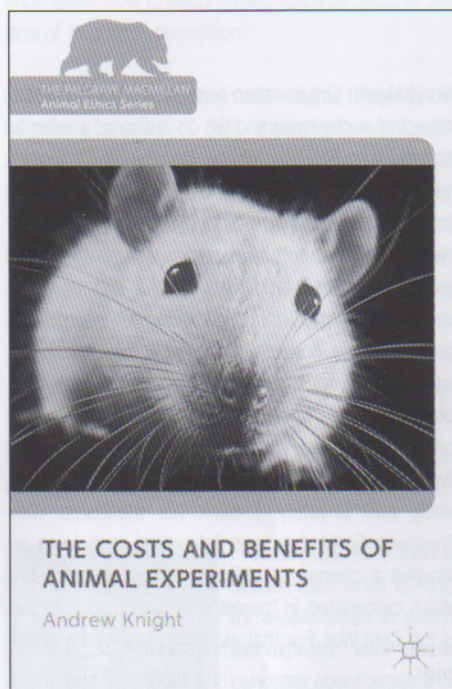


The costs and benefits of animal experiments

Andrew Knight – Palgrave Macmillan, 2011, 256pp., £18.99, ISBN: 978-1137289681 (paperback)

Review by Chris Langley



The use of animals in teaching and research, and the many ethical and pragmatic questions regarding their use, is of wide concern within the science and technology communities. Although significant progress has been made in the use of non-animal alternatives in medical research and teaching, there remains a core of unexamined prejudice supportive of the continued use of animals. This is despite grave concerns about their validity in understanding biological processes in humans, including the quality of the experimental method and design being used.

The Costs and Benefits of Animal Experiments is a highly readable, extensive and rounded review of the many aspects of the experimental use of animals and

the alternatives available. It critically examines the validity of animal models for devising treatment regimes for human disease, and for creating robust protocols for regulatory purposes. It fills an important gap in the literature, making it a must-read for those who use animals in teaching and research, policymakers, students, those in science governance and the growing numbers of people interested in the philosophy of science.

Andrew Knight takes a medical and ethical perspective to examine four themes of experiments on animals: the animal costs; the human benefits; alternative strategies; and the educational use of sentient organisms and its impact on students. Each theme is tackled over two or three chapters, and a closely argued fifth section draws together the four themes with conclusions and policy recommendations. The book is concisely written and the arguments rely heavily upon evidence-based literature. The breadth of references is very impressive – 29 pages including extensive citation of peer-reviewed articles and reviews.

Knight has published widely on the use and validity of using animals in research and testing, and this book joins a long list of titles from the Ferrater Mora Oxford Centre for Animal Ethics,¹ of which he is a Fellow. It collects together the many issues that the use of animals for research entails, supplying ample material for both graduate and postgraduate courses in experimental design, bioethics and philosophy of science. Many of the chapters draw upon the latest data concerning animal cognition and awareness, and this material challenges us to look again at how we view animals. An especially valuable thrust of the book addresses how animal use in research and teaching

influences students' thinking in practical ways, such as in the training of veterinarians and experimentalists but also among those who go on to be involved in the governance of science and technology.

I have a number of small quibbles about the book. It would benefit from a more comprehensive index and, although the coverage of alternative methodologies is good, there are no links to web-based resources. It is also a shame that the author, while making detailed reference to governmental and intergovernmental initiatives, underplays the role of biomedical charities in supporting the development of alternatives to the use of animals.

The evidence that Knight has collected clearly weighs against the use of animals, putting the onus on society to rethink its attitudes toward and the treatment of animals, and to move away from the entrenched positions about how science should be undertaken. The author also provides some thoughtful pointers to how those involved in experimental research might devise better experiments without reliance upon the questionable use of sentient organisms.

Dr Chris Langley is a science consultant who has been principal researcher for SGR and currently operates ScienceSources.

Notes

1. The Ferrater Mora Oxford Centre for Animal Ethics – <http://www.oxfordanimaethics.com/> – was established by Professor Andrew Linzey, a theologian with a passionate interest in bioethics. The Centre, an independent and scholarly think-tank, examines in a balanced fashion our often confused attitudes to animals. It was established in the face of a total lack of interest from Oxford University.

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Changes at the Martin Ryle Trust

The Martin Ryle Trust – the registered charity that works in partnership with SGR – has moved. The new address is:

The Martin Ryle Trust
PO Box 876
Lancaster LA1 9HR

The Trust also has a new administrator, Debbie Mace.