## **Book Review**

Rogers, Lesley, Minds of Their Own: Thinking and Awareness in Animals, 212pp., Allen and Unwin, St.Leonards, New South Wales, 1997.

To say of someone that they have a 'mind of their own' is usually to praise them, to imply that they can think independently. We take the minds of other humans for granted, we assume that they have a mind in the first place, which can become one's own: but we rarely make such assumptions for nonhuman animals. Nonhumans are all too often assumed to be mindless automata. 'Minds of their own' is thus a title aiming to challenge persistent cultural beliefs about other species.

Lesley Rogers is a biologist, whose research focuses on animal behaviour. Her particular challenge is to the assumptions made by many of her fellow scientists. Those of us trained in the science of animal behaviour have been taught not to anthropomorphise - that is, we should never generalise from human thoughts and feelings to animal behaviour. The trouble with consciousness and the notion of mind is that they can't be observed, only inferred; hence, we should not attribute consciousness to animals, the argument goes.

This scepticism remains a strongly held conviction among many scientists. But, Rogers notes, there are increasing numbers of biologists who question it, who do seek to find ways to ask about animal minds. Her book explores many of the recent findings, moving through issues of self-awareness, deception and intentionality, questions of intelligence and memory, and the relationship between brain size and consciousness. Throughout, she gives the benefit of doubt to the animals studied.

Western culture, Rogers points out, is heavily invested in defending a boundary between intelligent humans and (nonintelligent) other species. Scientists continue this tradition, tending to prefer interpretations of behaviour that deny self awareness or consciousness. But the boundaries are arbitrary; we include humans in consciousness even if they lose the capacity for language, yet when nonhumans learn some features of human language we search for ways to dismiss their abilities.

Rogers gives many examples of this boundary maintenance. She cites, for example, one scientist who insists that even other apes cannot access memories independently of triggers in the environment. He is not convinced by the many studies of signlanguage acquisition in apes, even when Koko the gorilla expressed past sadness at the death of her companion kitten.

> 'In the absence of evidence', suggests Rogers, such people 'who categorically state that all animals are locked into thinking about and responding only to the immediate environment, are expressing their attitudes to animals, not scientific evidence' (p. 75).

Those who want to maintain a boundary seek all kinds of fence posts. Language is one (though challenged by sign-learning chimpanzees); tool use is another (also challenged by a range of species which use tools). Yet, in her careful analysis of both animal abilities and the evidence of early hominid evolution, Rogers can find no fences:

> 'If there is a discontinuity between Homo sapiens and other living species', she concludes, 'it does not lie in the exclusive possession of any one of these traits'.

We may be better at some things (tool using for instance) but there is no evidence of traits exclusive to humans. There is even:

> 'a continuity of human speech with the brain structures that are used for vocalisations in animals. Both stone and wooden tools were being used well before humans evolved and planning ahead is essential to the survival of many species. No single feature on its own makes us special' (pp. 163-4).

Not only do prevailing cultural beliefs about the stupidity of nonhumans enter scientific interpretations, but the experiments themselves are often designed to support them. Can we really conclude animal stupidity when we compare humans to animals who have spent all their lives in highly impoverished environments? It would hardly be surprising if a laboratoryreared chimpanzee failed to solve some of the problems it was set; so would a human child reared in such dire surroundings. The riposte of some scientists is that, to draw proper conclusions, we must have properly controlled conditions. On those grounds, they reject the interpretations offered by people who have raised chimpanzees to use sign language. This, Rogers points out, is:

> 'a double bind. On the one hand, the rearing and testing conditions must be controlled completely or the complex cognitive abilities that animals display will not be believed. On the other hand, if the rearing and testing conditions are controlled completely, the environment becomes so sterile that animals raised in it will be less able, or willing, to display complex cognitive abilities, language abilities and consciousness' (p. 171).

Controlling conditions also means losing the individual. Animals become groups in experimental protocols. By contrast, those of us who live in close companionship with specific individuals of other species - as Rogers does with her Rhodesian ridgebacks - know how variable and different they are. Each has her or his own personality. I may be a scientist, but I don't need science to tell me whether or not my dogs or horses have consciousness or understand what I say. My answer comes from my own individual experiences with those animals.

Lesley Rogers clearly shares that belief that she is communicating with a conscious and aware being when she interacts with her dogs, or with the orangutans she has studied in East Malaysia. But she does not generally argue from that personal experience; on the contrary, she is very careful to examine the evidence from the science itself and to question the conclusions of many scientists. We could just as well start from the premise of animal awareness, she believes, as starting from the prevailing belief in its lack.

Giving nonhuman animals the benefit of the doubt in such ways should extend beyond simply interpreting data. If we start from the premise that (at least some) animals can be aware, then we can allow that some species might be aware of the suffering of their fellows. Koko the gorilla, suggests Rogers, exhibited empathy toward another gorilla who was crying, apparently to be let out. Yet how often is that possibility of empathy ever taken into account by those who work with (use) nonhuman animals? Like Rogers, I too have often seen other scientists killing rats in front of their cagemates; like her, I have wondered, with pain, what those other rats were experiencing. Many animals in laboratories or farming environments might suffer because of their awareness of the suffering or death of their fellows. As Rogers notes:

> 'None of the present guidelines for animal welfare take this into account' (p. 188).

Lesley Rogers makes a persuasive case. At the very least, she urges, nonhuman animals should be given the benefit of the doubt, not assumed a priori to have no consciousness or minds. Her book is, moreover, written accessibly, avoiding the overly complicated language beloved of so many scientists. There is a great deal invested in maintaining the boundary between 'us humans' and 'them', and much of the science is devoted to fencebuilding. But even within that science there is growing interest in animal minds, and growing resistance to the idea that animals are merely clockwork machines.

If we posit other species as mere machines, what does that say about ourselves? What does it say about our relationships to those other species? Among other things, it limits our understandings. Rogers concludes her book:

'By ignoring the most interesting attributes of the behaviour of animals we not only diminish our own experiences but also diminish the existence of animals.' (p. 195).

Other species are adapted to quite different environments to us, requiring different skills to negotiate - not lesser, just different. And to do that they must have minds of their own.

Lynda Birke

## **Book Notes**

Dennett, Daniel, Kinds of minds, x + 244pp., Phoenix, London, 1996.

Dennett takes up the question of animal minds. Do animals have subjective states or are they merely capable of (sometimes) doing clever things. His answer is curiously dogmatic. They have no subjective states, hence they have no minds. Yet in the same breath -the book can be read in almost one breath- he acknowledges our ignorance about animals and their capacities. The argument appears to be: if we are unsure of the capacities of animals then we should say they have no subjectivity, no minds. He claims that language gives humans a unique advantage in the development of subjectivity but this is not a good argument unless we have established that other animals do not have 'languages'. We do not know this and Dennett does not even refer to the studies with dolphins and bonobos which purport to show that they have language. This is a profoundly disappointing book because a great deal of it simply restates the dogmatisim of past philosophy concerning the uniqueness of humans.

Hoeg, Peter, The Woman and the Ape, 229pp. Harvill Press, London, 1996.

Two thirds of this book is a wonderful, witty novel full of attacks on meat eating, zoos and animal experimentation but with a very soft touch. There is a very clever and constant use of animal analogies, e.g. 'There is nothing pleasant about abandoning the protection afforded by hopes and daydreams and Madelaine shrank from it like a hermit crab forced to leave its whelk shell' (p.75). It is only after a while that you realise that when an analogy is drawn it nearly always involves an animal. The last third of the book is a sexual/social fantasy straining all credibility. An ape whisks a woman away to a supposedly idyllic garden. Realizing the limitations of such a life they return to society draw out other (hidden) apes and sail away Carruthers, Peter and and Smith, Peter K, editors, Theories of theories of mind, xv + 390pp., Cambridge University Press, Cambridge, 1996.

The first three parts of this book take up a wide range of debates in the philosophy of mind. Part four consists of four articles on whether non-human primates have minds. The authors are Andrew Whiten (Psychology, St Andrews), Daniel Povinelli (Comparative Behavioural Biology, New Iberia Research Center), Juan-Carlos Gomez (Psychology, Madrid) and Peter Smith (Psychology, Sheffield). Andrew Whiten concentrates on what it means to attribute mental states to beings such as chimpanzees. Daniel Povinelli tries to show that there are plausible reasons why chimpanzees (at least) might have a theory of mind pointing to features such as gaze-following and self-recognition in mirrors but then he raises some doubts. Shifting the focus onto practical understandings of overt mental states as expressed in intelligent social action, Gomez argues that what chimpanzees display is more complex than trial-and-error but it need not involve a meta-representational theory of mind. While Smith asserts that a theory of mind cannot exist without language - in the sense of an abstract symbolic system of communication. The conclusion to the article and the book is quite a telling example of human arrogance: 'Only if chimpanzees could talk to each other about mental states would they have evolved mind-reading, and only if they could talk to us about mental states would we believe them'. Hopefully the club of 'we' is diminishing.

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