### Book reviews

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C J C Phillips University of Cambridge Cambridge, UK

### References

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# Interpreting Minds: The Evolution of a Practice

Radu J Bogdan (1997). MIT Press: Massachusetts. 314pp. Hardback. Obtainable from the publishers, 5 Cambridge Centre, Cambridge, Massachusetts MA 02142, USA; or for UK orders from, Fitzroy House, 11 Chenies St, London WC1E 7ET, UK (ISBN 0262024195). Price US\$47.50 or £29.50.

I believe that scientists interested in animal welfare need to know about animal cognition. Although this book contains much useful information on animal cognition, it does not specifically relate to animal welfare. The following review may therefore be slightly unfair in that I have evaluated the book from the perspective of an animal welfare scientist, when perhaps it was written only for philosophers.

The first sentence of this book states: 'This essay is about common sense psychology, also known in philosophy as folk psychology, as theory of mind or mind-reading.' Immediately the author has identified the problem that dogs the study of animal cognition at the moment, namely the interchangeable use of so many terms. I personally prefer the use of the term 'theory of mind', as it most accurately describes what is being studied. Journalists would no doubt prefer the term 'mind-reading' as it fits in with the present media obsession with 'X-file' type stories and PMT (Pre Millennium Tension). Although many of these terms sound quite grand or mystical, what they all basically refer to is the animal's ability to impute mental states to other animals and to use this to its advantage – or in layperson's terms, 'being able to put oneself in another's shoes'. Thus, mind-reading in animals is not telepathy. However, those animals that have theory of mind (ie those that can mind-read) can, to a degree, predict and therefore manipulate the behaviour of other animals (this is often referred to as 'Machiavellian Intelligence'). What has all this to do with animal welfare? Well, it gives scientists a handle on the cognitive ability of animals, and this is useful in assessing their potential to suffer as animal welfare is ultimately about how an animal feels.

The inference I derived from the first sentence of this book (see above) was that it was going to further our understanding of animal cognition and provide new insights. I must admit that my reaction to this essay was that it should, therefore, have been published as a theoretical article in a peer-reviewed journal.

Turning to the book itself, I found it to be written in a particularly impenetrable style; I suspect that this was in no small part due the fact that it was written by a philosopher. (Although, to be fair, a philosopher would probably find difficulties with my style of writing, I still suspect that most people would find this book incredibly heavy going.) The problem with its style of writing is that paragraphs have to be read over and over again to elucidate their meaning. Ultimately, when I finished the book, I was not sure whether the author had said anything new. I was left with a feeling that he had largely translated an area of cognitive psychology into 'philosopher speak'. Perhaps then, the function of this book is to inform philosophers about this subject area in their own 'language'. Readers of this journal who wish to educate themselves about the subject would do better to read the far more accessible texts written by psychologists (I personally recommend: Byrne [1995] and Russon, Bard & Parker [1996]).

I will refrain from giving the usual chapter-by-chapter summary of the book, as its style is such that this would have little meaning. Perhaps I have missed something with this book – maybe it is beyond my cognitive capacity to understand it – but, as Richard Feynman is often quoted as saying: 'If you can't explain, say, quantum physics to a 12-year-old, the chances are you probably don't understand it yourself'. It is sad to reflect that science and philosophy have grown so far apart; after all, the biological sciences were developed from natural philosophy.

To finish on a positive note, some of the most exciting recent advances in animal welfare have come from collaborations between cognitive (evolutionary) psychologists and animal welfare scientists. One current initiative (which I hope the scientists do not mind me mentioning) is the collaborative project on pig cognition at Bristol University involving Mike Mendl, Suzanne Helder, and also Dick Byrne at St Andrews University. I strongly urge other animal welfare scientists to delve into this rich and stimulating area of research.

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