



Last Judgment: The Visionary Biology of J. B. S. Haldane

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Abstract. This paper seeks to reinterpret the life and work of J. B. S. Haldane by focusing on an illuminating but largely ignored essay he published in 1927, “The Last Judgment” – the sequel to his better known work, *Daedalus* (1924). This astonishing essay expresses a vision of the human future over the next 40,000,000 years, one that revises and updates Wellsian futurism with the long range implications of the “new biology” for human destiny. That vision served as a kind of lifelong credo, one that infused and informed his diverse scientific work, political activities, and popular writing, and that gave unity and coherence to his remarkable career.

Keywords: J. B. S. Haldane, biology, politics, genetics, evolution, population genetics, physiology, Darwinism, experimental biology, eugenics, Britain, Russia, India, Soviet, Communism, socialism, philosophy, vision, literature, popularization, religion, human experimentation, bioethics, Venus, Mars, science fiction, technocracy, futurology, H. G. Wells, Julian Huxley, Olaf Stapledon, C. S. Lewis

The conservative has but little to fear from the man whose reason is the servant of his passions, but let him beware of him in whom reason has become the greatest and most terrible of the passions.

J. B. S. Haldane¹

Introduction

J. B. S. Haldane (1892–1964) is one of the most fascinating, perplexing and troublesome figures in the history of science. That he was a major biologist of his time goes without saying, but attempts at further scientific classification are futile: there is hardly a field of modern biology in whose history he does not deserve at least some mention. And, beyond biology proper, Haldane had yet other personae that at times seemed no less central to his career. Any attempt to come to terms with his life and work must face the dual challenge of his extraordinary multiformity and his utter singularity.

¹ Haldane, 1924, p. 78.

I first heard his name as an undergraduate more than thirty-five years ago – but I have been bumping into JBS ever since. When I began my studies of the Russian population geneticist Sergei Chetverikov, there was that famous troika of “Haldane, Fisher, and Wright” who created mathematical population genetics in the 1920s and early 1930s.² Later, I became absorbed in the postwar history of Lysenkoism, and discovered that Haldane was one of the few Western biologists who rose to Lysenko’s defense.³ While exploring A. I. Oparin’s theory of the origin of life, I was surprised to learn that the co-originator of that theory (in 1929) was none other than JBS.⁴ My interests turned to issues of scientific planning – and there was Haldane again, this time as a central member of the “visible college” of British activist scientists in the 1930s.⁵ In the early 1970s, when I interviewed Theodosius Dobzhansky about his life, he suddenly began to recount his own memorable encounters with JBS, commenting, “Haldane was always recognized as a singular case.”⁶ Later, I began to study the history of eugenics – only to find that Haldane was one of those so-called “Bolshevik,” “reform” eugenicists of the left.⁷ Then, on to medical genetics in Russia – and there was “Haldane the human geneticist,” who apparently thought little of the Russian work, preferring that of his own student, Lionel Penrose.⁸ No matter how distantly I ranged, he proved impossible to avoid: even while teaching a literature class on that hoary classic, *Brave New World* (1932), there was Haldane’s “Daedalus” of nine years earlier, where the idea of “ectogenesis” (on which the novel is based) – and the word itself – came from.⁹ And, as a quick survey of the literature reveals, he had numerous other personae as well – the physiologist, the biochemist, the biochemical geneticist, the statistician, the popularizer, the essayist, the polemicist, the editor, the politician, the Communist, the émigré to India.¹⁰

Could all these Haldanes really be the same person? “Jack” to his friends, “Prof” to his students, “JBS” to the world – who *was* this man? He was, I learned, “the most erudite biologist of his generation, and perhaps of the century”¹¹ (to quote Michael White), a “polymath” (as Ernst Mayr describes

² Adams, 1968; on Haldane’s contribution, see Provine, 1971, pp. 167–177.

³ See, for example: Filner, 1977; Paul, 1983a; Krementsov, 1996.

⁴ Adams, 1990a, pp. 695–700; see also Bernal, 1967; Farley, 1974.

⁵ Werskey, 1971.

⁶ One of these encounters has been detailed by his daughter (Coe, 1994, p. 25).

⁷ Adams, 1990b. On Haldane and eugenics, see especially: Paul, 1983b and 1998; Kevles, 1985; Mazumdar, 1992, pp. 146–195.

⁸ See Kevles, 1985, especially pp. 148–164.

⁹ Thankfully this 1924 work has recently been republished (Dronamraju, 1995, pp. 23–50).

¹⁰ In addition to already cited sources, see Clark, 1968; Dronamraju, 1968 and 1985.

¹¹ White, 1965, pp. 1–7; in Filner, 1977, p. 309.