

BOOK REVIEW

James T. Costa, *Radical by Nature: The Revolutionary Life of Alfred Russel Wallace*

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James Costa was trundling aboard a bus in the summer of 2010, bound not for Damascus but for the Linnean Society in London, when epiphany struck. The spark was a paper by H. Lewis McKinney on Alfred Russel Wallace. Costa realized that Wallace was much more than a collector of natural-history specimens who, by luck, glimpsed the silhouette an idea – evolution by natural selection – that Charles Darwin had already elaborated in depth. The older naturalist had beat him to the theory, true, but Wallace had been no less creative in asking fundamental questions about the living world, no less prepared to test his answers rigorously and no less skilled in communicating his theoretical insights with clarity and depth.

Costa's epiphany sparked his impressive scholarly re-evaluation of Wallace. His latest, *Radical by Nature: The Revolutionary Life of Alfred Russel Wallace*, builds on an encyclopedic mastery of primary and secondary sources. It is also fun, with a pacy narrative and prose that shimmers with wit and personality. You are likely to have your own epiphanies when reading it.

I did. About halfway through, I realized that we should no longer allow Darwin unimpeded access to Wallace's stage. Wallace is and will remain connected to Darwin for sensible and obvious reasons. But *Radical by Nature* taught me that we cannot fully explore the multitudes of Wallace's multitudinous life with Darwin constantly hovering nearby. Instead, let us duet Wallace with other partners.

I suggest Thomas Huxley.

Wallace and Huxley grew up in similar humble social and strained economic circumstances. They fought their way into sustainable (but always financially precarious) scientific careers through force of genius, stubbornness and more than a dash of romance. Both wrote with literary flair and fearlessly plunged into the type of cultural controversies that Darwin, by temperament and strategy, avoided. Wallace and Huxley did not dimly foresee a revolution in natural history; they expected nothing less than a new Reformation. Science would sweep away dogmatic theism and the irrationality and injustice it underwrote. Wallace, in a particular burst of exuberance in the 1860s, promised that science would allow humans 'to convert this earth, which had so long been the theatre of their unbridled passions, and the scene of unimaginable misery, into as bright a paradise as ever haunted the dreams of seer or poet' (p. 296). Huxley may not have reached such heights of grandiosity – although his disciple H.G. Wells certainly did – but his faith in Progress lit by scientific rationality was no less fierce.

Mutual admiration tied Wallace and Huxley together. Wallace discovered the faunal discontinuities that ran through the Malay archipelago, but it was Huxley who made the insight iconic by calling it the ‘Wallace Line’ (p. 289). Huxley once declared that everything Wallace had to say was worth hearing, ‘even if it should be about spirit rapping and writing’ (p. 358). Huxley would not have deigned to listen respectfully to many other people (living or dead) on spiritualism. But there was also no hope that Wallace would convert him. And there rests radically different visions for Reformation.

Wallace first met Huxley when the latter was serving as vice president of the Zoological Society of London a mere couple of years after being elected to its fellowship. Huxley was an institution builder and a leader who occupied many other august offices during his long career. Huxley’s Reformation did not seek to end the Establishment but to rebuild it along scientific lines – church-state giving way to science-state. A friend wryly called him ‘Pope Huxley’.

Wallace had no use for Establishments. Even as a child, he felt much more at home in the dissenting chapels of his friends than in his family’s Anglican parish church. As Costa astutely observes, through spiritualism Wallace ‘become another kind of dissenter’ (p. 13). His embrace of the preternatural (he disliked the term ‘supernatural’) placed him on the far edge of – even, Costa says, exiled from – a scientific heartland he feared gave too little scope for personal dignity and autonomy. The science of his ‘utopian yearnings’ (p. 386) would not be co-opted by state power and capitalist exploitation. He had no intention of hammering free from organized superstition only to accept the fetters forged by a ‘scientific priesthood’. He opposed compulsory vaccination (a much more scientifically justifiable stance than now, Costa assures us) because he disliked punitive legislation and mistrusted the centralizing authority of the medical profession. He despised the authoritarian impulses behind Francis Galton’s eugenics (Huxley agreed here). Wallace even horrified his friends by arguing publicly, in *Nature* no less, against government subsidies for scientific research. Public funds should not flow to such a narrow segment of society, he said, even if he personally benefited. ‘Though I love nature much I love justice more’, he dissented. No one ever joked about ‘Pope Wallace’.

When Wallace notoriously exempted humans from the relentless material logic of natural selection, he obviously clashed with Darwin on points of scientific logic and evidence, but he also dissented from scientific establishmentarianism. Huxley believed in natural hierarchies and real biological inequalities between classes, races and genders. Wallace distrusted all claims of inherent superiority, whether said to flow from divine design or natural cause. A ‘superior intelligence’ guiding human mental evolution provides empirical justification for his idealistic vision of human love and sympathy.

So, since finishing *Radical by Nature*, I have been thinking constantly about this dance between Huxley and Wallace, and whether it requires me to update my vision of other figures like John Tyndall, Joseph Hooker and, yes, that gentleman from Downe. I find Costa’s book most electrifying, though, because I suspect that it will inspire you to reach your own epiphanies about something else entirely.