

## Book Reviews

### ***Emotion: Pleasure and Pain in the Brain***

ML Kringelbach and H Phillips (2014). Published by Oxford University Press, Great Clarendon Street, Oxford OX2 6DP, UK. 304 pages Paperback (ISBN: 978-0-19-959349-1). Price £29.99.

*Emotion* by Morten Kringelbach and Helen Phillips is a science textbook about emotions, and a top text at that. I would recommend it to any student of psychology, human biology or medicine. I'll later consider how well it is suited to students of animal welfare but first let me explain what makes it so good.

To start with there is the writing style. The text is written in simple, jargon-free English broken up into digestibly sized paragraphs, clarity such as this can only be achieved through true mastery of the subject. It is, thus, utterly accessible and authoritative at the same time. Which is where the combined expertise of the authors comes in: Morten Kringelbach is a Senior Research Fellow in the Department of Psychiatry and Senior Research Fellow and College Lecturer in Neuroscience at The Queen's College (both University Oxford), and also Professor at the Centre of Functionally Integrative Neuroscience at Aarhus University, Denmark; his particular research interest is in the neuroscience of pleasure, reward and emotions; Helen Phillips is a journalist and writer with a background in neuroscience.

The book is also beautifully produced. Pages of text are broken up with simple anatomical illustrations, tables, graphs of key findings, flow diagrams. These effectively support understanding and learning of the text's main points. Each chapter starts with a box of context, which helps link chapters and sets the scene for what's to follow. Stand-alone boxes provide further detail on selected topics or summarise key points. Chapters conclude with a list of proposed essay or tutorial titles, recommended further reading and references used in the chapter. An online resource centre provides figures from the book in electronic format and 'Journal Clubs' with discussion questions for research papers on featured topics. All of which highly recommends the book as a teaching and learning resource. Onto structure and content. The book is slim at only 284 pages, split into nine chapters. The first chapter considers the concept of emotion and previous attempts at defining it. It also introduces and promotes the evolving idea of emotion as playing a key role in all brain processes in humans. Chapter 2 elegantly takes us through 2,500 years' worth of the history of emotion theories and study. Readers like me with an interest in, but incomplete grasp of, the theoretical background will find this chapter particularly rewarding. Chapter 3 is on individual emotions, focusing on 'The Big Six' of fear, anger, disgust, sadness, joy, and surprise. Each is approached from a biological point of view by explaining neural mechanisms and presumed survival function. The following chapters cover social emotional development (Chapter 4), pleasure and pain as building blocks of emotion

(Chapter 5), the role of emotion in decision-making and memory (Chapter 6), emotional disorders (Chapter 7) and future avenues in emotion science (Chapter 8). The final chapter is a ridiculously concise yet comprehensive guide to the different techniques used in emotion science ranging from descriptive methods over fMRI to network analysis. It finishes with four pages on brain anatomy and functional brain anatomy — an inspired inclusion.

I would have only two points on my mental wishlist for future editions. One is to make *Emotion* into a bigger volume by expanding Chapters 3–9 and, in particular, the sections on individual emotions. The second is to include more material explicitly on animal emotions and on how they can be studied.

How useful then will this first edition of *Emotion* be to students of animal welfare? The book as it is provides a contemporary and extremely clearly presented introduction to the scientific study of emotion. While aimed at human psychology students, it will thus still be a very useful primer for those interested in the study of animal emotions where they are relevant to welfare. Many of the concepts, approaches and techniques presented in *Emotion* have already found their way into current thinking in animal welfare science. But even if you are neither directly interested nor involved in animal emotion research you may well find this book impossible to put down.

*Suzanne Held,*

*Trabeber Str 62, Berlin, Germany*

### ***Dilemmas in Animal Welfare***

Edited by MC Appleby, DM Weary and PS Sandøe (2014). Published by CAB International, Wallingford, Oxon OX10 8DE, UK. 216 pages Hardback (ISBN 978-1-78064-216-1). Price £75.00.

Animal welfare seems to have more than its fair share of dilemmas. No one can be involved in this area — at least from a practical point of view — without quickly coming up against questions of life and death, choices between different values, making decisions about euthanasia and quality of life, preserving one living being at the expense of another, or how to balance the short-term suffering of an individual against its long-term life prospects. The editors of this book have chosen to tackle these dilemmas with a series of chapters that address specific issues and actual practical problems, rather than with broad-brush philosophical generalisations or theories. This has the advantage that non-philosophers can immediately grasp the points being made and at the same time no one can avoid the uncomfortable fact that deeply held moral views about animals and humans almost inevitably come into direct conflict with one another.

A good example of how a practical and almost mundane example can be used as a vehicle for discussing profound philosophical problems is the chapter by Clare Palmer on