

facilitation of perspective shift and alteration, so desperately needed in the acrimonious debate. A phenomenological analysis might also reveal misunderstanding and confusions that are in need of clarification.

It required a very determined reader to continue beyond prose such as this, to greener pastures later in the book.

The last 60 pages of the book are well written and, therefore, more rewarding, as they cover the issues of 'What is animal well-being?' (Andrew Rowan); 'Animal welfare from the animal's point of view' (Marian Stamp Dawkins); 'Scientists in the public arena' (Arnold Arluke and Julian Groves); and in the last chapter, 'Understanding animal activism' (Harold Herzog). The last two chapters deal generally with scientists and the animal rights movement in the USA and apply to animal research in general.

I found the chapter by Dawkins the most interesting in the book (and possibly the most relevant to its stated theme) as it is well written and tackles the key question of the need for animal welfare to be considered from the animal's point of view. To do this, she states, we need to focus on suffering by defining it and considering the three major types of evidence for it: physical ill-health and injury; physiology; and behaviour.

In summary, *Responsible Conduct with Animals in Research* varies in its readability and relevance to the practical and ethical issues relating to the study of animal behaviour. A reader familiar with legislative guidelines, the role of institutional animal care and use committees and the animal activist movement in the USA can, therefore, afford to be selective in his or her priorities within this book.

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Poultry Health and Management: Chickens, Ducks, Turkeys, Geese and Quail, 4th edition

D Sainsbury (2000). Blackwell Science: Oxford. 204pp. Paperback. Obtainable from the publishers, Osney Mead, Oxford OX2 0EL, UK (ISBN 0632051728). Price £24.95.

There has probably been more discussion of welfare in the poultry industry than in any other use of animals – and that discussion increases unabated. It is, therefore, initially surprising to discover that there is only one entry for 'welfare' in the index of this book. On reflection, however, this is reasonable. Practically the whole book is relevant to welfare, and to list most of the book's pages in the index would not be helpful. As its title suggests, this book considers the many ways in which management can safeguard the health of poultry. In fact, it does more than that. It conveys a deep understanding of how husbandry contributes to health of the stock, a feeling for much of what stockmanship is all about. I certainly felt that I gained this from the first edition, when I started working with poultry myself, and the same will be true for students, scientists, those keeping small flocks and those in the industry reading this new edition today.

Indeed, the fact that the word welfare does not appear on every page will make the book more acceptable to those in the industry and the book will, therefore, have more practical impact on poultry welfare. Sainsbury reminds us, by this implicit approach, of how much there is in common between those concerned for health, for production and for welfare. Chapters on feeding, ventilation and hygiene, for example, are equally important to all these categories of reader. It is true that some conclusions are affected by priorities. As one

example, the chapter on feeding suggests (p 31) that birds 'tend to eat rather more than they need, especially if they are placed in an environment where there is little else to do but eat and drink'. Food restriction is described (pp 31–32) as 'beneficial both for the birds and for food conversion efficiency', ie for their health and economic performance. It is now widely accepted that if food restriction is to be practised, an environment that allows more diversity of behaviour is even more important for welfare than otherwise – yet this is not mentioned. As such, readers particularly interested in welfare may want to read this book in combination with others that give more emphasis to other aspects of welfare in addition to health. However, to return to the main point, readers who absorb and practise the principles covered here will improve the health and welfare of their poultry considerably: the concern of Sainsbury for the animals in his care, in his lectures and in his books shines throughout.

On many topics, then, the book teaches approaches rather than specific practices. Thus, while there is a chapter on important diseases which covers the diagnosis and treatment of each, the farmer who reads it is likely to end up better informed but more worried than hitherto. Providing a summary of vaccinations and other procedures to be followed, which would generally prevent most problems, would have helped. On other topics more detailed recommendations are made, such as on temperature and lighting. There is also a new chapter on organic poultry production, which gives a lot of information on the standards necessary to comply with European regulations on organic food. The majority of the chapters concentrate on chickens, although many of the ideas apply more generally, and then there are additional short chapters on the other species listed in the subtitle.

The book is largely up to date in a fast-moving world, although some of the husbandry methods covered in the chapter on 'alternative systems' are now more mainstream than this implies – and will become even more so over the next few years. It will be interesting to see how the industry changes in future. Sainsbury suggests (p 156), 'that if we had no vaccines or medicines we could perhaps be even more successful in rearing ... livestock, by relying on good feeding, housing hygiene, husbandry and management.' If this could be achieved, whether by economic pressure or legislation, many would feel that not just health, but welfare in general, would be improved.

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The Domestic Cat: The Biology of its Behaviour, 2nd edition

Edited by Dennis C Turner and Patrick Bateson (2000). Cambridge University Press: Cambridge. 244pp. Paperback. Obtainable from the publishers, The Edinburgh Bldg, Shaftesbury Rd, Cambridge CB2 2RU, UK (ISBN 0521636485). Price £13.95/US\$19.95.

The first edition of this book was published in 1988, with the aim of being the definitive reference work on domestic cat behaviour for years to come. Why was a second edition necessary? The editors, Dennis Turner and Patrick Bateson answer this question in their introductory chapter, 'Why the cat?' Recent pet population figures show that the cat is now more popular as a household pet than the dog in some countries, with over 8 million of them in France, over 7 million in the UK and over 6 million in Germany and Italy. In the USA there are over 56 million. No serious scientific treatise was available on cat behaviour until the late Paul Leyhausen published in German in 1956. The first edition of *The Domestic Cat* reviewed the results of many scientific studies up to the mid-80s but since then, the amount