

The last theme I want to address is perhaps the question foremost in the mind when reading *Animal Machines*. The text has had an undoubted impact not only on animal welfare but on world agriculture. But the nagging question remains: Are the lives of animals better now than they were then? In Britain — the focus of *Animal Machines* — and the European Union, the answer at least for animals with the poorest welfare is a guarded ‘yes’. Veal crates, un-enriched battery cages and sow stalls have been prohibited. But fifty years on we still farm animals using morally questionable practices. In addition, there is some criminal infliction of suffering. Despite this, Ruth Harrison’s work helped lift the bottom animals up a rung of the ladder. But what about a more global perspective? I wrote at the beginning that globalisation helped disseminate the animal welfare movement from the nib of Ruth Harrison’s pen to the rest of the world. But globalisation has also impacted agriculture. The developing world moved to intensive farming and has begun to treat sentient beings as animal machines in their many millions. As the back cover of the re-publication warns, we must learn from Ruth Harrison’s classic text because the old demand for intensification of agriculture has reared its ugly head again, this time in the form of ‘sustainable intensification’. So, to end this review of what is a historical piece of literature, we can ponder perhaps the ultimate question of animal ethics. In Ruth Harrison’s eloquent words: “How far have we the right to take our domination of the animal world — *in degrading these animals are we not in fact degrading ourselves?*”

Steven P McCulloch

Royal Veterinary College, Herts, UK

Udder Health and Communication: Proceedings of the International Conference, 25-27 October 2011, Utrecht, The Netherlands

Edited by H Hogeveen and TJGM Lam (2011). Published by Wageningen Academic Publishers, PO Box 220, NL-6700 AE Wageningen, The Netherlands. 428 pages. Hardback (ISBN 978-90-8686-185-9). Price €96.00, \$US144.00.

Scientists working in the field of animal welfare typically hope that their research will someday inform changes in practice and thus improve the lives of animals they work with. They toil away at their studies, with luck developing important insights into the world of animals and how their lot could be improved through changes in the way they are kept and handled. Scientists may write up these results for publication in the peer-reviewed literature, and for eager consumption by fellow academics. A few brave souls (perhaps responding to prods from administrators needing to show evidence of ‘knowledge translation’) will go so far as to write a lay version of their article for a farm journal, or perhaps give a talk to a group of farmers or other individuals involved in animal care. Thus, their success is judged by their clever ideas, journal publications, and perhaps conference and other presentations. But have any animals been helped in the process? Unfortunately, the honest answer is often no; research results often do not find their

way into the hands of farmers or others making decisions about animal care, and even when the knowledge is transferred it often fails to lead to changed practice.

Readers of this journal (with the exception of the lucky few who count themselves as fellow lovers of the dairy cow) would be unlikely to pick up a book focused on udder health. But *Udder Health and Communication* deserves a closer look. The book is focused on understanding the limitations in translating research into improved practice. The authors document what farmers themselves recognise as the problems and what types of communication efforts are most likely to result in sustained changes in practice. These authors had gathered for an international conference in Utrecht in the fall of 2011 and the book provides a record of the ideas and findings presented.

Here, I summarise only a few of the most interesting messages. First and foremost, this book argues that improving cow health has less to do with the latest scientific innovation and more to do with understanding the views of farmers who are deciding whether or not to use these practices. If farmers believe that their actions will be effective they are more likely to adopt new practices. This belief is affected by their confidence in the practices. Confidence comes, in part, from who is providing the advice and veterinarians are often seen as trusted advisors because they are thought to understand the constraints facing that farm and are able to offer tailored solutions. Providing veterinarians (and other professionals working with farmers) training in communication skills, including in eliciting and acknowledging the farmers’ perspective and in the process of making shared decisions, will likely improve adoption and adherence to treatment plans.

Thus, this literature on communication regarding udder health has much to teach people working in animal welfare who are interested in improving the adoption of best practices. Unfortunately, the key messages and literature are not easily accessible. The book is simply the proceedings of the conference, with 84 contributions (ranging from full-length papers to simple abstracts), 12 sections and all of the variation in content and style that you would expect from a compilation of many authors. There has been no attempt by the editors to distil the conclusions in a way that would be useful for readers, especially for those without an expert knowledge of udder health literature. For a group of scholars so knowledgeable and interested in how to communicate their finding to farmers, it is odd that no attempt was made to translate key messages to other scholars whom have much to learn from the progress made within this field.

In summary, should you buy this book? If you work on issues related to udder health you should already know about the book and have a copy. For those with an interest in animal health and welfare, and who wish to be innovators in effective communication with farmers, this book provides a useful compilation illustrating a range of approaches that could be applied to other cases. For the rest of you, borrow a copy from a friend or the library and spend an hour or two browsing through the volume. You

will be looking at the future of our field, where the questions we ask are less about the next great experiment, and more about understanding the needs, interests and constraints of the people whose decisions and behaviour affect the care of handling of animals.

Daniel M Weary

The University of British Columbia, Vancouver, Canada

Can Animals be Moral?

M Rowlands (2012). Published by Oxford University Press, Great Clarendon Street, Oxford OX2 6DP, UK. 288 pages Hardback (ISBN 978-0-19-984200-1). Price £18.99.

It is well established that parsimony is used as the default principle within animal behaviour science. It is comfortable to assume that the simplest explanation is the best explanation for an animal's behaviour because to extrapolate beyond that seems scientifically less robust. If we attribute high purposes to animals' behaviour we are open to the challenge to substantiate those claims. As this book explains, to assume that the lowest or simplest explanation is true is equally unsubstantiated and therefore unjustified. Rowlands is looking for a paradigm shift in our assumptions on the motives of higher animals, and he presents a robust philosophical argument in support of this. In short, Mark Rowlands systematically and methodically argues why animals should be considered more than moral patients, but not full moral agents; they should reside in an area of consideration as a moral subject.

The book opens with a series of anecdotes of animal behaviour which anthropomorphically demonstrate key human emotions of grief, compassion and altruistic courage. They are the well-known examples of dying elephant matriarchs and co-operative primates which lure you to think this book offers nothing substantive to our existing body of knowledge. The animals in the stories presented appear, at least, to be acting by moral concern or considerations of their fellow animals. If this is the case, as Rowlands explains, these animals are in some sense, moral agents. These anecdotes are perhaps the only respite in the book, and are relied upon later. Rowlands' background as a leading philosopher and expert in logic quickly appear as he lays out his argument. The evidence he uses, such as the multiple anecdotes of moral agency at the start of the book, have been around for a very long time. It is not unusual for people to attribute human emotion states to animals, but the academic world has been less accepting of emotion in animals.

To Rowlands the dominance of behaviourism and ethology in the middle part of the last century has become so ingrained that it has led to our current understanding of animals to reside firmly in the paradigm that any apparent evidence for emotion in animals should be described purely in behavioural terms of aversion, reinforcement etc. Any deviation from this law of parsimony is met with contempt with statements such as "one should not explain an animal's behaviour by postulating a moral emotion when another — nonmoral — explanation is available". The scientific community correctly look for empirical evidence

to support such claims, but Rowlands sets out a logic argument why this may not be necessary. He does not make empirical claims, the anecdotal stories at the start are merely examples, the entire book is primarily conceptual. This is because the question of "Can animals be moral?" is not empirical. The question is not about how substantial the body of evidence would need to be, but rather it is about how that body of evidence is interpreted. It should rather be read as "Can an animal act for moral reasons, as a consequence of an emotion with a moral content?"

The central claim of the book is that animals can be moral subjects. However, it does not go so far as to say that animals *are* moral subjects, only that there is no logical or conceptual obstacle to them being a moral subject. This means they can act for moral reasons but it does not mean they are moral agents. The fact of if they (or we) *are* moral subjects is an empirical one. To the extent that some animals can act for moral reasons, they do so in the same way that people do and not in a quasi/proto-moral way. People are also sensitive to moral reasons above and beyond what animals can be cognisant of, but "to be a moral subject is to be motivated to act by moral considerations". Animals have moral considerations in the form of a morally laden emotion, which is an emotion that must involve a moral evaluation or judgement. The final claim made by Rowlands in establishing the status of animals is that it is the morally laden emotions that motivate animals and provide reasons for these moral actions. In short, "Animals can be moral subjects in the sense that they can act on the basis of moral reasons, where these reasons take the form of emotions with identifiable moral content."

It is worth understanding how he separates out moral patients, subjects and agents as this is critical to the central thesis and its potential ramifications. A moral patient is simple, as it is commonly understood, a being who has the capacity to be harmed and thus something worthy of our concern over its well-being. This is the standard category in which animals have resided for many years. A moral agent is a being who can act for moral reasons and is responsible for their actions in a moral way, namely to receive praise or blame. Moral agents are moral patients too, but a moral patient cannot be held responsible for its actions. Rowlands' thesis put forward a robust case for a category between these two; that of the moral subject. This liminal category is one where the moral patient is capable of making decisions and acting upon them based upon moral reasons, the moral reasons motivate their actions, but they are not to be held responsible for the outcomes of their actions and thus do not fulfil the criteria of agency. Rowlands separates out the reasons and the causes of an action. A cause of an action is just that, a cause, while a reason may be a cause also, but it is more than that and it has to motivate in virtue of its content. Reasons have an element of normativity that has no echo at the level of a simple cause.

It is important to separate out the tripartite group of moral patients, moral subjects, and moral agents. Where animals sit in this spectrum defines how we react to them or rather should respond to them. Rowlands argues, like almost all