

## Introduction

Erica Fudge and Clare Palmer

The water which standeth in the hollowes of Beeches, doth perfectly cure the naughty scurfe and wilde Tettors, or scabs of Men, Horses, Kine, or Sheepe, if they be washed therewithal.

*The Widowes Treasvye* (1631)

The shared physicality of humans and animals - as suggested by this early modern advice book on animal health - was widely accepted in the seventeenth century. As historian Louise Hill Curth has noted, in this period ‘Almost all of the procedures that were used for humans were also applied to animals’ (Curth, 114). Since then, however, human and animal medicine appears to have taken a more dualistic form, with human medical care on one side and animal veterinary care on the other. The establishment of veterinary science as a separate profession, which took place during the nineteenth century, signalled that a very different model of care was – and should be - available for humans than for animals. A vet was never a human doctor, and vice versa. But this separation has rarely been more than skin-deep. Taking a close look at contemporary veterinary science, as we do in this living book, shows how difficult it is to maintain this separation.

Everywhere humans and animals are entangled: we choose to share our homes with animals; we eat them; they both sicken and cure us. Equally, many animals rely on us for

food and health; they invade ‘our’ spaces; they eat our (fleshy and other) waste; they suffer because of our illnesses.

Veterinary science is a locus of anxiety about the intertwined nature of human and animal worlds. Whether dealing with pests or parasites that infest our spaces; developing knowledge about the effects of different drugs; increasing productivity; or simply attempting to help a sick or injured animal, animal health practitioners move between human and animal worlds. As the articles we have collected together all reveal in their different ways, it is impossible to maintain a firm divide between human and animal health and wellbeing. Donna Haraway suggests that we live in a world of ‘cat’s cradle games in which those who are to be in the world are constituted in intra- and interaction’ (Haraway, 4). Veterinary science may be about animals, but it is also – in a multitude of ways – about humans: our health, our control, our sense of who we are in the world – and also, who we are not.

This living book is organised into three sections: ‘The Context’; ‘The Practice’; and ‘The Future’. ‘The Practice’ is the central and the biggest section, and it is where the bulk of our veterinary papers are located. But ‘The Context,’ we hope, will set in motion some of the core issues that underpin what follows. In this first section we start with an essay that traces the troubled emergence and professionalization of veterinary science, an emergence that saw the disvaluing of amateur knowledge - the kind of hands-on understanding found in our epigraph. Having placed veterinary science in its historical context, the second piece gives an overview of key approaches to contemporary animal

ethics, setting the stage for an exploration of why animal health and welfare *matters*. The three following essays all raise questions about what being “healthy” or “sick” actually means; how it feels for an animal to be sick, afraid, or in pain; and what veterinary practitioners who confront, treat, alleviate and sometimes create such animal pain experience. In raising these questions, the essays all address issues core to veterinary science and to veterinary practice.

The central section of the book moves to look at the *practice* of veterinary science, to articles dealing with encounters with and treatment of animals. We have grouped these papers into four subsections, which, as they are read, reveal relations with animals that, we suggest, increasingly escape from human control. What begins with apparently orderly separation, ends with a recognition that ultimately, neither control nor separation can be maintained. Human and animal lives are inextricably bound together in terms of our simple shared and creaturely bodies; the human (in)ability to completely restrain either animal (particularly avian) movement, or the movement of disease; and in the dependence of humans and animals alike on other living and dead bodies in order to go on living themselves.

The first subsection, ‘Agricultural Control,’ includes two veterinary articles dealing with productivity. In both, the involvement of vets in the complete control of animals in some aspects of contemporary agriculture becomes clear. Here ‘livestock’ are not only or even bodies, they have become units of production. Indeed, in Velazquez’ study of assisted reproductive technologies in cattle, included here, the *in vivo* ‘production of embryos by

superovulation' is claimed to have economic merit because 'complete herds [can be] transported as frozen embryos'. The idea that a group of frozen embryos can be equated to a herd of cattle shows just how far the idea of animals as individual living, breathing and sentient animals can be discounted in certain forms of modern agriculture. In contrast, the philosopher Bernard Rollin offers an alternative perspective on human relationships with agricultural animals, reintroducing the animal as individual and not just as object. Rollin concludes (linking us back to papers in the Context section of this book): 'In today's world, the ethical component of animal welfare prescribes that the way we raise and use animals must embody respect and provision for their psychological needs and natures.' His animals are beings with minds, needs and behaviours of their own, needs and behaviours that they should be given room to express. They are not merely units of production from which we should try to maximize human benefit.

The next subsection, 'Domesticity and Order,' turns to another set of human-animal relations - this time in the home. In his 1984 book, *Dominance and Affection: The Making of Pets*, Yi-Fu Tuan argued that 'Domestication means domination' (Tuan, 99). Veterinary science, however, reveals things to be rather more complex than this opposition of dominator/dominated implies, and this is something we show in our selection. Here, we chart a movement from absolute compassion for a single injured companion animal (an animal recognised as possessing a mind), through using pets as experimental models, to regarding pets as threats. A short discussion of the veterinary treatment a paraplegic kitten receives reveals how close veterinary and human health care *could* be: that injury to animals might be treated with the same persistent care as injury to

human beings (although, as the article implies, this is unusual even in the treatment of close companion animals). This closeness emerges in a different context in the next essay which blurs the boundaries between relations of companionship and relations of utility: a pet can be given medical care, and that animal's treatment can also contribute to an understanding of both animal and human medicine alike. This article emerges out of what's called the 'One Medicine – One Health' movement, which proposes the bridging of divisions between human and animal health care, something becoming increasingly necessary in the light of the dangers of zoonoses such as avian flu (which we consider in the next subsection). Both of the essays that begin this subsection on domesticity show how important care for companion animals can be; but in order to achieve this, as Ducceschi, Green and Miller-Spiegel's essay shows, there is a paradox: other members of the same companion species (cats and dogs) are 'harmed and killed' in the teaching and training of vets. So companion animals can be understood as subjects requiring care, but also as objects of utility. And veterinary concerns are not restricted to questions of care versus utility. For veterinarians also note that domesticity itself can be threatening; that the animals we share our homes with can bring with them hidden dangers. As the final piece in this section shows, these dangers can come in many forms: our companions may bite us, infect us, and infest us with parasites.

This takes us into the third subsection which we have titled 'In Place / Out of Place.' Here questions of human control of animal spaces are at stake. It's been persuasively argued that *where* animals are is critical to *what* we perceive them to be. Chris Philo and Chris Wilbert, for example, argue that the 'conceptual "othering"' of animals - the

‘setting them apart from us in terms of character traits’ - is absolutely linked to a ‘geographical “othering” (fixing them in worldly places and spaces different from those that we humans tend to occupy)’ (Philo and Wilbert, 10-11). How we live with animals – their literal closeness to or distance from us – has implications for what we take them to mean.

We stay in the home at the beginning of this subsection, tracing out different ways of relating to animals that are “meant” to be there and those that are “transgressing”. Pests become central. In the first essay rodenticides - chemicals that kill unwelcome animal residents such as rats and mice - are shown also to endanger the health of animals we welcome in our homes. In the second, a different - and non-toxic - means is used to control animal spaces. Here the categories of pet and pest are deliberately confused. The transgressive nature of a mouse’s behaviour is neutralized, by “translating vermin into pet, pest into guest”. We then move outside of the domestic environment into other human-built spaces for captive animals: sanctuaries and zoos. In the first, the pet trade is shown to be linked to not only the need for animal sanctuaries, but also to the potential spread of viruses that might be transmitted across different communities of one species. The following essays focus on care for transplanted animals in human-created environments, and raise questions about what it is for captive, re-placed wild animals to be well. Can an infertile muskoxen be counted as a healthy animal? Is boredom resulting in excessive masturbation a sign of poor physical condition and welfare in otherwise healthy otters? Do traumatic experiences lead captive chimpanzees to develop syndromes such as depression, as humans do?

The next and final subsection of ‘The Practice,’ titled ‘Entanglements,’ deals with the ways in which human and animal health is intertwined, and can be read as bringing together key issues from the previous three subsections. ‘Entanglements’ focuses on human-bird relations. The first essay shows how the control of animal health through use of veterinary antibiotics has unintentional and unforeseen impacts beyond the agricultural environment, threatening a wild vulture species. The second paper considers how feral animals (that is, animals that were once domesticated but over whom we have now lost complete control) have chosen to live - undesired and uninvited by us - in public parks and gardens, and thereby potentially threaten our health. These veterinary issues are raised in a different context in the third essay, which traces the economic underpinnings of outbreaks of avian flu. Avian flu exposes the degree to which animal health has social, cultural and political implications for us, illustrating how the circuit of wild birds, domesticated poultry and human beings has become ‘one of the central concerns of global geopolitical-biopolitical medical surveillance of the twenty-first century.’ Finally in this subsection we return to vultures, and explore the ways in which failing to recognise the entanglement of *agricultural* veterinary practice with both *wild* and *feral* animals can threaten social structures critical to human health, for veterinary practices can change animal populations across many contexts in ways we cannot predict.

Unpredictability is a key anxiety that can be traced in the three essays with which we conclude this collection in our final section ‘The Future’. Here, the prospect is one in which increasing animal utility gives us both heightened security, and heightened

vulnerability. In this context, the human/animal dualism that allows us to regard certain animals as simply containers of spare parts collapses. For the sharing of organs points to a profound closeness, even as that very understanding brings with it a recognition of danger. This danger comes in the form of new hazards: of disease (transmitted through xenotransplantation); and of bioterrorism (transmitted through the use of biological weapons). The world being outlined here is one of anxiety, for sure, but is also one that forces us to acknowledge the inescapable nature of human-animal closeness.

We hope by the end of this living book (as it exists at this stage of its development) to have shown how veterinary science might help us to see how utterly and inextricably linked human and animal health issues and practices are; how our literal and conceptual categorisations of animals - as agricultural, domestic, wild and feral - break down in the face of zoonoses that we can never truly control; and how a single animal – a cat, for example - can be the subject of compassionate care, an experimental object for veterinary training, and a vector of human disease.

But we also hope that this selection of essays shows how work in the humanities can help to illuminate what underpins veterinary science, and how veterinary science can importantly inform work in the humanities. In this spirit we have, in the subsection focusing on birds and the spread of disease, deliberately placed two veterinary science essays alongside two essays written from within the humanities. We hope that this selection might exemplify how these relations could work. Here we glimpse not only how inextricably linked animal and human health are, but also how, in reading across

disciplinary boundaries, other critical problems can be revealed; for instance, these cross-disciplinary readings help us to see the ways in which the movements of animals and diseases can globalise the effects of “distant” extreme human poverty.

Work coming out of veterinary science, just as work coming out of the humanities, raises profound questions about ethics, about human and animal natures, about the future worlds we want to see, and what individuals and species we want to be in it. We hope that this living book, albeit in a small way, will contribute to these discussions.

### References

Curth, Louise Hill. *The Care of Brute Beasts: A Social and Cultural Study of Veterinary Medicine in Early Modern England* (Leiden: Brill, 2010).

Haraway, Donna. *When Species Meet* (Minneapolis: University of Minnesota Press, 2008).

Philo, Chris and Wilbert, Chris. ‘Animal Spaces, Beastly Places: An Introduction,’ to Philo and Wilbert ed., *Animal Spaces, Beastly Places: New Geographies of Human-Animal Relations* (London and New York: Routledge, 2000).

Tuan, Yi-Fu. *Dominance and Affection: The Making of Pets* (New Haven: Yale University Press, 1984).