

BOOK REVIEWS

Candland, Douglas Keith, *Feral Children and Clever Animals: Reflections on Human Nature*, xiii + 411pp. (Oxford University Press, Oxford, 1993).

Feral Children and Clever Animals purports to be about attempts by humans to know about themselves by trying to understand the minds of other beings: feral children and animals, and at least in the first half, it fulfils this aim quite well. The discussion of the animal studies however involves very little reflection on the investigators and is mainly confined to a summary of the published results along with some questions about what they might mean.

The 'feral children' who are the focus of the first half of the book are Peter, Victor, Kaspar Hauser, Amala and Kamala. Candland looks at the aims of the 18th and 19th century investigators of these children rather than the specifics of the children's behaviour or abilities. It is the minds of the investigators rather than the feral children that he sees of interest. This is a novel slant on these stories and it allows Candland to present his view of the history of psychology.

According to Candland, those who studied Peter discovered in the 18th century, were primarily concerned with the question, 'what behaviour is innate and what behaviour is learned?' and the social/political ramifications of the answer. I wonder whether this description is accurate given that the emphasis on *behaviour* seems to be a feature of a much more recent psychology. It is clear however that the general question about what in humans is innate and what is learned was an important one at the time. Itard's study of Victor, Candland tells us, was premised on a division between the senses, the intellect and the emotions, foreshadowing the idea of psychology as being composed of three functions that can be studied separately. Kaspar Hauser is included in Candland's reflections as a feral child but he was not strictly one. He was raised by humans in confinement and with minimal sustenance. The discussion here is inconclusive as it seems no one attempted a study of Kaspar Hauser's abilities, the 'experts' being more concerned with the illegality of confinement.

Amala and Kamala, both reared by wolves were investigated to determine how or whether culture could be taught. The mother wolf was cruelly killed in front of them. Reverend Singh, the chief investigator wrote that up to three months after capture they showed a dislike for everything human and Amala died shortly after capture. It is curious that Candland makes nothing of these events. In fact the book engages only very fleetingly with moral issues in the conclusion.

Candland introduces a discussion of four directions in contemporary psychology: the notion of measuring mental ability, psychoanalysis, behaviourism and phenomenology. Psychoanalysis is presented through Freud's account of Little Hans and many key concepts are clearly portrayed. Candland insists on the utility rather than the veracity of psychoanalysis, incorrectly I think, attributing such a perspective to Freud.

Supposedly leading into his discussion of behaviourism, Candland outlines the accounts of the abilities of the horses, Clever Hans, Zarif and Muhamed, suggesting that experts' descriptions had a great deal to do with their expectations. Interestingly Candland argues for the cleverness of Hans on grounds other than those provided by contemporary experts. Behaviourism is in fact barely mentioned.

Phenomenology is introduced with a discussion of the reading abilities of certain dogs and the investigators' attempts to communicate via words with the dogs. Candland argues that the questions of those who studied these horses and dogs move away from those asked of the feral children towards an emphasis on communication. The idea of a mental ladder which arranges animal species by their intelligence is then introduced looking at the studies of chimpanzees early this century in the United States and Garner's attempts to study chimpanzee communication by living in Africa and interacting with them in their natural state. This is fascinating material though received sceptically at the time by Western scientists as Garner's observational reports were mixed up with reports by Africans presumed incapable of credible testimony. Thorndike's work on the learning abilities of a range of animals is outlined. The criticism that such laboratory work is flawed because of the artificial nature of the test situation is elaborated. It is interesting to note however that Thorndike's studies of monkey's learning abilities prompted his claim in 1901 that 'the monkey justifies his inclusion with man in a separate mental genus'. The experimental work of Haggerty and Hamilton with

monkeys early in this century is also discussed. The final hundred pages deals with recent attempts at communication between people and apes, carefully unearthing the assumptions often made here. The Kellogs' study of the chimpanzee Gua in their home and the Hayes' study of the chimpanzee Viki also living in their home revealed a great deal about chimpanzees' abilities but the studies failed in their attempts to teach human speech. The Gardners' attempts to communicate with the chimpanzee Washoe and the Patterson's with the gorilla Koko, both met with much greater success using sign language. Terrace's study of the chimpanzee Nim also revealed Nim's competence in using signs but Terrace was unsure of Nim's ability to create a sentence and generated some scepticism about ape/human communication studies in general.

The second generation of chimpanzees in communication studies which Candland claims focused on meaning, are then outlined. The Premacks' studies of Sarah and other chimpanzees provide credible examples of meaningful communications especially related to lying and deception. Duane Rumbaugh and others' attempts to communicate with another chimpanzee also using an artificial language and the even more surprising results with the chimpanzees Sherman and Austin with the investigator Savage Rumbaugh also help overcome earlier scepticism and generate more sophisticated questions. The research with the bonobo Kanzi is only briefly mentioned which is disappointing given the extent and originality of his purported communication with Sue Savage Rumbaugh.

It is good to bring all this empirical material together but it is only related to the psychologies in the vaguest of ways; for example, the accounts of animals' communications often bring in perceptions and phenomenology is concerned with the study of perceptions. Candland's conclusion is surely correct however that there is much more to find out about animal/ human communication and that the studies should take more account of how human categories of thought affect outcomes.

Candland is an oblique sort of thinker making his writing unpredictable and interesting but also a little frustrating if you prefer writers to follow their aims in a straight forward manner. The book is unwieldy but it opens up reflection in a multiplicity of directions. Even though it is already a long book it would have been good to consider the story of

Jeanie, a modern Kasper Hauser and the investigations into human/dolphin communication along with the material Candland covers.

Denise Russell

Rollin, Bernard E., *The Frankenstein Syndrome: Ethical and Social Issues in the Genetic Engineering of Animals*, xiv + 241pp. Cambridge University Press, Cambridge, 1995.

Bernard Rollin is well known for his philosophical writings concerning humans' moral obligations to animals (see *Animal Rights and Human Morality*, Second edition, (N.Y: Prometheus Books, Buffalo, 1992) and *The Unheeded Cry*, Oxford: Oxford University Press, 1989). *The Unheeded Cry* is a brilliant analysis of the culture of science and how it works against the interests of animals. Rollin is not as opposed to the genetic engineering of animals as these earlier books might lead one to suspect. In *The Frankenstein Syndrome* he presents such engineering as a neutral tool which may be used wisely or not. A suspicion falls over this approach if we substitute 'humans' for 'animals' here. It seems that it is not possible to view the genetic engineering of humans as a mere tool. Yet Rollin comes close to this when he claims that there is nothing inherently wrong with human genetic manipulation. Perhaps this just highlights the need to speak about specific procedures. While Rollin's discussion does get down to specifics in relation to animals he apparently regards all procedures as mere tools even when these involve for instance, the creation of animal models of human disease.

Rollin is concerned that our ideas about genetic engineering of animals not be dominated by the 'Frankenstein Myth'; that the creation of new life by scientific intervention must have 'hellish' consequences. He believes that the genetic engineering of animals has 'patent and incalculable social and economic benefits'. He seems to suggest that animals may benefit too but he does not clarify this beyond some brief speculations about possibly in the future breeding animals to better suit current farming practices, e.g.. more content battery chickens, or introducing genes for disease resistance.

Rollin also states that genetic engineering of animals cannot now be stopped arguing that it is too simple and relatively inexpensive to accomplish, and if it were to be banned in the U.S., it would be carried

out in less restrictive environments elsewhere. He believes that control of the technology is vital because it has the capacity to 'lead to a proliferation of animal suffering many orders of magnitude greater than what we have seen before'.

Rollin asks why the moral issues connected with genetic engineering have not been brought forward by the scientific community itself. He suggests that it is very difficult for those immersed in a field to gain the necessary distance for such reflection, that the scientific ideology outlined in *The Unheeded Cry* still dominates, unreceptive to moral questions. Rollin argues that science necessarily involves values, e.g. epistemic ones but also 'as a social phenomenon and human practice, science cannot be isolated from social morality'.

Rollin criticizes claims that genetic engineering is intrinsically wrong. While in general Rollin's arguments work well, there are two problematic areas. Firstly, in arguing against Rifkin's purported link between reductionism and genetic engineering, Rollin says that reductionism is metaphysically, epistemologically and even morally wrong. However he asserts that genetic engineering need not be connected to reductionism, a point with which I agree, yet it seems to be denied by Rollin in his Appendix describing genetic engineering. Here he says: 'The blueprint for both species' commonality and individuality is carried by the genes, which instruct and regulate the animals in how to develop, grow and form throughout life'.

Secondly, in his discussion of environmental philosophy and genetic engineering, Rollin makes several fallacious moves, most notably not taking account of the variety of approaches which constitute 'environmental philosophy'. His critique of Holmes Rolston's account of intrinsic value of natural objects is well worked out, but Val Plumwood's position in *Feminism and the Mastery of Nature* is not so vulnerable to attack. Rollin's approach here reflects the long standing and unnecessary conflict between philosophers concerned about animals and those concerned about the environment.

A lengthy section in the book examines the potential dangers arising from genetic engineering of animals for humans and ecosystems. This is wide-ranging and well done except that the tone in places is rather too jocular for the subject matter. There is a strong argument for public

involvement in decisions about acceptance, rejection or monitoring of genetic engineering of animals and some practical suggestions for regulatory structures. He points out the lack of current regulation in the commercial domain.

About one third of the book is given over to ethical considerations in relation to animals that arise from genetic engineering and some very sensible discussion of how to provoke changes in attitudes. Rollin claims that he is moving beyond talk of kindness vs cruelty to develop an ethics of rights applicable to animals. However he does not answer or even discuss the hard questions about a rights-based philosophy. Some law reforms are suggested which if implemented, would provide some good safeguards. These reforms are not contingent upon the acceptance of a rights philosophy.

As one of the first major works devoted to ethical questions concerning the use of animals in genetic engineering this book is to be praised. It is very informative and provides a good start to thinking about philosophical issues. As an attempt to explode the Frankenstein Myth however the book is a failure

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BOOK NOTES

Masson, Jeffrey and McCarthy, Susan, *When Elephants Weep: The Emotional Lives of Animals*, 268pp. (Jonathan Cape, London, 1994).

Masson, famous for his trenchant critiques of psychiatry, together with McCarthy, presents a fascinating series of accounts of emotions in animals. The main part of the book is organised around descriptions of fear, hope, rage, cruelty, friendship, grief, sadness, happiness, compassion, altruism, shame and justice. It is valuable to have this material collected together, some of it is well known, much of it is not. Detailed notes and references are included. *When Animals Weep* lacks philosophical sophistication: the core concept of emotion is inadequately conceptualized and there is only superficial argument concerning the attribution of emotions or feelings to animals. Yet it is difficult to put down.

Adams Carol J. and Donovan, Josephine, editors, *Animals and Women: Feminist Theoretical Explorations*, ix + 381pp., (Duke University Press, Durham, 1995).

Animals and Women is a collection of 13 essays by 13 authors on the interlocking oppressions of sexism and speciesism. A few of the essays have a literary focus but otherwise the specific topics are very diverse applying the general theme to science, crime, hunting, pornography, abortion, farm animals, and politics. Lynda Birke's essay, 'Exploring the Boundaries: Feminism, Animals and Science', develops an important critical perspective towards the reluctance of much of the feminist literature to challenge conventional ideas about animals. The book contains a very useful nine page bibliography of feminist approaches to animal issues.

Noble, William and Davidson, Iain, *Human Evolution, Language and Mind: A Psychological and Archaeological Inquiry*, xiii + 272pp., Cambridge University Press, 1966.

Noble is a psychologist and Davidson an archaeologist and they attempt to unite the two disciplines to outline the process of evolutionary emergence of the phenomena of mind, language, and 'higher consciousness'. The focus is on humans and other apes and on what might count as evidence for language acquisition. This is a careful study with some interesting conclusions. The Savage-Rumbaugh research findings with Kanzi are discussed but thought not to be generalizable to wild primates or the common ancestor as Kanzi's environment (involving human communication) is different. Noble and Davidson argue that it is the human nature of the interactive context in the case of Kanzi that engenders the powers and capacities of mind expressed in that creature. The question then shifts from 'can bonobos use language?' to 'is Kanzi human?' A positive answer to this question would preserve the authors' belief that language is the key to human mentality. It would be interesting to juxtapose the direction of this argument with the dolphin studies reported for instance in L. Herman, 'Receptive Competencies in Language-Trained Animals' in Rosenblatt, J et al eds., *Advances in the Study of Behavior*. It is not quite so plausible to think about of dolphins as human.