The aim of this journal is to investigate philosophical and ethical issues related to human/animal interactions. Papers are invited on any topics within this general area.

Word length should be 4,000 - 8,000 words and papers should preferably be sent on a Mac disc or by e-mail to the editor, or if this is not possible, a hard copy should be sent to the editor.

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EDITOR'S INTRODUCTION

During the 1990's in Western culture a range of animal issues have become important. Some old ones have taken on a new urgency and some new questions have emerged. The key philosophical question in relation to non-human animals has been how are they distinct from humans. The criteria of sentience, reason, tool-making, language, free will and culture have all had their philosophical supporters. Yet the recent studies of free ranging apes and monkeys challenge all these criteria. The research on captive bonobos and dolphins has also raised questions about the uniqueness of language as a human trait. This has led some to argue that there is a need to re-define species boundaries or at least to re-think what it is that makes us human as distinct from animal. While others take the view that even embarking on the latter project is pointless and borne from human arrogance. Whatever one's position, the certainties in this area are gone.

The ethical questions stride into view with the growing awareness of the horrors of the expanding factory farm and as more young people turn to vegetarianism there is a need to clarify the moral basis beyond just an intuitive revulsion. The presentation of cannibalism as a theme in some recent films, and as a reality in some on-going wars also deserves comment.

Animal experimentation has been a source of concern for some time. The setting up of ethics committees in the last two decades may to some extent have dulled dissent. Yet this way of handling the ethical issues of experimentation does have its critics. Also there has been very little discussion of new techniques such as xenotransplantation and cloning. Xenotransplantation is the transplantation of organs or tissues between species, a procedure which is already in use and it is likely to expand given the promise of greater success with advances in breeding programs including the genetic engineering of animals, and immunology. The successful cloning of sheep and monkeys is said to point to an early date for the successful cloning of humans. There are some crying out for the discussion of ethical issues concerning human cloning but surely we need to consider these in relation to non-human animals too.

Vertebrate animals are usually the sole focus of ethical discussions of concerning animals in experimentation. Yet some Australian researchers,
working on coral in the Great Barrier Reef have suggested that invertebrate animals should also be considered.\textsuperscript{7}

All of these ethical issues (and others such as zoos, pets and circuses) raise not only specific questions about the food industry, about eating, experimenting, teaching and recreation, but also the general question: what is the basis, if any, for the moral consideration of animals and how far does it extend? A range of new books have been published in this area and it will no doubt become a central philosophical concern in the future.

Another philosophical/ethical issue which has risen into prominence in the 1990's is the link between speciesism and sexism, a theme taken up by some of the writers in this issue, clearly negating the earlier feminist fear that expressing concern for animals might work to strengthen a woman/animal link and further denigrate women. Another issue is the connection or conflict between animal advocates and environmentalists or ecologists, an area which needs a great deal more work.

Submissions are invited on all of these areas, in fact any area of philosophical or ethical concern related to animals.

Notes
5. For example, 'The Cook, the Thief, His Wife, Her Lover'.
LIVING WITH ANIMALS

Freya Mathews

'Without animals,' says Peter, a Maasai nomad interviewed in the New Internationalist\(^1\), 'life isn't worth living'.

Sitting here in my inner-city backyard writing this, with a circle of attentive little upturned canine and feline faces surrounding me, and my cranky duck tugging at my shoelaces, I could not be in more heartfelt agreement. But how many people today would share this sentiment? For how many would it be football that makes life worth living, or cars, or opera, or ice-skating? Is there anything to ground the conviction that I want to defend here, that the company of non-human animals is a necessary part of human life, in a way that football, cars, opera and ice-skating manifestly are not, and that we relinquish or forego it at our peril?

There are two parts to this question. The first is, is it important for us, for our own well-being or the realization of our human potential, that we live in intimate commensal relations with animals? The second is, is it important for the environment that we live in such relations? Does the world need us to continue to live in our ancestral communalism with animals?

My view is that our present estrangement, as human beings, from both the natural world (as evidenced in the environmental crisis) and from ourselves (as evidenced in the intense neuroticization of life in contemporary 'advanced' societies) is due at least in part to the progressive removal of animals from our day-to-day urban reality; consequently I shall argue that, in order to address both the environmental crisis and our own crisis of consciousness, we need to find ways of restoring animals to the human household.

I cannot hope here to exhaust the discussion invited by this question, or even to do justice to its larger significance. I shall merely offer several relatively straightforward arguments in favour of human-animal commensality, and then offer a very personal reflection on the deeper
cosmological significance of these relations, as this has unfolded for me through my own experience.

Our Need for Animal Company

Firstly then, are intimate connections with animals foundational to our human well-being? It is by now a well-established research finding that people who enjoy the day-to-day friendship of animals, or who are, according to contemporary parlance, 'pet owners', are healthier in various respects than people who do not: they tend to visit the doctor less frequently, use less medication, have lower cholesterol and blood pressure levels, recover more quickly from illness and suffer less from feelings of loneliness. Indeed, it has been estimated that 'pet ownership' saves the Australian health care system one and a half billion dollars per year.

Why might this be so? One reason may be that companionate relationships with animals defuse a lot of the socially generated pressure in our lives. Animals are non-judgmental friends. They do not compete with us. Hence we can relax with them, and enjoy spontaneous affection and cathartic physical closeness: we can 'be ourselves' in the presence of such companions, since they have no socially acquired expectations of us. They offer us emotional and psychological release.

Friendships with animals may be stress-reducing in a further way. Emotional involvement with creatures who do not share our human goals and aspirations, our system of values, enables us to gain an external perspective on those values. It enables us to imagine how odd or arbitrary our human priorities might appear from a non-human perspective. When revealed in this light, socially-prescribed imperatives have less hold on us - we can achieve a certain distance from them, a certain detachment. We become less driven, less enslaved to abstract ideals and images, and hence more receptive to our actual bodily and instinctual needs, more self-accepting, with all the implications for health and healing that flow from this.

It does not seem too far-fetched, to me, to speculate that there may even be a direct physiological dependence of humans on animal companionship that would help to explain why people who enjoy that
companionship are healthier than others. Some evolutionary theorists are currently arguing that our ancestors' early genetic 'contract' with certain animals - particularly dogs - enabled us to develop the characteristics that now mark us as human. According to this theory, it was our association with dogs - which was initiated at least in part by the dogs themselves, possibly as early as one hundred thousand years ago - which enabled our ancestors to dispense with something that is otherwise mandatory for mammalian predators, namely an acute sense of smell: when dogs agreed to join us in the hunt, they could henceforth do our sniffing for us. The advantage for us of delegating our scenting function in this way was that we could thereby dispense with our muzzle. Sans muzzle, we could achieve frontal vision, and hence improved hand-eye co-ordination, where this in turn was a precondition for the development of our tool-making capability. The retraction of the muzzle also entailed the shrinkage and refinement of the tongue, which thereby became capable of the short, highly differentiated sounds required for speech. According to this theory then, it was through a functional inter-dependence with dogs that we became human. (This theory adds an amazingly literal dimension to the Aboriginal myth of human origins recounted so beautifully by Deborah Bird Rose in her book, *Dingo Makes Us Human.* The deal for dogs, in this scenario, was of course that they received board and lodgings; history has resoundingly vindicated the proto-dogs' evolutionary choice.

If this evolutionary story is accepted - and the fact that nearly all known human communities have included dogs helps to bear it out - then it is possible that human beings have a physiological need for contact with dogs. Our bodies may unconsciously respond to certain subtle canine emanations, just as women's bodies, for instance, unconsciously respond to the subtle menstrual signals emanating from their female house mates. If our compact with dogs indeed rested on certain evolutionary imperatives, then it is not unreasonable to suppose that that compact may be reinforced by other more direct, physiological forms of inter-dependency. If all dogs were banished from our cities - and many indignant citizens are calling for just such a ban - a massive malaise in the human population might ensue. Such a malaise might take directly physical form, such as immunological decline; recent evidence that raising children without exposure to ('dirty') animals tends to weaken their immune systems, where this renders them susceptible to allergies, counts in favour of this kind of interpretation. But the malaise might
also take a more psychological form - it might be more akin to the depression which is already present in epidemic proportions in our relatively animal-free 'advanced' industrial civilizations. It might manifest as a vague sense of incompleteness or meaninglessness, leading to emotional neediness and compensating material acquisitiveness. Or it might be experienced as an existential loneliness which no amount of intra-species socialising can assuage.

Consider the latter possibility for a moment. If we have lived in intimate community with dogs, for instance, for anything up to a hundred thousand years, wouldn't it be likely that we would have a distinct psychological need for their company, a need that could not be satisfied by human substitutes? Anyone who habitually walks in open spaces with a close canine friend can testify to the unique appropriateness of dogs as walking companions. Bounding along with infectious interest and joy in their surroundings, they leave us free - free to think our own thoughts and to observe those surroundings keenly ourselves - while nevertheless staying faithfully within our orbit, maintaining an unobtrusive closeness with us. Alternatively, anyone who has spent time in Aboriginal settlements can testify to the feeling of comfort that a dog clan can lend to a community, provided of course that the dogs are not themselves a source of danger. Their constant mingling with the people, their presence at meetings and their forays onto the football field, their barking and carrying on amongst themselves on the margins of human activities, add a safe, convivial and companionable dimension to life, a dimension that has been entirely lost in the larger cities. Nor is it only dogs which provide a distinctive quality of companionship. To sit in the garden with an affectionate duck can afford a uniquely peaceful interlude in the daily round. To travel with horses or camels can give a far richer sense of journeying than can either solitary travel or travel with exclusively human company.

In light of the emotional and psychological satisfactions that we have experienced for thousands of years in the wider social world of the 'mixed community' of humans and animals then, isn't it reasonable to assume that, deprived of these satisfactions, we moderns might feel unfulfilled and obscurely lonely, even if we have never experienced these satisfactions at first hand, for ourselves. And mightn't this unfulfilment and loneliness contribute to the social malaise of modern life?
These are some of the reasons why it might be important for our own well-being to continue the ancient human tradition of living in mixed households or communities. But why might it be important for Nature itself that we honour and maintain our ancestral commensal links with animals?

**Why Nature Needs Us to Live in Company with Animals**

If animal companions help to make us less driven, competitive and acquisitive, as I argued earlier, then their presence in our lives works against the world-destroying ethos of capitalism, with its competitive individualism and consumerism. That is to say, if animals help to bring us down to earth, deflating our modern ambitions and pretensions by exposing them to inter-species scrutiny, then we shall be less anxious to remain in the race for success, wealth and power, where it is this race, on a mass scale, which is driving the engines of capitalism. Indeed, to the extent that we share our lives with animals, we shall not only be less willing but less able to adapt to the regime of order and control, efficiency and discipline, which is a prerequisite of capitalist production: animals constantly disrupt our life and work with unpredictable contingencies - escapes, fights, sudden illnesses, injuries, embarrassing lapses. They bring an element of slapstick and anarchy into the cool, smart, self-absorbed world of business and public affairs. They make us miss work; they muss up the perfect clothes, perfect hair, that are needed to assure our 'professionalism', our presentability, in this public world; they strew shit and dirt around the manicured gardens, and leave paw marks through the tidy houses, that announce our hard-won social status. They gently lead us back from the obsessive quest which is definitive of the modern ethos and which is at the root of the environmental crisis: the quest to usurp and transcend Nature, to place ourselves above and beyond its reach, to inhabit a kind of glossy advertiser's version of Plato's heaven, in which moth and rust doth not corrupt, because they are kept at bay by chemical warfare, and where thieves do not break in and steal, because the place is patrolled by security guards. In other words, by staying in touch with our animal kin, we stand a greater chance of seeing through the dangerous illusions of a world increasingly dedicated to capitalist ideals of wealth, power and success that are defined in stark opposition to, or at the expense of, Nature.
Another reason why, as environmentalists, we should encourage commensal relations between animals and people, especially children, is that such relations presumably help to engender human empathy towards animals in general, including those in the wild. When people discover the unique personalities and communicative capabilities of their animal friends and familiairs, they are logically drawn to credit other animals with such potentialities too, and to extend to them, in principle, a degree of consideration commensurate with that which, they have realised, is due to the animals of their acquaintance. In this way, animal companions can serve as 'ambassadors' for animal life generally, awakening in us new levels of awareness and responsibility vis a vis the natural world.

It must be admitted, however, that this 'ambassador' argument is, prima facie, open to objection. In the first place, what of the rural people, whom we have all encountered, who have been in contact with animals throughout their lives, yet who nevertheless treat all animals as totally inconsiderable robots? Then there are the people who enjoy companionate relationships with particular, privileged animals, yet continue to handle the rest with callous indifference. How are we to account for the fact that daily contact with animals has not, in these instances, led to a more considerate attitude towards animals in general?

One way of accounting for this is via the hypothesis that it was the fact of domestication itself, in its more grossly instrumental forms, which led to our cultural objectification of animals. That is, according to some theorists, in drawing animals into our domiciliary space, and raising them within the circle of the human clan, and then slaughtering them for food or other purposes, we in fact violated the taboo against violence towards kin. The moral gravity of this transgression then required that we rationalize our action by denying the moral significance of domestic- and by extension, other - animals, reducing them to the status of objects that may be produced and consumed without the slightest compunction. In other words, to justify the utilization of animals raised, like kin, within the human domain, we invented an ideology of animals as objects, which effectively closed our eyes to their otherwise manifest subjectivity. Ideology unquestionably can blind us to the subjectivity of others, as is plainly attested by the phenomena of slavery, racism and sexism in the human context. So the mere fact that we keep 'pets', or come into daily contact with other animals, will not of itself ensure that we develop empathy for them. Communication between self and other can occur only
when occlusive ideologies have been exposed and removed. For companion animals to serve as moral 'ambassadors' for the animal world at large then, anthropocentric prejudices have first to be set aside.

If it is accepted that companion animals do induce in us a new moral seriousness about animals generally, then a question arises concerning the status of domestic animals used for productive purposes. Does this new moral seriousness condemn the utilization of animals for such purposes? If so, is it really in the interests of the species in question, since those species owe their very existence, at the present time, to the fact that they are so utilized. How ironical it would be if the dawning of this new moral seriousness led not to an animal renaissance, but to the further retreat of animals both from their present evolutionary strongholds and from our own lives? The question then, is whether it is possible to reconcile empathy for animals with their domestic utilization?

The short answer to this question is, I think, that such reconciliation of empathy and use is possible to the extent that utilization is of net benefit to the animals concerned. When those animals are considered as species rather than as individuals, it is clear that productive forms of domestication have been of net benefit to them: domestic animals are some of the few animal species still flourishing in a world of declining biodiversity. However, the kind of empathy induced by intimate relationships with animal companions leads us to consider animals as individuals rather than as mere instances of species. So although reproductive success at the level of species is obviously a necessary condition for an individual's existence, and is in this sense in its interests, it is, equally obviously, not a sufficient condition for the individual's well-being.

To reconcile utilization with empathy, we need to be assured that the life that our exploitative intentions bestow on an individual domestic animal affords both the experiential opportunities and the requisite life span to enable it to achieve a significant degree of the form of self-realization appropriate to its particular kind. This implies that the use we may justifiably make of animals will vary according to their species: what may be an acceptable use of one species with a particular set of needs and sensibilities may not be acceptable for a species differently endowed. In particular, while humane killing of animals who lack any
consciousness of death may be admissible, the killing of animals who understand and fear death, and who grieve for their own dead (as do elephants and perhaps chimps), may be completely inadmissible, involving as it would the systematic infliction of intolerable suffering. Such suffering may, from the point of view of the animals in question, cancel the benefits of being alive. (This is evidenced by the fact that such animals can pine to death when bereaved11).

In short, I think the fact that domestic utilization affords evolutionary niches for certain species, in a world of disappearing niches, is a prima facie reason for regarding such utilization as compatible with respect. However a full-blown attitude of empathy - such as we develop through intimate association with animal companions - requires that the forms of utilization we countenance be compatible with the self-realization of the animals used, where this implies that different forms and degrees of utilization will be appropriate for different species. I would also add that, once we have acknowledged the subjectivity and moral significance of the animals we use, and the moral gravity of our practices of utilization, it becomes incumbent on us to develop cultural expressions of respect, gratitude and indebtedness for the lives we have thus dedicated to our own ends. In this way, our attitude towards domestic animals can develop more affinity with the familial attitudes of hunter-gatherer peoples towards the wild species that constitute their prey.

When domestic utilization of animals is subject to the qualifications I have outlined above, I think it is not only consistent with empathetic concern for the interests of animals: it is actually required by such concern. As environmentalists, committed to the maximal preservation of non-human life on earth, yet facing the cold, hard fact that in the 21st century, the processes of urbanization and industrialization that have been synonymous with the disenchchantment and tragic devastation of the non-human world are only going to accelerate and intensify, don't we have to admit that one of our best chances for 'saving Nature' is by bringing Nature back into the human domain. We have, for the last few centuries, witnessed the runaway humanization of Nature; now let us inaugurate the wholesale naturalization of human habitat. Our cities are one of the major biological habitats of the future, and our task, as environmentalists, is to ensure that they provide the best opportunities for non-human life that we can devise. We can do this partly by increasing the amount of urban habitat for wildlife. Such habitat can be
created by way of indigenous plantings and by permacultural programs of food production in the city. Buildings can also be designed or adapted to create, rather than exclude, habitat opportunities for wild animals (by way of stork-friendly chimneys, for instance, and roofs that accommodate bats and nesting birds). However we can also increase the urban opportunities for non-human life by finding new ways for animals to 'earn their living' in the city.

How might we envisage some of these new ways? The usefulness of sheep as lawn-mowers has been appreciated by a church in my own local neighborhood, and there is no reason why other urban land-holders, including local councils, should not follow suit. Sheep have also been used for traffic calming in the Netherlands, and strategic use of horse-drawn vehicles - for tourist rides or milk deliveries, for instance - could serve a similar purpose. City farms afford educational opportunities for urban schoolchildren increasingly distanced from the realities of food production. The possibilities for reintegrating animals productively into urban life are as limitless as our imaginations. However, the principal way in which animals can 'earn their living' in the city is still, I think, via their companionate role. The exclusive reign of the dog and the cat in this connection needs to be challenged, and the adaptability of other species to the human hearth and home investigated. There is immense scope for the conservation particularly of - sometimes endangered - native species in such a program of domestication. Species such as the quoll, or native cat, and the fruit bat, are reputed to make affectionate and contented hearth companions, and the domestic potentialities of many smaller, endangered wallabies, such as quokkas and bettongs, are, so far as I am aware, relatively unexplored. (The quokkas on Rottnest Island, offshore from Perth, Western Australia, have already adapted to the kind of semi-tame, dump-side existence which is, according to certain evolutionary theorists\textsuperscript{12}, the first step in a species' self-surrender to domestication.) Our reluctance, as 'animal lovers', to countenance confinement of wild animals, and the loss of autonomy that domestication entails, must be off-set, I think, by the recognition that we are just another niche in the biosphere, and hence ourselves a part of Nature (the niche in question being one which many species have in the past successfully occupied of their own free will). This reluctance must also be offset against the as yet undreamt-of possibilities for conservation\textsuperscript{13} that domestication offers.
The 'green' city of the future, then, would be a mixed community rich in habitat opportunities for a great diversity of animal species. This reintegration of animals into human life would also help to expand human imaginative and empathetic horizons, undermining anthropocentrism and reinforcing commitment to the protection of the non-human world. At the same time, the multiple contacts with animals that it would afford would enhance the health and sanity of the human population.

To envisage the green city of the future as a mixed community in this way would of course involve considerable re-thinking of current urban and environmental planning principles. Restrictions on the ownership of native animals would have to be revised, and new local council regulations allowing for the responsible keeping of a wide range of 'pets' would be required. Housing would be designed with the needs of both wild and tame non-human occupants in mind. Such demands on design would not in themselves militate against the medium density housing currently favoured by environmental town planners, but they would require that 'urban consolidation' be counter-balanced by large increases in communal green space. Public spaces would also have to be rendered more hospitable to animals, with protection from traffic, and areas designated and set aside for inter-species exercise (dogs would presumably have to be kept apart from donkeys, miniature pigs and quokkas, for instance!). Urban planners who currently concentrate on high density development for the sake of energy conservation and curtailment of urban sprawl forget that, in excluding non-human beings from the city and creating human ghettos, they are intensifying the anthropocentric mind-set of urban populations, and thereby reinforcing the deepest roots of the environmental crisis. The green city is one which not only conserves energy and utilizes existing infrastructure, but also challenges the traditional conceptual division between humankind and Nature, making itself a frontier of ecological possibility and opening its people to the degree of contact with non-human life required to awaken their ecological sensibilities.

**A Responsive World: Some Personal Reflections**

These then are some of the reasons why I think that our living with animals is important both for us and for them. However, this commensality shapes not only our ethical attitudes towards non-human
individuals and species, but our very sense of the world. I have not yet brought this larger significance of the relationship fully to light, nor can I hope to do so with any pretence of completeness. In order to capture a little of this cosmological significance however, I would like to recount, in these concluding pages, the experiential origins of my own conviction that 'without animals, life isn't worth living'.

I grew up surrounded by loving animals on what today would be described as a hobby farm, situated on the rural outskirts of Melbourne, Australia. These animals included dogs and cats, ducks, geese, hens, and, at one stage, a turkey. There were brief episodes with sheep and cows. The main focus of my entire childhood, however, was my ponies. My first pony, and the horses that came after her, were my day-long playmates and confidants. It was to them that I recited my earliest poems, and to them that I ran when I was hurt or excited. They nuzzled me in the same soft, considerate way whatever the occasion. I chose their company not for want of family and friends, but for its own sake. The form of intimacy that grew up between us was qualitatively different from anything that could have developed between myself and human persons. It was a kind of uncluttered closeness, or being-with, which existed despite the fact that our subjectivities were, in terms of content, mutually unknowable. We took it for granted, on either side, that this unknowability did not matter, that our psyches could touch and pervade each other, without need for explanations or self-disclosures, such as those conveyable by language. These animals were, for me, 'primary others', in the psychoanalytic sense; they were not substitutes for, but additional to, significant humans, nor could humans substitute for them. My subjectivity - my sense of self and world - was constituted through my 'object relations' with these animals just as fundamentally as it was through my relations with primary human others.

Domestic animals were not the only non-human influences shaping my sense of self and world in those early days. There were also kindly ancient gum trees on our land - we knew they dated from before colonization because they bore canoe scars in their trunks. And there was the creek, steeped in elemental mystery for me, yet at the same time busy and loquacious, swirling with news of other unknown yet connected places. These, together with my animal family, and the wild birds and snakes, all contributed to my sense of a world of communicative presences beyond the circle of human concerns.
Nor was my childhood home the only place which turned my psyche outward in this way. There was also an old sheep station on the vast western plains of New South Wales, which I occasionally visited in school holidays. It was no ordinary sheep station, but, even in those days, a relic of an earlier era. The owner, an old timer with eyes as wide as the blue desert sky, had been born in the homestead and raised on the property, and he ran the place in the pre-mechanical style, with the aid of stock ponies, dogs and horse-drawn buggies. We children were out all day in the searing sun on the saltbush plains, lunching out of battered tuckerboxes, racing our ponies, chasing kangaroos, emus and wild pigs with delirious excitement. Back at the homestead, animals filled our every waking moment: there were sheep and lambs, of course, as well as the ponies, most of whom spent the main part of the year in a large herd out on the range, only coming in for a tour of duty now and again, as the need arose. (These tough but happy little horses lived to extraordinary ages. One died recently at the age of forty-five!) Cattle, pigs, tribes of chooks, ducks and geese, a flock of diminutive long-haired bush goats, an army of dogs, and at different times tame emus and kangaroos all congregated around the homestead. An old white goat named Snowy and a cocoa-coloured hand-reared filly clattered about on the wide back verandah. A sack containing a recently orphan joey usually hung from the clothes line over the enormous wood-fired stove in the kitchen.

Compassion and fondness for animals jostled, in the daily round, with unabashed slaughter and brutality. From my saddle, I witnessed mother kangaroos being torn to shreds by dogs, 'for fun'; emus, in flight from our young stockman friends, failing to clear a fence, becoming entangled in the wire instead, and being bludgeoned to death with a fence-post; and back at the homestead, pigs uttering torture-chamber screams as their throats were cut and their still-convulsing bodies dropped into troughs of scalding water. I sat with the other kids in the back of a jeep on a kangaroo-shooting excursion, and as the bodies piled up under our feet, I remember the blood of the kangaroos soaking my green felt boots dark red. The cruelty shocked me to the core - in fact, it was this which first made me aware of my core, a still, silent, inner place of watching, beyond speech. But it did not diminish the overwhelming sense of enchantment that this place awakened in me. (Much, much later, I was to discover that the old station had had a similar effect on many of the people who had been associated with it.) For the enchantment, and the
heightened feeling of being alive that accompanied it, arose from the fact that animals - and the uncompromising land which decided their fate - were the almost exclusive focus of everyone's life there, and the carnage, for all its horror, was part of that all-consuming involvement.

When I was fifteen, my family moved into the inner city, and both my rural life, and my visits to the sheep station, ceased. However our new home overlooked extensive parklands, and I set up house with a dog in an old Victorian loft in our backyard, so the transition was not unduly traumatic. It was not until I was eighteen, and I abandoned my home and my country to live in London, that a keen sense of loss and deprivation at last set in. I moved in with a friend who leased a top-storey studio in the Kings Road in Chelsea, and for various reasons I was soon trapped in the life I had reluctantly chosen to lead there. The apartment was without a garden, without the slightest glimpse of green from its high windows. The grand old building in which it was located was legendary as one of the nerve-centres of the London 'underground'. Artists, writers and rock musicians congregated there, and every night, till dawn, the entire building was shaken with musical reverberations from the nightclub in the basement. People were embarked on what were for them exciting adventures with sex and drugs. The joint was unquestionably jumping. With comings and goings at all hours, residents and visitors alike were charged to the eyeballs with the fizz of glamour, the intoxication of notoriety and celebrity.

I alone, it seemed, languished. I felt deadened. Without any trees in sight, with all presence and memory of animals expunged from this world, without even a proper sky above me (the London sky appearing more like a low ceiling than the soaring invitation to infinity to which I was accustomed in Australia), I felt truly 'underground', buried alive. My spirit, with its lifelong habit of expansiveness, had to submit for the first time to grey urban confinement, to a world built exclusively to human specifications, in which no court of appeal existed beyond socially-prescribed perceptions and perspectives. There was here no turning out to a wider world of subtle voices and signals, a world of myriad, at first indiscernible, but with patient attention increasingly differentiated, responsive presences. Rather, there was a turning in, and a turning up of the volume of human-generated and human-directed self-infatuated cacophony and chatter. This turning-in found its ultimate expression in the essential project of the counter-culture: to transform reality into an
inner picture show, a spectacle of hallucinatory images and sexually induced sensations orchestrated for our private entertainment. This project was, in fact, nothing more than a hip rendition of the old transcendental idealism, or solipsistic anthropocentrism, of the Western tradition, which places reality in us rather than us in reality.

I had no words, at the time, to name this human introjection of reality, or to justify my sense of exile from a world that was truly alive, and, unlike the one in which I found myself, a source of true enlivenment. I especially had no words to challenge the high claims of Art on which the counter-culture rested. Instead, I kept some snails and bare twigs in a jar in my room, and gazed at them for months. I retreated into a state of fantasy and intense creativity, writing and drawing obsessively, calling up from my own deep unconscious the images and motifs I needed to survive. I composed song cycles, and stories of origins, before I had heard of Aboriginal dreamings. I hung around old book shops and antique stores, seeking out illustrations and folk tales that could be threaded into my nascent mythologies. I haunted the Natural History Museum in South Kensington, with its layer upon layer, colonnade after colonnade, of magical animal statuary. Whenever I found a numinous image - an old French engraving of a lone seal, for instance, or a Chinese painting of wild geese - I enshrined it, hanging it as a religious icon in the gallery of my mind. Out of such gathered fragments, and out of my own memory, imagination and dreams, I tried to recreate the sense of enchantment that had always been the essence of my experience of the world, and without which I did indeed find life scarcely worth living.

From the viewpoint of Western psychoanalysis, this sense of enchantment is regressive, and signals a failure of individuation in infancy. But to adopt this point of view is, of course, to beg the metaphysical question. Looking back on my early years now, it seems more plausible to me to assume that the ample opportunities for close communion with animals that were available to me throughout my childhood had opened me to a larger world, a world astir with presence or presences that vastly exceeded the human. It was this direct contact with unknowable but pervasive presence which instilled in me a sense of the sacredness or enchantment of the world, and the potentiality for 'magic' within it. 'Magic' was, in this context, just the possibility of the world's response - the possibility, indeed probability, that the world, when invoked in good faith, will respond, though not necessarily in the
manner one anticipates or with the results for which one hopes. One should certainly not, in my view, rely on this world to fulfil requests or afford protection, but if one entreats it simply to reveal itself, to engage in an act of communication, then, in my experience, it will generally do so, though in its own ever-unpredictable way. I learned this as a child, through the receptiveness that my animal familiars created in me, and it filled my whole being with a sense of being accompanied, of never being alone, a sense of background love, akin to the background radiation of which physicists speak. This is a 'love' which has nothing to do with saving us from death and suffering, or with making us happy. From the viewpoint of the world, death and suffering are just inevitable concomitants of individual life. The point for individuals, from this perspective, is not to seek to evade these inevitabilities, but to reach beyond them - to call into the silence beyond human selfhood in search of a reply. This is the moment for which the world has been waiting, and in which it will rejoice: the moment when we ask it to speak. To receive its reply is to enter a love far greater than the kind of protection and indulgence that our traditional importunate forms of prayer expect, for that reply signifies that we belong to an animate order, a pattern of meaning, from which death cannot separate us, and to which suffering only summons us.

I offer these concluding reflections, not as argument, but as testimony relating to my own personal sense of the larger import of human-animal commensality, especially when that commensality is established in childhood. To engage with the unknowable subjectivities of animals, and to experience their response to us, is perhaps the principal bridge to communication with the unknowable subjectivity of the wider world. To experience the world thus, as an ensouled or spiritual thing, will not only direct the course of our own self-realization in the most fundamental way; it will also ensure an attitude of profound mutuality and awed protectiveness towards the world itself.

Notes

2. Throughout this paper I shall avoid the demeaning term 'pet', as well as the problematic assumption that we can 'own' animals.
6. The theory that many of our present day domestic animals initiated the process of domestication themselves, in pursuit of their own evolutionary advantage, has been explored at length in Stephen Budiansky, *Covenant with the Wild* (William Morrow, New York, 1992).
11. See, for instance, the account of elephant's consciousness of death in Joyce Poole, *Coming of Age with Elephants* (Hodder and Stoughton, London, 1996), Chapter 19; for a more ambivalent account of chimpanzee attitudes, see Jane Goodall, *In the Shadow of Man* (William Collins, Glasgow, 1971).
12. See Budiansky, op cit.
13. I am not of course implying here that the movement to maximize urban biodiversity should replace wilderness preservation and the promotion of wildlife refugia. I am only suggesting that in a world in which competition for 'undeveloped' space is progressively going to intensify, we need to begin to tap the ecological potential of the 'developed' space.
14. The term 'object relations' is deployed in a branch of psychoanalytic theory, known as 'object relations theory', to designate the kinds of relations with primary others that an infant internalizes in the process of developing its individual sense of self. It is associated with the work of D.W. Winnicott, and later feminist theorists, such as Nancy Chodorow.

**Biography**

Freya Mathews teaches feminist and environmental philosophy at La Trobe University, and is dedicated to the development of ecophilosophy
both within and outside the academy. She is the author of *The Ecological Self* (Routledge, London, 1991) and numerous articles on ecophilosophical themes.
BABE: THE TALE OF THE SPEAKING MEAT

Val Plumwood

'You look a little shy: let me introduce you to that leg of mutton,' said the Red Queen. Alice-Mutton: Mutton-Alice'. The leg of mutton got up in the dish and made a little bow to Alice, and Alice returned the bow, not knowing whether to be frightened or amused.

'May I give you a slice?' she said, taking up the slice? she said, taking up the knife and fork, and looking from one Queen to the other.

'Certainly not,' the Red Queen said, very decidedly: 'it isn't etiquette to cut anyone you've been introduced to. Remove the joint!'

Alice Through the Looking Glass

Part 1

1. The Unprejudiced Heart
2. The Paradox of the Speaking Meat
3. The Communicative Model

Part II - in next issue of this journal

4. Communication and Anthropomorphism
5. Meat and the Colonising Contract

1: The Unprejudiced Heart

I would like somebody somewhere to endow an annual prize for a work of art which takes a group of the most oppressed subjects and makes an effective and transformative representation of their situation. The work would make its audience care about what happens to those oppressed subjects and to understand something of the audience's own role in maintaining their oppression. It would foster recognition of the subjectivity and creativity of the oppressed group and consciousness of the need for redistribution of respect and of cultural and material goods. Above all, it would help to support and protect them. If these are subjects who are conventionally seen as radically excluded, for example as beyond the possibility of communication or as embodied in ways which
occasion aversion or anxiety, the prize work should attempt to disrupt those violence-prone perceptions.

One of my nominations for such a prize would be the film *Babe*. Before seeing the film, I would have doubted that it was possible to make a highly successful film for mass audiences that could do those things for one of the most oppressed subjects in our society, the meat pig. One feature that made this achievement possible was that the film successfully disrupted the adult/child boundary and created space for adults to share certain kinds of openness to and sympathy for animals, permitted to children but normally out of bounds for mature adults. This is one of the devices which enables the film, like Dick King-Smith's prize-winning book *The Sheep-Pig* on which it is based, to succeed to a remarkable degree in opening for the pig the 'unprejudiced heart' invoked in the narrator's opening sentence. It is not just the film's problematisation of the concept of meat that makes this film philosophically interesting; it also poses many ethico-political questions, analogous to questions in post-colonial theory, about the distinction between meat and non-meat animals and the role of the human contract with those special more privileged 'pet' animals who can never be 'meat'.

Because the main theme of *Babe* turns around the refusal of communicative status to animals, the film is of considerable interest for philosophical accounts of human-animal relations. The story provides a rich context for thinking about this communicative status, about the inadequacy of narrow rationalist accounts of communication, about representations of animal communication and the charge of anthropomorphism, and about the contradictions and paradoxes disclosed when we recognise the meat as a communicative subject. *Babe* repeatedly problematises the kind of prejudice that relegates the other that is our food to the category of 'meat', a sphere of radical otherness marked by rational deficiency, reduction to an impoverished, mechanistic concept of 'body', and exclusion from communicative status. The pig Babe soon talks his way smartly around the assumption that because he is a meat animal, he is 'too stupid to understand'; the storyline refutes the sheep-dog Fly's dismissal of sheep-talk as 'just so much rubbish, to which she never paid any attention'. The refusal of communicative status to animals is a crucial, formative arena where radical exclusion and silencing strategies which affect both humans and
animals are developed and perfected. *Babe* thus provides many insights into closure strategies as they affect both humans and nonhumans.

*Babe* also offers a recognition of communicative virtues and characteristics as central to both human and nonhuman forms of life, and offers a vision of the emergence of communicative forms of relationship as victorious alternatives to forms based on violence, domination and terror. The film does not explore the ethical and political ambiguities of communicative forms, which are potentially rather more compatible with oppression than it suggests, and are implicated in the replacement of repressive patriarchal models by hegemonic models based on the master subject, as in certain forms of liberal democratic politics for example. But as Dryzek\(^2\) and Plumwood\(^3\) have argued, communicative models of relationships with nature and animals seem likely to offer us a better chance of survival in the difficult times ahead than dominant mechanistic models which promote insensitivity to the others' agency and denial of our dependency on them. *Babe* crystallises in a useful way a clash of models that is critical for our times.

My initial reason for going to the movie however had less to do with millennial models and more to do with being homesick -- I was away from Australia for a long period and the film had been shot in a shire near my home. I hoped to hear again the sounds of the bush -- those small but intensely evocative background calls -- especially the local birds and frogs which appear in the background on most soundtracks -- that creep up on you unawares to create powerful longings for a much-loved place. But when I took my seat in the darkened cinema, something else made me cry too, with sorrow and shame for my own complicity in the dominant cultural tradition of rational human mastery over animals and nature -- as well as everything else considered beneath the master realm of reason. These were the powerful opening scenes of *Babe* showing the terrible cruelty of the intensive pig farms in which the pig Babe, treated as living meat, is introduced to us as narrative subject.

These visions of hell took on special power and poignancy for me because at the time I saw the film, I was living in the second highest U.S. state for intensive hog production. The state of North Carolina was a place where one rarely saw farm animals out in the open and many of the rivers and estuaries were seriously degraded or under assault from the toxic run-off generated by the intensive factory farms. Many of the
huge pig 'slaughter facilities' in the U.S. employ largely prison labour. The work of those who labour on the killing floor of these massive facilities slaughtering up to 15,000 pigs a day is so terrible and poorly paid that only the slave-like workforce of the carceral system, or those coerced by other forms of desperation such as indentured immigrants, are available as workers. The concentration camps too employed some categories of prisoners to organise, imprison and execute others. The treatment of the pigs and that of the prisoners has much in common; in both cases, the intense segregation of the gulag ensures that the middle class rarely has to confront the hidden connection between its ugly and violent reality and their own comfortable and tidy lives. The speech of both pigs and prisoners is erased or delegitimated, and both are reduced to living meat. As C. Stone Brown argues, 'African Americans are the flesh that maintains a profitable "prison industry".' As disciplinary democracy normalises massive incarceration and more of us become either prisoners or keepers, the fate of nonhuman and human prisoners increasingly converges.

The nightmarish opening scenes of *Babe* showed an ugly gulag reality that was all around but which was banished from thought and sight, and generally treated, even by the animal liberation movement, as too well established for serious contest. In these circumstances, who could avoid being immediately caught up in the little pig's plight, or avoid comparing the misery of the incarcerated animals with the consumptive pleasures of the over-privileged humans the next shots cut to? The filmic technique at this point had us crossing that crucial animal/human subject boundary with dizzying speed, so fast that our usual distancing defences did not have time to cut in and tell us that these subjects are not at all comparable, that humans count and pigs don't. Who could avoid comparing the pigs' misery with the humans' pleasure, or avoid thoughts of concentration camps and gas chambers as the pig mothers were torn from their children and cattle-prodded into that terrible night journey from which there was no return?

The answer, of course, to this question is: 'quite a lot of people'. Many people didn't see animals or animal liberation as the topic of the film, and some reviewers seemed to think it was all about how you could cross gender and class boundaries and burst categories to make yourself anything you wanted to be, even a sheep-pig, if you had enough determination and willpower. For them it was a sophisticated
postmodern-neoliberal Animal Farm allegory about personal responsibility, individual merit rewarded, and trying harder. *Babe* does have valid things to say to a human audience about not staying in the boxes convention puts you into, but the message here is also relevant to breaking down hierarchies of considerability which serve to confine nonhumans. Some were open to such a metaphorical message about stereotyping and limitation in the human case, but closed to it in the nonhuman case. Their inability to see how animals themselves could be more than conceptual instruments for humans and could themselves be a topic for a 'serious' film points to their entrapment by a conceptual framework that assigns animals a status beneath subjectivity and seriousness. Both assignments are effective defences against hearing the story of the speaking meat that *Babe* articulates. The pig Babe speaks from the most delegitimated subject position possible in our society, that of the meat, and we have developed strategies for blocking out and not hearing the speech of those in that position. We could not continue the sorts of meat practices the pig-human gulag system is based upon without these kinds of strategies. One of the great strengths of the film is that it invites us to challenge some of these paradoxes, blocks and erasures.

**2: The Paradox of the Speaking Meat**

In the opening scenes of the factory farm we are introduced to the piglet Babe as the film's main narrative subject (marked by the subject's theme on the soundtrack, among other marks of subjectionhood). We open with a shot showing real piglets waking in expressive communication, and then see one of these meat-subjects expressing his/her sorrow at the loss of his mother, and his fear as he is seized by strangers and carried away to be raffled. As his mother is prodded into the truck, Babe utters his grief so fleetingly and naturally that we hardly notice that our usual assumptions have been turned on their heads. The meat animal is being presented to us as an expressive, narrative subject -- the meat is speaking. There are several disruptions here. What is disrupted immediately is the Cartesian stereotype of the machine-animal, the dominant model which enables the ontological presence, mindlike and communicative characteristics of animals to be so utterly denied in the factory farm, where their entire lives are defined and distorted by the function of serving human appetite. There is paradox in the concept of speaking meat Babe confronts us with, precisely because the concept of
meat totally erases that speaking position; there is no possibility of encountering the meat as expressive, narrative subject.

An inquiry into the concept of meat provides a useful route into understanding how 'taxonomy' connects ontology with ethics -- how certain strategies of representation normalise oppression by narrowing ethically relevant perception, erasing key ethical dimensions of situations, and sometimes even making the other complicit in their own oppression through internalising oppressive forms of identity. As Carol Adams has argued⁶, the concept of meat justifies oppression by hiding responsibility for death and the causal connection between the production of meat and the animal's death. The backgrounding, erasure or denial of these connections in the abstractly quantitative and commodified concept of meat Adams terms 'absent referent'. 'Absent referent' involves a complex process of splitting which renders unavailable not only the act of killing which makes meat available as a commodity⁶, but any recognition of connection between the meat and those who consume it. To achieve this the concept of meat must simultaneously establish several profound splits or radical exclusions, between process-product, mind-body, and us-them. The first of these is inherent in the commodity form and involves a radical dissociation which denies the connection between the processes set in motion by our intentions and the end product of commodified, quantitatively-specifiable flesh. The second radically dissociates the subjectivity which sets these processes in motion from that of its victim, denying their kinship as socially connected, purposive and communicative beings, and presenting the victim reductively as flesh. 'You looks at us' says King-Smith's wise old sheep Maa 'and you sees lamb chops'.

The third background assumption involved in modern industrial society's concept of meat as commodity denies the possibility of human consumers themselves ever taking the form of meat, by a background assumption of a hierarchy of use and considerability which is linked to an alleged hierarchy of mental and communicative capacities between species, with humans of course at the top. We may daily consume other animals in their billions, but we never position ourselves reciprocally as food for these others, not even worms. As consumers of meat who can never suppose ourselves be meat, we assume the god-position above the action, positioning our identity outside the framework of ecological
exchange. The conjunction 'human meat' becomes almost as unthinkable a possibility as the idea of being introduced to the speaking meat.

The concept of meat is a form of life in which taxonomy structures our moral vision via the ethical and epistemological possibilities it discloses or denies. These sets of background denials enable the presentation of the other in the instrumental terms that Marilyn Frye has identified as belonging to the arrogant perspective in which viewers 'organise everything seen with reference to themselves and their own interests', in this case, in terms of a strong instrumental reductionism which identifies the other with what is only a part of their being, the part that is of use to us as flesh. Since eurocentric culture identifies the human in radically contrasting terms which emphasise, rather than suppress or deny we, in contrast, are identified as humans in terms which emphasise, rather than suppress or deny, our subjectivity, and which tend to background our bodily aspects of identity, beings identified as meat become radically Other: not only can we never be included in the category of meat ourselves, we can never be introduced to the meat. These assumptions together involve a profound and multiple denial of kinship with meat.

There is injustice in each of these denials and reductive modes of conception. There is injustice for a communicative and ethical being in being conceived systematically in ways that refuse recognition of this status and these characteristics. There is injustice for such a being in being conceived reductively as body, first because such conception singles its referent out for treatment as radically less than it is, and second because such an instrumental reductionism defines the other in terms that assume the right of a 'higher' group supposedly above the process of exchange to treat them as a resource for their ends. Animals so conceived are subject to both radical exclusion (as having a radically different nature discontinuous from that of the human meat consumer) and extreme homogenisation -- replaceable and interchangeable, their individuality submerged, they 'drown in the anonymous collectivity' of the quantitative commodity form meat. The radical exclusion aspect of the meat concept denies kinship and generates a conceptual distance or boundary between humanity and its 'meat' which blocks sympathy, reduces the risk of identification with those so designated, and silences them as communicative beings. The reductiveness of the meat concept permits a conceptual strategy designed to block recognition of these
injustices, and its disruption in the concept of the speaking meat is one source of the flavour of paradox that lingers around that idea.

But from the injustice of industrial society's institution of meat as commodity, and the moral cowardice and evasion of the associated conceptual strategies of denial, we cannot conclude that there is no moral alternative to a universalised vegetarianism, that there are no other, less ethically problematic ways to resolve the tensions between conceiving nonhumans both as communicative others and as food. In the complex biological exchange which sustains all our lives, we must all gain sustenance at the expense of the other, 'the one living the other's death, and dying the other's life', in the words of Heraclitus. Shagbark Hickory outlines an alternative, non-reductive perspective on this exchange which does not refuse the moral complexities and perplexities involved:

For most or all American Indians food (plant as well as animal) is kin. Relationships to plants and animals as, on the one hand, food and, on the other hand, kin creates a tension which is dealt with mythically, ritually, and ceremonially, but which is never denied. It is this refusal to deny the dilemma in which we are implicated in this life, a refusal to take the way of bad faith, moral supremacy, or self-deception which constitutes a radical challenge to our relationships to our food. The American Indian view that considerability goes "all the way down" requires a response considerably more sophisticated than those we have seen in the West, which consist either in drawing lines of moral considerability in order to create an out-group, or in constructing hierarchies of considerability creating de facto out-groups in particular cases.10

As Shagbark Hickory notes, some forms of vegetarianism remain trapped in the Western strategies of denial and radical exclusion which create further out-groups, merely redrawing the boundary of otherness in a different place, at the border of animality rather than humanity. This comes about because, as we notice, the dominant Western view places humans above the systematic exchange processes in which all creatures become (eventually) food for others, privileging humans as eaters for whom all others are available as food but who are never themselves available as food. Some movements toward recognition of kinship between humans and animals thus take the misguided form of attempting to extend the privilege of this problematic positioning of humans above
the exchange process outward to other (selected) groups of animals. At the same time, such forms of recognition are of necessity highly limited in the class to which such recognition can be extended. They can only result in enlarging the class of the privileged, instead of a recognition of the kinship of all living things in the biological exchanges of food, and in a retention of the strategies of erasure and denial for the excluded groups.

In contrast, the indigenous recognition that the central philosophical problem of human life is that 'all our food is souls' points towards non-reductive practices and understandings of food that resolve the moral failings of 'bad faith, moral supremacy, [and] self-deception' Shagbark Hickory finds implicit in the dominant Western meat concept. However, to the extent that these alternative understandings of food form part of a different 'form of life', in Wittgenstein's sense, they are not readily available, either practically or conceptually, within the context of contemporary industrial life and its commodified food relationships. Conversely, the fact that vegetarianism may usually be the course which, in the context of such a commodity society, will best minimise our complicity in injustice towards others, does nothing to support the eurocentric conclusion that vegetarianism is a universal moral requirement for all people in all societies in all situations.

In contexts where the multiple denials of kinship involved in meat cannot be successfully made, for example in the case where we have 'been introduced' and have intimate and individual knowledge of the particular animal to be eaten, we tend to experience powerful tensions and often profound discomforts over its inclusion in the category of meat. These tensions and discomforts find expression in traditional contexts such as New Guinea, where pigs that have been raised as part of a family are never slaughtered by that family but are exchanged. Alternative Westerners (for example, subsistence farmers) who aim to create 'spiritual' food practices in opposition to the dominant commodified ones sometimes argue that meat eating is ethically acceptable if you 'take responsibility'. This phrase I think indicates a search for alternative food practices that avoid the processes of ethical erasure I have identified in the practices of meat.

In a Western context of individualised ethical choice, such alternatives would have to mean, for example, the eater taking personal responsibility
for the eaten animal's fate (which in the case of a domestic animal would include responsibility for the quality of its life as well as for its death), and bearing the blame for unnecessary suffering. That would mean finding ways to acknowledge fully the animal's 'soul' and its kinship, and to express gratitude and reciprocity, that is, to acknowledge a reciprocal availability as food for others. Such conditions, demanding even in the context of traditional communities, are very difficult to realise, both materially and psychologically, in the context of contemporary urban Western life. To the extent that they require establishing new shared cultural practices and meanings rather than just new individual practices, ethically sensitive carnivorous practices are not culturally available in that context.

The paradox of the speaking meat is both the product of a particular social context, and an indicator of some of the most significant moral failings of that context. The western solution to the moral dilemmas of food is the creation of a set of moral dualisms, involving a sharp discontinuity between those who deserve and those who are beyond ethical consideration. As we have seen, the speaking meat forces us to confront the way this moral dualism and discontinuity is based on reductionism, denial and silencing. Our civilisation's orientation to the creation of moral dualisms may be one reason for its technological dominance, since it removes any constraints of respect which might otherwise hold back development, but it remains an ever ready source of corruption of our ethical practices. The silencing solutions of moral dualism are always potentially capable of extension to selected groups of humans counted as lesser in their humanity, and we have seen this extension made many times in this century. Although this silencing possibility is present in any human society, it must be greatly reinforced by the entrenchment of the dualist model in the basic case of food.

3: The Communicative Model

The overarching model which subsumes the commodity model of the animal and its specific modes of and motives for reduction is the Cartesian-mechanistic reduction of the non-human animal to its body, and the associated refusal to recognise non-human animals as akin to human ones in the possession of mind, intention and communication. Mary Midgley and Barbara Noske are two philosophers who have pointed out that the moral failings implicit in the modern, commodified concept of meat find their philosophical progenitor in Cartesian
rationalism and the mechanistic model. The rationalist-mechanistic model of the animal is a key part of the relation between modernity and the nonhuman world, and its rationality is expressed both in reductive concepts like meat and in the practices of the factory farm. The mechanistic model erases the possibility of communication by denying mindlike properties to non-humans; ideals of manipulation and instrumental rationality are at odds with communicative ideals and with the conception of the other as a communicative subject. *Babe* confronts us with the conflict between the mechanistic model of the factory farm, and the communicative model of human/animal relations the film ultimately vindicates. This alternative communicative model is located in the film in the romantically presented contrast space of the Hoggett's family farm, where it struggles to emerge in the unconventional role tolerated for the former meat animal Babe and Babe's communicative reformation of relationships with the sheep. But the farm itself is the site of conflict between the communicative and the Cartesian-reductive models, for it too contains the sinister meat house and the animal regimes based on fear and force. The conflict between these models is also represented in the form of the conflict within the taciturn farmer and between him and the more conventional farm wife.

Nevertheless, animal liberationists have some justification for viewing the film's major implicit contrast between the factory farm and the family farm with a sceptical eye. To say that the family farm setting of *Babe* is highly romanticised is an understatement. A cynic might say that the family farm parallels the family as the site of mystifying representations and idealisations. The contrasts of *Babe* hide the fact that the family farm model is compatible with, and normally involves, many oppressive animal husbandry practices; the destination of most of its animal food-producing units is ultimately the market, and all that has changed is the indoor setting. This would be, I think, to ignore the fact that moral differences of degree can be important; it would be like saying that there is no moral difference between being a worker on a production line and an inmate of a concentration camp, because both involve some degree of reduction and instrumentalisation. If there is a moral difference between the smaller scale farm and the animal gulag, however, there is also normally a lot more continuity than *Babe* makes visible.

But to dismiss the implicit contrast of *Babe* in this way would be to miss the point that *Babe* also makes visible a new possibility - the
possibility of replacing a dominant model of mechanistic relations by a communicative one which recognises the animal's status as a communicative and moral being and revolutionises the moral basis of relationships with domestic animals. Whether this is compatible with farming as we know it remains an open question, but one the film deserves credit for raising. *Babe* leaves us in no doubt that meat is violence, and it posits a model of communication in opposition to that violence, and hence a new vision of relations to domestic animals. It does not explore the puzzles in that vision, leaving us with various paradoxes to chew on. But its communicative model presents a final vision of some power, including the triumph of the communicative skills and ethic Babe has acquired from the maternal wisdom of the sheep and various other proxy mothers.

Babe's status as a communicative subject has received so little attention in the monstrous regime of the gulag that he does not even have an individual name. But, as we soon discover when Babe is removed through the device of the raffle to the relatively enlightened world of the family farm, Babe's status as a communicative subject still has many obstacles to overcome to gain recognition. Before arrival at the farm, Babe is initially just a 'worthless little runt', an object to be weighed, raffled off and eaten. In the idealised world of the Hoggett's traditional farm, Babe's communicative capacities are initially dimly, then more clearly, recognised by Farmer Hoggett. But they are not initially recognised by his wife, who addresses him as 'you lucky little pork chop' and looks forward to Babe's transformation into the familiar commodity form of 'two nice hams, two sides of bacon, pork chops, kidneys, liver, chitterling, trotters etc'.

The film version of Mrs. Hoggett, unlike the book version, is made to represent the most closed, convention and consumer-bound side of the human character. Although this elaboration of conflicting perspectives adds some richness to the film's themes and characterisation, the linking of the conflict between the mechanistic and communicative perspectives in this way with gender introduces elements of androcentrism into the story, obscures the real connections between gender and consumerism and between gender and the mechanistic model, and generates contradictory messages about the affirmation of animality. This emerges in the film's derogatory representation of the farm wife in animalistic terms and in the implicit demeaning of women's understanding and tasks.
as consumeristic and materialistic, in contrast to the more 'spiritual' orientation of the father/farmer. Babe's subjectivity is recognised by several animal foster mothers, the dog Fly and the sheep Maa, who develop Babe's communicative and social abilities in the best maternal traditions. But although Babe's unusual communicative abilities must ultimately derive from these various mothers (who must have included the original pig mother he missed so much), it is their completion and recognition by the father/farmer, represented as the 'unprejudiced heart', that are positioned in the movie as the key transformative elements for Babe and for the culture more generally.

The farmer is, for reasons the film leaves unexplored, open to certain possibilities of animal communication the others around him are closed to. By various communicative deeds, Babe gradually earns the farmer's recognition of his subjectivity, or so he believes, but is devastated by the final -- incredible -- discovery of his status as meat, revealed to him by the jealous cat. This apparent betrayal, (of almost biblical proportions) by the father, almost kills Babe, who, like the duck Ferdie, cannot bear to live as only meat. At this point in the story, as at the beginning and the end, Babe is positioned as a Christ figure, the feminised, dependent son who is affirmed and revived by the farmer/father's recognition and love, expressed in the dance of life. Together Babe and the farmer go on to accomplish the apparently impossible feat of opening closed minds and demonstrating Babe's unrecognised communicative ability to the world. We are invited to conclude that this revolutionises the treatment of pigs and of farming generally, reformulating it as an activity based on communication rather than force and violence. The communicative ethic is also strongly represented by the (female) sheep, whose persistent faith in and exemplification of the virtues and values of communication and non-violence is essential to their ultimate victory over the reductive violence of traditional relationships.

Communicative relationships open up new moral possibilities for organising life in ways that can negotiate conflicts of interests, build agreement, trust and mutuality, and avoid instrumentalism and the imposition of the will of one party on the other by force. Communicative relations don't necessarily follow out those possibilities however, and it is important not to romanticise the communicative model, which does not automatically eliminate the dynamic of power, either in terms of equality of access, of hierarchy in forms of communication, or of the
structuring of communication in hegemonic ways. There are various strategies for taking back the greater equality communicative models appear to offer. Rationalist models which treat communication as an exercise in pure, abstract, neutral and universal reason, and which delegitimate the more emotional and bodily forms and aspects of communication, operate to exclude nonhumans from full communicative status just as they exclude various human others accorded lower human status as further from the rational ideal. These rationalist models exclude the forms of communication associated with animals along with the forms of communication associated with women, with non-western cultures and with less 'educated' classes.17

Communicative models which allow us to overcome these exclusions for humans will also help us to recognise non-human animals in their denied aspects as communicative beings, but an excessive emphasis on communication and its use as a criterion of moral worth or value would remain problematic for nonhumans in basing itself on a capacity which may still be highly characteristic of humanity, and in biasing our valuations heavily towards those species most similar to ourselves. To overcome this implicit anthrocentrism, a communicative model would need to be part of plural set of grounds for valuation, rather than its unique and exclusive basis, and to be sensitive to communicative capacities within species as well as to their capacities for communication with humans.

If the film's communicative vision offers hope of moving on to a new stage beyond mechanism, it also leaves us with many tantalising questions about this new stage which arise from the ambivalence of communication. Will communication be on our terms or theirs? Will Babe's communicative abilities be used for the good of the animals or for that of the farmer? If the film's account of the moral development of the farmer (reaching its climax in the step-dance) offers a vision of the small farm as a putative future enterprise of love and communication with nature and animals, the film also casts little light on the question of what the communicative farm would be like. Will the new communicative paradigm be used to liberate the sheep and the other farm animals, or merely to oppress them in more subtle and self-complicit ways? Will the communicative animal farm stand to the mechanistic farm as the hegemonic communicative forms of liberal democracy stand to the more repressive forms of patriarchal-authoritarian governance
they replaced? The distinction between democracy and despotism is supposedly built on such a contrast, but as it becomes increasingly clear how little our own society resembles the democratic ideal of free and open dialogue to which all have access, it also becomes clear how our communicative abilities can be used to control and imprison us. A new communicative stage of human-nature relationships would need to place such questions at the centre of its critical thought: at this level, the tale of the speaking meat has only just begun.

Notes
5. I have assumed the masculine pronoun here for Babe because this is used in King-Smith, *The Sheep-Pig*, but the film is more ambiguous on this point.
8. This is one reason why the task of obtaining an adequate environmental and non-anthrocentric ethic should not be equated with that of enunciating abstract principles of equal treatment and extending them to nonhuman others. Anthrocentric taxonomy will always defeat abstract moral principles, however comprehensive.
15. In King-Smith, *The Sheep-Pig*, Mrs Hoggett is the first to fully recognise the value of Babe's contributions and to invite him into the house, explicitly admitting him to the contract class.

16. Especially since feminists have argued that the mechanistic models which deny communicative power to nature represent a masculinist worldview, among other things. See for example, Carolyn Merchant, *The Death of Nature*. (Wildwood House, London, 1981)


**Biography**

Val Plumwood is the author of *Feminism and the Mastery of Nature* (Routledge, London, 1993) and of over 80 papers in a wide range of areas including feminist philosophy, feminist ecology, feminist ethics, feminist logic, philosophical logic, environmental ethics and political philosophy. She is a research scholar at the University of Sydney, Research Institute for Humanities and Social Sciences. Val's home base is an area of mountain forest in southern N.S.W., Australia. She says that as the foster-mother of a wombat, she tends to look at other animals, especially dogs and cats, from a wombat's viewpoint. As the survivor of a drowning attempt by a Saltwater Crocodile, she also feels that she knows a bit about what it is like to be treated as someone else's meat.
Denise Russell: Professor Singer, I would like to begin with a question concerning ethical issues in relation to animals. What difference do you see from twenty years ago?

Peter Singer: I think the big difference is that there is no question now that animals are a significant ethical issue. They are part of the agenda of any debate about the nature of ethics and the reach of ethical concerns, or in other words: how far do our ethical concerns extend? When I first became interested in these issues, towards the end of 1970, they were really completely new issues. It was very hard to find any on-going discussion about ethics and animals. There was really no one writing about it, although there were many works of philosophy being written where you can see, looking at it now, that they just basically overlooked the problem. I mean, for example, accounts of the nature of equality which explain equality by saying all humans are equal because all humans have interests, in that they can all suffer or enjoy life and this is a basic human right, etc. etc. Then the rest of the argument goes on, entirely about humans and this is supposed to be a basis for human equality. Obviously the criterion for equality just given includes non-human animals as well as humans and that would seem to imply by the nature of the argument that animals are in some way equal as well. Yet the author does not even pause to say why animals are not included because the question does not even occur to him. There were quite a few articles being written around that time like that. There were also one or two rather peripheral articles that did raise the question of animals but usually in order to dismiss it with some fairly rhetorical expression like: 'Of course they lack the intrinsic dignity that humans have' or 'Animals are not ends in themselves. They don't have intrinsic worth.' So there was no serious discussion at the beginning of the 1970's about this issue. And that has completely changed. Clearly it is an issue that is on the philosophical agenda and it is on political and social agendas as well. You only have to open up any text book of applied ethics or contemporary moral issues and you are pretty sure to find some discussion about the moral status of animals or our ethical obligations to animals.
Denise Russell: Another question I wanted to ask has to do with animal rights. I think in this area that talk about rights has some rhetorical force but a rights position is difficult to defend. In your early work you did talk a little about rights and then you had that paper in the mid-eighties where you tried to distance yourself from Regan's position on animal rights. I wonder what your position is now. Do you think that it is useful to talk in terms of animal rights or would you prefer to stay with a more strictly utilitarian perspective?

Peter Singer: I think my view has always been that the grounding for ethical consideration in relation to animals is in terms of their capacity to feel, and in terms of the wrongness of inflicting pain on beings irrespective of their species. I don't think my view has ever been one that was really grounded in terms of rights. It is true, as you say, that in the first edition of *Animal Liberation* I talked about animals having a right to equal consideration of their interests, and the differentiation that I drew later on was merely because I felt that this had been misinterpreted into the view that I was defending an animal rights position, by which I mean that the grounding of the whole position is based on some claim about rights. I never thought that that was really very helpful. So I think the position I hold now is still essentially that, i.e. that the grounding is not in terms of rights but on the other hand that rights may be useful as a kind of short-hand, particularly in the political arena, where so much of these discussions is couched in terms of rights that you have to quite deliberately avoid the language of rights. That somehow marks you out from other issues where people will debate about whether the foetus has a right to life, species have a right to exist and so on. So I am certainly prepared to use the term 'rights' in that political context, not so much as a philosopher, but more as a campaigner. More recently in *The Great Ape Project* we actually start the book with a declaration on behalf of the great apes which claims that they have three basic rights, namely the rights to life, liberty and protection from torture; but that is quite clearly being used as a statement in the political domain, not as a philosophical grounding. The point of this is simply that we are always talking about rights for humans - we have got the United Nations Declaration of Human Rights and so on. We are trying quite deliberately to put the rights of the non-human great apes there alongside those of humans.
Denise Russell: When you use rights talk for political purposes, what do you do when you are confronted with people who mention the issue of conflicting rights? Say if you are talking about moral vegetarianism and somebody says, what about the human right to eat animals?

Peter Singer: Well at that point I think you have to stop just using 'rights' as a political slogan and you have to ask what is the basis for what we are talking about, and then you have to say, well really what we want is equal consideration of interests. We have to consider the interests of humans in eating and the interests of animals in not being made to suffer and so on. And of course if the humans can't survive without eating animals then there is a real clash, a real conflict of interests. If on the other hand what we are talking about is whether humans will continue to eat pork rather than tofu, when they can be nourished just as well or better by the tofu, then it is a less serious clash. So I do think you have to get away from the rights language at this point otherwise you just get a swapping of intuitions: 'Well I think I have a right to eat'; 'No, I think animals have a right to life' and that doesn't get any further.

Denise Russell: Yes. On the Great Ape Project, would you like to bring us up to date with what is happening with that?

Peter Singer: Yes. The Great Ape Project now has co-ordinators in a number of different countries, in the United States, in England, in Germany, in Sweden, in Finland, in Taiwan, in New Zealand and other places as well, and we are working on different levels simultaneously. On the one hand we are just trying to raise the general awareness of the issue of why we demarcate ourselves from apes. The whole point of the project is to use the animals who are most like us, and who are best studied and about whom we know most in terms of their self-awareness and their capacities, as a kind of bridge to narrow the gulf between humans and animals and to say, look, we can't classify the animal kingdom into humans and animals. There are beings who are very like us, and there are beings who are less like us, and you have got to look at them differently. The Great Ape Project is a way of asking what is it that is so special about being human? There is clearly a great overlap between the capacities of the other great apes and our own. On one level we are trying to raise consciousness about that issue and on another level we are working to try to change the law wherever that is possible. So we are having on-going discussions with lawyers concerned about animal
rights issues in a number of different countries about possibilities for bringing lawsuits, the purpose of which would be to have animals, or particularly say a chimpanzee, declared to be a being with a legal standing of its own rather than a thing; in other words, we want apes to be, not property but beings who have rights in themselves. So that is another level, the legal level. And then we have also been working quite specifically where we have seen opportunities for particular apes. In the talk tonight I'll be showing a video about one particular ape that was in a laboratory and who we managed to get out.

**Denise Russell:** Could you say a little bit more about the lawsuits? Are these designed just with the aim of trying to get apes recognized as beings in their own right and not property?

**Peter Singer:** Yes, that is the basic idea of it, to take that kind of step, that kind of breakthrough. Obviously ideally we would like them to be declared legal persons with the same basic rights that humans have.

**Denise Russell:** Are you familiar with the case which was argued in connection with the dolphins who Herman and his research team were studying?

**Peter Singer:** Yes, the Hawaii case.

**Denise Russell:** The people who took the dolphins and released them were trying to put the argument that the dolphins shouldn't be regarded as property but as persons.

**Peter Singer:** Yes, in a sense that is the kind of case we are running. We think that that case was perhaps run prematurely. There wasn't either the climate or the preparations for it and I don't think that dolphins are the ideal species either because there isn't really enough established about dolphins in the same way that there is about chimpanzees for example. But yes, we would like to run a case like that which had a better chance of success.

**Denise Russell:** Does it have to be property or persons. Is there any other way of arguing this within Western laws?
Peter Singer: There is a possibility for some sort of intermediate status, if that is what you mean and there have been some American and some European decisions suggesting that animals may have a kind of intermediate status. Here is an example at a very crude level: normally, if a garage takes your car and negligently does something which means that your car is written off, what you get back is the market value of the car. In the past there were cases in which a vet or someone else did that to a cat, and all that the owner got back was the market value of the cat. Now recently there have been cases in which it was held that the owner would be held entitled to loss and suffering in some way analogous to that which one might have for a member of the family. So it is not the market value of the property, or the cost of replacing it anymore. This is a tiny incremental breakthrough in the idea that animals are not just property, but obviously we don't feel that that goes nearly far enough.

Denise Russell: I thought on reading the case about the dolphins that having to argue that they were persons might have been a very difficult argument to run, given the prevalent attitudes. If the lawyers had tried to argue that they shouldn't be regarded as property even though they are not persons then perhaps they might have had more success. I was just wondering about the legal technicalities here.

Peter Singer: I think the law has been a bit dichotomous. It has divided things into property and persons and there are just now these suggestions of a kind of half-way status but I suppose people were not very clear about it - in the dolphin case people were probably not clear that there was that possibility.

Denise Russell: One other question that I wanted to ask you was about the dispute that sometimes crops up between people who are looking at the interests of animals and people who see themselves as looking at the interests of the environment more broadly. I was wondering whether you had any thoughts on that sort of debate and the point that some people in the environment movement suggest that those who have a strong interest in the welfare of animals are really operating from a liberal humanist perspective and are limited because of that.

Peter Singer: Yes, there is clearly a sense in which the views that I hold, although they are quite radical in their implications for how we should change our relationships with animals, are also relatively
conventional in the way they derive from an easily recognisable western philosophical tradition - you could call it liberal-humanist or you could call it utilitarian. There is nothing radically different or new about it. I see that as its strength, in that it means that it is something that you can really use to argue with I see that as its strength, in that it means that it is something that you can really use to argue with people who are also in that tradition - and most people in our society are - and within their own terms you can convince them that the views that they hold are inconsistent, or more broadly incoherent, or make arbitrary distinctions that can't be defended. If on the other hand you switch to a kind of ecological holistic perspective you really detach yourself from all those traditions and it is much harder for you to bring your view into a sharp confrontation with the views that most people hold. It's almost, and this is a bit of a parody, like saying what people used to say in the '60's, unless you drop acid and turn on you won't be able to see what I am talking about. Most people are not going to do that so the question is how that kind of argument is really going to be made to work. I guess that is the problem for me too. I'd like to really understand how we can defend the interests of the ecology as a whole and for its own sake. I have no difficulty with arguments for preserving an ecosystem that are based on the interests of sentient beings. For example, we can claim that the preservation of a wetland is vitally important because without it thousands of birds, frogs and other sentient beings will die. But what if there were no sentient beings who would be any worse off if a particular local ecosystem perished? Can we still find good arguments to say that it would be wrong to cause the ecosystem to perish? What would those arguments be like? This is a genuine question: I am not saying that there are no such arguments, I am asking for an account of what they might be based on.

**Denise Russell:** Where does that leave you in thinking about the environment as a whole?

**Peter Singer:** I don't think that in any way it makes it difficult for me to argue that it is very important to defend the integrity of ecological systems. But the way I would do so is not by saying that ecosystems have intrinsic rights. Still less would it be by personifying ecosystems and treating them as agents or conscious beings or something of that sort. It would rather be by saying, look if you cut down the forests you destroy the habitat of many thousands of sentient beings and they will suffer and
die. You foreclose the possibilities of aesthetic and recreational appreciation by humans. You risk polluting the rivers and causing erosion and climatic change and so on. I would use all of those arguments. I wouldn't say that the forest as such has a right to remain.

**Denise Russell:** So it would be the instrumental value in this instance?

**Peter Singer:** Yes, for me sentient beings have intrinsic value. Anything that is not a sentient being can only have instrumental value; but it may have very great instrumental value of course.

**Denise Russell:** How far do you currently think the range of sentient beings extends with your understanding of the empirical work and so on?

**Peter Singer:** Well I have a grey area on that and I guess that it's inevitable that one will. I think that vertebrates are clearly sentient. I think that crustacea are very probably sentient. I think that some molluscs such as the octopus is no doubt sentient but I'm doubtful whether simpler molluscs such as oysters are sentient. I'm not saying definitely that they are not, but I'm doubtful. I noticed that David de Grazia goes into this in his recent book *Taking Animals Seriously*, and he offers some argument that insects may not be sentient. I think that is still a grey area too but you would have to say it would be a source of relief if one could reasonably believe that insects are not sentient, particularly for anyone living in Australia!

**Denise Russell:** Especially cockroaches.

**Peter Singer:** I was thinking of especially mosquitos and ants. I can live without going around killing cows or pigs or birds, but to go around without killing ants is not easy.

**Denise Russell:** No, unless you are a Jainist (who sweep ants from their path) - but even the sweeping may kill. Just finally, and maybe you don't want to answer this, what do you see in the contemporary times as the key ethical problem in relation to animals? Do you think it is the fact that we continue to experiment on them, or that we continue to eat them or put them in zoos?
Peter Singer: I think that the food issue is fundamental for two reasons. One is that simply in terms of the numbers of animals used, the amount of sheer misery that we inflict on animals is vastly greater in farming than it is in experimentation. You just have to look at the numbers. In experimentation worldwide you might be talking about 100 or 200 million animals at the most, but there are five billion chickens produced in the United States alone every year. So the numbers are just enormously greater and the suffering - though you might not be able to see it in quite such vivid terms as when you read a description of a scientific experiment - can be very extreme and also very prolonged.

The other reason why the food issue is fundamental is that it helps to form our attitudes to animals. We don't grow up experimenting on animals. We do grow up eating animals and I think that has a marked effect on the attitudes that we take to animals afterwards. It makes us think of animals as objects for our use, rather than beings with lives of their own, and that is where all the problems start.
SCIENCE AND ANIMALS - OR, WHY CYRIL WON'T WIN THE NOVEL PRIZE

Lynda Birke

In loving memory of Tess, a wilful and feisty cairn terrier, who was killed on the road the week before I began to write, and of Ginny, a loving lurcher whose sudden death shortly after deprived the world of beauty.

Prologue

There have always been animals in my life. I have long had a love affair with horses; dogs, too, feature strongly in my emotions and in my house. And not only companion animals, but also the wild creatures that surround us all. Even in London, in the postwar devastation I witnessed while growing up, I learned the joy of watching the birds in the trees.

In what sometimes seems another life, I trained as a scientist. Ambivalent though I was about doing biology (surely I could not bear the thought of cutting up dead animals?), I ended up studying just that. For years, I agonized over the fate of animals in the laboratories, and my own role as a student of biology in that fate. Here, I want to tell something of my own story - how I survived doing science, but how my relationships with animals finally persuaded me that science was too disrespectful.

If now I can speak of these things, it is partly because I no longer work in the laboratories. Courage to speak is always easier for those on the outside. But it is also partly born of my feminism, which has encouraged me to ask questions that are troubling - even about the science that I was doing. Silence helps no one.

Becoming a scientist

Becoming a scientist - like any other professional training - is a gradual process of learning: students must learn not only facts, but also how scientists behave. Much of this is gained informally, at coffee and
conferences. Gradually, you learn how to look at the world through scientists' eyes, how to ask "scientific" questions, and what counts as scientific knowledge and what does not.

Submerged in all this learning are two critical distinctions. One is that knowledge only 'counts' if it is gained through scientific method; thus, the knowledge of people who live or work with animals does not count. The second is that there are (at least) two kinds of animals. Scientists, like anyone else, might have very personalized relationships with companion animals at home. Yet, in the laboratory, the 'lab animal' becomes a tool of the trade, a sensitive piece of apparatus.

In telling my own story now I realize that I had to live with these two contradictions. I acknowledged both ways of knowing, and I accepted two quite different ways of being with animals. Yet despite these overwhelming dilemmas, there were also good reasons to learn science. One is that I was fascinated by it, by natural history and especially by animals. The budding eight-year-old, pony-mad scientist learned to recite the Latin names of every single bone in the vertebrate skeleton - provided it had an equine form around it. Moreover, no one in my family thought that girls could not do science; on the contrary, I was given chemistry sets and learned to build radios.

I had moreover long been drawn to natural history; surely I thought, science would enable me to study animals and plants in detail. Yet I was ambivalent about doing biology precisely because of the need to do things to animals. Twice over in my early training, I tried to concentrate on the physical sciences: but always something drew me back to biology. The fascination with the living world won out, even though I had to steel myself against the need to do dissections - or worse. I often wonder, when I hear people express concern about the need for people to understand more science, how many have been put off it for life by having to cut into animal flesh.

Thirty years later, I can still feel vividly that sense of horror at school as I was confronted with a white rabbit with pink ears, for dissection. I said nothing: you were simply expected to get on with it. Even by age 17, I had been socialized not to show emotion; I did after all, want to do science. Alongside the sense of revulsion however was another emotion, a sense of fascination at the beauty of (once) living tissues, at how they
are put together. For all that I think dissection is unnecessary in biological education, it seems important to say that seeing 'what the animal was made of' did have an impact.

So while I hated the very idea of picking out the frog that was to be killed (which I handed to a friend to kill, rather than bear doing it myself), there was a profound sense of awe as we stood together gazing at the iridescent skin, the slowly moving red blood cells, through the microscope. I cannot ever justify that animal's death; but I do know that the awe stayed with me, making me feel even more strongly just how beautiful animals are.

Yet whatever one's aesthetic reaction, scientific training soon makes the student learn to suppress emotions. Slowly, you need to learn not to show questioning reactions to the use of animals, living or dead. Insofar as aesthetic or emotional reactions are encouraged in scientific training, these are likely to be responses to what nature has become after the processes of science. Scientists might for instance, express pleasure or even excitement at the colours or the orderliness of cells in a photograph taken with an electron microscope, just as I felt a kind of fascinated pleasure at the colours and textures of the tissues from the animal I had to dissect. But expressing anxiety about the sufferings of living animals in laboratories comes suspiciously close to the rhetoric of animal rights and would only be discouraged.

Budding scientists must learn to deny such feelings of empathy. Indeed, those feelings are considered 'unmanly' as the entomologist Miriam Rothschild once noted in a lecture. Whatever else it involves, becoming a scientist entails learning to acquire, or fit into, the macho culture of the laboratory and forswearing such 'feminine' responses as empathy with the animals. In that sense, the suppression of empathy or other emotions in scientific training is a gendered experience.

With all these contradictions and dilemmas in the background, I began a research career with some unease. Somehow I ended up doing animal behaviour research which at least allowed me to study what animals do and is perhaps less disrespectful than many other areas of biology. Despite all my turbulent feelings about animals and nature however I had been sufficiently desensitized to toe the line: ambivalence notwithstanding, I did laboratory-based research - for a while.
Yet alongside that I was also involved in both the Women's Movement and in environmental activism. Out of those politics, I questioned more and more what science was all about: what kinds of issues, for instance, influence how science is done. To begin with I continued with research justifying it to myself as long as nothing too nasty was done to the animals and they were well cared for. Much of my research was motivated by feminist questions - issues to do with women and health for example - for which at that time I was prepared to swallow my conscience and use animals as 'models' for humans. Only later did I explicitly question the use of animals altogether, and the fact that keeping them in laboratories must inevitably mean their exploitation and subsequent deaths.

It seems to me that it is an abuse of animals, not respect, (let alone the economic considerations) that allows large numbers of animals to be bred only to be wasted. Animals are killed routinely in laboratories. Some are 'sacrificed' in the course of an experiment; many more are killed simply because no one uses them on time or because scientists from one laboratory in the building don't particularly talk to those in another. The result is that in different laboratories, animals are killed for different parts of their bodies, when laboratories could co-operate and thus save lives. I find it odd that the numbers of animals killed because they are not 'needed' for experiments seems to merit far less attention from animal rights activists than the animals killed during particular experimental procedures.

Where individuals in the laboratory start to be respected as individuals by humans is where they pass over the boundaries from the world of 'data' to becoming a pet. Researchers working with animals sometimes designate particular animals as pets, so removing them from the realms of potential experimental animals. Naming the individual is one way of doing this; it is much harder to do something nasty to a Rita than to a numbered rat.

I can well recall the occasional animal that passed through our hands that would become special 'like a pet' - whose death we would mourn in a way that we did not mourn for all of the other animals, who remained numbers in cages. Cyril, for example, was a white rat whose front teeth did not meet properly in the middle. Rather than 'cull' him (lab-speak for
killing), we removed him from the experimental cages and kept him as a pet, clipping his teeth into shape regularly so that he could eat.

Still, those concerns about killing did not for a long while actually stop me from doing science. I knew that animals were going to have to be killed. I knew that some of the procedures I might have to use were somewhat invasive. Yet I swallowed my feelings about those for many years - such is the power of the desensitization that comes through scientific training.

Ironically, I was a vegetarian all this time. Eating animals was to me unethical, even unthinkable, and I did not want to be part of it. Yet there are many parallels between the meat industry and the breeding and maintenance of animals in laboratories. Large numbers are bred in order to be killed in both cases, and wastage is considerable. In both industries, too, animals must be killed (sacrificed?) deliberately: an animal that ups and dies on its own cannot count either as data or as a meal.

Meanwhile, in the lab I dissociated myself. To be a scientist in the lab meant having two, quite different, relationships to animals. My experience of those animals with whom I lived and played was so much at odds with my experience of animals in the laboratory. In lab work, you end up treating animals in groups. Animal 39/2/F is just a number in a cage. She represents a group or a treatment or a species, but you know nothing about her own history, about her life with her companions.

For all that I was fascinated by science (and still am), doing it has meant for me a sense of alienation, sometimes as a woman in a (still) largely male world, and more often as someone who cares deeply about animals. Cyril was lucky; his difference allowed him to become special. Most of the many millions of animals that pass through the world's laboratories each day are not.

It is distressing to be in a lab around people who are being cavalier with animals. There is a disrespect in the way some people handle the animals they use - not many people, perhaps, but enough. The animals often seem to be tools, means to an end (and certainly become so when reduced to numbers in the scientific report). Perhaps people don't mean to be cruel - but stunning a rat by swinging it round by the tail while cracking jokes is
hardly a sign of respect. On the other hand, I don't know that anyone who wants to stun a rat would be able to behave in any other way. Is it possible to have respect for the animal you are about to stun and decapitate? Cracking jokes may be a way of coping with doing something that, in other contexts, would be considered quite horrible. It is, if you like, a way of giving the act a different name.

**Naming nature: making scientific stories**

Science is, ostensibly, about discovering how the world works; it is meant to be the pursuit of truth and proof. Maybe so, but it is also - as many critics have pointed out - deeply imbued with the values of the wider society. So its twin tasks of naming and describing nature are not innocent. How animals are described in scientific texts and natural history programmes on television have considerable impact on how we collectively think about them.

That process helps to ensure that we continue to see non-human animals as inferior to humans. Indeed, it is only quite recently that there has been much scientific interest at all in the question of 'animal minds' or animal consciousness. In my training, we were strongly discouraged from the sin of 'anthropomorphism' - attributing human feelings to animals. What that means is that you can talk at home about how much Rover understands, but woe betide you if you even think about what Cyril is feeling in the lab. The result, inevitably, is that scientists learn double-speak. Perhaps we might get away with jokey references to animal feeling or thought in the experiments: but then you must go away and write that arcane language of scientific articles that denies any feelings at all.

There are perhaps unsurprisingly many attempts to refute any evidence that shows animals to be clever. There is too much invested, both scientifically and culturally, in the notion of animal irrationality and inability. Culturally, we in the West have come to want to separate ourselves from nature, to shore up the boundaries between clever humans and those furry, feathered and finned 'others' who are not human.

The more easily that they become 'others' the more easily we can treat them with disrespect - whether they are other humans or other species.
That is why many scientists can accept working with rats and mice, but would find it difficult to work with primates: they are too like us. I am also reminded of an anecdote about a scientist who felt that it was easier for him to use greyhounds than other dogs, because they did not 'look at you in the same way'. I shuddered when I heard that story, and thought of my beautiful lurchers (relatives of greyhounds); Ginny was not 'other', but part of my life and I of hers.

Even if scientists begin to study animal minds, there remains the problem of how to interpret research findings. Humans are rather too good at disparaging what an animal does, especially if it fails to perform a task in the way that we would do it, and on our terms. Many books recount the tale of the horse 'Clever Hans', who allegedly could count. When it turned out that Hans was responding to his owner's unconscious cues, his abilities were discounted. But to me that is still pretty clever; I would not use the story to dismiss his abilities, merely because he did not seem to 'count' the way we do. I doubt that I could spot those subliminal cues to which Hans responded.

Those who train animals might well wonder why it has taken science so long to catch up with what they have long known about animal thinking. They might sometimes adopt the languages of science - talking behaviouristically of conditioning, for example - while simultaneously believing in the animal's abilities to form complex concepts. Admittedly, the kinds of animals that we train in depth are nearly always mammals or birds; hence, we know relatively little about the concept formation of other kinds of animals.

There is a strong belief that animals are simply not as smart as we are. Yet interpreting 'stupidity' is not easy, even among ourselves. In looking at 'animal consciousness', Radner and Radner note the case of a species of bee that was fooled by experimenters into repeating a particular behaviour pattern over and over again (the bees respond to the odour of oleic acid, indicating to them that there is a dead bee in the hive that should be removed. The experimenters daubed oleic acid onto a live bee, and found that the bees repeatedly tried to remove it). Now, the behaviour can be thought of as illustrative of bee stupidity. But why are we so sure that they are simply being stupid?
We ourselves cannot always recognize death, the Radners note, even with the aid of high-tech medical apparatus. And we make allowances for humans to be credulous or gullible even when they persist in irrational beliefs, while 'animals...are expected to be perfect little scientists. In order to earn the epithet "conscious" they must be proficient in logic, ever ready to change their beliefs in the face of available evidence, careful to take all considerations into account. When people fail to live up to this idea, we say they are all too human. When animals fail, they are said to be machine-like'.

There is an issue moreover about the conditions in which the animals are tested by humans, as well as those in which they live. The animals used in such tests are usually kept in relatively impoverished conditions, and given tests that may not be particularly appropriate for their species. Yet scientists can still conclude lesser intelligence! Even humans would come out pretty stupid if given tests of their ability to find their way by smell, or if they had spent their life living in a space the size of a small bathroom.

Shoring up the intellectual boundaries between us and other animals seems to be something of a cultural preoccupation, a protection against great anxiety. In a preface to a short story, Ursula Le Guin reflects on this, noting that

Some linguists deny the capacity of apes to talk in quite the same spirit in which their intellectual forbears denied the capacity of women to think. If these great men are threatened by Koko the gorilla speaking a little [sign language], how would they feel reading a lab report written by a rat?²

How indeed.

**Living socially: humans and other animals**

Perhaps it does not matter that science makes these claims that animals are qualitatively different from us. Yet the very same science also expects to work on the assumption that non-human animals are sufficiently similar to us that we can justifiably use them as 'models' for us in experiments. Surely there is a contradiction here?
Part of the reason why scientists can live with this contradiction is precisely the reliance on data from groups or species (unless, ironically, it is intelligence itself which is studied: then individuals may well be the focus of attention). But when animals come in numbered lots (like rats in stacked cages) it is much easier to ignore their idiosyncrasies. It is also easier to ignore their status as sentient animals and to behave as though they are merely tools of the laboratory. I well remember the technicians in one laboratory I visited telling me that they had to swap the rats from clear plastic cages to opaque ones. The reason, they said, was that the scientists were disturbed 'because the rats would come and look at you'. Looking with interest at the humans outside is something a sentient animal might do: test tubes do not.

By contrast to the numbered lots of rats in the lab, I knew all the animals at home, my horses or dogs, as individuals; I worked with them and knew their idiosyncrasies. I trained the horses daily and began to understand their individuality. Scientific accounts based on such individual stories would be considered insufficient for any generalizations about the species, horse. Yet after many years of working with horses, I have a strong suspicion that I know that species far, far better (and thus in a way that is more predictive of its behaviour) than I know any of the species that I worked with in the laboratory. Yet isn't science supposed to be about its ability to make predictions about the natural world?

What I have learned from companions at home is how intelligent they are, what love they have to give, how beautiful their movements are and about their different personalities. I learn too how patient they are in trying to get us to understand what they have to say - and how often we fail. Science could never teach these things.

Still the laboratory work had its own value in the development of my own thinking about our relationship to animals and what that means. It was through working with rats, for example, that I came to appreciate better what fine animals they are. I know full well the cultural loathing of these animals which is played on by organisations defending animal use in science as they point to the fact that most experiments are done on rats and mice. Thus the British Research Defence Society points out to the public that some 85 per cent of experiments are done on these creatures - as though that somehow makes them more acceptable. People who have
not had such relatively privileged lives as I have had may of course have
good reason to hate or fear them. Rats there are aplenty in the stables but
I have none infesting my house, and I cannot imagine what it must be
like to have them nibble my toes in my sleep. Cultural antipathy to rats
certainly has some grounding in the history of disease: yet it is also
loaded with myth, just as stories about the 'fearsomeness' of wolves
abound. As I watched them and worked with them so I grew to like
them, those little white rats with pink eyes (like Cyril) or the black and
white ones with sparkling dark eyes. I learned to appreciate their
curiosity and watchfulness, their playfulness, and their obvious
intelligence in spite of their impoverished lives in laboratory cages.
Every day that I entered the lab, I spoke to the rats - 'Hi, everyone!'. I
enjoyed their company. And every day my unease grew. To begin with, I
simply changed procedures, so that the animals were interfered with as
little as possible. But then one day I walked in and lifted the little wire-
mesh trap door of a cage as it sat on the floor. In the cage were a group
of young sisters, black and white adolescent rats. Curious, they all came
to the gap in their ceiling, putting their tiny paws onto the edge of the
wire, their bright black eyes sparkling and their whiskers whisking. I
looked at their paws, like miniature hands, at their glossy coats in
different patterns, and I marvelled at their inquisitiveness. I knew then
that I had had enough.

Ironically, I think that the work I do now has more to do with science, in
the sense that it is deeply motivated by my love of the natural world and
of animals. I continue to think, teach and write about 'how we think
about animals'. I did that as a working scientist, too: but now, I am
willing to range more widely, not to restrict myself. In that venture, I am
reminded of what philosopher Sandra Harding has said of science - that,
despite its pretences at objectivity, it cannot be strongly objective unless
it takes proper account of the 'missing voices'. For her, that includes all
kinds of human 'others' marginalized from science. For me, that must
also include non-humans.

Living with animals has made me sensitive to the complex ways in
which they and we become integrated into a social relationship.
Domestic horses, for instance, are not just 'broken', as the saying goes.
Rather, they are usually assimilated into relationships with us (and us
with them) from the day they are born. So too are domestic dogs. Yet
science has almost nothing to say about the emergence of relationships
between humans and non-humans, or about the ways in which particular kinds of animal enter human society. To be sure, we can read about the 'instincts of the dog' derived from its wolf ancestors, and about how these predispose dogs to behave socially in certain ways. But where are the studies of how dogs become socialized into human ways? Or even us into theirs?

I have often wondered what science might look like if, instead of having animals in numbered lots, they were treated respectfully as individuals. Now my work includes thinking about what science might have become, had its history been different, had it not relied on distancing ourselves from nature. What stories would scientists tell if they spent their days with Cyril instead of cages 34-40? How would their tales change if they had watched Tess, or Ginny, instead of watching machines printing out data from beagles? They could no longer pretend to be distancing themselves from nature; rather, they would have to listen. They might even find that Cyril, or Ginny and Tess, had rather a lot to say, about life, the universe, and even humans.

But can we listen?

Notes

Biography
SPECIESISM AND SEXISM

Emma Munro

On a global scale the most exploited humans are women and in factory farming the most exploited animals are female. Women are severely exploited through the non-recognition of unpaid subsistence activities and home-maker services as ‘real work’. By ‘real work’ I mean a fiscally responsive operation, within current Western economic systems. Consequently, as Marilyn Waring argues, this 'hidden economy' means that women are under-counted in the labour forces and their contributions are not recognised in national accounts.¹

Similarly, female animals are over-exploited on the basis of their sex.² According to Gruen, the egg industry is indicative of abusively exploitative farming practices. Egg factory farming generates approximately 4.2 billion, that is 95% of all eggs in the United States every year. De-beaked hens are confined for 12 to 18 months in wire mesh cages, without room to move around, stretch their wings, or build nests.² In the United States, more than 100 million cows, sows, sheep and 5 billion chickens, (mostly hens and chicks) are raised and slaughtered for food production each year.³ Mechanistic, assembly-line processes, designed for efficient, economical and ever increasing production dominate the husbandry of these animals.⁴ The infliction of pain and slaughter in the pursuit of profit and technological advancements is justified through constructing the experimental subject or farm animal as other. Being other means that animals are constructed and interpreted as being without desires, interests or feelings. On what basis are they judged as without these qualities? Gruen argues that the symbolic operation of the categories woman and animal satisfy equivalent predominantly utilitarian functions in Western patriarchal societies. Their similarities are presumed to be natural, which disguises both motive and investment of speakers and discourses that construct(ed) the natural connection. Theoretical and practical correlations between woman and animal are manifest in everyday life and in the ideology that justifies and preserves their submission to masculine authority.⁵

For instance, scientific experimentation regarding reproduction has been justified on the basis that potential benefits outweigh emotional and
physical suffering. The human contraceptive pill can increase the risk of blood clots and heart attack. IUDs can induce haemorrhages and bring about infertility. Hormonal treatment has uncalculated short and long term effects. Surgical intervention and manipulation with the risks of anaesthetisation and infection are all ‘justifiable risks’. How is it that the failure rate of contraceptive technologies has contributed to the infertility that reproductive technologies are designed to address? The basis for justifying these technologies provides the answer.

A fundamental basis that justifies this way of thinking is derived from traditional Western philosophy. The systematic connections inherent in the dichotomisation of subject/other, polarises man/woman, nature/culture and human animal/non-human animal. This polarisation situates woman and animal in a secondary, subordinate and discriminated location - in relation to man. Dichotomisation is not derived from essential biological properties, it is a learned mode of thinking, perceiving and knowing that transforms reality into static, oppositional and hierarchical conceptual categories. These conceptual categories are confined to the manifestation of specific ideas and images in regard to subjectivity and identity. It is the constructed categories of subjectivity and identity that are the focus of racism, sexism and speciesism.

The connection between categories of subjectivity and identity is neither random nor natural. Inherent to Cartesian dualism is the disassociation of mind from body and the connection of mind with culture and man. This network of connections excludes any being that is not cultured, white, middle (or upper) class, Western and a citizen. Women, animals, people of other races are all necessarily excluded. Descartes orchestrated a network of strategic connections that systematically excluded woman - regardless of whether this was his intent, it was a consequence. The exclusion of woman was based on her constructed and assumed association with nature and the body. My argument is that the exclusion of woman is connected to other forms of exclusion. Cartesian epistemological paradigms provide a basis with which to justify the exclusionary concepts of racism, sexism and speciesism.

Cartesianism is based on the polarisation of terms. It posits the privileged designation of positive for one term (in this context: subject, man and human). The privileged classification is dependent on the
negation or oppression and, or, suppression of its opposite term (other, woman and animal). This necessary relationship is one of determined advantage or disadvantage. This relationship is central to speciesism and sexism, and it is a primary reason for the indefensibility of speciesism. Another reason is that while the consequences of negation, oppression or suppression are visible the strategic connections that inform these processes are invisible. Debates about abortion, reproductive technology and the availability of contraception for women - in both Western and non-Western cultures - provide an example of the binary of visibility/invisibility. Denial of these services and technologies is arguably a visible form of oppression, but the processes that inform the politicisation of females as a producer of progeny, food, sexual desire and so on are invisible. ‘Natural’ vocation, economic rationality, beauty and religious faith are indicative of some of the beliefs and processes used to justify mandates on reproductive technology. Economic rationalism is exemplified in the following: 'The dual aims of veal production are firstly, to produce a calf of the greatest weight in the shortest possible time and secondly, to keep its meat as light coloured as possible to fulfil the consumers requirement. All at a profit commensurate to the risk and investment involved.\(^8\) The same processes of economic rationality are used to justify a variety of discriminatory treatments from the immobilisation and over-feeding of veal calves to negating the value of ‘women’s work’ because it would unbalance the national economy. None of these terms are isolated, objective, neutral concepts. Each term has a complex history of associations that predetermine specific responses.

Arguing that each term has a complex history of associations and consequences is best explained according to Foucauldian theory. For Foucault, social formations - in combination with his classificatory systems of thought - are the current aftermath of former struggles. These classificatory systems are rendered invisible through processes of naturalisation.\(^9\) In other words interpretation of the networks that link exceptions and qualifications to normative evaluative classificatory systems is required. The rendering invisible of classificatory systems of thought means that deconstruction of these processes of naturalisation can be used to reveal ‘invisible’ organising elements and principles. The implicit messages encoded within the concepts of speciesism and sexism can be rendered visible because systems of knowledge are predicated on invisible organising terms, that is, categories of
knowledges. Decoding is possible partly because classificatory systems of thought are not atemporal, ahistorical and continual. They are subject to socio-political and economic struggle. This means that the occurrence of changes may render obvious previously invisible organising elements within systems of knowledges.

Foucault would argue that the intimate reciprocal associations between related concepts in dualisms (for example woman, animal, natural, manipulable) create subordinated, habituated, docile bodies that are brought closer to an idealised standard. Processes of reciprocity, elementary to dualist concepts, instigate the automatic and perpetual functioning of distinctions based on concepts of ‘normality’, ‘abnormality’, race, sex and species. For instance, idealised notions of ‘femininity’ require specific repetitive practices. Romanticised versions of animal behaviour illustrate how culturally generated representations of subjectivity assume the validity of ‘truthfulness’ when they are in accord with publicly predetermined notions of ‘who we are’ and ‘who or what they are’. The pastoral image of a dairy cow wandering around a lush green pasture - featuring in butter and milk advertisements - is an example of a romanticised version of reality. The industrialisation of the dairy business means an intense five year cycle of pregnancy and hyperlactation, after which the dairy cow is slaughtered. Mastitis, infected teats and internal cannibalisation of body tissue are common effects of dairy industrialisation. The mediatory process involved in feminising woman and romanticising animals indicates the gradual and cumulative objectification of woman and animal.

Objectification is achieved through the formation of specific knowledges by discourses of power. These formulated knowledges have the effect of dictating desired and non-desired characteristics thereby classifying a specific norm as preferential. The racial norm of whiteness is perhaps the most common and one of the most exclusive normative characteristics preferred by Caucasian Western cultures. Race, education, location and communicative abilities, to name a few qualifying characteristics, can automatically deny or warrant membership to the preferred norm. When certain characteristics are privileged and combined they reinforce each other in a circular process, multiplying their individual effects. These circular processes, which are intersubjective and interactive, produce the appearance of normality, a major consequence of which is invisibility. The invisibility of circular processes means the processes that produce
norms are themselves unapparent, so it is difference that is remarked on and set apart. In other words the absence of difference represents a privileged condition. In this way psychical characteristics are connected to anatomical features in a determining manner that facilitates the categorisation of a living being into a type, a species. Even though animal and woman may appear to be totally disparate concepts, their categorisation as other is a parallel that identifies their mutual relations.

Categorisation as other is processed through discourses of power. Inclusion within the category of other is influenced by motive and investment. For example, investment and authority is evident in the following explicit, supposedly guiltless, admission of cruelty. They hate it! The pigs just hate it! And I suppose we could probably do without tail-docking if we gave them more room, because they don’t get so crazy and mean when they have more space. With enough room, they’re actually quite nice animals. But we can’t afford it. These buildings cost a lot.’ A non-speciesist discourse would not justify death from porcine stress syndrome because it ‘in no way nullify[es] the extra return obtained from the higher total output’.12

The relationship of the subject13 to the power/knowledge network, and therefore the motive and investment of the subject, must be established. Though he did not suggest this, a Foucauldian genealogy of connections can be used to make visible the connections between the supposedly disparate concepts of speciesism and sexism thereby manifesting the active and systematic processes of participation and motivation. Both these processes are fundamental to producing coherent knowledges; in other words, to make visible, and thereby accountable specific discourses and speakers who/that have the power to construct, categorise and determine meaning and to conceal their investments while doing so.

It is the sexed and embodied subject (for example, the pig-farmer) who experiences and practises the ideas that guarantee the connection between knowledge and practice.14 Open declaration of intent and context by the speaker of discourse may alleviate the deception inherent in the existing (Western) power/knowledge networks. However, it does not explain either how or why porcine stress syndrome can be an acceptable factor in the pork industry. I agree with Althusser’s assertion, that the way in which we understand the experience of ourselves (such as
our subjecthood) is directly related to pre-determined constructions of social categories within specific ideological frameworks.15

For Althusser, the concrete existence of ideology16 is manifested in systems of belief, (dead meat is necessary to human health) everyday practices (tail-docking, debeaking), institutions (agribusinesses, supermarkets) and social structures (economic rationality justifies abusive farming practices) which function to rationalise and justify widespread values (animal value is judged according to use) and conventions (animals don’t feel pain). These systems have the potential to render invisible or distort the real operations of power.17 This means that ideology produces, or interpellates individuals as historically and culturally specific subjects.18 The concepts of sexism and speciesism transform the concrete existence of women and animals and reconstruct them as part of the social totality, partly because woman and animal, historically, represent a category, a social relation, not an individual. By which I mean the actuality of woman and animal in real, material social, political and environmental discourses do not get translated into the social anthropocentric constructed totality. Althusser demonstrates that categories of thought (sexuality, race, animality, identity and subjecthood) need to be historically and culturally contextualized, to prevent uncritical acceptance, and to render visible the investments of ideological and power relations.19

This is evident in the way increasingly varied types of animal research are revealing different forms of social relations, tool making, and communication amongst animals. Cooperative hunting through division of labour and coordinative signalling by Aplomado falcons20 is one example of animal social relationships. Another is the manipulation by beaver family units of their local environment.21 Tool use can be demonstrated by the sea otters use of stones to hammer loose molluscs and abalones.22 A good example of animal communication as a two-way process is provided by the semantic alarm calls of vervet monkeys that indicate different types of danger and clearly generate specific responses depending on whether the predator is a leopard, eagle or python.23

These diverse characteristics (social relations, tool making, and communication), previously the domain of the exclusively ‘cultured’ are not correspondingly represented in our treatment, relationship or attitude to animals. Similarly, women are increasingly diversifying in social and
political arenas, but this is also under represented in our systems of social knowledges.

With the help of theoreticians like Foucault and Althusser, it is possible to argue that systems of knowledges, discourses and concepts interconnect. Therefore, we can expose weak links, or generate alternative pathways. One could produce counter practices, counter strategies and counter discourses in an effort to re-direct the existing strategies of power and ideology at a local and conjunctural level, rather than simply trying to eliminate them. Both a rationalist and an empiricist view would reject Foucault’s genealogy as a method of producing knowledge because it does not prove continuity between historical events, nor does it focus on origins or causal relationships and so cannot produce essential singular truths.

Deconstructionism, however, provides the opportunity to acknowledge and describe without recreating conceptual oppositions. Deconstructionists claim that meaning and interpretation are produced through the artificial and constructed contrasts of dichotomous terms. Derridaen deconstructionism argues that analysis of the marginalised dichotomous concept and the characteristics of its exclusion, prove that the privileged concept derives its meaning and pre-eminence through the contrast and suppression of the marginalised concept. Therefore the privileged concept does not achieve either unmitigated identity or conceptual absoluteness; instead its parasitic and contaminatory nature becomes evident. Deconstructionism could provide a new and positive discourse of the body and of the subject, which would be socially and historically contextual and non-dualistic in its approach. This would be possible because the unity, continuity and coherence of the body and the subject can be shown to have no natural biological pre-determined basis. Deconstruction argues that natural biological pre-determination is an effect of traditional discourses of knowledge. If speciesism is seen to be an effect of traditional discourses of knowledge then speciesism is a constructed and pre-meditated position. It follows that a constructed position can be broken down into its constitutive elements and its foundational networks of bias and profit made visible.

Systematic networks of bias and profit are paralleled within the construction of sexism. It is not difficult to find feminist criticism which is directed against defining woman on the basis of her body.
Biologically determined paradigms rationalise objectification and utilisation of woman (as property) solely on the basis of what she can produce for man. This last point is equally true for female animals. In response, a proponent of factory farming might argue that it is the female animals’ biological reproductive characteristics which dictate their predominance in ‘modern’ farming practices: 'The modern layer is, after all, only a very efficient converting machine, changing the raw material - feeding stuffs - into the finished product - the egg - less, of course, maintenance requirements.' This quote, from a farm industry trade journal, wherein one might expect to find the most favourable accounts of the farming industry, demonstrates the Cartesian interpretation of body as machine. The attitude expressed in this quote is not dissimilar to descriptions of the female uterus as a ‘vessel’ or ‘storage space’ passively receptive to the ‘active’ male seed. These similarities correlate with the Western historical tradition which conceptualises the body as a machine. 'Thus I may consider the human body as a machine, fitted together and made up of bones, sinews, muscles, veins, blood and skin in such way that, even if there were no mind in it, it would still carry out all the operations that, as things are, do not depend on the command of the will, nor, therefore, on the mind'. Inherent to the concept of body as machine are assumptions that help explain the parallel treatment of female humans and female animals. The most common assumption about machines is their specific functionality added to which is the value, use and productivity that can be gained from the possession of the machine. Fundamental to the concept of body as machine is Descartes' disassociation of mind and body. I am not that set of limbs called the human body. For Descartes the mind (or consciousness) is unextended and indivisible, while the body (or matter) is both extended and divisible. When this divisibility is applied to animals, it supports their exploitation because fundamental to Cartesianism is the pre-eminent value of mind (and soul) and the subjugation of body to the mind. In the context of animals this translates as the subjugation and expendability of animals to the interests of man. This ‘rationalisation’ denies an inherent value of animals in themselves, to each other and in relation to the ecosystem. Values which, a non-anthropocentric viewpoint might argue could outweigh the needs and wants of man and justify a balanced, mutually beneficial relationship between humans and animals.
Human-animal relations are widespread, diverse and longstanding as indicated by Native American names such as Running Deer and Hawkeye. Ancient Egyptian religious beliefs featuring human-animal hybrid gods, seeing-eye-dogs and patents that have been taken out on genetically altered pigs with a human immune system. These human-animal relationships, indicate that crossing the human-animal divide is considered justifiable if it is to human advantage. A contradiction exists in the sometime separation and at other times combination of human and animal. We separate and hierarchise our relationships on the basis of difference and at the same time cite our mutual compatibility as the basis for combining human with animal. For example, consider the relationship between owner and domestic pet; farmer and commercial product; and animal donor organs and human health. In these cases human and animal subjectivity is a flexible, manipulable construct. The relationships between types of discrimination and prejudice are mutually supportive and may be seen in the way the human-animal hierarchy is used to confirm racist human-human hierarchies. The stereotypical representation of non-caucasians as ‘blacks’ originates from falsely constructed stereotypes about animals. They set up ‘black’ and ‘beastly’ as exact synonyms, evidenced in the following book title: The Negro: A Beast. Humans distinguish ourselves from all non-human animals on the basis that we are superior, mentally, genetically, socially and spiritually. These distinctions are thought to exist, even though humans are genetically and behaviourally closer to primates, than primates are to amphibians. Unless it is to human advantage, we disregard animal welfare, intelligence and wellbeing because we maintain a hierarchical paradigm that stipulates a superior/inferior divide.

As Midgley argues, speciesism presupposes a massive, hierarchised distinction between humans and non-humans. This distinction determines how we define and practice morality and it determines how we judge the importance, utility and value of any non-human. 'Degrees of capacity on either side of the human species-barrier are not allowed to affect this sharp divide.' Importance, utility and value are decided and classified in terms of human benefit and advantage. Value is judged only in human terms. Vivisectionists argue for continual animal experimentation on the grounds of human to animal similarities. At the same time, they contrarily claim an uncrossable divide between humans and non-humans.
This divide justifies treatment of non-humans that is considered cruelly untenable for humans. The well-being and well-fare of the non-human is inconsequential in comparison to the privilege and preference accorded to humanness; 'animals used in biomedical research should not be considered as mere animals but rather as standardised biological research tools'. The implicit construction is that, after all, tools are for human use, advantage and profit. This perspective is completely anthropocentric: it is the elevation of humans as superior to animals regardless of context. There is no context left for the needs and well-being of animals to be considered in preference to humans. Extinction of an entire species is possible on these terms. Nor is speciesism limited by time, geography or culture. For instance, the expanding human population in the Mediterranean reduced animal habitats and extinguished lions and leopards by 200BC in Greece and Asia Minor. The last pair of Auks (a flightless seabird) were killed in 1844 in Iceland. On Mauritius, the ground nesting dodo was extinct by 1681. The North American passenger pigeon thought to have numbered about 5 billion was hunted to extinction between 1630 and 1914. One animal species every four years became extinct between 1600-1900. By the 1970’s about 1000 animal species were made extinct each year. It is estimated that 20 percent of the world’s animal and plant species will be extinct before 2000. This version of human superiority justifies cruel and abusive practices towards animals in the pursuit of knowledge and profit. Speciesist practices are maintained through ignorance, isolation, legislation and secrecy which protect agricultural industries and research institutions from a critical and punitive public scrutiny.

Anthropocentric thought requires animals to conform to human standards of intelligence and communication, if we are to extend to them human rights and inherent value. I find anthropocentricity problematic on two counts, firstly because it does not recognise or accommodate non-human standards of intelligence, communication, rights and value. Secondly it establishes a singular standard for human rights and human values which are pre- eminent, universal and absolute. These characteristics exclude possibilities for change, difference and alterity - amongst humans, let alone recognising the possibility for parallel or concurrent rights, values and intelligences by other species. This perspective maintains that animals lack the ability to think, to emote or to consider consequences, supporting the presumption that humans are superior. It continues, contrary to current research into non-human behaviour and cognition.
Herman’s bottle nose dolphin experiments indicate, amongst other things: understanding of word order, observational learning, self-training and the refusal to respond to nonsense commands. Given these and other empirically validated examples it seems advisable to dispute the human/animal divide and to examine what humans regard as communication and understanding and the capacity to abstract.

Regan and Singer reproduce the idea that rationality and the capacity to abstract are essential qualities and so they indirectly support speciesism. My reasons for this claim are twofold. Firstly, their dual focus on rationality reproduces a biased, normative, hierarchical reason/emotion dichotomy. Secondly, if abstraction is the basis for speciesism then the consequences of speciesism are distanced to the point of virtual ineffectuality. The separation and distancing of theory and practice is self-defeating and self-perpetuating. Considering speciesism outside of its practical application removes responsibility to act, or change, through disassociation of the self from speciesist practices.

I have argued that the theory and practice of speciesism are interdependent. By which I mean the justification for abusive factory farming practices is derived from the belief that animals are inferior to humans. It places the onus of proof on the animal or on the human to prove otherwise.

Why do all non-human animals have to compete with human animals in a contest for equality? As Midgley argues, the idea that moral agents represent a chosen archetype and interact within a contractual circle of morality on an equal basis is self-defeating.40 The notion that all moral agents must be of a certain type implies circumscribed boundaries. These boundaries exclude or deny moral agency to any being that does not comply with pre-determined qualities. Rather the onus should be on those (human animals) who have the authority and power to extend respect and kindness. If a reciprocal arrangement is required, then it can be justified on the basis of what associated species can contribute to human welfare and well-being.

I do not know, however, whether I would go so far as to suggest that this be our Kantian duty. Kant’s notion of duty includes the polarisation of duty and inclination, and the inherent valuation of intent as of greater significance than the consequences of the act.41 Instead I lean towards Hegel’s moral consequentialism which stipulates consequences must be taken into account.42 For Hegel, rational (social, economic, legal,
occupational and political) institutions form a system that is paradigmatic of objective ethical life. In turn, the individual is predisposed to behave in accordance with norms and conventions proposed by those rational social (etc)institutions. Hegel would deny moral rights and moral acts to animals because they lack rationality and freedom. However, his idea that the nature of a moral action must include any unintentional or unforeseen consequences that develop condemns the maltreatment of animals by factory farmer, and researcher as immoral - even if they believe in the greater good or the inability of animals to experience pain. It follows that what is expected of each individual is context dependent, which means that motive and intent are context dependent.

Benton’s position is context dependent. He rejects Regan’s distinctions between types of moral patients and rejects Singer’s theory because it is too difficult to weigh up different types of pleasure and pain. He argues that human animals and non-human animals are all embedded within ecological niches. We cannot abstract individuals from their embeddedness because it can lead to misguided actions. For Benton the individual is indissolubly bound up in their social and ecological position, relationships and conditions of life. Benton argues that focusing on, or isolating, specific characteristics or qualities such as a ‘rationality’ or ‘emotion’ results is an incomplete solution. Human-animal and non-human-animal embeddedness must be considered in their own particular contexts and relationships. Social relations are not necessarily species specific consider, for example, the ownership of a pet kitten by the gorilla Koko. This was a relationship which defies commonly accepted boundaries for friendship and ownership. Furthermore, the satisfaction of need is essential for survival and well being of individuals. Benton is aware of the difficulty in distinguishing between genuine and superficial needs however he does not give any clear criteria for deciding between a conflict of needs. This is problematic because needs are Benton’s basis for morally valid claims. For Benton both human animals and non-human animals can be in relationships and therefore can be moral agents. Accordingly, a moral claim which meets the needs of humans at the expense of animals could be presented using Benton’s moral paradigm.

The exclusionism and denigration inherent to racism and sexism has a custom-made feel to it, limiting the scope of rights and moral agency. to
particular kinds of subjects. The non-included subjects are denied and excluded by definition, simply because they are not white men.46 Humans comprise one species, that is, one biological classification. Racism and sexism, referring as they do to human-to-human interaction on a cultural or (biological) sex difference are defined and reproduced in human terms, therefore they are in a sense restricted to a human context. This is not to say that the consequences of racism are determined solely by race. As I argued previously (when discussing the dichotomous aspects of these terms) the concepts of racism and sexism do not operate alone, they materialise historical and contemporary beliefs and bias. Speciesism covers a broader area than the concepts of racism and sexism. It relates to the immense scale of difference between humans and non-human animals. It is a classic example of anthropocentric thinking which blends the multiple, complex, varied possibilities in the animal macrocosmos into a single category: animal, specifically a non-human animal. The relative homogeneity of human habitats in comparison to the heterogeneity of non-human-animal habitat requirements should be enough to recognise that the anthropocentric nature of the term 'speciesism' renders it invalid and indefensible as a position.

Unfortunately, most people would not consider it an adequate rebuttal to speciesism. This is because discourses of power are not disembodied structures that simply produce knowledge and meaning. Each concept must be located and contextualised because it is not an isolated neutrality. If we argue that each individual does not create their own knowledges and truth then meaning is the property and product of the social community. However this is not to say that knowledge is disconnected from speakers and discourse, instead it is to say that knowledge is not independent of theory and subjectivity. It follows that acknowledging that subjectivity is constructed is required to balance the alleged guaranty and intellectual appeal of knowledge.

Notes
2. Lori Gruen, 'Dismantling Oppression: An Analysis of the Connection Between Women and Animals' in Ecofeminism: Women, Animals,
5. Ibid., p.61.
7. Nature is taken to include animals.
10. Female beautification, maintenance and reproduction are understood as needing repetitive, sometimes daily practices such as waxing, shaving, cosmetics, hairstyle, fashion and deportment.
11. Lori Gruen, Dismantling Oppression, pp.73-74: 'In order to obtain the highest output, cows are fed high-energy concentrates. But the cow’s peculiar digestive system cannot adequately absorb nutrients from such feed. As a result, during peak production the cow often expends more energy than she is able to take in...Because her capacity to produce surpasses her ability to metabolise her feed, the cow begins to break down and use her own body tissues'.
13. The term 'subject' is here referring to Foucault’s constructed and subjugated subject.
14. For Foucault, the sexed and embodied subject, is the essential focus of systematic power alliances and discourses which also means that the embodied subject has meaning only within the boundaries of its discursive articulation. A Foucauldian politicisation of the body involves control, management, surveillance and self-policing. Central to this notion is the determination of the body as analysable and manipulable and therefore both object and target of discourses of power.
16. Ibid., p.155.
17. Ibid., pp.155-159.
19. See Michel Foucault, ‘Intellectuals and Power’, pp. 205-206, for the reasons that theory is contextually located and relayed from one practice to another, whilst practice is a network of relays.
21. Ibid., p.87 ff
22. Ibid., p.106.
26. I am aware that most people would not disagree with owning animals. Animals as property cannot be dealt with here, however, ownership, whether morally acceptable or not does entail specific duties of care, care that is not extended to animals used in factory farming. For example, the British Protection of Birds Act was intended to prevent cruelty to birds, with the explicit exception of poultry. Peter Singer, Animal Liberation, p.110.
34. Ibid., p.104.
35. Spiegel, The Dreaded Comparison.: 'Cruelty relies upon a rigid observance of the categorical distance between victim and oppressor'.
36 Quoted in Singer, Animal Liberation, p.75.
38. Gruen, Dismantling Oppression, p. 75.
42. The alternative of duty inspired by reverence for universal laws means we are faced with the problem of having a pre-existing set of principles that determine behaviour. It is very hard to imagine a set of pre-determined principles sufficient for the purpose of accommodating all potential complexities of moral dilemmas and the considerations of consequences. However, for Hegel, freedom of choice and freedom to act are restricted by normative community standards because moral life is regulated by community standards and values that have achieved a legitimate and authoritative status. See E. Kant., *The Moral Law or Kant’s Groundwork of the Metaphysics of Morals*, trans by H.J. Paton, (Mayflower Press, Watford, 1947), §402, §403.)
46. Midgley, *Animals and Why They Matter*, p. 82.

**Biography**

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*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. Kasper 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 Kasper 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 straightforward 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


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

Denise Russell

BOOK NOTES


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.

*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 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.