

Angelique Richardson, ed., *After Darwin: Animals, Emotions, and the Mind* (Amsterdam: Rodopi, 2013), pp. 369. ISBN 978 90 420 3747 2. \$119. € 85.

This extremely interesting and well organized collection of 11 original essays and an 'Afterword' is not greatly concerned with George Eliot, although it would seem every major Victorian concern somehow ends by involving her. As a study that aims at what its title indicates, it includes George Eliot and G. H. Lewes as direct subjects, but only in one essay, Angelique Richardson's 'George Eliot, G. H. Lewes, and Darwin: Animals, Emotions, and Morals'. Although, she concedes, both 'maintained human distinction in their writing' (p. 137), George Eliot felt and expressed through anthropomorphism, a real kinship with animals. With Lewes (whose final volume of *Problems of Life and Mind* she completed), she saw – and dramatized through her emphasis on the unconscious – the physical basis of emotions. *Middlemarch*, we know, completed publication in the same year as Darwin's *Expression of Emotions in Man and Animals*, 1872, but George Eliot's concern with manifestations of feeling through the physical was clear from the start of her career in her developing, changing relations to physiognomy and then phrenology. The concern is evident in her correspondence also and the treatment of animals in the early novels, where she is very much aware of a physiology of emotions, and – as she would be throughout her works – almost obsessed with the possibilities of sympathy.

Nevertheless, the true hero of this book is Darwin himself, whose *Expression of the Emotions* is the starting point for almost all of the essays, which are designed to study, with primary attention to the way emotions are expressed and analyzed, the relation between humans and animals from Darwin's time to our own. The book is self-consciously interdisciplinary, in the way, we might say, George Eliot was, considering 'the tempting range of relevancies called the universe', finding connections among physiology and morality and animals and literature and the mind. The contributions, from scholars distinguished in medicine, psychiatry, ecology, history of science, and of course literature, are compact and, remarkably, virtually all of high quality, even when the primary task is only to summarize the status of research in some related subfield.

Beyond Richardson's one chapter on George Eliot and Lewes, the book is importantly relevant to students of George Eliot because it is about matters that were central to her own writing – the emotions, their sources, and their representation, their power to control action, their relation to mind and matter (the power of the irrational), and the relation of the human to the animal. It considers in a remarkable variety of ways the extent to which human emotions are expressed physiologically and may be thought of as the products of physiological activity, are universal (or not), dependent on cultural difference (or not), linked to moral issues, distinct from those of their apparent animal counterparts (or not). The developmental psychology with which some of the essays are concerned is in some ways the embodiment of Lydgate's vision and desire 'to pierce the obscurity of those minute processes which prepare human misery and joy, those invisible thoroughfares which are the first lurking-places of anguish, mania, and crime, that delicate poise and transition which determine the growth of happy or unhappy consciousness'. The minutiae of our material bodies are the ultimate sources of our consciousness and morality. George Eliot's preoccupations with the roar on the other side of silence, with Lewes's psychological work – particularly in *Problems of Life and Mind* –, with the relations between feeling and intelligence, and with the possibility of moral change, all

reverberate through these essays, even when (which is most of the time) George Eliot is not at all the subject.

The juxtaposition of animals with humans here is fully appropriate for many reasons. Darwin's work on emotions is designed to blur the distinction between man and animals, and to force readers to recognize the kinship of all living things. Richardson writes in this mode, and has clearly designed this book to confront and dispel once and for all the long-dominant Cartesian view that animals really are not like us. They are virtually automata, with no real intelligence and no real feeling. While the essays here remain rigorously scholarly, it is clear that the book is driven by Richardson's Dorothean passion for compassion and therefore for the growing good of the world. Near the end of her introduction, Richardson reminds us of Darwin's view that 'by minding animals we can increase our compassion footprint and make the world a better place' (p. 12).

If Darwin was right, and we can find in the simple physiology of the way we express emotions both signs of our kinship with animals and a universal language – and if, as it seems, modern science is moving in that direction and refining Darwin's arguments – then there are profound moral implications to the study of emotions and of our relation to animals. Richardson makes it clear, even in her tendency to support Darwin's own anthropomorphizing strategies, that she is concerned with human treatment of animals, and the book is dedicated to representing some of the most extensive investigations of human-animal relations in science and in literature. The texture of the book as a whole, whatever aspect of the subject the writers take up, is strongly reminiscent of the texture of George Eliot's world, where knowledge and emotion and moral energy fuse.

The dominant subject and connection is 'emotions'. The book is shaped around Darwin's famous theory, and Richardson's long essay on the reception of *Expression of Emotions* lays out some of the fundamental issues. But no summary of these essays will sufficiently indicate their richness. While they are not all obviously connected, the book builds strikingly from an implicit history of the central ideas about animals and emotions to consideration of their cultural consequences, to almost strictly modern scientific treatment.

Moving from Jane Spencer's discussion of the development before Darwin of a non-Cartesian ethical consideration of animals, to Richardson's fine study of the conception and reception of Darwin's *Expression of Emotions*, the book goes on to a series of original brief studies, with Darwin always at the centre, sometimes as theorist, sometimes as biographical subject, but always related to his arguments and their philosophical, practical, and cultural consequences. There is, first, the inevitable and necessary essay by Gillian Beer on literature and art within a Darwinian framework, then Paul White on 'Darwin and the Evolution of Sympathy', which puts Darwin complexly in the tradition of discussion of sympathy from Adam Smith forward to Derrida; there is Richardson on George Eliot and Lewes, and David Amigoni on life writing by and about Darwin. The book begins to move then increasingly toward modern, usually scientific developments and revisions of Darwin's theories of expression of emotion, which remain important to our time. Monika Pietrzak-Franger raises a series of questions growing from modern exhibitions related to Darwin's theory, particularly the double view of him, first as 'icon of pure intellect' and then as an historically located fully embodied person. The essays that follow tend to move beyond Darwin to engage with the fundamental issues that Darwin's work raised – L. C. Jacyna on the way neurological studies, between 1870 and 1930 handled in particular the problem of the relation between reason and

emotion. (Readers of G. H. Lewes will remember that he argued in *Problems of Life and Mind* that all thought has its foundation in feeling). Some of the following essays, like Michael Lewis's 'Development of Emotional Life', are technical – though eminently readable – and invoke the most recent studies in which science's recent capacity to measure with extraordinary precision the physiological accompaniments (or producers) of emotional states has entailed serious modifications of Darwin's ideas. Rhodri Haywood's study attempts to explain how Darwin's 'model of the affective life' has made thinkable the creation of 'a happiness index' in the effort to produce states that embrace a happiness agenda, or as Hayward puts it, 'emotional government'. Harriet Ritvo's essay, in which she discusses the cultural tendency to distinguish taxonomically the 'wild' and the 'tame', is the only one that is not immediately concerned with emotion, but it is very much concerned with animals, and with the way our labeling them has important consequences, determining whether we shoot animals or domesticate them, for example. Labels, she points out, 'construct the physical world at the same time that they describe it'. It follows then, in the book's preoccupation with how we treat animals, that, in the last chapter, it returns to the defence of animals. In a sometimes anecdotal study of the 'emotional and moral lives of animals', Mark Bekoff argues that 'Denying emotions and moral intelligence to animals is bad biology'. Animals, he writes, have quite complex subjectivities, and there is no way to study them accurately and helpfully without taking that into account.

Emotions, then, the fundamental subject of the book, open the way through these essays to new perspectives on everything from literature to human psychology to animal rights to political science. If the essays might seem at times to spread out very far from a defined centre, the focus on Darwin and emotions holds all of these various matters together. For Darwin, Richardson points out, emotions are caused by 'states of affairs outside the body, as opposed to sensations such as hunger, pleasure and pain, but experienced in the body, and conditioned by bodily actions. The expressive body responded to external stimuli, and the affected body in turn affected the mind.' Darwin's book, she claims, changed the Victorian understanding of emotion, and ultimately the way emotions could be registered in fiction. But clearly too the theory, placing emotion in the context of evolutionary development, universalizes it through all living creatures, 'the whole span of organic life', as Beer puts it. This is a book bringing science and morality together: it insists with scholarly authority on the inextricable connection of emotions with physical phenomena and with external stimuli. Rather in the spirit of George Eliot, it shows how Darwin's scientific theory – the product itself of deep imaginative sympathy – helped to transform our understanding of both humans and animals.

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