## **Principles of Animal Research Ethics**

TL Beauchamp and D DeGrazia (2019). Published by Oxford University Press, Great Clarendon Street, Oxford OX2 6DP, UK. 168 pages Paperback (ISNB: 9780190939120). Price £22.99.

The blurb on this book's jacket states that it presents a new framework of six moral principles which constitutes a more suitable set of moral guidelines than any currently available, and bridges the gap between the concerns of the research and animal-protection communities. Those are impressive claims — so does this volume deliver?

The short answer is that it will depend upon the individual reader's experiences regarding how animal research and testing is broadly perceived, reviewed and regulated in their own country, or research establishment. The book is primarily US-centric; according to their biographies all but one of the contributors are based in America or have worked extensively there. So, whilst the suggested six moral principles (of which more below) are all certainly sound, and essential for robust, humane science, they may not be news to those living and working in other countries or with different regulatory systems or review processes.

However, what the book *does* deliver are reflections on the importance of ensuring that regulations and guidelines are fully implemented in spirit as well as according to the letter of the law, as well as food for thought when considering one's own position on animal use, insights into the viewpoints of others, and some concepts that could be used to help improve science and animal welfare.

These reflections and insights arose because the authors chose an interesting format to set out and test their framework and its foundations, and it is this that makes the book more globally relevant. They begin with a short chapter in which they set out their thesis, which is followed by seven responses from practitioners in different disciplines including biomedical research, zoology, veterinary medicine, ethics, philosophy and law.

Beauchamp and DeGrazia begin with the argument that the ethics of animal research is often viewed through only one of two perspectives which they claim are widely perceived as conflicting and irreconcilable. The first is that animal research is crucial to medical progress, and that this is justifiable. In this context, the authors present the 3Rs (replacement, reduction and refinement) as the primary guidepost for 'ethical evaluation' of animal research protocols. The second perspective is from people who seek improved protections for animals, believing that the justification for animal use is often open to question, that rigorous evidence and argument are required with respect to benefit, that there are limits on the justified uses of animals, and researchers have obligations to animals due to the animals' welfare interests. For this second group of people, the 3Rs concept is not an adequate framework given the moral status of research animals.

The authors suggest that it may seem futile to seek substantial common ground between these two perspectives, but I am not sure how many people would actually hold that view. I have personally encountered significant overlap between these two positions among scientists, animal technologists, veterinarians, ethics committee members and regulators. A number of initiatives and organisations have also been helping to bridge far wider gaps between research and animal-protection communities for many years, including my own organisation, UFAW and US equivalents.

This does not undermine the validity or utility of the principles though, as the book is presumably written for an international audience comprising different communities. It is eminently sensible and necessary to attempt to set out an ethical framework that is acceptable to people holding a spectrum of views, and the principles should help to achieve this if there is a need to seek common ground, or if regulations are minimal.

Beauchamp and DeGrazia's framework is based on the premises that sentient animals matter morally, and that the two core values of animal research are social benefit and animal welfare. They attach three principles to each core value. The principles associated with 'social benefits' are that animals should not be used unless: (i) there is no ethically acceptable alternative method; (ii) the prospect of social benefit must outweigh the expected financial costs and risks to human beings; and (iii) the proposed benefits must justify the harms to animals. The principles associated with 'animal welfare' are that: (i) there should be no unnecessary harm; (ii) animals' 'basic needs' must be met (unless there is scientific justification; and (iii) animals must not be caused to endure severe suffering for a lengthy period of time.

Readers who are familiar with the European Commission Directive 2010/63/EU, or the UK Animals (Scientific Procedures) Act 1986 (ASPA), will already be well acquainted with all of these requirements. The claim that the principles represent novel moral guidelines is thus somewhat overstated, as it could be argued that the Directive and ASPA are also 'moral guidelines', given that they include harmbenefit analyses and a requirement to take into account ethical considerations when evaluating projects.

The responses from the seven commentators are broadly supportive of Beauchamp and DeGrazia's framework. One replies that the six principles are already part of the US research culture, but are not clearly articulated, with varying impacts on practice. This is an extremely important point; anyone who is directly or indirectly involved with animal use, in any country, can use the six principles to reflect on and improve their establishment's practice. Other commentators discuss the implications of the principles for primate use, the role of ethics committees, scientific validity and translatability, animal welfare and public perceptions.

The chapter on ethics committees should prove helpful for readers involved with Institutional Animal Care and Use Committees (IACUCs), especially if they are concerned about the practices, or authority, of their committee and need some evidence to help make a case for remedial actions. The author of this chapter, Rebecca Dresser, states that committees (presumably IACUCs) have played a significant role in promoting refinement, but that they "rarely engage in meaningful review of the moral justification for the animal studies they consider." This is true of many other committees globally, including the UK Animal Welfare and Ethical Review Body (AWERB) which is supposed to consider wider ethical issues. The closing chapter, by Julian Savulescu, could also provide a useful source of exercises for ethics committees seeking to 'do ethics' better. His philosophical discussion on applying theoretical ideas from human ethics, to animal ethics, should be of interest to anyone who wants to think more deeply about, and challenge, their relationships with nonhuman animals and any decision-making roles they may have with respect to their use.

The stated target audiences are professionals in biomedical and behavioural sciences, individuals and scholars interested in bioethics, animal ethics, and applied ethics generally. To this I would add early career life scientists and members of ethics committees, including Institutional Animal Care and Use Committees (IACUCs) and Animal Welfare Bodies (AWBs) within the European Union. Although the latter are not required to review projects, or provide ethical advice, this book should help AWB members to reflect on their personal viewpoints, what constitutes good practice in animal care and use and how to develop the local Culture of Care.

From my personal standpoint, I would have liked to have seen the authors be more challenging with respect to promoting robust scrutiny of the necessity and justification for animal use. Like commentator, Margaret Landi, I agree that the harm-benefit analysis and 3Rs (although both essential) do not provide an adequate framework for the ethical debate on animal use. In my experience, animal ethics committees often do not discuss wider ethical issues, even if they are supposed to 'do ethics.' Examples of these issues include: have some natural processes become 'medicalised'; is there sufficient collaboration and joinedup thinking between preclinical and clinical scientists, and social policy-makers; are scientists being rewarded for publications in high impact factor journals rather than getting new treatments to the clinic? A deep consideration of these issues goes beyond the harm-benefit analysis of individual projects, and would not be facilitated by the 'principle of expected net benefit' as set out by the authors. It would also have been interesting to have seen the outcome if the authors had tested their principles with greater rigour. Their selected commentators, some of whom have been influential in promoting more humane, better quality science, certainly set out some useful critiques and comments on the six principles. However, including some animal rights advocates among the commentators would have provided a more thorough 'test' for the principles, perhaps providing an opportunity to strengthen these in subsequent iterations and make them more innovative and challenging.

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