

This article originally appeared in:

Dennett, Daniel. 2004. Obituary for John Maynard Smith. *Biology and Philosophy* 19(3): 307-309.

Available online at:

<http://www.springerlink.com/content/w326k22213811m72/?p=1b2372effafe426f9dd24fd9b9be476c&pi=10>

This is Daniel C. Dennett's final draft before publication. It has been modified to reflect the pagination of the published version of the work.

Biology and Philosophy 19: 307-309, 2004.

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Obituary

John Maynard Smith, one of the greatest evolutionary biologists since Darwin, died April 19, at age 84, at his home near Brighton, Sussex. Best known for his introduction of game theory into evolutionary theory, and for his pioneering work on the evolution of sex, he was not just a theoretician. He had the trained eye of a field biologist and an inspiring knowledge of natural history to draw on, and also made major contributions to our understanding of bacteria, genetics, and the evolution of animal signaling. The complete biologist, with expertise and bold hypotheses to offer on every topic from the origins of life to the evolution of human language and culture, he was also one of biology's best explainers. He was, in fact, what every philosopher should try to be and few succeed in becoming: a connoisseur of beautiful ideas. To him, a puzzle about the twofold cost of sex, or hypercycles, or the evolution of honest signaling, or any other problem of evolutionary theory, was like a new species of butterfly to a lepidopterist - something to be examined with rigorous attention to detail, so it can be understood from the ground up, its life cycle and prospects and kin all framed and mapped with loving care and brilliant insight. Even his most technical articles can be grasped in their essentials (with effort!) by non-experts thanks to his lucid style and abhorrence of jargon, but he also lavished attention on more accessible versions of the best specimens for a wider reading public. I suspect that almost as many professors as students have gratefully clung to these beacons of authority and clarity in the storm-tossed seas of theoretical controversy.

He once recalled his delighted discovery as a schoolboy at Eton of J.B.S. Haldane's book of essays, *Possible Worlds*; it changed his life, and after working as an aeronautical engineer designing aircraft during the war, he studied with Haldane and then went on to write his own series of career-inspiring books and essays for generations of students and professors around the world. The 1993 Introduction to the last edition of his 1958 classic, *The Theory of Evolution*, is an elegant and lucid overview of the progress in biology during his career, an essay nobody else could have written. But then that is true of just about everything he wrote, such as the essays collected in *Games, Sex and Evolution* (1988), and his books, *The Evolution of Sex* (1978) and *The Problems of Biology* (1986). In recent years he turned to fruitful collaboration with younger researchers. *The Major Transitions in Evolution*

(1995), and its more accessible version, *The Origins of Life: From the Birth of Life to the Origin of Language* (1999) were co-authored with the brilliant young Hungarian chemist, Eors Szathmary, and his last book, *Animal Signals* (2003), was co-authored with field ecologist David Harper.

Like his mentor Haldane, Maynard Smith took his leftwing politics seriously and was a member of the Communist Party until the tanks rolled into Hungary in 1956. His leftward sympathies never abated, but he was as unflinching and honest in his private critiques of shoddy leftist thought as he was of both creationist nonsense and misguided Darwinian enthusiasms. He was famously gentle and generous with students and well-intentioned interlopers who needed to be set straight, reserving his fire for academic bullies and poseurs, whom he treated to bullseye demolitions delivered with merciless wit.

His reaction to philosophers in general and philosophy of biology in particular was a tolerant and curious skepticism. Since his own love of ideas and arguments was such a close kin of the philosophical temperament, he genuinely saw the point of philosophical inquiry and debate, but he was dubious that anything of much substance could be generated in the rare and factually impoverished atmosphere of standard philosophical thought experiments. He was similarly skeptical about the field of Artificial Life, which he once called "basically a fact-free science" (Horgan, *Sci. Am.*, June, 1995), but typically, in spite of his misgivings he twice played a pivotal role in workshops at the Santa Fe Institute that brought Artificial Life enthusiasts into contact with evolutionary biologists to explore their overlapping interests, brainstorming along with the others in search of simulations that would reveal something new and interesting about the evolution of communication or the Baldwin Effect or some other evolutionary milestone. He was not dogmatic in his skepticism about the prospects of philosophical contributions to general understanding of difficult topics, and served as an examiner on several doctoral dissertations in philosophy. A review of his bibliography shows that he undertook to engage philosophers on their own turf in their terms on a good dozen occasions, including several in this journal.

Winner of the Crafoord Prize and the Kyoto Prize, John Maynard Smith was a hero to many of us, not just for what he had figured out, but for how he conducted his science. While other authors have famously celebrated the joy of cooking, or of sex, Maynard Smith celebrated the joy of understanding. Just reflect on the titles of some of his recent articles: "The games lizards play" (*Nature*, 1996); "Too good to be true" (*Nature*, 1999), "Why Fruitflies Dance" (*TLS*, 2001), "Mitochondrial Steve: paternal inheritance of mitochondria in humans" (*TREE*, 2003). In a reminiscent mood, Maynard Smith recently offered the readers of *TREE* "Cautionary

tales for aspiring species or the beast's book of blunders" (2001), saving for posterity some rediscovered poems that he and some fellow students wrote to honor Haldane on his 60th birthday in 1952. Here is the last quatrain of his poem "STRUTHIOMIMUS or The Folly of Being Too Clever" (which recounts the then popular theory that egg-laying dinosaurs were done in by the innovative egg-stealing tactics of one of their own kind, while eggless mammals were safe from its predations):

This story has a simple moral
With which the wise will hardly quarrel;
Remember, Prof, it hardly ever
Pays to be too bloody clever.

Hardly ever? Hardly ever.

*Dan Dennett
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