

BOOK REVIEW

Myrna Perez, *Criticizing Science: Stephen Jay Gould and the Struggle for American Democracy*

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The 2020s seem an appropriate time to appraise the state of science, public discourse and democracy in the United States of America. Historian of science and scholar of religion and gender Myrna Perez's *Criticizing Science* comes therefore at an opportune moment. With a vaccine sceptic chairing the United States government's Department of Health and Human Services, a climate denier as president, and creationists throughout the cabinet, one might argue that the present place of science as a force for public good in American democracy is rather limited. Perez does not shy away from the present, but her book situates the 2020s and contemporary fights over the authority of mainstream science in a much longer trajectory. Stephen Jay Gould, she writes, is her Virgil, and by analysing and contextualizing his scientific, intellectual and cultural contributions, Perez shows how the long-developing tension between scientific liberals, New Leftists, conservatives and critics of science during the late twentieth century led to the present moment.

By the author's own admission, *Criticizing Science* is really three books in one: an intellectual history focused on the work of Stephen Jay Gould; a cultural history of science, democracy and public discourse in the late twentieth-century United States; and a commentary on how progressives can both champion science and come to grips with the systemic racism, classism and sexism that Perez identifies as embedded in the scientific enterprise. Gould and his intellectual contributions serve as the pivot in these three narratives. So too do three scientific–political–social movements: 'ultimately, a history of evolutionary science in this period provides a tangible thread with which to follow the emergence of left-wing, liberal, and right-wing approaches to science' (p. 3).

The six chapters of *Criticizing Science* weave together those interlocked narratives and movements, using Gould as the shuttle. Perez takes a generally chronological approach to Gould's work and life, considering his background in radical science and politics during his education, through his scientific research, and into his life as a public intellectual. Gould's efforts to confront racism (Chapter 1), sexism (Chapters 2 and 3), and creationism (Chapters 4 and 5) occupy most of the book, with the framing chapters contextualizing the big picture of science, democracy and scientific discourse. Throughout the text Perez analyses Gould's major written works – such as 'The spandrels of San Marco and the Panglossian paradigm' (1979, with Richard Lewontin), *The Mismeasure of Man* (1981), and *The Rock of Ages* (1999) – but her book is structured less by Gould's output than by the social questions that he addressed: structural racism and sexism, the dangers he saw in sociobiology and creationism and the relation of science to religion, democracy and politics.

Perez situates Gould within the radical science movement and the criticism of science, at first as a proponent but eventually as 'frozen in time' (p. 35) in the politics of the 1960s. Gould's scientific critique, Perez argues, emerged from his concern with civil rights and less from the desire to remake science as a postcolonial endeavour. This 'would eventually put Gould out of step with more radical epistemologies', she explains (p. 36). Gould was more concerned with who did science and how they did so than with questioning what science is, which placed him squarely in the liberal camp as opposed to the leftist one. The book notes the growing critique of American science from the 1970s to the 1990s – for example, the positions of Judith Butler and Audre Lorde – and Gould's place within that discourse. Perez shows how Gould's scientific thought, specifically his punctuated-equilibrium model, developed in tandem with his rejection of the sociobiological model of natural selection that he considered scientifically inaccurate as well as socially unjust.

Gould's efforts seeking to negotiate and reconcile religion and science occupy much of the second half the book, and Perez navigates the central tensions present in the interplay between postmodern critics of science, proponents of intelligent design, the New Atheists and mainstream scientists during the 'science wars', as well as litigation over the teaching of creationism in American public schools. Readers familiar with the work of the late historian of science Ronald L. Numbers will recognize the broad argument here, but in showing how Gould fits within the history Perez offers an important contribution.

Perez does not shy away from commentary, and the questions of the relation between science, scientific authority and democracy. Paralleling Gould's own call for a historical-critical analysis of the scientific inquiry, Perez urges an activist historicization that recognizes science's complicity in American imperial colonial power. But she rejects his scientific liberalism. Perez ultimately argues that Gould's hope for an inclusive and democratic science 'was a dream divorced from reality' given 'the history of enslavement, patriarchy, and colonialism that built the United States' (pp. 190–1).

History's long brush will write the story of American science and democracy, but the splintering of the liberal scientific establishment away from the left-wing criticism of science, as Perez traces through her analysis of the work of Stephen Jay Gould, will surely be understood to have played a role. In a post-fact world wherein scientific authority is marshalled in support of an assortment of 'alternative sciences', and the scientific establishment has been left in disarray, attention to Gould's life and work seems especially apropos.