

CrossMark

The all-important index in such a non-linear text is thorough and well organized. However, one criticism is that the index only directs the reader to references in Wallace's original manuscript. The reasoning for this is clear: the focus is on Wallace's discussion. And from a practical point of view, the inclusion of the annotations would have perhaps made such an index too unwieldy. However, this does mean that the reader may overlook the hugely significant comments made by Costa in support of the manuscript. That is a great shame. Thus the inclusion of additional indexing for the annotations would have been greatly appreciated, especially when such a text usually finds itself dipped into rather than read from cover to cover.

Overall, this is a superb work which places one of the 'crown jewels of biology' proudly and prominently before the scholarly public at large. Consequently, it should find its way onto the shelves of a vast array of individual scholars and libraries in the history of science and beyond.

AHREN LESTER

University of Southampton

Angelique Richardson (ed.), **After Darwin: Animals, Emotions, and the Mind.** Amsterdam: Rodopi, 2013. Pp. xvi + 369. ISBN 978-90-420-3747-2. €85.00 (hardback). doi:10.1017/S0007087415000436

'After Darwin, something changed' (p. 4): thus the somewhat understated epitome of Angelique Richardson's introduction to this edited volume, which provides ample evidence of the vast influence of Darwinian thought on various disciplines, past and present. *After Darwin* probes deep into the relation between animals and humans and between nature and culture without submitting to a mere uncritical worshipping of Darwin's thoughts. Following Darwin's own interdisciplinary way of thinking, the various contributors offer instead 'plural ways of seeing' (p. 2).

The first essay, by Jane Spencer, dispels the ongoing 'myth' that Darwin personifies a new awareness of animals. By situating the birth of his evolutionary theory within an Enlightenment tradition that embraced the new science, philosophy of mind and sensationalism, within theist and physicalist understandings of nature, she shows that the eighteenth century in fact anticipated many of Darwin's views on the continuity of human and animal emotions.

The remaining ten contributions discuss Darwin's influence on a variety of fields. Richardson's own two contributions, for example, explore aspects of reading and writing. In Chapter 2 she discusses the reception of Darwin's Expressions of the Emotions in Man and Animals - 'the most human-centred of Darwin's works' (p. 51) – in terms of its highly diverse readership and the responses of reviewers. Interestingly, Darwin's books were requested as often as romance novels in circulating libraries, suggesting that readers of all walks of life could relate to it. As expected, not all reviewers were thrilled with Darwin's revelations about the mental and moral human-animal continuity. In Chapter 5, Richardson traces the influence of Darwinian thought on contemporary writers. His publications, she argues, helped novelists such as George Eliot conceive the mind, the emotions, the moral sense and the close relationship between humans and animals in new terms and thus 'opened up new possibilities for fiction' (p. 136). Aspects of reading and writing also feature in David Amigoni's essay, which investigates how the notion of sympathy acquired a range of significant connotations in the (auto)biographical writings of the Darwin family. Evolutionary accounts and biographical anecdotes served here as a 'platform for the Darwin family's sense of its members as elite, self-conscious, socially networked practitioners of medicine and scientific speculation' (p. 174). According to Gillian Beer in Chapter 3, reading was the only pleasure left for Darwin in his old age. When younger, Darwin's response to music, to theatre, to opera, as well as to landscapes and encounters with animals, was so intense that he often experienced 'backbone shivers' (p. 95). Probing deep into Darwin's somatic engagement with nature and the arts, Beer beautifully captures Darwin's way of perceiving the outside world with all of his senses, relishing 'the aesthetic choices of worms, the energy and discrimination of climbing plants, the erotic ingenuity of orchids, the reasoning gaze of infants' (p. 108).

524 Book reviews

The topic of Darwin and the arts is also explored by Monika Pietrzak-Franger in Chapter 7. By looking at the way that the man himself and his life's work are displayed in modern exhibitions, she reveals how post-millennial artists, scholars and popular spaces like museums are becoming increasingly engaged with the 'affective Darwin' and his 'entangled vision' (p. 198), which signified a new way of seeing and perceiving by merging feeling and the intellect. Darwin's somatic interaction with animals and nature is now intriguingly replicated in modern exhibitions in which visitors themselves can enter into a multi-sensual engagement with the objects and images on display, thus continuing Darwin's project.

A different kind of 'backbone shiver' was experienced by Darwin when he encountered the inhabitants of Tierra del Fuego during his voyage. In Chapter 4, on the evolution of sympathy, Paul White discusses here a darker and more ambivalent side of Darwin, whose reference to the Fuegians as 'beastly natives' did not sit well with his otherwise openly expressed belief in the unity of mankind and frequent challenge of the traditional boundaries between humans and animals. Voicing his disgust at the Fuegians' 'animal-like' behaviour and aggression is indeed at odds with his experimental observations at home, in which he freely travelled 'from the nursery to the zoo and back' (p. 118). Within the safe environment of his English home, seeing the 'animal' in his own children presented to him a rather positive state of development, whereas the South American natives terrified him to the core and brought out primal prejudices.

Darwin's impact on science is variously explored by Stephen Jacyna, Michael Lewis and Rhodri Hayward. Jacyna discusses how evolutionary theory put neurology and the brain sciences on a new track, although, contrary to Darwin's thoughts, these fields maintained a large gap between human and animal emotions. Human intellect posed the strongest barrier, as it was perceived to modulate and control the emotions in ways that no other animal was capable of; yet, interestingly, this hierarchical thinking of cerebral and emotional capacities mirrored cultural assumptions more than it did scientific findings. Lewis offers the unique perspective of a modern psychiatrist and paediatrician whose studies on the emotional development of infants extend Darwin's own research based on his 'baby diaries' (p. 281). It is fascinating to read what a modern scientist makes of Darwin's theories; granted, nowadays emotions are differentiated more and more and are measured mainly via brain activity and stress hormones, but the fact that Lewis's experiments rest on Darwin's initial thoughts is itself testimony to the influence of Darwin on modern psychological research. Rhodri Hayward's chapter uniquely traces Britain's current political-cum-psychological state-building and happiness agenda back to Darwin's biological speculations in his Expressions. The different scientific and ultimately political worlds emerging out of different readings of the Expressions are fascinating testimony to the layers of understanding that have been added to Darwin's study – from Freud's exploration of the primitive origins of neurotic sensations to the new politics of the EEA (environment of evolutionary adaptedness). The latter aptly provides a direct link to the current 'emotional-government' agenda (p. 237), showing that Darwin's theories themselves are constantly adapted to new prevailing theories of population misery.

Harriet Ritvo's chapter, based on a previously published article, focuses not on Darwin's take on the emotions, but on his view of species selection and domestication while assessing modern shifts of perceiving 'the wild' versus the 'domesticated'. The disjunction between natural and artificial selection, between the 'wild' and the 'tame', no longer holds, she argues, as even the lives of animals conceived as 'wild' no longer remain untouched by human interference. The way we conceive, and deal with, animals, be they wild or domesticated, is also at the centre of Mark Bekoff's afterword. Like Darwin's *Expressions*, it provides a range of anecdotal evidence of animals and human–animal interaction which amounts to a refreshingly simple claim for a common-sense recognition of animal emotions: 'When all the jargon is boiled down, it means that what people sense is likely what animals are feeling' (p. 318).

Guided by the assumption that science and culture are at all times reciprocal, *After Darwin* successfully bridges the gap between science and the humanities. It also typifies the rising interest in the emotions as a field of study in their own right and is furthermore representative of Harriet Ritvo's observation of ten years ago that 'animals have been edging towards the academic mainstream' (p. 8). Some chapters integrate less well into the overall agenda of the volume, but they all offer a unique way of thinking about emotions, animals and human nature, at the centre of which we ultimately find Darwin himself.

Stephanie Eichberg University College London

CLAIRE L. JONES, The Medical Trade Catalogue in Britain, 1870–1914. London: Pickering & Chatto, 2013. Pp. xii + 264. ISBN 978-1-84893-443-6. £60.00 (hardback). doi:10.1017/S0007087415000448

Claire Jones's interdisciplinary and innovative study *The Medical Trade Catalogue in Britain*, 1870–1914 brings together for the first time the methodologies of historians of medicine, of technology and of print culture and convincingly demonstrates how the medical trade catalogue illuminates the development and practices of medical professionals in the late nineteenth and early twentieth centuries.

Her exploration of the medical catalogues that flourished in the period from 1870 onwards revolves around the medical profession's response to and active engagement with them. At a time when medical professionals had started developing a strict code of ethics aimed at deterring doctors from being involved in partnerships with tradesmen and other commercial ventures in the medical marketplace, the contributions of doctors to the medical catalogues were viewed as beneficial to the profession. Specifically, a number of doctors, including Robert Saundby, professor of medicine at the University of Birmingham, were keen to develop their own instruments which would subsequently feature in medical trade catalogues. As Jones explains, the audience for medical trade catalogues was almost exclusively qualified medical professionals, and the medical catalogue adopted the language and presentation of scientific publications - even its physical elements evoked those of a medical reference book. In this way it proved a substantial manual that informed medical practitioners about recent developments in medicine and in the design and production of instruments and in other electro-medical equipment used by surgeons and dentists and in orthopaedics. Medical companies abundantly produced such catalogues to advertise their products to medical professionals. Indeed, Jones's study includes a lengthy appendix that lists approximately four hundred trade catalogues (produced by 101 companies) that she unearthed through archival research at numerous university libraries and museums and the archive collections of pharmaceutical and other companies.

Jones emphasizes how her methodological framework is informed by the work of medical historians, including Paul Starr and his highly influential *The Social Transformation of American Medicine: The Rise of a Sovereign Profession and the Making of a Vast Industry* (1982). Starr proposed that medical competence is distinguished by cognitive, moral and collegial characteristics, and Jones has translated this conceptual framework to the British context to understand the diverse ways through which doctors interacted with the medical trade catalogues. She is also in conversation with a number of medical historians who explored the economic reality and the medical-professional markets in which doctors worked. But as Jones highlights, such strands of scholarship have neglected to study the role of medical professionals as producers and consumers of instruments and pharmaceuticals, and the way this facet of their professional life can be understood by studying the medical trade catalogues. Further, Jones draws attention to the work of historians of technology and stresses the fact that the medical trade catalogue was itself a material innovation, a communication technology that can illuminate the everyday life of medical professionals.