

## Book Reviews

### ***The Economics of Farm Animal Welfare: Theory, Evidence and Policy***

Edited by BV Ahmadi, D Moran and R D'Eath (2020). Published by CABI, Nosworthy Way, Wallingford, Oxon OX10 8DE, UK. 208 pages Paperback (ISBN: 978-1786392312). Price £45.00, \$US65.00, €55.00.

This book is a timely publication with a clear focus on the economic aspects of animal welfare. In nine chapters the subject is covered from various angles, providing the reader with insights into the theory, evidence and policy of animal welfare economics.

It starts off well with a chapter summarising the history of animal welfare as a societal concern. The authors argue that our standard view of how farm animal welfare came to the fore may not tell the whole story. This, in turn, may affect where animal welfare is placed on the political agenda in terms of priority.

The whole book contains a minimum of acronyms which makes for easy reading. However, the concept of WTP (willingness to pay) is pivotal for the subject area, and this abbreviation should be kept in mind as it is used in almost every chapter. I particularly liked the chapter which presented a thought experiment on people's stated willingness to pay versus actual purchases. By systematically going through the different reasons why consumers might say one thing but do another, the authors very elegantly dissect the anatomy of market failure for improved animal welfare (spoiler alert: the markets are largely working!).

Some chapters are fairly heavy going. Elasticity of demand is difficult to comprehend at the best of times, but some of the detailed calculations may be justified in order to inform the reader that, for example, the demand for animal-friendly pork is more sensitive to price variation than organic pork is. Perhaps not surprisingly consumers turn out to be somewhat fickle in their purchasing behaviour, and their preferences seem to be influenced by more factors than I have eaten hot meals. This book makes it clear that predicting what animal welfare products will sell at what price is not for the faint-hearted. Product choices are — at least ideally — based on information, and information comes from many different sources, and relates to aspects other than animal welfare.

It is always difficult in multi-author books to avoid overlap between chapters, and the editors have done a fine job. Indeed, it can be very informative to hear the same story told from different perspectives. In many of the examples used in the different chapters, I could not help but compare my own choices with those of the sampled consumers, eg how many pence extra would I be willing to pay for a product for a given improvement in animal welfare?

One chapter looks at the animal welfare added-value concept from the perspective of the producers. It is interesting to compare the economics at farm level with those considered at the supermarket check-out. An improvement in animal health will likely provide both increased productivity as well as improved animal welfare and focusing on

disease management is a good place to start. There are also sections in the book discussing the cost-benefit of compliance with animal welfare standards.

Breeding for animal welfare is a fascinating subject, and the many issues to consider are clearly presented in a chapter using poultry as an example. I found the illustrative graphs very helpful in understanding how, over time, we can tackle negative correlations between traits, such as those which exist between live weight and leg strength in broilers.

The final chapter tackles the future for farm animal welfare. It covers subjects ranging from big data, precision livestock farming (PLF), and systems modelling. Behavioural economics is the new black, where the behaviour is human, and economics are not merely a synonym for money. Keeping that in mind, I found the first sentence of this final chapter thought-provoking: "Science can help us understand what animals want and economics can provide the understanding of human motivation needed to deliver such wants."

Overall, this is — and will be for years to come — the go-to source for all things related to animal welfare economics. The index at the back is most helpful when trying to find details of specific subjects, and the value of having all the relevant information handy in one place makes this book an easier, more manageable mine of information than any online search.

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### ***Farm Animal Behaviour: Characteristics for Assessment of Health and Welfare, Second Edition***

I Ekesbo and S Gunnarson (2018). Published by CABI, Nosworthy Way, Wallingford, Oxon OX10 8DE, UK. 352 pages Paperback (ISBN: 978-1-78639-139-1). Price £40.50, \$US67.50, €54.00.

*Farm Animal Behaviour: Characteristics for Assessment of Health and Welfare* considers the behaviour of the commonly farmed domestic mammals (pigs, cattle, sheep, goats, rabbits and horses), and birds (chickens, turkeys, geese and ducks), as well as shorter sections on non-domesticated species (deer and ratites: ostrich, rhea and emu). This is the second edition of this book, with updates from 2010 onwards to the first edition. The book addresses each species under broadly similar topic headings, covering the domestication and management of each species, different aspects of behaviour, common mutilations applied in management and transport. For some species, there is also information about the human-animal relationship or the importance of the caretaker. The same approach and headings used for each species is useful as it allows a quick comparison between species and ensures that similar information is provided in all chapters. However, the mixing in of physiological parameters for clinical examination between behavioural measures is somewhat strange and might have most usefully been given as a separate heading

at the end of each chapter. Overall, I thought the book provided a useful overview of each species and an introduction to farm animal behaviour at a level that might be helpful for the generalist (first year undergraduate veterinary, animal science or agriculture students, for example) but was rather too superficial for a specialist understanding of behaviour or welfare of specific farmed species.

In parts, the book provides good and comprehensive coverage of the history of use and management of the species, and veterinary aspects of animal welfare (the sick animal, injuries and disease caused by management and stereotypic behaviour). It does, however, focus predominantly on the physical or biological functioning aspects of animal management and welfare. There is rather less consideration given to more modern concepts of animal welfare that consider affective states and positive as well as negative emotional aspects of animal welfare. For example, the welfare aspects considered are focused on feeding, health and the impact of pain and suffering associated with mutilations and transport and little or no consideration is given to behaviours that might be indicative of positive emotions.

The addition of new material on animal behaviour is welcome, but rather uneven in its treatment. Efforts to integrate the new additions into the body of the text, and the writing style of the new material (which focus more on providing a short paragraph of each new study) are lacking somewhat, meaning that the interface between the older and newer material is very obvious. This is a shame as the book is a useful handbook for animal behaviour and it could have been more comprehensively updated. I also felt the book is a little uneven in its treatment of different species, for example, cattle are covered extensively, with more than 60 pages given to describing cattle behaviour and management in great detail, whereas only 15–20 pages are devoted to other species (sheep or chickens, for example). This means that the book might be very helpful to those interested in the behaviour of cattle, but rather less so to those with interests in other species — for example, intensive management or housing of sheep and goats, and dairy uses of these species, is barely mentioned.

Overall, this book is a good introductory text for the non-specialist to the field of applied animal behaviour and the behaviour of farmed animals. It serves as a useful encyclopaedia for the sorts of behavioural responses that might be seen in farmed animals and the types of management that are applied. It also provides a brief overview of how sick animals might behave and the normal behavioural and physiological responses that the veterinarian might expect to see in each species. Where it fails to live up to its title is in meeting the needs of the welfare assessment of each species, and it does not properly consider which behaviours might be used to understand the welfare needs and requirements of the species. I would recommend this book as a reference source for those requiring an overview of the behaviour of farmed species but suggest that those looking for a more in-depth understanding of behaviour and welfare of each species may need to look elsewhere.

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### **Studying Primates: How to Design, Conduct and Report Primatological Research**

JM Setchell (2019). Published by Cambridge University Press, Shaftesbury Road, Cambridge CB2 8BS, UK. 362 pages Paperback (ISBN: 978-1108434270). Price £26.99.

*Studying Primates: How to Design, Conduct and Report Primatological Research* seeks to provide an accessible guide for graduate students and postdoctoral researchers in fields as diverse as anatomy, anthropology, biology, ecology, medicine, psychology, veterinary sciences and zoology. Across these fields the more than 500 species of primate, ranging from mouse lemurs (30 g) to huge gorillas (250 kg), can be studied in environments ranging from field sites, zoos and museums as well as from the literature. The variability in study aims, study species and study sites mean there are no standard protocols for studying primates. Nevertheless, asking good questions and conducting well-designed studies are essential to produce high-quality science. The focus of this guide is on research integrity and ethics throughout the research process, from developing research questions, designing and conducting projects and reporting results. The informal name of this book could be *How not to mess it up*, with a good helping of *Don't be a jerk*, which is surely a good motto for us all.

The book is divided into 25 concise chapters with information presented in bite-sized chunks making it accessible to students looking to dip in and out. At the end of each chapter is a summary and a current list of further reading covering sources. These range from journal articles to online resources and some excellent blogs that provide insights into life as a 'scientist/primatologist/fieldworker' that may inspire students to identify career paths they may not otherwise have been aware of. Helpfully, references are accompanied by a short description of the work and its relevance to the chapter. While this is not a book about animal welfare *per se*, there is a call for more compassion in science, both for the animals we study and the people who study them, that runs throughout the book.

Professor Setchell is President of the Primate Society of Great Britain, a learned charity which is open to primatologists across all fields and therefore is as well placed as anyone to understand the breadth of primatological research that such a guide needs to cover. With over 20 years of experience as a primatologist, working with students, collaborators, editing and writing for journals, Professor Setchell has had time to develop a profound insight into the key dos and don'ts of primatology research and, looking forward, the needs of the next generation of primatologists.

With this next generation of primatologists (to whom the book is dedicated) placed firmly at its core, the book starts with six chapters focused on scientific method, ethics, research integrity, inclusivity, understanding statistical evidence and communicating clearly. These set the tone of the book and the themes run throughout. Where material has been covered extensively elsewhere (eg 'how science