work are closely linking public engagement with their scientific ambitions—but often, especially in translational research, in technocratic rather than democratic ways. Here, Jewett’s book can be an important resource for efforts to challenge technocratic mindsets and patterns of practice. In more positive terms it can inspire efforts to not only reopen people’s imaginations to the democratic possibilities and political meanings of science, but also to put them into practice.

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