

## Book Reviews

### **Personhood, Ethics and Animal Cognition: Situating Animals in Hare's Two-Level Utilitarianism**

GE Varner (2012). Published by Oxford University Press, 198 Madison Avenue, New York, NY 10016, USA. 317 pages Hardback (ISBN 978-0-19-975878-4). Price £45.00.

About ten years ago, I went skydiving, an event that had three very different effects on me. First, I experienced an incredible adrenaline buzz, which lasted for several hours as an emotional afterglow. Second, skydiving created vivid memories in my mind of tumbling through the air which I can recall and relive to this day. Third, I had a sense of achievement; this was a moment that defined me as a person. It helped shape my character and has acted as a source of inspiration in other situations I have faced since then. In his new book, Gary Varner argues that the degree of moral respect we ought to show to animals depends on whether they experience the world in these three different ways.

At the outer limits of this 'moral community' are 'sentient beings' that have phenomenal consciousness and so would experience only the adrenaline afterglow of the skydiving event. Using arguments from analogy Varner suggests that all vertebrates and cephalopods are conscious in this manner. At the next level in the moral community are 'near-persons'. These beings have auto-noetic consciousness: they can consciously remember the past and anticipate the future and so are able to 'relive' events they have experienced, such as tumbling from a plane. Varner reviews the literature in areas of animal cognition such as mirror self-recognition, episodic memory and theory of mind in order to argue that the great apes, whales, elephants, and scrub jays are near-persons while parrots, rats and Old and New world monkeys might be. Finally, there are 'persons' that have 'lives-as-a-whole'. These individuals are able to link their conscious memories into a series of events with a narrative and can so be said to have biographical consciousness. Such individuals think of their life as a story, rather than simply recalling particular events, and so have specific goals about the type of person they want to be and the type of life story they want to live. Varner suggests that to think of your life as a story you must be able to literally tell a story to yourself and thus those individuals without such language competence should not be considered to be persons. Thus, he considers all non-human animals, young children, the permanently comatose and adults with certain mental illness to not qualify for personhood.

Varner arrives at this framework using Harean two-level utilitarianism, which he describes in detail in the first section of his book. This philosophy posits that an action is morally right if you would prefer to live through all the experiences of those affected by your action rather than the experiences that would follow from you not doing the action. Thus, morally correct behaviours are those that maximise aggregate happiness. Harean utilitarianism makes an important distinction between 'intuitive level' rules and

'critical' thinking. Intuitive-level system (ILS) rules are simple moral rules that are approximately utilitarian which we use in our day-to-day lives. We need to rely on them due to our lack of perfect knowledge about the consequences of any one action we might choose to take and the fact we tend to be imperfectly rational and so may bias utilitarian thinking towards our own interests. Only if a number of key conditions are met should we reject our ILS rules in favour of critical utilitarian thinking. This two-level system allows utilitarianism to be defended against several unrealistic test cases it has previously struggled with. For example, ILS rules should not be rejected in cases that assume a level of confidence in the facts that is simply unbelievable, such as knowing with 100% certainty that a transplant will succeed or a crime will go unpunished. More importantly, the two-level system also deals well with more realistic tests cases: it can acknowledge both sides of a moral dilemma and actually predict when agents will be in two minds as to what course of action is appropriate. Consider the moral dilemma of torturing a terrorist who *may* have knowledge of the whereabouts of a bomb. Some people will stick with their ILS rules which state that torture creates harm. Others will switch to critical utilitarian thinking and argue that saving many people through harming one person is justified. Whatever outcome, those involved will be left with an uneasy feeling, either from having violated an ILS rule or from having failed to maximise aggregate happiness. This is a great strength of the theory: it shows why real-world dilemmas like this create such moral uncertainty in us and can actually acknowledge that sometimes there are no easy answers. Thus, Harean two-level utilitarianism mirrors the complexity of the moral decisions we are faced with, rather than attempting to provide a definitive but flawed answer to moral conundrums that, as Varner notes, the best minds of our era have struggled with. That this theory is rooted in our current understanding of how our minds work (Kahneman 2011) only adds to its credibility.

In the second section of his book, Varner applies this theory to our understanding of animal minds. From a utilitarian perspective the conscious experiences of sentient beings add value to the world as they occur, while the experiences *and* the conscious reliving of memories by near-persons add value. Finally, personhood adds a further layer of value to the world as beings who view their life through the lens of narrative can also derive happiness from achieving their long-term goals, becoming a certain kind of person or more generally living their story the way they want to. Thus, the level of harm that can be done to these three types of being is very different: sentient beings can only be harmed in the present, near-persons can relive harm done to them for the rest of their lives, and persons cannot only relive harm but also be harmed by knowing they are not living the story they wish to live. Thus, what is in the interests of a person depends to an extent on their own self-narrative, rather than simply being a sum of the degree to which their life is pleasant, as in the case of near persons and sentient beings.

While I think that Varner's framework for animal ethics has great value, there is one key assumption he makes that seems rather hard to defend. It is difficult to understand why he links biographical consciousness to the linguistic ability to tell a story using various tenses. In my eyes Varner at this point appears to confuse the ability to *communicate* a life story with the ability to *experience* it. It seems unclear why a near-person would need to tell its own story to itself with language, as Varner assumes it must, when it can instead relive each event as it thinks about its own narrative. An obvious counter-example to Varner's position is the Pirahã tribe, who do not have tense in their language (Everett 2005). Should individuals in this group be considered only to be near-persons? It seems far more likely that the Pirahã view their own lives as a story, as other humans do, but lack the capacity to describe their own stories with language. Thus, it seems plausible that even without language an animal could link up its various memories into some kind of narrative structure and form specific life goals it may wish to achieve, such as becoming the alpha male of a social group. Varner lists four key concepts which he suggests are required for a biographical sense of self (concepts of self, birth, death, and the concept of character-shaping experiences). However, this list seems to omit the two key cognitive skills required for a biographical sense of self: the ability to understand the logic of narrative (ie that things, including oneself, have a beginning, a middle and an end) and the ability to focus on a life-story goal, such as becoming a different kind of person. All in all one is left feeling that the most crucial delineation made by Varner, in terms of being a person or near-person, is based on a questionable assumption and, more generally, lacks the clarity of the rest of his framework, particularly in reference to the cognition required. Is it really so implausible that a subdominant chimpanzee might form a life-goal of becoming the alpha male of the group, and take satisfaction from realising this goal? This seems like a question that can only be addressed through novel cognitive experiments, rather than one that has already been answered by past research on apes' linguistic abilities.

One other issue is Varner's treatment of consciousness. Varner uses arguments from analogy to claim that certain animals have phenomenal consciousness, despite this argument being rather weak, as he himself acknowledges. As Marian Stamp Dawkins has recently argued (Dawkins 2012), the hard problem of consciousness is not solved, and is unlikely to go away anytime soon. While Varner does acknowledge that phenomenal consciousness is 'deeply mysterious', he quickly puts the issue of P-zombies to one side in favour of attributing consciousness to all animals that can feel pain and learn via operant conditioning. It is important to acknowledge that if something *looks* like consciousness and *acts* like consciousness it need not *feel* like consciousness, irrespective of the type of pain receptors it has.

Varner defends his use of arguments from analogy and the positions he takes in regard to the three types of consciousness under discussion (phenomenal, autozoetic and biographical) by invoking what he calls the Rumsfeld doctrine. This states that "you have to make ethical decisions with the evidence you have, not the evidence you might want or wish to have"

(p 115). While I agree with this doctrine it is important to acknowledge that there are more gaps in our knowledge than he suggests in his book. The reality is that we currently have little idea which animals have phenomenal consciousness, as Stamp Dawkins so persuasively argues (Dawkins 2012), and that there is great debate within animal cognition about the interpretation of experiments that might provide evidence of autozoetic consciousness, particularly those focused on mirror self-recognition (Suddendorf & Butler 2013) and theory of mind (Fletcher & Carruthers 2012). Finally, to my knowledge, very little research effort has been directed towards searching for biographical consciousness in animals.

Happily, some of these gaps in our knowledge are already being filled using neural recording technologies which Varner himself suggests will provide much needed insight into this area. Such methodologies have not only been developed for a wide range of animal species including rats and crows (Gupta *et al* 2010; Marzluff & Angell 2012), but are already creating sufficiently strong evidence within one area of animal cognition (Gupta *et al* 2010) to sway at least some (Corballis 2012), if not all (Suddendorf 2013), of the key sceptics (Suddendorf & Corballis 2007). Recordings of hippocampal activity in rats now appears to be the most compelling evidence for mental time travel in non-human animals (Gupta *et al* 2010; Corballis 2012) a finding which suggests autozoetic consciousness may be shared by all mammals. This raises the question of whether such technology could also contribute to our understanding of biographical consciousness in animals. Certainly, given these recent findings, it appears that using modern technology to try to find more evidence of autozoetic consciousness and life-as-a-whole thinking in animals could greatly affect the positions Varner takes on animal welfare and humane sustainable agriculture in the final section of his book.

Considering how important Varner's book is to current debates on animal ethics and welfare, I hope its publication leads to an increase in the number of studies focused on autozoetic consciousness and the start of the search for biographical consciousness in animals. Certainly, this book is likely to frame both the science of animal welfare and debate on animal ethics for some time to come. In fact, it may well turn out to be one of the seminal works on animal ethics of the 21st century.

## References

- Corballis MC** 2012 Mental time travel: a case for evolutionary continuity. *Trends in Cognitive Sciences* 17(1): 5-6. <http://dx.doi.org/10.1016/j.tics.2012.10.009>
- Dawkins MS** 2012 *Why Animals Matter: Animal Consciousness, Animal Welfare, and Human Well-Being*. Oxford University Press: Oxford, UK
- Everett D** 2005 Cultural constraints on grammar and cognition in Pirahã. *Current anthropology* 46: 621. <http://dx.doi.org/10.1086/431525>
- Fletcher L and Carruthers P** 2012 *Behavior: Reading versus Mentalizing in Animals*. Agency and Joint Attention: New York, USA
- Gupta AS, van der Meer MA, Touretzky DS and Redish AD** 2010 Hippocampal replay is not a simple function of experience. *Neuron* 65: 695. <http://dx.doi.org/10.1016/j.neuron.2010.01.034>
- Kahneman D** 2011 *Thinking, Fast and Slow*. Farrar, Straus and Giroux: New York, NY, USA

**Marzluff J and Angell T** 2012 *Gifts of the Crow: How Perception, Emotion, and Thought Allow Smart Birds to Behave Like Humans*. Simon and Schuster: London, UK

**Suddendorf T** 2013 Mental time travel: continuities and discontinuities. *Trends in Cognitive Sciences* 17(4): 151-152. <http://dx.doi.org/10.1016/j.tics.2013.01.011>

**Suddendorf T and Butler DL** 2013 The nature of visual self-recognition. *Trends in Cognitive Sciences* 17(3): 121-127. <http://dx.doi.org/10.1016/j.tics.2013.01.004>

**Suddendorf T and Corballis MC** 2007 The evolution of foresight: what is mental time travel, and is it unique to humans? *Behavioral and Brain Sciences* 30: 299. <http://dx.doi.org/10.1017/S0140525X07001975>

*A Taylor*

*The University of Auckland, New Zealand*

### **Feline Behaviour and Welfare**

AF Fraser (2012). Published by CABI, Nosworthy Way, Wallingford, Oxon OX10 8DE, UK. 280 pages Paperback/Hardback (ISBN 978-1-845-93927-4/978-1-845-93926-7). Price £37.50, €50.00, US\$72.50/£75.00, €100.00, US\$145.00

*Feline Behaviour and Welfare* is a complete ebook giving a good overview on the aspects of this topic in 14 varied, yet connected, chapters. The scope of the topics is broad and ambitious, covering topics from neuroethology and maintenance behaviours to those behaviours that are undesirable in cats, but is organised in a logical fashion. The chapters covering welfare and behaviour of wild cats, and comparing the traits of these animals with each other and domesticated cats, are a welcome resource in this field, especially when delivered in such a succinct manner. This information can serve as a useful inaugural reference for those in welfare, care of captive wildlife, veterinary medicine, and conservation, as well as all who are interested in this topic. The depth and amount of information gathered to deliver this information is at an appropriate depth and breadth to encourage further exploration of this topic, which may be too cursory for some.

Dr Fraser's background in animal welfare and behaviour shines through this book. Of particular interest is how he aligned the chapters to delve into domestic cats, and then into the many different species of wild cats, subsequently addressing their similarities and differences in their behaviour. By doing this he gives readers tools to understand how we can study our domestic cats to more adequately address the welfare and environmental needs of their wild counterparts. Another important aspect that he addresses is how the changing wild environment impacts the behaviour and welfare of wild cats, utilising the comparative information that we have about both domestic and wild cats.

In the second chapter, the author addresses well-being and its roots, looking at moods and other affective states, including how pain can affect these in cats. However, the information presented on behavioural traits of purebred domestic cats is gathered from popular press articles, but is presented as factual-based information. This detracts from the validity of the information presented elsewhere.

The chapters on the stages of a cat's development, basic activities, and reproduction give a good overview of these topics. The author adequately summarises the steps of the developmental aspects of life, along with a good overview of how play develops and how it is important in the lives of cats. He also gives a nice summary of information on basic and necessary maintenance functions, such as ingestion, elimination, movement, and sleep. The chapter on reproduction and maternal behaviour is well organised; however, I am concerned about the overarching recommendation to supplement pregnant and lactating queens with raw foods without consideration that the cat may be on an adequate diet already, and that oversupplementation could be unsafe.

The chapters on the wild cats provide a nice summary of their behaviour, habitat, and physical attributes. They are broken down into the giant wild cats (lions, tigers, and jaguars), other wild cats (including leopards, pumas, and cheetahs, to name a few), and minor wild cat species (including black-footed cats and fishing cats, to name a couple). The chapter on the giant wild cats gets into more depth about the behaviour and welfare of these cats, while the other two chapters serve more as a brief overview of the covered species.

In the chapter entitled 'Common and comparative feline features' the author summarised the behaviours that are similar (and different) among domestic cats and wild cats, understandably focusing least on the minor wild cat species' behaviour. Some comparisons are well-referenced, while others afford a more cursory assessment. Some behaviours, such as human attack (and the domestic corollary of human-directed aggression), are not compared between the wild and domestic species.

The chapters on problem behaviours and health monitoring, as well as the chapter on neuroethology, serve more as an overview of the topics and are somewhat outdated in a few areas. More detailed information on these topics can be found in more current veterinary medical and clinical animal behaviour resources.

The chapters on welfare and well-being focus heavily on the welfare of domestic cats, presenting the information in a logical fashion and sometimes from a point that is not often thought of. The discussion of animal rights in domestication, while not focused directly on the domestic cat, gives an interesting perspective to this discussion. This final chapter attempts to summarise the aspects previously presented in the light of an animal welfare discussion.

This book is written in such a manner that it is like reading a story, which may be a bit tedious to those who are expecting a more technical approach to this topic. The few tables in the book are mostly well placed and thought out, clarifying the information delivered in the text. Graphics are generally well linked to the text, especially the excellent line drawings; however, some pictures appear to be unjustified in regards to the information that the author is delivering.

In summary, this book serves as an overview of aspects of physical and psychological well-being of domestic and wild cats, and should serve as a starting point for those interested in these topics.

*Melissa Bain  
Davis, USA*