

## Book Reviews

### ***The Science of Animal Welfare: Understanding What Animals Want***

M Stamp Dawkins (2021). Published by Oxford University Press, Hipwell Road, Kettering, Northamptonshire NN14 1UA, UK. 160 pages Paperback (ISBN: 9780198848998). Price £27.50.

The reasons for writing this, says Marian Stamp Dawkins in the preface to her most recent book, are two-fold: a need to clarify what is meant by animal welfare, and to put the animal's point of view at the centre. This would leave most animal welfare scientists exhausted at the mere thought of yet another take on defining animals' welfare, but Dawkins is not one for shying away from the difficult questions. She is not even afraid of letting us know that she has changed her mind about certain aspects of animal welfare assessment.

From the beginning, Dawkins takes us to the core issue of what is wrong with many (most?) animal welfare definitions: they are treating the issue as being too complex to simplify, and they often involve the subjective experiences of animals. This book is a journey through different ways of looking at and defining animal welfare, and what the pitfalls are if you cannot agree on what to measure, nor on what constitutes animal consciousness. Without spoiling the book for future readers, Dawkins suggest a simple, basic definition of animal welfare that is based on the health of the animal and what the animal wants. She then describes and explains in a series of chapters why this is a workable, yet simple definition, and how it can be applied in a variety of contexts, as well as to assess if a given measure reflects the welfare of an animal.

The inclusion of health in the definition, argues Dawkins, counterbalances the situations where animals want something that is not good for them. A thread throughout the book is the emphasis on valence, that we need to establish if a given treatment, experience, or situation is perceived as positive or negative by the animal. Several well-known measures and methods are being reviewed and tested against the simple definition of whether they affect the health of the animals or inform us about what the animal wants. Among these are cortisol, stereotypies, and play, and a whole chapter is dedicated to natural behaviour.

Towards the end of the book, the gloves come off. In an inspiring, well-written, no-holds-barred chapter, the author puts forward the argument that the "definition of animal welfare does not need consciousness and, more importantly, is better off without it." Dawkins is very clear about having changed her mind about the importance of animal consciousness for defining animal welfare. And she encourages —sometimes in a teasing or even provocative tone — animal welfare scientists to be less woolly in their wordings because animals will not benefit from lack of clarity when it comes to their welfare.

Overall, the book is very readable (but with a surprising absence of Oxford commas), with chapters in bite-size sections, and a total of 110 pages of text. For my liking, there is an overuse of the word 'fact', and I am not sure why 'affect' is a more ambiguous concept than 'valence.' The statement that "we have yet to identify any task that can only be performed by a conscious being" sent me down a rabbit hole looking for examples (to as yet no avail), and the introduction of the word 'pre-preparedness' made me smile.

This new definition of welfare does not solve all the problems associated with the pre-existing definitions. We are still faced with the complexity of weighing up different aspects of an animal's life in terms of, say, how much health outweighs opposite animal desires/wants. And finding the cut-off point for certain practical issues affecting animal welfare, such as space allowance, where the curve is sigmoid are still not solved by this definition.

This is, overall, a gem of a book. Not because it is covering a subject of far-reaching importance, but because it is refreshing to be reminded of our shortcomings as animal welfare scientists, and with very constructive suggestions on how we can do better. We may not all agree with everything this book promotes, but it is a great start for a debate that is long overdue. If you read one book about animal welfare this year, let it be this one.

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### ***Advances in Pig Welfare, First Edition***

Edited by M Špinka (2018). Published by Woodhead Publishing, The Officer's Mess Business Centre, Royston Road, Duxford CB22 4QH, UK. 506 pages Hardback (ISBN: 978-0-08-101012-9). Price £160.00.

*Advances in Pig Welfare* is one book from a series collating a body of work within the field of animal welfare science to provide an overview of the current understanding, the factors influencing and the approaches to improving the welfare of several farmed species; pigs, cattle, chicken and sheep.

The book consists of 16 well-written chapters that cover much of the existing scientific knowledge on pig welfare. Divided into two parts, the first covers the understanding on the present-day 'hot spots' in swine welfare, the topics that have proved most challenging to address whilst also provoking great ethical concern and societal debate. Within are included chapters on the welfare of the farrowing sow, piglet mortality, the early physical and social environment on the ontogeny and welfare of pigs, tail-biting, enrichment, hunger in gestating sows, aggression, transport and slaughter of pigs.

Part two looks ahead, covering 'pig welfare emerging topics'; areas that have received far less research attention to date, but where current thinking is going and where there are clear needs for further investigation. Within this section are chapters on: pain in pigs, welfare assessment on farm