



REVIEW: Steven Shapin, *The Scientific Life: A Moral History of a Late Modern Vocation*

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REVIEWS

Steven Shapin. *The Scientific Life: A Moral History of a Late Modern Vocation*. 486 pp. Chicago, IL: Chicago University Press, 2008.*

Michael Cournoyea[†]

In *The Scientific Life*, Steven Shapin argues that people and their virtues matter in late modern science. While scientists struggle to remain objective and impersonal, it is the personal, familiar, and charismatic—the traits once swept aside as vices by the scientifically virtuous—that have come to embody the “truth-speakers” of late modernity. With an enormous and sometimes daunting wealth of primary sources (from technical commentaries to his own sociological fieldwork), Steven Shapin breathes life back into these quotidian virtues. *The Scientific Life* is as much a disjointed genealogy of scientific virtue as a reminder that trust still matters at the cutting-edge of scientific “future-making.” Shapin’s mastery of historical narrative is clear; anyone interested in the American scientific persona and how it has transformed in the twentieth century would do well to wade patiently through this thick and rewarding text. But hang up your expectations of historical linearity (and, sometimes, thematic coherence) as you weave through motley professionals, theorists, and critics drawn from over a century of science commentators. Perhaps this work is best described as *textured*: rich in detail, woven intricately, but hardly smooth to the touch.

Shapin begins by detailing the transformation from science as *calling* to science as *job* in the late nineteenth and early twentieth century (chapters 1-3). During this period, the idea of science as vocation lost its impetus as the fruits of discovery became politically and economically valuable. Robert K. Merton’s sociology exemplified this shift, asserting that neither constitutional nor motivational differences existed between scientists and non-scientists. The Mertonian “moral equivalence” of the scientist (i.e. scientists are just ordinary folk) eventually displaced Weber’s “man of science,” in whom moral authority once stemmed from a merging of curiosity and morality. The “spirited” scientist became the disinterested

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scientist, in personal convictions and professional identities. Despite the unclear origins of this “moral equivalence” (as Shapin prudently admits), a commitment to the idea persisted in the post-World War II era of “Big Science” and the military-industrial-academic complex.

As scientists moved from the Ivory Tower to industry, scientific virtues had to be reconfigured. During the emergence of Big Science, the autonomous scientific intellectual moved onto government or industry-backed research teams; the ideals of scientific creativity, freedom, and integrity took new forms. Shapin recounts the ambivalent musings of academic commentators, industrial managers, and research directors as they lamented or embraced these changes in industrialized science (chapters 4-6). While science aimed to uncover *truth*, business aimed to unearth *profits*—reconciling these two *raison d'être* was a conundrum. Did the pressures and monetary rewards of industry tarnish the contemplative and humble virtues of the “Research Man” *cum* “Organization Man”? Social scientists wrote the story of a scientist’s transition to industry as one of trauma, shock, and rebellion; maladjustment became a sociological “matter of fact” arising from the “fundamental conflict in the goals and values of scientists and businesspersons” (p. 114). These commentators argued that scientists trained and socialized in the Tower had to be resocialized as employees, with loyalties to the company rather than the unwavering search for truth. A defence of scientific individualism defined scientists’ anti-authoritarianism, which rallied against the secrecy of the Cold War and McCarthyism; American society was reminded that its “security and welfare depended upon some of its least sociable and least conforming members” (p. 177). Yet the abstract tensions between Merton’s “scientist-socialized-into-virtue” and the punch-card-carrying industrial researcher did not exist in the eyes of research managers. This is a surprising historical discordance, which Shapin demonstrates in meticulous detail. The view from the managers (what Shapin calls the “internal” perspective) observed and sought to solve concrete organizational problems in the uncertainty of scientific discovery. Research managers saw past the abstract problems of collectivization to see the new forms of multidisciplinary and adaptability emerging in the day-to-day problems of collective work. In fact, industry was the place of the most radical experiments where “institutional uncertainties were greatest” (p. 191) and the organicism of group research incited an explosion rather than a restriction of creative capacities. It was no longer clear that academia was the exemplar of scientific productivity or virtue.

The emergence of entrepreneurial scientists in the 1970s radicalized the political economy of Big Science and the quest for intellectual property in the Wild West of venture start-ups (chapters 7-8). The once essential

virtues of an unwavering commitment to truth and the selflessness of social responsibility gave way to the “play instinct” and the hedonism of scientific “fun.” James Watson and Richard Feynman exemplified this new charisma mid-century, and only later did this entrepreneurial spirit combine with the quest for commercial success. Craig Venter and Kary Mullis, the giants of biotech entrepreneurship, towered over the “gentlemanly conception of science” (p. 225) and reinvigorated scientific pursuits with the boldness and urgency of youth, adventure, and downright coolness. The knowledge economy became central to late modern capitalism and entrepreneurial science pushed this economy into the future. Shapin describes this shift as one of degree rather than kind as scientists were tempted away from academe. Academic environments of “Ivy and Ivory”—once idealized as the fertile grounds of creativity—were burdened by grant writing, administrative responsibilities, and compulsory teaching. The scientific playground became more enticing.

At the leading edge of this technoscientific frontier—in the scientific life of the twenty-first century—normative uncertainty becomes a crucial factor. More than ever before “people and their virtues *matter*” (p. 270, original emphasis). Trust and familiarity are vital to venture capitalists confronting the radical uncertainties of “future-making”; scientists at the edge, so reliant on venture funding, must appeal to the gut instincts of investors. This is not a reawakening of pre-modern virtues once lost, but a new social order shaped by the “world of making the worlds to come” (p. 303). Here Shapin’s work is rich in its thematic approach to personal interviews and its historical skepticism of archetypes. Shapin’s historiography is nuanced, appreciating the heterogeneity of “the texture of quotidian life in entrepreneurial science” and the inability to weave “any one coherent narrative” (pp. 251-52) from such diversity. Yet here, as throughout the work, Shapin implies grand lessons about *the* “scientist” and *the* “scientific life” that are unjustifiably sublime. Perhaps the work should have been more humbly titled “Some Scientific Lives,” especially considering his focus on the late modern vocation in a particular and concrete historical geography. Nevertheless, readers of this pluralistic narrative are left with a revitalized appreciation for scientific virtues: why they mattered in late modern technoscience and why they continue to matter in the world to come.

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