"Critical Anthropomorphism" and Multi-species Ethnography: an investigation of animal behaviour expertise

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List of Abbreviations

HAS:	Human-Animal Studies
EAGALA:	Equine Assisted Growth and Learning Association
QBA:	Qualitative Behaviour Assessment
GPA:	General Procrustes Analysis
FCP:	Free Choice Profiling

Abstract

The production of formalised knowledge about the subjective capacities and behavioural repertoires of nonhuman animals has ethical and political consequences for how we treat those animals and for the lives that they subsequently experience; but also for popular culture, legal frameworks, national infrastructures and corporate governance. Furthermore, sociologists, dissatisfied with the anthropocentrism of conventional research methods, are increasingly citing the need for animal behaviour expertise and socio-zoological methods in order to adequately capture something of an animal's experience and agency in their field-sites. In recent years, human-animal studies scholars across the spectrum of the humanities have been calling for a methodological "critical anthropomorphism", which endorses qualitative interpretations of animal behaviour, but is tempered by either scientific, species-specific knowledge drawn from the natural sciences, or phenomenological practices of attention and empathy. Yet there has been scarce attention to the embodied, inter-subjective and epistemological ways in which such a practice might be accomplished, and what its socio-political consequences might be.

This thesis is an ethnographic exploration of the onto-epistemological politics of "critically anthropomorphic" animal behaviour expertise, as it is practiced through two different professional, zoological methodologies. The first site is the teaching of horse behaviour and communication through a somatic and affective "felt sense" at The Forge, an organisation offering "Equine-Assisted Personal Development". The second site, Moor University, explores the development of a mixed qualitative and quantitative tool known as Qualitative Behaviour Assessment (QBA), for the welfare assessment of laboratory mice. I investigate how a "critical anthropomorphism" emerges through these methods, and what its possibilities, contradictions, challenges and implications are. Using vignettes from fieldwork, each chapter identifies how the "critical" emerges from the "anthropomorphic" and vice versa: where uncomplicated generosities of interpretation give way to assertions of authoritative expertise; where the entanglement of self and other is met with equine or murine rebuke; where risky ethical misgivings haunt professional united fronts and where serious disciplinary conventions give way to pleasure and empathy. In my final conclusion I pull together some of the ethical and epistemological lessons from these chapters for a multi-species, ethnographic practice in sociology.

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Introduction to the thesis

The idea for a sociological investigation of animal behaviour expertise came from an episode when I was working for a charity on a campaign to halt the spread of so-called "zero-grazing" mega-dairies, where huge numbers of cows are intensively farmed year-round in barns without access to pasture. A popular tool to build public support were videos of what is colloquially known as the "cow dance". Every spring in the Netherlands, and in some parts of the UK, families gather to cheer on the cows as they are released from their winter barns onto green pasture. As the cows enter the fields, they gallop, buck, head-butt each other, roll on the grass, and, to most lay people, give every impression of delight. It was a powerful evocation of the importance of pasture to cows.

However, an in-house scientist asked for the videos to be withdrawn. The size of the cows' eye whites, he argued, was a measurable indicator of stress, suggesting fear and alarm, not joy. More junior scientists protested that focusing on eye whites alone was too narrow, and the assessment was even countered by a leading cow welfare expert. However, the organisation prided itself on scientifically-driven campaigns. Since the cows could not be scientifically verified as joyful, the tool was dropped. Through this incident, I learned of the political currency of science, of what can and cannot be measured, of the tensions between "common sense" and expert opinion. I became intrigued by this controversy and wondered how the link between eye whites and stress was achieved, why two experts could differ so profoundly, and what the consequences were of different kinds of evidence for the subsequent lives of cattle, but also for the dairy industry, the shape of the countryside and the kinds of human-animal interaction that are denied or became possible (Tomlinson, 2019).

This thesis takes up some of these questions by exploring how knowledge is produced about nonhuman animals[1] through an investigation of animal behaviour expertise in mice and horses. In particular, I focus on a practice commonly referred to as "critical anthropomorphism". Critical anthropomorphism is an approach to animal behaviour studies which affirms the epistemological value of qualitative,

[1] I refer interchangeably throughout this thesis to both "nonhuman animals" and "animals", to recognise that humans too are animals, but to avoid repetitive longhand. I do not imply any particular hard distinction between vertebrates or invertebrates, whilst recognising the greater challenges the latter may pose to behavioural interpretations given their greater evolutionary distance from humans.

"common-sense" interpretations of animal behaviour. However, rather than endorse a sentimental or anthropocentric anthropomorphism which naively treats other animals as *"people in disguise"* (Serpell, 2005:121), critical anthropomorphism recognises the phenomenal *alterity* of different species' experiences of the world. In scientific contexts, this means combining qualitative interpretation with objectivist evidence. The term was originally coined by ethologist Gordon Burghardt (1991), but has recently become a widespread term in human-animal studies, particularly in the field of "multi-species ethnography". It is seen as a way to allow a *verstehen,* interpretive approach to the lively presence of nonhuman animals in our research, whilst taking methodological steps, through the inclusion of zoological science or through specific practices of attention, to do sufficient justice to the alterity of a different species' subjective experience.

Through an ethnographic investigation of professional, "critically anthropomorphic" knowledge practices, I seek to understand how and why such practices are developed, what they accomplish, through what skills animal alterity is produced, how richly the subjectivities of the animals are drawn and what the epistemology assumes about the nature of the human-animal relationship concerned. I am also interested in the methodological lessons they might hold for sociologists who wish to take the intersubjective nature of human-animal encounters more seriously in social research. The first practice I investigate is an animal welfare assessment methodology called *Qualitative Behavioural Assessment* (QBA), which I follow as it is developed for the welfare assessment of laboratory mice, for the first time in that species. The second is the teaching of horse behaviour and communication through what was termed *"the felt sense"* in an "Equine Assisted Personal Development" (EAPD) site. What both sites share is a strong assertion of the essential continuity of human and nonhuman animal subjectivities, and the belief in an innate human ability to correctly, qualitatively interpret the behaviour of other animals. At the same time, they have both devised innovative techniques to either test or improve the validity of these interpretations.

The thesis contributes theoretically and methodologically to both the sociology of human animal relations and the interdisciplinary field of human-animal studies, and it is innovative on a number of counts. It is the first empirical investigation of critical anthropomorphism as a practice, which is significant given the concept's emerging

importance to human-animal studies. It is also the first humanities study of Qualitative Behaviour Assessment, which is important given that QBA is increasingly widely cited as a less objectivist, more progressive, example of animal science (Chapter 1). Moreover, to my knowledge, it is the first study of Equine-Assisted Personal Development or therapy which critically assesses how the subjective experience of the horse is understood in such work. The research critically examines how qualitative, phenomenological skills in animal interpretation are learned and improved. It problematises the conventional notion that the accumulation of species-specific expertise is advantageous, and it extends emerging work on tacit knowledge in Science and Technology Studies to theories of human-animal interaction. It contributes to the emerging theoretical work on the significance of animal alterity and the epistemological role of detachment, and it highlights the significance of new human "origin stories" (Haraway, 1984:109) that are emerging through new paradigms of human-animal relationship.

The project therefore contributes to specific theoretical and methodological discussions, but it is also very important to understand how these discussions relate to wider society. Why does knowledge about animals matter, and what is the significance of its mode of achievement? Below I outline three ways in which animal behaviour expertise contributes to social life.

Popular culture and companion animal relationships

While most would agree that global trends favour the ever-increasing objectification and commodification of animals, it is also true that the last decade has seen a flourishing of interest in the minded experiences of other creatures in popular culture. The somewhat distanced reportage of wildlife documentaries until the early 2000s has given way to the named, family animal dramas of David Attenborough's series *Dynasties* (2018), acclaimed films about animal suffering such as *Blackfish* (2013) and Chris Packham's BBC series *Inside The Animal Mind* (2014). The trend for what publishers call *"the new nature writing"*, (Moss, 2019) has produced a slew of bestsellers in popular animal science, such as Frans de Waal's award-winning *Mama's Last Hug (2019)* about primate emotions, Peter Godfrey-Smith's ground-breaking *Other Minds (2016)* on octopus intelligence, and Eva Meijer's *Animal Languages* (2019). Tied to this increased public sensitivity to animal subjectivities are

new forms of reward-based companion animal training, which draw on the zoological sciences to emphasise the efficacy of reward-based, rather than dominance-based training; emphasising the mindedness of animals and the active role they play in human relationships, forging new human-animal intimacies (Fox, 2016, 120). How this knowledge is achieved occasionally becomes the subject of public controversy, as the debate over the legitimacy of television "dog whisperer" Caesar Milan's dominance-based methods, grounded on wild wolf-pack behaviour, shows (Kellaway, 2011:webpage).

Nor is the public significance of this knowledge restricted to objectivist scientific knowledge. In riding and horse training culture, good horsemanship is often put down to the use of *"feel"* for a horse, a deeply embodied sense of the horse's bodily expression and placement (Dorrance and Leslie, 2007). Qualitative knowledge about animals can cause us to re-evaluate our understanding of our own humanity. When Jane Goodall discovered in the 1960s, through long-term, immersive field studies that chimpanzees, like humans, wage "war" against rival troops; that they show behavioural evidence of compassion and in particular, that they make and use tools, capacities which were previously thought to distinguish us from other animals, it shook the scientific world and forced a highly publicised re-evaluation of the separation of humans from the rest of nature (Gerber, 2017:webpage). However, the relationship she built with the chimpanzees, interacting with them, imitating them, giving them names, and, early on, using feeding stations to achieve proximity, caused uproar in some circles and led to her first papers being rejected from the Royal Society (Rees, 2007:882).

The legal and ethical landscape

One implication of this surge in popular interest is the evident potential for shifts in public attitudes towards common forms of animal exploitation, and increased support for legal change. Whilst attitudes do not translate unproblematically into action, in surveys, "Belief in Animal Mind", or the level of subjectivity accorded to different creatures, consistently correlates with public support for or against practices such as animal experimentation or entertainment (Knight et al, 2004; Herzog and Galvin 1997, Hills, 1995). There is indeed some suggestion of increased concern about practices of animal exploitation. The number of vegans in the U.K

quadrupled between 2014 and 2019 (The Vegan Society, 2020:webpage), of whom 71% give animal welfare as the main reason for their change in consumption practices (Vegan Food and Living, 2019:webpage). Ipsos MORI report an increased questioning of the legitimacy of animal research and increased concern for experimental animal welfare in the UK (Ipsos MORI, 2018: 6) and Webb et al (2019:779) report an exponential increase in internet searches for *"animal ethics"*, *"animal rights"* and *"the human animal relationship"* since 2008. The methods used to achieve understandings of animal behaviour may sometimes be ethically contentious, particularly where they involve food and water withdrawal as "motivation" (eg Andrews et al, 2015), deliberately inducing aggression (Crawley, 2007:206), electric shocks (Wahlston, 2011:50) or maternal deprivation (Latham and Mason, 2008).

This increased questioning of the human-animal relationship has been paralleled by an opening of new political and legislative spaces for animals, with an increase in animal law modules in degree programmes (UK Centre for Animal Law, 2018) and the opening of new specialist solicitor firms such as Advocates for Animals, all of which rely on evidence of animal behaviour to interpret legislation. Proposals for new systems of political and legal representation sometimes rely on certain behavioural criteria for inclusion, as in a series of high profile challenges to the legal definition of personhood posed by the Nonhuman Rights Project which draws heavily on zoological[2] evidence of self-awareness and autonomous decision making to argue that great apes, elephants, whales and dolphins should have the legal right to bodily liberty and bodily integrity (Non-human Rights Project, 2020:webpage). New ethical-legal categories may soon be created by a UK campaign to challenge the historic vertebrate/invertebrate divide in animal welfare legislation by including decapod crustaceans and cephalopods as protected animals, on the basis of behavioural evidence of their ability to feel pain (Crustacean Compassion, 2019:webpage).

[2] It is conventional to refer to the study of animal behaviour simply as "ethology", but since I will argue later that ethology is only one, specific branch of animal behavioural science, I refer to the "zoological sciences" when speaking more generally.

Infrastructure and governance

Animal behaviour expertise also influences infrastructural planning and governance. Experts sit on various government policy advisory boards, and scientific evidence of species-specific welfare needs are embedded into Codes of Practice in legislation (Department for Environment, Food and Rural Affairs, 2019: webpage). This in turn influences the design of animal housing, human management practices, animal-focused technologies and audit schemes. What is understood to be the intuitive, craft knowledge of stockpersons is increasingly considered invaluable for the day-to-day welfare of the animals concerned and the productivity of systems of animal use (Hemsworth and Coleman, 2010:9; Greenhough and Roe, 2019; Holmberg, 2008). Animal behaviour studies also influence geographic planning and mobilises conservation activism by, for example, mapping how anthropogenic change impacts the behavioural dynamics of certain species, shaping the design of mitigation strategies and influencing planning regulations (Greggor, 2016:998).

None of the above is to claim that knowledge about animals corresponds unproblematically to an animal's reality or that it translates smoothly into social change. Evidence is always shaped through inherently social practices, subject to policing, suppression and demarcation as more or less valid, interpreted according to different values, and actioned as part of a cost-benefit calculation that is typically weighted in favour of human priorities. Ethologists and activists repeatedly complain that research is ignored (Milllman et al, 2004). But animal behaviour expertise is active in the world: it is called upon to justify certain practices, mobilises intellectual and political movements, changes intimate relationships, constructs professional identities, creates new infrastructures, produces moral categories, changes consumption habits and creates new markets. It is also suppressed, denied, and contested. As such, it is sociologically important to study how and why knowledge about animals is produced, with what consequences and under what relationships of power.

But fundamentally, animal behaviour expertise also enrols real, live nonhuman individuals who contribute to the formation of knowledge. They participate in investigations which they qualitatively experience; and respond, concede, resist or surprise. They forge diverse relationships with human investigators and material

environments. And the results of these investigations may fundamentally impact on the lived experiences of countless others of their kind, with ethical consequences that sociology must take seriously (Peggs, 2012; Cudworth, 2011). Going "behind the scenes" of these practices, examining the role that nonhumans play in the construction of knowledge and exploring how and why their behaviour is interpreted in different ways forges a richer and less anthropocentric understanding of how numerous social practices are produced and legitimated. But in order to do this kind of work, we have to overcome a fundamental problem – the methodological difficulties that sociology has with the inclusion of nonhuman animals in empirical research. This thesis will also address this challenge.

The structure of the thesis

Following this introduction, the thesis is divided into six Parts and a final Conclusion. Part I, Chapter 1's *If Lions Could Talk: Critical Anthropomorphism in Human-Animal Studies* builds the conceptual framework for this thesis, and identifies some key empirical gaps in scholarship. I introduce in more detail the central research problem faced by sociologists of human-animal relations: how to recognise the subjective presence and agency of nonhuman creatures in research, as a way to better comprehend the more-than-human nature of social life. I show that multi-species ethnography has received significant critique for the alleged unverifiability of its claims, and introduce how "critical anthropomorphism" is gaining ground as a methodological solution in the sociological and human-animal studies literature. I argue that critical anthropomorphism's theoretical possibilities are not matched by a methodological attention to detail or by a critical evaluation of its tensions, and argue that an ethnographic investigation of its practices is due: both to comprehend its wider social significance for human-animal relations, and to understand what sociologists might learn *methodologically* from such approaches. I also introduce my research question and the project's objectives.

Part II, Chapter 2's *Researching Animal Behaviour Expertise* gives the methodological overview of this project. I introduce and justify my choice of the two field sites: "Moor University" for the QBA investigation, and "The Forge" for the equine *"felt sense"* methodology. I explain how a combination of Science and Technology Studies and sensory methodologies provided my own methodological orientation, and

outline how research was conducted through sensory ethnography, qualitative interviews and visual methods. I introduce the "facet methodology" (Mason, 2011) approach I have taken to drawing both sites together analytically. Finally I outline some ethical considerations, before reflexively contemplating the significance of my own values and the study's methodological limitations.

Parts III – VI contain the analytical chapters. Each Part addresses one of my research objectives, and the analysis as a whole takes a chronological structure, beginning with an analysis of each methodology's historical development and ending with a reflection on the future of each methodology. Each begins with an introduction, before being further subdivided into short chapters. These are the "facets" of analysis, which all begin with a vignette from fieldwork, using that event as a springboard for critical inquiry. A conclusion to each Part draws the analytic threads together, and in Parts IV-VI, these take the form of an imagined "agenda" for critical anthropomorphism: a series of decisions to be made, *according to my participants,* by anyone wishing to take up a critically anthropomorphic practice. These build cumulatively towards a series of recommendations for multi-species ethnography in the final Conclusion to the thesis.

Part III, *The Background,* contains two chapters, Chapter 3's *"I just follow my nose": selfhood, herd-hood and the significance of place in the development of The Forge"* and Chapter 4's, *"I'm going to face this thing head on, about subjectivity and its place in science"*. Each begins by physically "crossing the threshold" into each site and setting the scene. Then, through a biographical analysis of interview material, I explore why Erin and Francoise felt that a methodological innovation, which asserted the fundamental *legibility* of animal's subjective experience was both necessary and possible, and why each methodological entrepreneur felt that "critical" checks on qualitative interpretation were important, contextualising the intellectual legacy of each methodology and highlighting their relational achievement. In the *Conclusion* which draws both chapters together, I point out that both have in common an *"ontological politics"* (Mol, 1999) which is strongly committed to rendering animal subjectivities more alive and present, and a phenomenological approach to knowledge production.

Part IV, *Techniques of Expertise*, contains four mini-chapters: again, each starting with a vignette from fieldwork. These are Chapter 5's "*Clean communication" and the responsive reflexivity of the felt sense;* Chapter 6's *"Making visible" in Free Choice Profiling: qualitative language and the socio-zoological imagination;* Chapter 7's *Victor and the Oak Tree: uncertainty and "affected perspectives" in equine epistemology* and Chapter 8's *Observer 11 Outlier: Fixed List testing and objectivism in QBA*. This Part has two aims. The first is to explain the major processual steps of each methodology. The second is to conduct a critical analysis of the epistemological principles behind each step and to examine how it works in practice. Thematic cross-ties across all four chapters include a comparison of the perceived validity of human emotion in knowledge about horses and mice, and the perceived need to "make visible" aspects of horse and mouse subjectivity that might not otherwise be recognised because of the normalisation of animal behaviour in certain contexts. In the *Conclusion* to this section, I introduce the device of an "agenda" for critical anthropomorphism, which includes: whether the animal's co-production of knowledge is ignored or accounted for; the choice between reflexivity and objectivity; and the epistemological role of uncertainty.

Part V, *Controversies*, explores, through two chapters, what can be learned from moments of difficulty mid-project, in particular about how animal subjectivities are imagined in each site. Chapter 9's *"There's no such thing as a calm mouse": species expertise and "processing the qualitative thing"* focuses on a moment when the team struggled to find a "calm mouse" as requested for QBA's "Free Choice Profiling" stage, raising questions about the nature of qualitative observation. Chapter 10's *Cathy and Red: the guiding logic of a prey animal ontology,* explores a moment of negotiated interplay between horse and human when the participant breaks the rules of the encounter, exploring the work that the concept of the "prey-animal" does in Equine Assisted Personal Development. In the conclusion's *agenda*, I argue that critical anthropomorphism means understanding whether one's underlying ontological archetype of the species concerned legitimates or denies a qualitative, "anthropomorphic" approach; and that qualitative perception involves learning how to become skilled in a particular form of integrative perception that has little to do with either amateur naivety or expert knowledge.

In Part VI, *Futures*, I consider how the futures of both sites may be bound to new social and intellectual movements, what vision of the human-animal relationship

they embody, and some of the ethical questions these visions raise. Chapter 11's *Eye tracking, "objectification pressures" and whole animal assessment* uses Moor University's plans for using eye tracking technology with QBA to reflect on the nature of tacit knowledge and the *"objectivist pressures"* that may be placed on QBA in future. Chapter 12's *Becoming-prey: Human origins, moral relationships and the future of The Forge* takes a moment of instruction during an experiment with The Forge's sheep to reflect on how horses became configured by participants as *teachers*, and the ethical consequences of the *psychotherapeutic pressures* that might be placed on The Forge and similar projects going forward. In the conclusion's *agenda*, I argue that critical anthropomorphism means deciding where the ethical responsibility for understanding animal subjectivity is located; involves a phenomenological clarity of intention; and means, according to my participants, navigating between an innate human *attunement* to other animals and an innate human *disconnection.*

Finally, in the *Conclusion* to the whole thesis, I revisit my research question, summarise the contribution of each Part to the theoretical literature, and describe what important new areas of research this project suggests. I consider what can be learned methodologically from this study of "critically anthropomorphic" practices for the emerging field of multi-species ethnography, with a series of more assertive recommendations, inspired by each of the critical *agendas* that have preceded this chapter.

It has, on occasion, been a strange process writing about two species that are so utterly different in size, behaviour, diurnal habits and ecology, and who possess such different *"charismas"* as Jamie Lorimer (2007) would put it, in terms of material visibility and cultural value. Horses and mice rarely appear in stories together. To my knowledge, no mouse ever freed a horse from its tether in an Aesop's fable. The unusualness of this shared narrative, however, has been a valuable reminder of the vast diversity of *all* animals from each other, and the injustice done in the mere assignation of "nonhuman animal". Where I fail to recognise this diversity due to the inevitable convenience of shorthand, I hope I can partly redress it in the way I have tried to render the individual horses and mice in this study as present as I possibly can in the stories from fieldwork that follow.

PART I: LITERATURE REVIEW

CHAPTER 1

If Lions Could Talk: Critical Anthropomorphism in Human-Animal Studies

Chapter 1: If Lions Could Talk: Critical Anthropomorphism in Human-Animal Studies

If a lion could speak,
we'd hear how Kruger has flattened his vowels
how Longleat's left him with a lisp,
how he's zoo-mute,
and how his tamer wields a whip
then delves between his jaws to extract the stammer.

If a lion could speak,
we'd correct his grammar,
purge his syntactical savannah
of herds of double negatives,
then wince if he ripped apart just one infinitive.

If a lion could speak
he'd sphinx-talk about the thorn in his paw,
how MGM lip-synced his roar
and how Albert gave him heartburn for weeks.

If a lion could speak,
we may deign to reply,
though very loud and slow,
like a lion's really a scarecrow in disguise.

If a lion could speak,
we'd insist he use English
but he'd cleave to Lionese.
The few of us who'd learnt Leopard
might grasp the lack of past and and future tense,
while the rest would be baffled,

more concerned to learn
how to order a beer in Giraffe.

If a lion could speak,
we'd tire of his whinges of wardrobes and witches
of how Richard filched his heart
and how his rampant act on flags
has knackered his hips.
In time we'd surely ignore him,
drawn to the wit of warthogs,
and antelope banter instead.

If a lion could speak, he'd say *Take a degree*
in my language of strangling ungulates
and wrangling with vultures for the meat.
Then we'll talk.

Extract from "*If a lion could speak, we would not understand him*" - Ludwig Wittgenstein, by Susan Richardson (2015)

Susan Richardson's poem above is entitled after Ludwig Wittgenstein's famous aphorism: *"If a lion could speak, we could not understand him"* ([1953] 1974:223). Wittgenstein meant that the *"forms of life"* (ibid:23), the practical social activities in which all language is embedded, would be so alien in its terms of reference for a lion that the words would make no sense. Throughout the many decades of debate over the implications of this line, Richardson's take stands out for its cynically humorous speculation on what humans would do with a talking lion; how we would insist upon the lion speaking *our* language; how its charisma would disappear in its long litany of grievances against humankind, and how he or she might simply refuse to speak, insisting that humans enter into its own form of life instead: "*take a degree in my language of strangling ungulates….then we'll talk.*"

The question of on whose terms a "conversation" is conducted with a nonhuman animal, and how we might respond to what it has to say, is the subject of this thesis. It has been inspired by a series of emerging trends in the sociology of human-animal

relations, which increasingly considers nonhuman animals not just as passive carriers of human meaning, but as social actors whose activities variously co-shape social life and who are thus eligible for empirical, intersubjective study. The methodological instinct here is to achieve some kind of qualitative, interpretive, *verstehen* (Weber, [1922] 1978a:8-9) understanding of human-animal interactions, in a practice of "multi-species ethnography".

However, such studies must negotiate a particular, historically generated set of tensions which have persisted throughout millennia: the question of how reasonable it is to assume ontological continuity between humans and other animals. Nimmo (2016) helpfully frames this as the *"continuity thesis"* versus the *"discontinuity thesis"*. In the first, humans and animals (or at least mammals) are considered fundamentally comparable kinds of entities, bound by a shared animality; and in the second, humans are considered to be fundamentally different from nonhuman animals in some unbridgeable way. Sociologists wishing to gain an interpretive understanding of the animals in their research site usually have to negotiate their position between these two theses if they are not to be accused of "anthropomorphism", framed as the illegitimate attribution of uniquely human traits to animals.

In this chapter I show that one of the ways in which sociologists and others in human-animal studies (HAS) are increasingly framing their position is through a concept, borrowed from ethology, known as "critical anthropomorphism". This is proposed as a way of retaining an assumption of human-animal continuity, which legitimates interpretivist accounts of their behaviour, whilst simultaneously acknowledging the animal's species-specific alterity. I highlight the significance of two commonly proposed strands of critical anthropomorphism. The first is the call for more engagement with the zoological natural sciences, in order to inform and legitimise interpretations of behaviour. The second typically arises in phenomenological accounts, and proposes a set of disciplinary, attentional practices whereby a human can more easily "meet" the Other.

I argue that both epistemological accounts suggest intriguing methodological practices whilst also raising certain problematic assumptions, and that an ethnographic investigation of qualitative, *critically anthropomorphic*, lived practices of

animal behaviour expertise might illuminate some of the techniques and challenges of these methods from which sociology might learn. My study, however, is not limited to methodological questions alone. More generally, I argue that modes of animal behaviour expertise, like any knowledge practice, are ethically and politically significant in terms of the work that they do. They are multiple, and they co-produce animal subjectivities and the human-animal relationship in different ways, with ethical implications. At the end of this chapter, I propose my research question and outline the research objectives that will frame the rest of this thesis.

Clearing a conceptual space for the empirical study of nonhuman animals

Over the last two decades the interdisciplinary field of human-animal studies, if remaining institutionally rather marginal, has undergone a significant expansion within the social sciences, if gauged in the number of articles, books and conferences now dedicated to the issue. Our *"zoological connection"* (Bryant, 1979) with animals who enter our lives as, for example, food, companions, labourers, toxicological models, ideological ambassadors or linguistic metaphors is increasingly well-documented (DeMello, 2013; Peggs, 2012). Historical analysis has documented how human animal relationships have changed over time, and the pivotal role that animals have played in large scale social transformations (Ritvo, 1987; Thomas, 1984; Fudge, 2018; Nimmo, 2010).

Yet whilst the role of animals as material resources or carriers of human meaning is well established, until recently, the question of what other animals might be *experiencing* and how they might participate in social life has been neglected. This lacuna has been criticised by those who argue that in much research purportedly about animals, the animal remains an abstract figure, not an experiencing, communicating agent (Haraway, 2008:20; Hamilton and Taylor, 2017). As Lynda Birke puts it:

...actual animals do not often seem to figure: rather, what predominates, it seems to me, are studies of how we humans represent nonhuman others, or how we build infrastructures around them. (Birke, 2014:71-2).

The reasons for this neglect may range from a simple lack of sociological imagination, to methodological conundrums, to discomfort about what giving animals a "voice" might morally commit us to (Nibert, 2003). Whatever the reason, it has been certainly been buttressed by the discipline's foundational belief that only humans possess the framework of social agency at the heart of the sociological project: culture. Culture arises, Max Weber argued, because humans are not passive recipients of structural forces or laws of nature, but act according to how they themselves define situations and understand the perspectives of others, making their actions *social* and subjectively *meaningful* ([1922] 1978:23). This makes us eligible for interpretive study, using *"empathetic imagination"* or *"verstehen"* (Weber, [1922] 1978a:8-9) to ascertain the meanings with which social subjects imbue their actions.

Whilst Weber briefly alighted on the possibility of an human-animal *verstehen* before abandoning it as too methodologically challenging (Weber, [1947] 1964:104), the symbolic interactionists inspired by his work were adversely dogmatic. George Herbert Mead famously stated that "*the animal has no mind, no thought, and hence there is no meaning here in the significant or self-conscious sense*" (1964:168). Mead believed that only language gave rise to the shared meanings which made actions truly social, because it enabled the perspective-taking known as *"taking the role of the other"* (ibid: 160-1): reflecting on how our actions might be received by another being, and incorporating that knowledge reflexively into our next moves. Animals, he argued, can only engage in a *"conversation of gestures"* (ibid:168), instinctive exchanges that merely trigger an automatic response in another animal[3]. As a result of such beliefs, for much of sociology's history, nonhuman animals have been delegated to the business of the natural sciences, their actions viewed as entirely shaped by a deterministic nature, in contrast to the autonomy and malleability of human culture. This is the "great divide" of modern ontology which still resonates throughout the discipline (Noske, 1997; Nimmo, 2012).

However, the development of new conceptual frameworks in the last two decades, together with a general flourishing of public interest in ecological and zoological issues, has contributed to a greater willingness to engage with nonhuman animals as

[3] Mead's position has lately received some rehabilitation from revised readings of his original papers (Wilkie and McInnon, 2013). However, even if Mead's anthropocentrism has been overstated, Wilkie and McInnon argue that this has been a productive misreading.

social actors, and has helped lay the conceptual groundwork which has paved the way for this study. Below I will sketch out some of the theoretical developments which have made space for this new sociological interest in the lively presence of nonhuman animals in the last ten or fifteen years.

Posthumanism

Posthumanism is a term for a collection of heterogenous approaches which variously challenge the conventional humanist assertion that humans are autonomous from the rest of nature. It argues that late modernity's proliferating ecological and epidemiological crises are a result of the unrestrained pursuit of human ends; and claims that this demonstrates the fundamental and inextricable interdependence of human "culture" and nonhuman "nature". Posthumanism, therefore, questions these very categories[4]. It is concerned with the dissolution of this "modern divide", encouraging the empirical examination of how different forms of life are constituted through multiple relations with others. In Actor Network Theory for example, human life should be understood not as *opposed* to nonhuman nature but constituted *through* our relationships with other animals, ecologies, technologies and objects (Latour, 1998:16). All entities are, therefore, understood as labile assemblages of both human and nonhuman actors, where agency is conceived of not in "humanist" terms of rational, self-reflexive and purposive action, but as "*whatever makes a difference to the other actors*" (Nimmo, 2016a: xxvii). Similarly, subjectivity, instead of being located in individuals, is often understood as being distributed across a network or an assemblage. Indeed, the privileging of subjectivity is often treated with misgivings, since it is viewed as a "humanist" value, shoring up the same modernist logic which conceived of our separation in the first place, and morally deprivileging other life forms whose subjectivities may be more dispersed, unfamiliar, or indeed absent (Wolfe, 2003:41).

Posthumanism has been vital for this project in underscoring and analytically framing the mediated, inherently processual, and indeterminate nature of all life, and for highlighting the dangers and limitations of an exclusive dependence on

[4] It is important to note that posthumanism is a broad category that includes some scholars who do not identify themselves as posthumanist, e.g. Donna Haraway.

individual subjectivity to legitimate the inclusion of nonhumans in social life. It has also been important for my understanding of agency as *relational* in this thesis, in that what emerges as agency should not be understood as an individual or species-specific capacity, but as something entangled with millennia of hybrid becomings, that continue to generate different material conditions of possibility. Agency, then, emerges together with the kinds of activities the environment affords the individual, and the epistemologies deployed to know it (Wemelsfelder, 2005; Hearne, 1986:58).

However, being more influenced by Tim Ingold's assertion that agentic beings are distinguished from objects by a specific capacity of *attention* (2011:94) this project is also guided by conceptual frameworks which more explicitly acknowledge the relevance of sentience. Here, agency is understood as something that may be *felt and experienced* by some living entities, with the potential satisfaction of achievement or frustration of denial, and this is how I usually refer to agency in this project. This is not to place a greater existential *value* on sentient versus non-sentient beings, and nor do I draw a hard line between entities that are sentient and those that are not[5]. But it is to recognise that some entities can qualitatively experience their harm or benefit, something that carries urgent ethical implications given their widespread systematic exploitation. For this reason, this project also owes a debt to reworked notions of symbolic interactionism which, although conceptually limited in some ways, does recognise the significance of this felt experience for social life.

Symbolic interaction in nonhuman animals

Many of the early arguments made for the inclusion of nonhuman animals as social actors challenged Mead's thesis in his own terms, arguing that many animals *are* capable of the symbolic interaction which legitimates their inclusion in sociology's remit, and indeed that some socially transmit these practices in ways that meet conventional definitions of culture. Whilst some scholars draw on examples of animals that have learned to use human language (Irvine, 2004:122; Lestel et al, 2006:161), or of those who use their own complex systems of communication with

[5] I would certainly assume sentience in all mammals and at least some invertebrates, although invertebrates are not currently recognised as sentient in UK law. The recognition of sentience in invertebrates is scientifically, legally and ethically contested, with recent campaigns for the inclusion of at cephalopods and decapod crustaceans into animal sentience laws.

defined vocabularies and rudimentary grammar (Meijer, 2019:60), others have used sociological studies to demonstrate that some animals symbolically interact with their *bodies*, and are capable of taking the role of the human other and adjusting their behaviour in response. Janet and Steven Alger (1997) have argued that cats share collective representations with their owners such as bedtime rituals, places where petting takes place, props to signal play and so on, helping both cat and human assume the perspective of the other, co-define the situation, and adjust their behaviour as a response. They famously extended this to argue for the existence of "cat culture" in a free-roaming cat shelter (2003). Clinton Sanders (2003) takes a similar approach to the example of dog-human-stick play, demonstrating that dogs are able to symbolically appropriate objects for play, "take the role of the other" in their expectations of the human's next move, and communicate alternative, non-threatening meanings of a typically aggressive gesture, like growling.

Whilst these representationalist accounts have been used to argue that dogs and cats have selfhood in the symbolic interactionist model, where Lesley Irvine's work has been helpful has been through her expansion of Mead's model of selfhood towards a more amorphous *"subjective presence"* that makes itself felt and co-shapes the subjectivity of others, including humans (2004a:8). This presence, she argues, is due to a *"core self"*, a *"system of experiences"* that *"allows us to feel and to know"* but does not depend on any form of language (2004:127). Drawing on the work of infant development psychologists like William James, Irvine constructs a model of a "core self" which is pre-verbal and broadly shared by animals and infant humans. She says this must include a sense of *agency*: the ability to pursue action that is self-willed, broadly under one's control, and based on an awareness of having an objective; an understanding *of oneself as a physical whole*; the capacity to *experience affects*; and a *sense of self-history* which helps predict what certain events will mean for oneself (2004:126-145). She uses various examples to argue that dogs or cats possess all these qualities, and she believes that this model will further enable and legitimate empirical studies of human-animal relations.

These post-Meadian approaches to social life have recognised the significance of sentient, self-willed agency; the capacity to feel and experience affects; and the intersubjective nature of human-animal interactions, even if these may be asymmetrically experienced. As a result, sociologists have been able to assert that

social interactions are meaningful for many animals, something which opens up difficult questions of how those experiences may be better understood, and in a wider range of creatures. They have also helped define my terms for the rest of this study. Although I am primarily interested in how my human *participants* define animal being, where *I* use the word "subjectivity", I use it with Irvine's meaning of a *"system of experiences"*, or sentiency, rather than with any more specific implications of self-awareness (the ability to reflect on having a self), or of elaborately pre-meditated intentionality. However, this "core self" does not, in my framework, deny the inescapably shared, fluid and fleeting nature of experience in both human and nonhuman animals, and it is to a conceptual framework that acknowledges this that I will now turn.

Phenomenology: from objectivity to immediacy

The third and final conceptual framework that has been particularly influential in empirical studies of human-animal entanglements is phenomenology, a style of thinking and practice associated with the work of Martin Heidegger, Edmund Husserl and Maurice Merleau-Ponty. Phenomenology emphasises the epistemological significance of the embodied, somatically-felt nature of all experience. Rather than conceive of objects as separate, reified entities, apprehended by a properly dispassionate subject (as in much Western science), phenomenology insists that *all* knowledge is inescapably sensuous and situated: we are *"body-subjects"* (Merleau-Ponty, [1945] 2002), whose experience of the world is primarily pre-reflective. Consciousness is always consciousness *of something*, a relational achievement that emerges through self *and* world in an active reciprocal exchange which is felt and experienced through our intentions towards things: "*aspects of the world 'catch' our attention, beckon us, almost invading our awareness and drawing us into co-presence"* (Dutton, 2012:96). Phenomenology therefore places methodological importance on examining this lived, felt experience - letting things *"speak for themselves"* (Matthews, 2002:73) before attending to more abstract conceptualisations or causal explanations. It also deprivileges language as a form of communication, emphasising the embodied basis of communication, from which language gains its meaning (Dillard-Wright, 2009:58; Merleau-Ponty 1964:43), and it rejects the conventional understanding of subjective experience as interior and "private". Consciousness is *"lived rather than known"* (Merleau-Ponty, 1963:173) and thus is

inherently public (ibid:168). As David Dillard-Wright puts it: *"Thoughts are not formulated first in the mind and then sent to the muscles of the face, but the thought is given with the face, is articulated, even formulated, with the face"* (2009:62).

The significance of phenomenological approaches to the interpretation of animal behaviour is that other subjectivities are understood to be corporeally available to us (even if we may misinterpret them). They resonate through our own bodies with a felt experience of immediacy, making intuition a legitimate form of enquiry (Shapiro, 1997). The embodied basis of language supports the possibility of shared inter-corporeal communication, and the relational way in which meaning emerges challenges the idea that consciousness could simply be projected onto animals because it insists that our very idea of consciousness has been forged through a nonhuman world (Merleau-Ponty, 1963:156).

This style of thinking has been demonstrated in a number of accounts. Diane Dutton argues that "*direct, embodied experience should be central to the effort to understand human and animal nature*" (2012:93). She explores her own experience of intersubjectivity with her cat, and compares it to thematic consistencies in the writings of primatologists like Barbara Smuts and Scott Churchill, in order to try and identify common dynamic, affective experiences of phenomenological contact with animals. She detects three recurring themes: a deep, *embodied attention;* the experience of *becoming attuned* together in an effortless co-responsiveness; and a transformative re-evaluation of beliefs. Meanwhile, Elise Aaltola discusses an approach she calls "empathy", using phenomenology to discredit an "*extreme skepticism*" that denies animal consciousness. *"Empathy"*, she argues, *"acts as a perceptive tool"* (2013: 460). Intuitive feelings of certainty should be the epistemological conduit here, where "*the experiences of others are grasped in an embodied, affective fashion, beyond doubt*" (2013:462). Kenneth Shapiro too speaks of the *"kinaesthetic empathy"* he practiced during a study of his dog Sabaka's lifeworld (1997), as a way of cultivating an *immediacy* of perception of the animal's feelings or intentions, justified through a phenomenological appeal to the way that we also "grasp" the world in a felt, embodied sense as we observe it. In this way, Shapiro argues, we are *"radically in touch with, immediately over at things"* (1997:280), including other animals. Shapiro defines empathy, intriguingly, as a process of the *forgetting of self:* "*a moment in which I, if only focally, forget myself and directly sense what you [the animal] are experiencing"*

(ibid). He goes on to problematize the fleetingness of this moment, punctuated as it is with doubt and the default return of self-consciousness.

The intertwining contributions of posthumanism, symbolic interactionism and phenomenology have, in different ways, shaped the emergence of a relatively new methodological approach in sociology whose possibilities and problems have inspired this study: multi-species ethnography. In what follows I will describe why this ethnographic approach is increasingly being both embraced and critically interrogated.

Multi-species ethnography

The increasing acceptance of the idea that nonhuman animals matter to sociology in their lively presence, either because they co-constitute different assemblages of social life or because they participate socially with humans in meaningful ways, has led to increasing enthusiasm for qualitative, interpretive, empirical methods to investigate how this takes place. Facilitated by convergences of work in environmental studies, Science and Technology Studies, posthumanism and the corporeal and affective turn, Human-Animal Studies (HAS) is emerging as a distinct interdisciplinary community of scholars dedicated to growing the field. More and more of these scholars claim to be conducting what is variously known as *"multi-species ethnography"* (Kirksey and Helmreich, 2010), *"human-animal ethnography"* (Hamilton and Taylor, 2017), *"more-than-human geography"* (Whatmore, 2006), *"etho-ethnology and ethno-ethology"* (Lestel et al, 2006), or more narrowly, *"ethnoelephantology"* (Locke, 2013). What I will refer to here as *multi-species ethnography* can be broadly divided into two strands. The first draws heavily on posthumanist theories as described above, and cultivates attention to the myriad of ways in which diverse forms of life – human, zoological, but also vegetable, mineral and even viral - are constituted through multiple relations with others in mutually transformative assemblages, sometimes across vast diasporas (van Dooren and Rose, 2016; Ogden et al, 2013).

The second kind, with which this thesis is primarily concerned, has a more exclusively human-zoological focus, is more concerned with questions of intersubjectivity, and tends to be narrowed to specific *"contact zones"* (Haraway, 2008:216) of encounter, such as animal shelters or farms. Some use multi-species

ethnography as an ethical tool for investigating how power is invested in routine micro-social interactions in which animals "voices" may be silenced, and their agency denied (Hamilton and Taylor, 2017; Gillespie, 2019:1; Birke, 2014: 84). Other studies might examine how spaces and practices are co-produced by animals' actions, how anthropocentric environments shape animals' bodies and movements (Buller 2014:6), or how people are affected by the presence of animals (Hamilton, 2012:15; Dutton, 2012:106). Such approaches tend to assume the presence of subjective experience, however defined. It acknowledges that many animal actors interpret their world, anticipate the responses of others and act meaningfully as a result. It entails writing and speaking about them in terms of emotions, intentionality and awareness.

Yet, as many of these authors themselves note, to actually do this in practice poses significant methodological and ethical difficulties, balancing attention to the agency of the animals concerned with the wishes and expectations of human participants (Cudworth, 2018; Birke, 2014). Moreover, confident interpretations of animal behaviour may be very difficult to make. Colin Jerolmack argues that an intersubjective interaction with *shared meanings*, such as play, may be difficult to distinguish from an encounter composed of highly *asymmetric intentions* and experiences, that nonetheless still "works" and appears smooth. He argues that:

…investigations should probably focus less on unverifiable speculations about the inner lives of animals and examine instead what is knowable about human-animal interactions and the significance that humans attribute to them. (Jerolmack, 2009: 660).

Anthropologist Matthew Watson (2016) questions whether multi-species ethnography is truly taking place, or whether the term merely adds a fashionable interspecies gloss to otherwise wholly anthropocentric concerns. Raymond Madden (2014), more sympathetically, notes the dearth of investigation into how to actually practice multi-species ethnography in situ. He points out the inherent fragility of intersubjective encounters, the professional duty to try and do them justice, and the difficulty of capturing meaning with any degree of accuracy or verifiability even in *inter-human* exchanges, let alone with animals.

All of the critiques above share the deployment of one accusative concept: "anthropomorphism" (Jerolmack, 2009:380; Watson, 2016:168). For example, Madden writes:

I wonder if such ethnographies are continuing to wrestle with the "problem" of anthropomorphism, allowing us to appreciate what it is like for a human to be a cat rather than what it is like for a cat to be a cat. (2014:281).

There is a risk, he says, that ethnographers erase alterity from their accounts and "*write fantastic animals as they want them to be, rather than what they might (intangibly) be*" (ibid).

Below, I will explore what is meant by "anthropomorphism", both in order to clearly unpack the concept with which critical anthromorphism is in dialogue, but also because it is the orientating concept around which HAS scholars navigate their position on the continuity-discontinuity scale. I show that its emergence as a popular term grew along with some formative, historical debates in the natural sciences whose legacy is still with us today. I will then explain its partial rehabilitation as a concept in sociology.

Anthropomorphism

The Oxford dictionary defines anthropomorphism ("anthros" - man, "morphos" - form) as *"the attribution of human characteristics or behaviour to a god, animal, or object"* (Oxford Dictionary, 2016), arguably a far from intuitive set of comparisons (Midgely, 1983:125). The first recorded use is by Xenophanes in 570 BC, who castigated Homer for attributing human forms and character traits to the gods (De Waal, 1999: 256). Later appearing in medieval and early modern Christian texts, its use appears to be confined to the attribution of human traits to either angels or God, which was banned by a 1277 decree (Daston, 2005). Its first application was, therefore, as an accusation of blasphemy, scoring an indignant boundary between the humans of the earth and the omnipotent presences of the ether.

However, the attitudes which would underpin its later application to nonhuman animals, particularly as a form of extreme scepticism which would deny animal consciousness, would be instilled during the Scientific Revolution. Indeed, the early formation of this period is almost dependent on a sceptical attitude to animal

consciousness, whose "*modern divide*" (Latour, 1993) assigned nature the status of inert matter to be investigated, indeed dominated, through the application of human reason. Enthusiastic empiricists like Francis Bacon sought to distance themselves from what they saw as the superstitious and parochial personification of nature, with its personified winds and climatic expressions of divine intent, and sought new explanations which challenged the doxa. Thus "*the default assumption that other species thought and felt as humans did seemed lazy, a failure of scientific ingenuity to formulate and test alternative hypotheses*" (Daston and Mitman, 2005:3). The philosopher René Descartes, reflecting on the nature of consciousness, influentially came to the conclusion that "*there is no prejudice to which we are all more accustomed from our earliest years than the belief that dumb animals think*" ([1641] 1981:243). He argued that whilst both humans and animals depended on a mechanistic corporeality, only humans had conscious awareness because only they possessed a linguistic style of thinking that gave them a rational soul. In contrast, animal behaviour, he believed, "*could all originate from the corporeal and mechanical principle*" (ibid). There were challenges to this assessment from fellow Enlightenment philosophers, most notably Voltaire, but in an age of vigorous new biological experimentation on live animals, the Cartesian view held sway.

The 19th century brought significant challenges to the mechanistic interpretation of animals. Whilst Charles Darwin's 1859 *Origin of Species* seemed cautious about making a potentially heretical claim about biological continuity between humans and other animals, by the time of his 1871 *The Descent of Man and Selection in Relation to Sex*, Darwin was claiming that there were "*no fundamental differences between man and the higher mammals in their mental faculties*" ([1871] 2004:86), although he also claimed that those differences could be immense in degree. His third book, *The Expression of the Emotions in Man and Animals* in 1872 was a detailed pictorial and discursive demonstration of the extent of this continuity. As Eileen Crist has argued, the tensions and debates created by this dual legacy of Cartesian and Darwinian approaches have resonated right through the 20th century and the establishment of animal behaviour disciplines.

Darwin never used the term anthropomorphism, at least not in his writing. It is believed to be George Herbert Lewes who first extended the use of the term to animals in 1858, the same year that Darwin had begun to present the theories that

would become *Origins.* Lewes's study of molluscs led him to believe that they had only a very simple ability to distinguish light from dark and wrote of the "anthropomorphism" of calling it "vision". He wrote:

...we are incessantly at fault in our tendency to anthropomorphise, a tendency which causes us to interpret the actions of animals according to the analogies of human nature. (1860:385, cited in Wynne, 2007:126).

The term anthropomorphism is usually deployed in this pejorative sense, to describe not the mere attribution of human traits, so-conceived, but the *misattribution* of such traits. Mitchell (2005:102) describes three common uses of the concept. The first is its accusation of a category mistake – that humans are so distinct from other animals that to speak of dogs feeling "shame" "*is to speak of a Bach Sonata as purple*". The second is its use to describe an *overestimation* of the similarity between humans and other animals. The third is to describe *all* human knowledge of the world, since all perception is mediated by human senses, frameworks and languages. There have been strident criticisms of knowledge practices which are seen to "anthropomorphise" in the first two senses of the word, particularly in the natural sciences, and most notably from John Kennedy (1992), Clive Wynne (2007) and Marian Dawkins (2012), and the term is used widely as a criticism of lay perspectives across popular scientific writing.

On the other hand, the biological and zoological sciences themselves have provided a wealth of evidence for the continuity of mental traits across species. As Marc Bekoff writes:

When we carefully parse the criteria that have been frequently used to separate "us" from "them"—tool use, language, art, culture, feelings, consciousness—we find ourselves on thin ice, for none shows that we represent some sort of evolutionary discontinuity. (2004:xi).

As a result, a core band of ethologists now confidently and publicly advocate for the richness of many animals' social and emotional lives and hence the appropriateness of making assumptions that would hitherto have been judged "anthropomorphic", most notably Marc Bekoff (2007), Jonathan Balcombe (2007), and Frans de Waal (2016).

This has been accompanied by criticism of the way in which the term "anthropomorphism" is typically used. Philosophers Mary Midgely (1983:182) and John Andrew Fisher (1991:51) argue that the accusation more frequently seeks to shut down debate rather than evaluate a particular claim, and that it is not enough to note that such qualities belong to people and ergo are erroneously applied to animals. One must explain what exactly is undue about the comparison. Others point out that the converse error, what primatologist Frans De Waal calls "*anthropodenial*", or the "*postulation of differences where none may exist*" (1999:258), has no ready name in the scientific literature and rarely forms part of a routine critique. Part of this, Elliot Sober argues, is an affective bias on the part of scientists whose professional culture has historically valued the expungement of emotion and empathy from their practice:

The type 1 error (anthropomorphism) is associated with "tenderheartedness", whereas the type-2 error of mistaken anthropodenial is supposed to reveal a kind of tough-mindedness. It's a strength, not a weakness, to resist the pull of sentimental attachment to a pet's mental states. (2005:86).

Sociologists have joined the critique by examining what it is that the charge of anthropomorphism *does*, with Pamela Asquith (1997) pointing to the social construction of what are perceived as essentially "human" traits, differing across time and locale. Nina Varsava borrows Bruno Latour's claim that the accusation of "anthropomorphism" is *generative* as well as descriptive - the Greek can imply *giving* shape to humans as well as *having* human shape (Latour, 2008:160). She therefore argues that the term anthropomorphism is, in fact, *"anthropogenic"* - it simultaneously constructs the human in its assignation of the unique traits that fundamentally belong to homo sapiens, and then implies the *projection* of those traits onto other species; rather than acknowledging that some traits may be shared. In so doing, it produces the human-animal boundary within an ethical code that serves human interests, argues Varsava (2014).

As a result of these critical analyses, there has been something of a positive reclamation in sociology, not only of the "continuity thesis" more broadly, but of the term "anthropomorphism" as a way to assert the legitimacy of qualitative interpretations of animals' behaviour (Crist, 1999:203; Shapiro, 1997:294; Arluke and

Sanders, 1996:49-50). Nik Taylor (2011) argues that "anthropomorphism" usefully blurs modern dualist divisions between nonhuman and human animals, attributes agency and intentionality to nonhuman animals, and therefore challenges anthropocentrism. The philosopher and animal trainer Vicki Hearne thought that whilst "anthropomorphic" perceptions and language could be naïve, that "anthropomorphism" was what enabled animal trainers to deal with the behavioural problems of animals that the university philosophers could not (1986:6). Against Ludwig Wittgenstein's famous aphorism that *"if a lion was to speak, we would not understand him"*, Hearne argued that lions *do* speak to some people, such as animal trainers, through a skilled embodied exchange and via what she terms an "*overlap of consciousness*" (1994:171). Meanwhile Lesley Irvine argues that "anthropomorphism" is useful because it is contextual, containing information not just about the physiological presentation of the animal but of the situation and the animal's own history (2004:69).

The continuity thesis, then, and the accompanying concept of "anthropomorphism" would seem to hold sway in human-animal studies, for the way it is purported to acknowledge animal subjectivity, question human superiority, facilitate human-animal interaction and account for contextual nuances. This is not quite the case though, because in recent years authors from within human-animal studies have begun to question whether a focus on shared subjectivities, entanglements and empathy has its ethical and methodological limitations.

The significance of distance and detachment

Whilst not disputing the relevance of continuity thesis as a whole, and often sharing many of the criticisms of the word "anthropomorphism", there has in the last few years been increased questioning of the widespread assumption that the dissolution of boundaries and the assertion of similarities represent more ethically satisfactory accounts of human-animal relations (Latimer, 2013; Giraud, 2019). Some critiques have originated from posthumanist approaches which problematise "anthropomorphic" notions where *"the human is the standard against which all other life is measured*" (Varsava: 2014:521). However, the critique has broadened out from negative assessments of the continuity thesis towards more positive endorsements of detachment and alterity, and the role that a deliberate cultivation of unknowability

and uncertainty might play in respecting other animals and in better understanding our relationship with them.

Ethnographic exploration of this subject matter has been fruitfully conducted by Matei Candea, who has argued that there is insufficient attention to how detachment may be situated, multiple and even form the condition of possibility for entanglement (Candea et al, 2015). His work on the Kalahari Meerkat Project in South Africa has tended to emphasise how engagement and detachment are mutually dependent. For example, his studies of the "*habituation*" training of new volunteers to the meerkat research reserve show that while the process of habituating the meerkats to the presence of the volunteers is highly relational and co-attuned, its result is not an interspecies sociality, as is often described in primatological studies (Rees, 2007), but what he calls *"inter-patience"*, a relaxed toleration of co-presence that paradoxically results in the meerkats all but ignoring the volunteers (Candea, 2010:249). In turn this enables, he argues, the production of data that will later become the highly sentimentalised *Meerkat Manor* television docu-soap. He believes it is time to abandon what he sees as a moralised polarisation of *"entanglement"* against *"detachment"* in knowledge production.

Richie Nimmo, however, problematises the desire to know in and of itself, and argues that the assumption of human-animal continuity in sociology's reclamation of the term "anthropomorphism", however nuanced its framing, is not the only or best basis of an ethical relation. Drawing on the work of Jacques Derrida (1999;2000) and Emmanuel Levinas (1969), who variously argue that the only ethical response to alterity is not to render it more familiar but to accept it as necessarily total and immutable, he suggests that the impulse to draw animals closer to justify their inclusion in the social and moral community risks a kind of "*ontological narcissism*" with the accompanying "*colonization of difference and the erasure of alterity*" (2016:2). Knowledge of animals, he argues, is never neutral, but performative and enacting of human-animal relationships; and that rendering animals increasingly transparent through our knowledge of them has been associated with a shallower appreciation of their significance, presence and power (Berger, 2009). Arguing that ignorance is differentiated, and that Cartesian skepticism should be distinguished from mere humility (2018), he suggests that we should "*decentre the will to knowledge*" (ibid) and become "*comfortable with degrees of unknowing*" (2016:26). He suggests that a sense of wonder and awe might replace a more avaricious desire to know, and proposes a

"liminal intimacy" as the foundation of a more ethical relationship with nonhumans, "*in which animals are both like and unlike, present yet always partially absent, familiar yet unknowable, near to yet far away*" (ibid:18).

These appeals for more consideration of alterity, detachment, and uncertainty have productively problematised claims that the only ethical way to recognise non-human animals' significance to social life is to draw them closer into the human community. Instead, they demonstrate how the continuity thesis can result in a lack of respect for alterity and unknowability. They open up new empirical questions for multi-species ethnography in terms of the relationship between detachment and entanglement. And they challenge the phenomenological assumption that paying attention results in empathetic intersubjectivity: an *"interpatient"* toleration may be all. Methodologically, this seems to demand much more reflexive and attentive research than in the search for continuities and entanglements in the major conceptual frameworks outlined at the beginning of this chapter, or in the positive endorsement of "anthropomorphism" as a method.

One approach to this, as Nimmo's work suggests, is to think very carefully about how all knowledge practices, including multi-species ethnography, enact and co-produce animal behaviour and the human-animal relationship. It is certainly necessary to consider whether one's research generates more parochial, transparent, dependent and familiar creatures; and whose interests that knowledge and relationship serves. I will return to these questions in the methodology.

The other approach is a solution increasingly proposed by scholars in human-animal studies as a way of combining so-called "anthropomorphic" approaches with the recognition of alterity and the value of distanced detachment. As James Serpell puts it, there may be *"special skills"* which help us more fully appreciate a species-specific reality:

It is not, of course, impossible for a person to identify with and appreciate the "dog-ness" of dogs or the "cat-ness" of cats, but in most cases these are special skills that need to be learned. Anthropomorphism in contrast, tends to come naturally. (2005:128).

The possibility of identifying alterity and the "animal-ness of the animal" whilst also allowing humans to relate to them qualitatively is often summarised in a concept known as "critical anthropomorphism". In the next section I will suggest that critical

anthropomorphism, despite its conceptual baggage, is a useful heuristic concept from which to interrogate these various dances of proximity and distance.

Critical anthropomorphism

Whilst earlier writers tended to defend anthropomorphism in its entirely, most human-animal studies scholars are now careful to qualify their defence of anthropomorphism by distancing themselves from a *"sentimental"* (Irvine, 2004:73) or *"anthropocentric"* (De Waal, 1999) anthropomorphism, which disregards the species-specific framework of the animal's reality and/or serves the interests of the attributer. In this vein, many have embraced the more qualified spin on anthropomorphism, emerging from ethology, known as *"critical anthropomorphism"* (Irvine, 2004: 69; Arluke and Sanders, 1996:80; Karlsson, 2011; Dutton, 2012:95, Hodgetts and Lorimer, 2018:12; Greenhough and Roe, 2011:54-55). Critical anthropomorphism is thought to move an interpretation away from an anthropocentric perspective and closer towards an animal's species-specific lifeworld, *"recognising both the affinities and the differences"* with humans, as Hodgetts and Lorimer (2018:12) put it.

The term "critical anthropomorphism" was originally proposed in 1991 by the ethologist Gordon Burghardt, who identified what he called a *"perennial battle"* in ethology between the mechanistic reductionists and those with more qualitative methods. Seeking to legitimate a more interpretive style within animal behaviour science, he found inspiration in phenomenology, the turn to "critical realism" in epistemology, and the emergence of holistic ideas about health and ecology. He writes:

I have advocated the use of a critical anthropomorphism in which various sources of information are used including: natural history, our perceptions, intuitions, feelings, careful behavior descriptions, identifying with the animal, optimisation models, previous studies and so forth in order to generate ideas that may prove useful in gaining an understanding. (Burghardt, 1991:73).

Burghardt justified this methodology by arguing, akin to phenomenology, that more "objective" research projects were always based on a priori theories and more common-sense interpretations of the world. It was scientists like Konrad Lorenz or

Jacob Von Uexküll who let themselves be imaginatively speculative, he said, that led to some of the greatest scientific breakthroughs, although he also argued that objective empiricism should test and restrain their theories. He thought that by relying on mechanistic, technical language to do the work of "objectivity", but then failing to pay sufficient attention to the theories or assumptions that they began with, scientists ironically risk becoming *more* anthropomorphic (Rivas and Burghardt, 2002).

The phrase "critical anthropomorphism" did not fall into widespread use in ethology. However, in HAS, the concept is gaining a rapid revival, albeit with a reversal of emphasis: taking for granted the legitimacy of interpretive "anthropomorphism" whilst highlighting a greater need to be "critical". It is Lesley Irvine who has expanded the most on critical anthropomorphism's potential, arguing that its respect for the animal's physiology, natural history and perceptual capacities represents a *"middle ground"* (2004:69) between the continuity and discontinuity theses. She makes the substantial claim that its *"informed, systematic"* approach is to *animal* sociology what Weber's *verstehen* perspective is to *human* sociology, enabling an understanding of how animals' actions are imbued with subjective meanings (ibid:69). The aim should be, she says, to develop what she calls "animal capital": a stock of scientific knowledge about animal behaviour and health, combined with an active interest in their inner lives, an understanding of their biography and a reflexive awareness of one's own socially constructed concepts (following Shapiro, 1997). Contra Nimmo, who sees critical anthropomorphism as valuable but notes that it still attempts to render animals' subjectivities familiar (2016:11), Irvine argues that this is the source of its ethical potential, challenging anthropocentrism with the potential for *communication and cooperation* that she believes a recognition of shared meanings and experiences opens up.

The practice of critical anthropomorphism, then, is promoted by some as a way to resolve some of the criticisms of attempts to legitimise multi-species ethnography, preserving the acceptability of "anthropomorphic", qualitative approaches whilst bringing in zoological knowledge borrowed from the natural sciences and some critical reflexivity on the socially constructed assumptions of the researcher. All of this in some way represents the attempt to cross the species boundary, to produce the animal-in-itself in all its species-specific and individual alterity, using not

objectivism, but interpretivism. This is an alterity that becomes *knowable* through translation, however; not one that is absolute and immutably Other.

Doing this might mean acquiring some of the "special skills" that Serpell argued raised the investigator above "anthropomorphism" and produced the *"dog-ness of dogs or the cat-ness of cats"* (2005:128). And yet to date, whilst there have been *historical* accounts of the difficulties of combining interpretive practice with scientific standards (Rees, 2007;2017), no-one has yet produced a contemporary account of a critically anthropomorphic method as a properly evaluative study, as this project will do. I believe that this will be an important contribution to knowledge, since one can see the tensions, as well as the possibilities that might arise from drawing together very different knowledge practices or engaging in extensive, phenomenological self-questioning. "Middle grounds" are easy to claim but hard to cohere and defend. How can difference be disentangled from similarity, or human from animal? How might conflicting interpretations be resolved? How can this *new* boundary between "sentimental" and "critical" anthropomorphism itself be navigated? These are some of the questions my project will seek to address.

In the remainder of this chapter I show that critical anthropomorphism is exemplified in the literature in two major ways which deserve closer interrogation. The first is via the incorporation of animal behaviour expertise from the natural sciences; and the second is through the disciplined phenomenological practices implied, for example, in accounts of the importance of "attention".

Critical anthropomorphism and animal behaviour science

A growing number of critical reflections on multi-species ethnography insist upon the importance of bridging modern epistemological and disciplinary divisions to engage with biological accounts of animal behaviour. The aim is to help develop an appreciation of the species-specific lifeworlds of the kinds of animals under question (Madden, 2014;290; Watson, 2016:166; Taylor, 2011:277; Irvine, 2004:65-6; Cudworth, 201::499; Lorimer et al, 2017:8; Lestel et al, 2006; Buller, 2014:7). As Erica Cudworth puts it: *"I see cross-disciplinary practices as vital in decentring the 'anthropos' from our 'ology', the human from our methods*" (2018:499).

And yet, whilst there is a growing demand more generally for sociology to relinquish what John Bone (2009) calls its "biophobia", it is nonetheless true that the

natural and social sciences continue to operate under very different paradigms. The natural sciences have, historically, often been criticised by sociologists for reductionism, unsustainable claims to "objectivity" and positivism, and scientific practices of animal behaviour have also been criticised in this vein (Noske, 1997; Birke, 1994; Lestel, 2011). Lynda Birke (2014:75) reminds us that most scientific investigations of animal behaviour are worked through practices of detachment from the animals themselves, and that the scientific method's doctrinal atomism, typically isolating and interrogating one small, specific, de-contextualised feature of an animal's behaviour, can obscure important circumstantial details of that individual's actions. For these reasons, drawing unreflexively on "ethology" without sufficient reflection on the social constructions, assumptions and methodologies of this particular strand of thinking risks importing a whole set of values and presumptions into one's sociological practice, and, furthermore, doing so in a way which carries significant authority (Rees, 2017:148).

Broadly speaking, animal behaviour science post-Darwin has been influenced by two dominant schools of thought. The emergence of a field from America known as *behaviourism* will be explained in more detail in Chapter 3, but it was to institute the first real break away from the emergent scientific study of animal consciousness. First proposed in 1913 by psychologist John B Watson, behaviourism disputed the scientific relevance (and sometimes the existence) of conscious states in both humans and animals – everything could be described in terms of physical motion and activity, even in the tiniest muscular or neural movements. For this reason, it argued that only directly observable behaviour should be used to explain what animals do, and that subjective conscious experience should be disregarded, as it was considered private and invisible. Behaviourism primarily studied animals in laboratory experiments, often using food withdrawal or even electric shocks as an incentive to engage animals in different tasks. It was profoundly influential on generations of animal behaviour scientists right up into the 1990s.

However, another tradition was emerging in Europe in the 1920s which challenged behaviourism's additional claim that lifetime learning was largely responsible for behaviour. *Ethology* was inspired by the German biologist Jakob von Uexküll, whose theories of differential species perception have been profoundly influential across many disciplines. Uexküll argued that whilst it may seem that all animals are acting

in the same world, that in fact each species only perceived a selective, relevant portion of their environment, a sensory-perceptual world that he termed the animal's *unwelt*. He conceived of this as a *"bubble"* "*which contains all the features accessible to the subject*" ([1934] 2010:43). Uexküll's ideas influenced the establishment of the new discipline of ethology. Ethologists were primarily interested in the evolutionary functions of species-specific life-cycles, communication and behaviour. Most crucially, they sought to understand animal behaviour not in laboratory studies, but in the environments to which they were adapted. Niko Tinbergen and Konrad Lorenz are credited with the development of ethology as a discipline, and initially it shared similar attitudes to behaviourism about the relevance of animal minds. However, in the 1970s Donald Griffin founded the field of *cognitive* ethology (Griffin,1976). Griffin asserted that cognitive activity was concomitant with consciousness in animals, arguing that "*nature might find it more efficient to endow life-forms with a bit of awareness, rather than attempting to hardwire every animal for every conceivable eventuality" (*q.i Balcombe, 2007:28*)*. Griffin's theories remained controversial but his work proved liberating for the field (DeWaal, 2016:23), and a rapid expansion of field-based studies followed, including qualitative, ethnographic studies of primates (Rees, 2007:2017).

However, between these two schools of thought, there is considerable variation, whereby animal subjectivities are shaped by different assemblages of knowledge, resonating with different epistemological possibilities and limitations (Bock and Buller, 2013:393). Each school of thought has its own language, its own socio-political drivers, methodologies, assumptions, and access to resources. It is for this reason that Karin Knorr-Cetina (1999:2), refers to different scientific *"epistemic cultures"*, dynamic and processual patterns of knowledge-in-action, composed of both formal and tacit practices that yield different *"textures"* of knowledge. Thus, different epistemic cultures will co-produce animal subjectivities in different ways (Shapiro, 1997:282; Irvine, 2004:71; Nimmo, 2012:174). And so, should a sociologist draw on comparative psychology, which conducts laboratory-based animal experiments for the purpose of understanding human behaviour, or socio-biology, which conducts controlled experiments in the field and is concerned with the explanatory value of survival mechanisms? The austere ethology in the classical tradition of Tinbergen which deliberately abstains on the question of animal consciousness looks very different to the contemporary *"hedonic ethology"* of Jonathan Balcombe (2007) with

his insistence that nature is full of joy. Animal welfare's "sentience science", which infers animals' felt experiences under particular husbandry conditions (Proctor, 2012) and has close links with animal welfare organisations is very different to the behaviourist-inflected animal welfare science of Marian Dawkins (2012) who insists that that arguments for animal welfare should be made primarily in terms of human benefit. One can find support for any position if one looks hard enough.

What this section has demonstrated is that if sociologists, inspired by the idea of "critical anthropomorphism", wish to borrow from the natural sciences, then it is important to be able to be aware of paradigmatic differences and to be critical and reflexive about the knowledge that is appropriated from another discipline. The purported richness or poverty of animal experience (or even its perceived existence) varies widely. Picking one's way through these epistemological ecologies, different conceptions of humanity and animality emerge, making some configurations of the human-animal relationship possible and others inconceivable (Nimmo, 2012:174). I suggest, therefore, that a study of a "critically anthropomorphic" practice, which enrols science as its corrective framework, would be helpful: both for a methodological illumination of the possibilities and challenges involved, but also in the service of a better understanding of the wider socio-material implications of animal behaviour science.

In the following section I look at the second way in which critical anthropomorphism typically emerges in the literature: through the psycho-somatic disciplining of phenomenological practice.

Critical anthropomorphism in phenomenological accounts of animal behaviour

A more subtle way in which critical anthropomorphism is implied in the literature is through phenomenological practices which assert the importance of fostering or mediating "empathy" with certain forms of discipline. This is less common, but raises intriguing methodological questions. Elise Aaltola, for example, acknowledges that *"anthropocentric or anthropomorphic hallucinations"* (2013:464) may result from cultivating the kind of immediacy that empathy requires. She rejects objectivity as a solution, however:

What is required (…) is an epistemological shift from objectivity toward immediacy. The practical implication of doing so is that, yes, empathy can lead to anthropomorphic projections, just as it can spark accurate perceptions of animal experiences. Yet, this does not mean that empathy ought to be forsaken; rather, a step beyond this problem is required (ibid).

This *"step"*, she argues, lies in the cultivation of attention. Her notion of attentiveness comes from the philosopher Simone Weil, who argues that the apprehension of "truth" requires a certain *forgetting of self: "that attention which is so full that the 'I' disappears"* (Weil, 2002:118; cited in Aaltola, 2013:464). This notion of the *"forgetting of self"* is common not only to all the phenomenological accounts of *becoming-with* other animals that I described in the first half of this chapter, but also to the accounts of some field experts who have spent a long time in the field with animal communities. These include primatologist Barbara Smuts, who talks about how over many months spent with the baboons she "*relinquished her separate self*" (2001:300) and as a result achieved highly nuanced understandings of the right time to move before a storm; and also the account of the naturalist Joe Hutto, whose five months raising and living with wild turkeys in the flatwoods of North Florida led him to describe experiences of altered states of consciousness for hours at a time, whereby "*I am overcome by the distinct realisation that I am sharing a singular experience with these wild creatures. I feel as if I am seeing the world through their eyes*" (1995:198).

For Aaltola, Weil's mode of self-consuming attention is achieved thus:

It is enabled by letting go of all effort and of allowing the obvious to emerge from behind our attempts to make sense of the world. In particular, one is to let go of self-serving, self-directed conceptualizations (…) *Thus, anthropocentric and anthropomorphic ramifications may be set aside by truly placing one's attention on the animal—exclusive of self-interest and obvious cultural preconceptions (…).*

Aaltola insists that this is not about trying to achieve objectivity or neutrality, but simply about placing the animal as the proper reference point of enquiry. Whilst Shapiro talks about the importance of intellectually interrogating one's own cultural preconceptions of, for example, what a "dog" is, Aaltola talks about *"releasing"* this rather than simply taking it into account, and extends it to *emotional* and self awareness.

Indeed, in all of these accounts, there is a noticeable problematisation of analytical forms of enquiry in situ (Aaltola, 2013:462; Game, 2001:9-10; see also Hutto, 2014:198; Smuts, 2001:299). Diane Dutton, for example, argues that the shift into *"shared somatic awareness"* "*signifies the suspension of a more self-conscious abstract mode of thought, and a movement into a more incarnate, embodied awareness*" (2012:100), whilst Aaltola argues that:

Within empathy there is no inference, verification, detachment, or logical analysis—indeed, when these take place, we may become removed from empathic perception for the simple reason that immediacy is lost. (2013:462).

Finally, Ann Game's chronicle of her experience of training her horse K.P back to health after an acute paralysis of her back legs, describes the consequences when empathy, or an understanding of what it is like to be "in another's shoes", is replaced by sympathy, that is, feelings of sorrow or pity that do not require the same. *Sympathy* with her horse's faltering hindquarters, she says, paradoxically *inhibited* empathy, preventing her from having the strength to help KP *become-with-her* into a well horse who could canter again with a rider on her back. When she identified too much with the horse's injury both collapsed:

…my initial cautious response was not one of true sympathy. The protectiveness I felt was more likely to be self-protection, a consequence of self-identificaiton. And identification is clearly inappropriate in these circumstances, for it involves being too close, too attached to be with the other and feel what they need. When I identify with you, your situation becomes mine: closed up in separateness, I thus lose the capacity for the other to be called up in myself. (2001:7).

Instead of anxiously stopping her own ride every time KP faltered, she found had to amplify an imaginative feel for the canter in her own body to help K.P rediscover hers. It suggests that there is something problematic in an empathy which becomes identified with self since it forecloses the imagination. *"Rather than identification then", she says, "true sympathy involves a fearless capacity for otherness and difference…a non-attached holding of self and other." (ibid:7).*

These prerequisites to phenomenological, inter-corporeal inquiry can, in their own way, be considered "critical" checks to prevent over-liberal interpretations. They are intriguing, yet puzzling, since there is very little discussion in these accounts of how these subtle, emotional-attentional states are to be achieved. And it is surely problematic, from a sociological point of view, to talk about the placing aside of cultural preconceptions or analytic enquiry, when much of sociological study emphasises the situated nature of *all* knowledge (Haraway, 1988). Likewise, separating empathetic imagination from sympathetic identification might also be very difficult to achieve, involving substantial self-awareness and emotional reflexivity, even if it was desirable. It is difficult to see how multi-species ethnographers might learn methodology from these examples.

And yet these recurrent themes terms clearly refer to experiences that are meaningful to the authors, including those with significant professional animal expertise, suggesting they should be taken seriously. It is here, also, that my training in professional acting techniques, contemporary dance, yoga and Buddhist meditation practices is useful, because it tells me there are parallel *"somatic modes of attention"* (Csordas, 1993) dedicated explicitly to developing attention, a heightened sense of immediacy, the forgetting of self, the placing aside of ruminative mindsets and the dangers of emotional over-attachments, for example, as is found in the practical actor's training of Sanford Meisner or Constantin Stanislavski. This has helped me understand the shape of some of these somatically-felt experiences, but also the difficulty of attaining them, and the discipline and practice needed to develop them as reliable tools. Therefore, I believe that what can seem like somewhat blithe and rhapsodic claims to have achieved extra-ordinary states of consciousness are worth taking seriously and investigating.

Existing studies of critical anthropomorphism

In the above, I have suggested that "critical anthropomorphism", an intriguing idea but a potentially challenging practice, is represented in two principle ways in the literature on multi-species ethnography. The first is through engagement with the zoological sciences, and the second is through phenomenological, psycho-somatic disciplining. Both of these methods raise significant epistemological and methodological questions. I suggest, therefore, that an ethnographic study of critical

anthropomorphism as practiced by professional experts in animal behaviour expertise, could help illuminate some of its methodological and socio-political features.

There have been few, if any, empirical investigations of the practice of critical anthropomorphism, especially where the qualitative, "anthropomorphic" element is taken seriously. Most of the limited studies of animal behaviour expertise tend to focus either on scientific practices, with any qualitative practice framed as a deviation from orthodox professional accounts, or on amateur practices of companion animal care. Studies of stockmanship, which typically blend a qualitative feel for the animal with some scientific education, come closer (e.g. Hamilton and Taylor 2013). The work of Vinciane Despret, however, described by Buchanan (2015:18) as *"the ethologist of ethologists"*, has been one of the important sources of inspiration for this study because of her interest in animal behaviour scientists who do two, interrelated things. Firstly, she is intrigued by those that exercise what she calls *"affected perspectives"*, who allow themselves to be corporeally and emotionally affected by animals; and secondly those who allow the animals to demonstrate *"what matters"* to them (2004; 2010; 2013) through more open-ended approaches, rather than insisting animals either confirm or deny a hypothesis. Her work has also been important for its "ontological politics" (Mol,1999, see Chapter 2), in that she argues that the animal is not merely a passive text to be read, but is transformed by the experimental conditions and the questions asked of it, rendering animals literally more or less clever, or sociable, for example (2004; 2013), and transforming humans in return. In this way, knowledge is performative, it *enacts and produces* certain human-animal relations. However, whilst she has conducted some ethnographic studies in the 1990s about which she still writes (e.g. 2013), her work is otherwise documentary and/or historical.

Matei Candea's contemporary South African meerkat ethnographies (2010; 2013) described earlier, have influenced my research because he makes a persuasive case that detachment and distance are not undifferentiated, but various; and should not be seen as Other to empathy and sociality but are often inextricably entangled with it. They also elucidate how this expertise produces popular mediums of engagement with, and understandings of, animal subjectivity through television programmes and website content. Again, however, his work is with socio-biologists whose

qualitative practices are largely either repressed, or treated as a necessary but inferior precondition for the real, objectivist business of discovering survival mechanisms.

Amanda Rees' historical studies of ethology and primatology from the 1960s onwards have also been helpful for their modelling of the tensions and co-dependencies of different kinds of knowledge. For example, she shows how ethologists navigated their position between so-called *"parsimonious"* denials of consciousness and *"teleological"* declarations of intentionality in early field-based ethology (2017) and how primatologists balanced intersubjective relationship-building with the production of detached scientific data (2007). These scientists, Rees argues, often rely on the agency and sociality of the animals whose vitality is typically erased from scientific writing but survives in popular accounts. What must always be born in mind, she argues, is how humanity is simultaneously co-produced through animal studies in intensely biopolitical ways which construct categories of human and nonhuman, nature and culture (2007). As well as illuminating the messiness of methodological practices, Rees has helped demonstrate the wider social politics of different approaches, and it would be interesting to compare the work of contemporary methodological entrepreneurs.

Finally, Eileen Crist (1999) has conducted comparative analyses of animal behaviour experts' writings. Through contrasting the *"anthropomorphic"* language of early naturalists like Charles Darwin with the *"mechanomorphic"* language of classical ethology and behaviourism, she shows how the purview of the animal is removed in the latter, becoming a *"natural object"* mindlessly operated by external forces that automatically *"release"* particular behaviours (ibid:89). Her work has influentially shown how even objectivist language is never neutral, but always helps (re)produce understandings of animal subjectivities, so that the same animal can be understood in very different ways according to the language used to describe it. "*Different uses of language*" she argues "*guide the reader's imagination to divergent images of animals and disjunctured ways of understanding their lives*" (1994:207). A qualitative study of the way in which experts *talk* about their animals, I suggest, might build on this work, to yield new insights into the relationship between formal scientific writing and situated, informal discourse.

By reviewing the main studies that are comparable with my research I have shown that firstly, there is a considerable lacuna, not just of studies of "critical anthropormophism", but also in contemporary studies of formal animal behaviour expertise, and, in particular, of expertise that takes a *qualitative, interpretive* approach seriously. Whilst such practices are admittedly relatively rare, I suggest they would be interesting to pursue for the methodological insights they might yield for a *verstehen* human-animal sociology. Secondly, however, I want to demonstrate that this study should not only be addressed to an internal, disciplinary, methodological concern. There is always much more at stake in the construction of animal minds than the production of supposedly neutral facts, and the struggle to produce the Other in itself is no different. The questions that are asked of animals are always located in wider socio-political concerns, are shaped by available ontological categories, have very particular histories and are in dialogue with other social movements. They are productive, as well as descriptive, of animal minds and the human-animal relationship, and may result in profound ethical consequences for how we treat them. This will be no less the case with qualitative studies than with objectivist practices.

A conclusion and a proposal

I began this chapter with the observation that as a result of posthumanist, symbolic interactionist and phenomenological turns which have reconceptualised social life, the sociology of human-animal relations is gradually expanding its focus from the study of animals' symbolic significance in human culture towards a recognition of the way in which many participate as lively social agents. In empirical research, the methodology of "multi-species ethnography" has been proposed as one way to investigate animals' meaningful experiences. However, any such project is fraught with difficulty and scholars must always navigate their position somewhere between the *"continuity thesis"* and *"discontinuity thesis"*, (Nimmo, 2016) whereby nonhuman animals are either assumed to be inherently similar kinds of being to humans, or are considered to be on the other side of some unbridgeable divide.

I then described one common objection to such practices: that they indulge in "anthropomorphism", misattributing features that should properly be understood as uniquely human. I explored the term's intellectual heritage before explaining why

some sociologists have positively reclaimed the word, under some critique from those who argue that it results in insufficient attention to questions of detachment and difference in human-animal relations. As a consequence, a niche ethological approach known as "critical anthropomorphism" has found new life as a concept in human-animal studies, believed to render the animal more fully present in its alterity as well as its similarity in multi-species ethnography. Lesley Irvine has explicitly endorsed this approach as a way to develop a human-animal sociology akin to Weber's *verstehen,* interpretive, empirical method.

Noting the possibilities of such an approach but also the difficulties of identifying where its "critical" properties might begin and end, I have argued that there are two main ways in which critical anthropomorphism is actioned or proposed (whether the term is either used explicitly or only implied in spirit). The first recommendation is that human-animals scholars engage with the natural sciences, but I argued that this poses a considerable risk of importing unacknowledged assumptions and theories about animal subjectivity into one's own research. The second approach comes from phenomenological methodologies which assert that certain forms of discipline are required in order to foster or mediate "empathy". I argued that these were intriguing and had some precedence both in ethology and in other cultural practices, but that these practices were ill-fleshed out in the literature, both conceptually and methodologically.

I therefore argued that a sociological investigation into the practice of professional "critical anthropomorphism" in animal behaviour expertise is timely, in order to gain new methodological, ontological and epistemological insights. A review of the limited existing literature on formal practices of animal behaviour expertise showed that there was a significant gap, particularly in contemporary, ethnographic investigations. There have also been few studies of practices which take a *qualitative,* "anthropomorphic" element seriously. Furthermore, existing studies all evidence the wider sociological significance of practices of animal behaviour expertise, in terms of how its ontological categories and socio-bio-political motivations shape the lives of humans and other animals.

Therefore, inspired by James Serpell's notion of the *"special skills"* which distinguish an "*anthropomorphism* (that) *tends to come naturally*" from an ability to discover "*the*

dog-ness of dogs or the cat-ness of cats" (2005:128), this project will ethnographically investigate what "special skills" are required for a "critically anthropomorphic" practice, and the wider sociological significance of this expertise. I do this by focusing on the limited number of qualitative or part-qualitative expert practices of animal behaviour. Comparing more than one site will facilitate the inclusion of both "scientific" and "phenomenological" critical anthropomorphism; and through comparison, each can illuminate otherwise hidden features of the other. I will engage with the sociological location of these practices, how different actors are constituted, the nature, status and rhetoric of its knowledge production, any limits to its application, and the ethical implications.

Before I outline my research questions, I need to clarify, however, that whilst I will use the term "critical anthropomorphism" throughout this thesis, this is my *own* designation, based on my *own* assessment of each site's practices. It does not imply a recognition or endorsement of the term from my participants. Furthermore, I wish to be clear that I agree with many of the critiques of "anthropomorphism" as a concept, because it suggests in its very etymology that some traits are uniquely, or at least a-priori human before they belong to anyone else. Thus I am aware that I am reproducing a problematic concept. However, the point is to interrogate a well-established sociological concept in practice, and thus I felt it necessary to maintain this original concept without the potential confusion of introducing a new one. I return to this problem in the overall conclusion to the thesis, where I will suggest an alternative concept as a result of my research.

Research aims

My research question is as follows:

How can multi-species ethnographies of animal experts contribute to an understanding of the "special skills" required to engage in a "critically anthropomorphic" understanding of animal subjectivity? What are the social and political contexts and implications of such knowledge-practices; and how might they furnish new epistemological and ontological theories, and new methodologies?

The project will have the following aims:

- Compare the *"epistemic cultures"* (Knorr-Cetina, 1999) of at least two sites of animal behaviour expertise which practice the kinds of "critical anthropomorphism" described above. How has such work emerged and what is its significance within its own community of practice?

- Understand what practical techniques of expertise are comprised in these methodologies. What "critical" scientific or phenomenological practices constrain liberal "anthropomorphic" interpretation, how they are learned, and how are they negotiated with each other?

- Explore how the subjectivities of the animals in question are imagined, and how far ontological proximity to humans is assumed. How is alterity either constructed or dissolved?

- Understand the relevant political justifications and implications of different epistemologies. How is the significance of the work understood by those who sanction, commission and conduct it? What kind of human-animal relationship is assumed, or envisaged as a result of each practice?

- Explore the methodological implications for sociology of the findings. In particular, how might a multi-species ethnography distinguish itself through Serpell's "special skills", and what kind of preparation might one undertake in order to develop a greater attention and sensitivity to nonhuman animals?

This chapter has set up the conceptual frameworks through which these aims can be explored, acknowledged, and analysed. In the following methodological chapter, I will introduce the research sites, reflect critically on my own epistemological and ethical approach, describe my methods and outline how analysis was conducted.

PART II: METHODOLOGY

"It matters what matters we use to think other matters with; it matters what stories we tell to tell other stories with; it matters what knots knot knots, what thoughts think thoughts, what descriptions describe descriptions, what ties tie ties." **(Donna Haraway, 2016:12).**

CHAPTER 2

Researching Animal Behaviour Expertise

Chapter 2: Researching Animal Behaviour Expertise

In Chapter 1, I gave an overview of the theoretical frameworks through which nonhuman animals' lived presence and agency in sociological research was increasingly being made to matter. I outlined the socio-political significance of animal behaviour expertise, and argued that there had been insufficient scholarly attention to its practices and implications. I showed that "critical anthropomorphism" was increasingly being proposed by scholars in human-animal studies as a way to resolve a methodological tension between a qualitative, so-called "anthropomorphic" approach to interpreting animal behaviour in fieldwork, and a "critical" acknowledgement of their species-specific alterity. This was most often through borrowing knowledge from the natural sciences and through expressing a commitment to phenomenological, disciplinary techniques. Arguing that there was insufficient consideration of the challenges and assumptions that these practices import to multi-species ethnography, I proposed a research question and a set of objectives for this thesis.

In this chapter, I lay out and justify my methodological approach to the investigation of these themes. The combination of two very different field sites in this thesis, the inclusion of nonhuman participants and some important ethical considerations has led to a complex methodology, which is important to situate reflexively given that the construction of knowledge is the subject of this thesis. I begin by introducing my two research sites and explaining the rationale behind their choice, how access was gained and when research took place. I then turn to my epistemology, explaining how my own methodological practice draws on a blend of post-constructivist Science and Technology Studies and sensory methodologies. These were operationalised into three main method practices: sensory ethnography, qualitative interviews and visual methods. I then turn to the question of analysis, beginning by outlining my inductive process of detailed thematic coding before explaining how "facet methodology" (Mason, 2011) brings both sites together analytically in my chapters. Finally, I explain the significance of my own political and epistemological commitments, outline some limitations to this study, and explain how ethical issues were addressed.

Choice of research sites

Whilst the definition of "expertise" is subject to much theoretical debate (Collins and Evans, 2007), the project's conception of what constitutes "an expert in animal behaviour" was deliberately kept quite broad, and not restricted to scientific expertise. It referred to:

a) an individual's claim to professional, specialist knowledge in at least one species of animal and its ecology and biology, however those may be conceived, and

b) a claim to possess professional, specialist knowledge in interpreting the meanings of their actions, understood as subjectively experienced at least to some extent.

The choice of sites was to some extent dependent on serendipity as well as rationale, reliant on the availability of others' projects. Two opportunities arose which I felt would address my research aims and provide interesting points of comparison. Both were situated with *methodological entrepreneurs*, people who had developed and formally instituted their own methodologies. The first was the study of equine behaviour in an "Equine Assisted Personal Development" (EAPD) organisation and the second was the welfare assessment of laboratory mice using a scientific methodology called Qualitative Behavioural Assessment (QBA). What was appealing about both sites was that they not only assumed a key tenet of critical anthropomorphism – that qualitative interpretations of animal behaviour were valid– but that they evidently placed this belief front and centre of their professional methodologies, sometimes in an explicitly political fashion.

However, this common skill was elaborated through two very different methodologies, with divergent aims embedded in different social contexts, allowing for interesting cross-comparisons to be made. Below, I will describe the aims of each site, what they offered to participants and why they were chosen.

Research sites

Site 1: The Forge

The first site chosen offered "Equine Assisted Personal Development" (hereafter EAPD) and equine behaviour lessons, and is referred to in these pages as *The Forge* (pseudonym). The Forge primarily offers private sessions and three-day retreats for adults in an isolated rural location in England. Its website offered the opportunity to gain "*a deeper insight and understanding of ourselves and of horses…through self-reflection, learning to be in the present moment, and quietening the mind*"[6] . "*Learning how to be with horses, learning about their behaviour and communication*", required, the website said "*the use of our shared language – the felt sense*".

With its claim to an existence of an embodied *"shared language"* which bridged the species divide, and through its techniques of *"learning to be in the present moment"* and *"quietening the mind"*, The Forge's *"felt sense"* methodology seemed an ideal choice for addressing my interest in the phenomenological disciplining of attention as a mode of learning about animals.

EAPD is relatively new to the UK, having originated in America, where it has been influenced by "natural horsemanship" techniques and animal-assisted therapies. However, no riding is involved and all work with horses takes place on the ground. The most formalised institution of the practice is through the international EAGALA (Equine Assisted Growth and Learning Association) standards. This model usually involves a qualified mental health professional working with a client alongside an equine specialist and a horse. Simple tasks are set, and the horse is allowed to respond to the client as they wish, since the details of this spontaneous interaction form the basis of non-directive feedback and discussion. Facilitators are encouraged to look for *"Shifts"* in the emotions of the horse or human, "*Patterns"* of behaviour, "*Unique"* or surprising occurrences in the sessions, and "*Discrepancies"* between what is said versus what is done by the client (S.P.U.Ds) (Notgrass and Pettinelli, 2014:169).

[6] Paraphrased to protect anonymity of organisation website

However, not all equine-assisted practitioners practice under this therapy-orientated EAGALA model. *Personal development* approaches use similar techniques but purport to develop more general skills of self-awareness, communication skills, mindfulness, and so on. The Forge took this latter approach, and the facilitator was primarily an equine expert, having been a professional riding instructor, horse trainer and yard owner before taking up this work. However, she also had significant experience working alongside social workers and therapists. At the time of my research, she had a herd of fourteen horses who lived outdoors year-round, on an extensive site that was more than a hundred acres in size.

Access

The site was recommended by a friend working in animal-assisted therapies. I wrote to the facilitator, Erin, requesting a brief telephone call to explain my research before arranging a one-to-one session, which gave us the opportunity to meet each other in person and for me to experience the work. I then sent over a formal proposal by email, and any questions were answered by telephone. Access was readily granted, upon the understanding that I would pay for my place so as not to financially disadvantage Erin, and participate fully in the work at all times (see *Ethics*).

The Forge was small – Erin was the sole facilitator and there was a maximum of four participants on each three-day retreat. These took place approximately once a month, from early summer to late autumn. I conducted participant-observation and interviews during June to November 2017. This amounted to approximately 3 weeks of participant observation, thirteen interviews with the facilitator and participants, plus analysis of visual material. This will be detailed in the Methods section.

Site 2: Qualitative Behaviour Assessment at Moor University

The second site was based at a medical research laboratory at a UK university that I refer to here as *Moor University*, where a project to develop a "Qualitative Behaviour Assessment" (hereafter QBA) welfare assessment tool for laboratory mice was midway through development. Led by a PhD student, who I will call Maria, and her supervisor, who I will name Howard, the project's overall aim was to develop a comprehensive suite of ten welfare assessment indicators. These were designed to be

used by auditors or laboratory technicians to assess the welfare of laboratory mice using *"environmental"*, *"physiological"* and *"psychological"* indicators of welfare. QBA was to form one of these tools, described to me as the *"psychological"* indicator in the package.

Qualitative Behaviour Assessment began as a farm animal welfare methodology developed in the early 2000s by Professor Francoise Wemelsfelder. She describes it as a *"perspective-based"* approach to animal welfare, where the animal's subjective experience is assumed and sought, in explicit contrast to the objectivist approach to animal subjectivity typically taken by animal welfare scientists (2012:225). Professor Wemelsfelder has also studied phenomenological philosophy and social anthropology, and has developed a substantial philosophical defence of her work (Wemelsfelder 1997; 2001; 2012).

In QBA assessment an assessor scores their interpretation of the meaning of an animal's demeanour using around twenty qualitative, emotional descriptors (e.g. "playful", or "depressed"). However, these terms have previously been specially chosen and statistically validated for each species. Animals are scored, not on individual terms, but through a statistical analysis of the *kinds* of terms used for each animal, resulting in a *dimensional* description: either a string of words "playful-happy-confident" or, more recently, in a quadrant along two axes of mood/energy (e.g. high energy, positive mood). The process will be explained in more detail in Part IV.

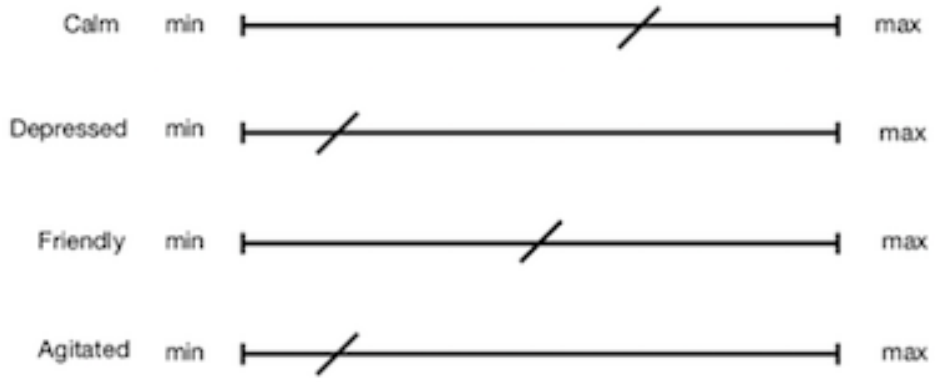
The use of qualitative descriptors is markedly distinct from most animal welfare assessment methodologies, which typically require the observation of standardized, quantifiable, mutually exclusive behaviours, emerging from an a-priori "ethogram": a comprehensive, agreed outline of every possible behaviour typical of the species. In using an ethogram to score animal welfare, the presence of an emotional experience is only indirectly *inferred*, not *observed,* through counted instances of a pre-listed behaviour. For example, a 'stereotypy' can be observed by counting a mouse jump more than 10 times per minute (see Figure 1, below). Direct descriptions of the mouse as "distressed" or "frustrated" are usually discouraged.

In contrast, QBA asks scientific assessors to accept the idea that animals' emotions are physically expressed and open to view, rather than residing in an interior private space. In this way, QBA explicitly rejects the conventional epistemological treatment of nonhuman animals as scientific objects, with subjectivity only *inferred* via the study of reified, atomised parts and postures.

Figure 1: Extract from an ethogram of mouse behaviour. Note the presence of quantitative measurements to be made in assessing welfare. Credit: Gaskill and Pritchett-Corning, 2015:8

Press posture		Male or female is seen to wedge the ventral surface of its body (at least half) in the corner of the cage. Eyes may be open or closed but the animal must remain in this position for at least 5 seconds.
Stereotypy*	Bar mouthing	Mice hold a cage bar in their diastema, and either a) make a series of sham-biting movements down the bar; or b) wipe their open mouth along the bar; or c) wipe their open mouth along the bar whilst rotating or flicking their head backwards and forwards.
	Jump	Jumping up towards the cage lid. Intense repetitive bouts of jumping are considered a stereotypy (more than 10 jumps per minute).
	Route tracing	The animal traces out an identical repeated route around the cage.
	Looping	The animal turns back-flips either in open space or against the wall of the cage.
	Twirling	The animal hangs from the cage-roof by its forepaws, and moves in rapid tight-circles, the hind-limbs may or may not be used in individual animals.
Play	Popcorn	Pup appears to leap vertically with all 4 feet and may be combined with rapid locomotion to or from siblings

Figure 2: An extract from a (fabricated) QBA score sheet. Marks are made by the assessor along the 'visual analogue' scale lines. These marks are then measured in millimetres with a ruler for analysis



Qualitative Behaviour Assessment was initially met with substantial scepticism by the animal welfare science community when first introduced (Wemelsfelder, 2016: Vimeo), but it is now a respected, if still rather marginal methodology, validated through various initiatives (see Chapter 4). At the time of writing, it was being developed for use across OMSCO (The Organic Milk Suppliers Cooperative) farms, and in 2009 its legitimacy was substantially strengthened when it was accorded the status of a valid positive welfare indicator for pigs, cattle and poultry in the EU commissioned *Welfare Quality Protocol*, a set of standardized welfare assessment tools across the EU.

Given its sometimes uneasy location on the intersection between traditional, reifying animal welfare science on the one hand, and qualitative, interpretive knowledge on the other, it was felt that QBA would provide a particularly sharp insight into the epistemological politics of expert animal welfare science. Francoise tells me that QBA is sometimes referred to as critical anthropomorphism, and although she objects to the use of the term *anthropomorphism* as anthropocentric, the methodology undoubtedly aims to combine a qualitative, subjectivist approach with critical checks on interpretation provided through statistical validations and species-specific tailoring of terms. Professor Wemelsfelder has also been influenced by phenomenology and so this combination of phenomenological and scientific methodologies seemed intriguing.

QBA is gaining increasing attention in human-animal studies as a progressive example of animal science (Birke and Hockenhull, 2012; Aatola, 2013; Greenhough and Roe, 2011; Fudge, 2018; Birke, 2014; Buller, 2012); however, at the time of writing, no empirical research on its methodology had yet been conducted in the humanities (although see Charles et al, 2018, in development). It seemed, therefore, that an in-depth analysis of its knowledge practice would both meet my research objectives and be of significant interest to human-animal studies.

Access

Access was achieved by arranging a telephone call with Professor Wemelsfelder (hereafter Francoise). She expressed interest in my research questions and readily agreed when I asked whether I could shadow a project-in-development. After some

discussion, she introduced me via email to a laboratory animal welfare specialist at a UK university, Howard, and his PhD student, Maria. Maria was conducting the research into the animal welfare protocol under Howard's supervision, and with Francoise as an external advisor. After a Skype conversation to gain Maria's agreement, I then treated Howard as senior gatekeeper. I sent an email to them both explaining my research proposal, arranged for a telephone conversation with Howard, and lastly, a face to face meeting with them both separately to address any questions and sign the forms. I also arranged with Francoise that I would interview her three times over the course of the research about the development of QBA and her experience of this particular project. We agreed that data would not be shared between parties.

Participant observation and interviews took place from October 2017 to October 2018. It included seven days of ethnographic participation, twenty interviews, two focus groups and analysis of documentary and visual material. This will be detailed in the methods section.

Methodology

Given that a critical evaluation of the assumptions behind multi-species ethnography is a key aim of this study, I did not rely on it as a methodology, but rather, used some of the approaches which have influenced its development. This study's breadth of field sites called for an unusual methodological approach: primarily a blend of Science and Technology Studies (STS) and phenomenological, sensory methodologies. These approaches might habitually be considered quite divergent. However, posthumanist ontologies provided common ground. In what follows, I will give an introduction to these methodological, epistemological orientations with an emphasis on their deployment in multi-species encounters, before explaining how they were operationalised in my methods.

Science and Technology Studies

It was clearly important to use a methodological approach that takes the creation of expert knowledge as its focus, especially where the work incorporated scientific, species-specific knowledge. Science and Technology Studies (STS) is a term for a

heterogenous collection of approaches which usually share a concern with elucidating how "clean" scientific knowledge emerges out of mess and contingencies, and with what consequences. STS takes the position that "*the scientific fact is no longer seen as the point of departure; it is now the point of arrival*" for the social researcher (Bucchi, 2002:62). Entering the laboratory at a point of controversy, before a hypothesis becomes a *"black box"* (Latour, 1987:2) a mundane, objectified fact, neatly obscuring the conceptual tying up of the relational work that went into building it – reveals that scientific work does not take place in a protected vacuum from society. In fact, it enrols any number of social opportunities, common-sense suppositions, vested interests, social networks, other disciplines and uncertain assumptions, all of which, Latour argued, become gradually purified out of scientific texts. Meanwhile, the posthumanist ontologies, as described in Chapter 1, that emerged from STS scholarship, helped reconceptualise the *kinds* of entities that might be said to exist and their relationship to each other, as networks or assemblages of both human and nonhuman agencies. In this project, the typified journey of a scientific fact that Latour describes in *Science in Action* (1987), and its reliance on any number of "black boxes" preceding them became a useful methodological orientation with which to approach my studies of knowledge production. Whilst the use of STS sits most naturally in the QBA laboratory site, it had its analytical advantages at The Forge as well. Considering the necessary ethological assumptions about horses that had to be "black-boxed" before the work could start; treating the silent arena sessions as evolving horse-human *"controversies"* (ibid:4) before more settled narratives emerged through discussion; or considering how many different disciplinary trends were enfolded into the "felt sense" methodology, broadened my purview beyond the local and helped emphasise what was *less* negotiable, in a site where uncertainties were ostensibly valued over knowledge (Chapter 7).

Ontologically, STS takes a range of positions on the truth-value of scientific facts. In recent decades the realist/constructive divide typical of the "science wars" is increasingly being rejected in favour of a post-constructivist, performative or *"ontological turn"* (Henare et al, 2006:12). Such scholars argue that reality itself, rather than being either socially constructed or existing independently, is *"done and enacted"* (Mol, 1999:77), rather than *seen* and *represented*: it is a product of the

methods used to know the world (Barad, 2007; Law, 2004). As John Law puts it, through our relationally constituted *"method assemblages":*

Some classes of possibilities are made thinkable and real. Some are made less thinkable and less real. And yet others are rendered completely unthinkable and completely unreal. (2004:67).

Annemarie Mol, in her renowned analysis of anaemia, argues that there is not one anaemia seen from plural perspectives: instead there are *multiple* anaemias: different, perhaps overlapping versions, a plurality of worlds rather than a plurality of worldviews (cf De Castro, 1998; Descola, 2005). Influentially, she argued that *"ontological politics"* are at play in which versions of the truth to enact. She argues:

Ontology does not precede or escape politics, but has a politics of its own. Not a politics of who (who gets to speak; act; etc.) but a politics of what (what is the reality that takes shape and that various people come to live with?). (Mol, 2014:webpage).

The post-constructivist turn in animal studies has meant that who an animal *is* or what it is experiencing is understood to emerge as a result of the practices mobilised to know them. Both Latour (2000) and Vinciane Despret (2013) enact ontological politics when they argue, for example, that what matters is not the *truth* of the scientific claims as they correspond to an external reality, but the opportunities that are allowed for beings to become more interesting, more active, connect with more mediating agencies. Despret writes, for example, of the work that *"belief"* in animal expertise does, because "*a belief is what makes entities available to events*" (2004:122). She describes how the belief of students in the intelligence or otherwise of their rats, randomly labelled as such, had real-world effects on the rats' performance in Robert Rosenthal's famous *"self-fulfilling prophecy"* experiments (Rosenthal and Fode, 1963), transforming the realities of both humans *and* rats in the process, not as social constructions, but as different, multiple versions of the same animal.

The ontological turn has sensitised me to how both my own and others' knowledge practices do not merely construct the animal: they shape and transform their realities, their bodies and their activities, leading to more or less likely outcomes through the repetition of situated opportunities over time (Birke and Thompson,

2018:180). In that sense, ontological commitments to the nature of animal's subjectivities are treated as both ethically relevant and co-constitutive of those subjectivities in this thesis. However, given the enormous difficulty of the question, I sometimes feel that the nature of reality is too confidently asserted on all sides of the realist/constructivist/post-constructivist divides, and so I wish to remain openly agnostic on whether reality itself is constituted in this process. Are different (if overlapping) versions of the same animal being constituted, or is it more a case of the *amplification* of potentials in the same creature, delimited by a pre-existing reality? Whilst the latter can be criticised for its dualism, there have also been persuasive critiques of the ontological turn's ontological assumptions (Pinch, 2011) (Hollin et al, 2017). Therefore, my use of concepts like *"ontological politics"* in this thesis are caveated by the notion that this may result in the amplification of pre-existing realities without necessarily bringing forth new realities.

Sensory methodologies

The application of sensory methodologies in multi-species research has obvious value, since interactions may be nonverbal, subtle, and involve encounters with different phenomenal worlds. Lyndsey Hamilton and Nik Taylor argue that sensory methods are a valuable way of recognising non-verbal, multi-species dialogues:

…by tuning into the movements that both we (as humans) and they make, their bodies and their senses can be interpreted as a form of communication, rethinking the very concept of discourse along sensory lines. (2017:12).

Probably the most accepted way of thinking about the sensory methodologies is that they involve a *"rethinking"* of *existing* methods through a framework that extends the definition of data (Pink 2015:7), incorporating the visual but also highlighting the relevance of other senses such as smell or taste, with all senses understood to be intrinsically entwined (Merleau-Ponty, [1945] 2000:234; Ingold, 2000:268). It typically means considering the contribution of sensory information to participants' knowledge, whether that is through participating in embodied practices, or listening to the moral inflections that are attributed to different sensory stimuli in talk. In multi-species methods, this might mean using touch or smell to interrogate an animal's experience (e.g. Fraser, 2016; Hamilton, 2007) or even to extend one's imagination into the phenomenological worlds of another animal, most radically

attempted in the experiments of Charles Foster (2016) or Thomas Thwaites (2016). The aim is not to propose an entirely new methodology, nor to attempt an impossible sensory parity with other creatures, but to consider how the sociological imagination might be shifted in different directions: "*an attention to how a wider range of the sense(s) changes the quality of data and makes other kinds of critical imagination possible*" (Back, 2012:29).

Crucially, this also means understanding how the senses of both humans and animals are entangled with places and activities so that embodiment is more properly understood as *"emplacement"* (Pink, 2015: 28). For Tim Ingold, the life of all organisms is constituted by *"taskscapes"* (2000:195), environments which afford different kinds of activities, and thus attune us to different kinds of information. Human sensory perception does not consist of a separate mind acting upon incoming, raw, sensory data. Instead, perception is distributed throughout organism, task and social activity, variously attuning us to different kinds of information (2000:166). Ingold's ecological theory of perception has influenced my interpretation of how human and animal behaviour is constituted, and how and why the *"sensory order"* (Howes and Classen, 1991:257) or cultural hierarchy of perceptual modalities, differs from site to site.

Sensory methodologies increasingly include an interest in the intangible aspects of social life, *"the sixth sense"* (Howes, 2009), *"affinities"* (Mason, 2018) or what Nigel Thrift influentially called *"non-representational"* experience: the small gestures, fleeting moments and affective encounters which are vital features of social life (Thrift, 2008). In multi-species methods, Jamie Lorimer et al have argued for the epistemological importance of *"animal atmospheres"*: "*the affective intensities of a particular space that gives rise to events, actions, feelings and emotion*" (2017:2). Attuning with these atmospheres, they suggest, can help humans *"access unseen presences and temporal clues"* in human-animal interactions (ibid:9).

One way to methodologically engage with non-representational aspects of social life is to engage directly with *"somatic modes of attention"* (Csordas, 1993), which themselves specialise in working with the fleeting, the affective or the ineffable, studying the very practices themselves as both method and object of study, as will be the case at The Forge. Such techniques may be criticised for encouraging researchers to "go native" and abandon critical faculties. However, my own experience of

disciplined attentional practices in theatre and meditation suggests that properly understood, such methods do not pose any more risk in this respect than any other ethnographic learning of an embodied skill. Attention to fleeting, affective experiences may be unfamiliar to secular Western traditions, "*which has often viewed acute perceptual abilities as extrasensory powers*" (Howes 2009:13), but they are grounded in familiar, if under-used somatic practices. Critical reflection is always available after the event and, as anthropologist Paula Pryce argues in her study of Christian contemplative meditation, by experiencing such phenomena in one's own body, one is more likely to *deepen* one's critical understanding, rather than evade it (Pryce, 2018:26).

Sensory methods are less typically associated with work in scientific field-sites. As Despret argues, animal behaviour scientists typically believe that bodies should not interfere in a properly rationalistic, abstract process (Despret, 2013:52). However, there is increasing interest in multimodal perceptions in the laboratory (Stephens and Lewis, 2017) and in the role of "tacit knowledge" in scientific judgments (Mody, 2005; Harris 2016). Sensory arrangements help shape affective relationships with laboratory animals (Birke, 1994) and embodied talents for handling animals vary (Holmberg, 2008). Since QBA is often described as a re-appropriation of an intuitive skill-set, it seemed particularly fruitful to consider how QBA enrols embodied and affective perceptual skills in assessing mice.

In summary, I hoped that sensory methodologies, worked through an expansive definition of the sensory as emplaced and often ineffable, would help attune me to human and nonhuman animals' experiences and yield a richer and more diverse set of data in both sites. Bringing sensory methodologies together with Science and Technology Studies allowed me to trace the more-than-human constitution of facts through a wider range of the senses.

Methods

In this section, I will describe how the methodological orientations above were translated into three primary methods: ethnography, qualitative interviews and visual methods.

Method 1: Sensory ethnography

The Forge

Fieldwork at The Forge took place over one summer of retreats. Participant observation was used to explore the process of knowledge production from the inside, observing patterns of interaction, ascertaining the roles that animals and environments played in the construction of meanings, and how group consensus evolved about them. I took part in a total of three weeks of ethnography over a period of six months. This included five three-day retreats, one introductory "herd day", and two private, hour-long workshops.

As noted above, sensory methods here were to be both method and object of study. The experience of such work became part of my data for later critical reflection, as did the way in which the exercises were discursively framed. The details of such work will be described and analysed in Part IV, but included closing our eyes and scanning the body for sensations; engaging in discussions and making drawings about our somatic-emotional experiences; exercises where we isolated each sense in turn to heighten them; and paying attention to the tension or softness of the horses' musculatures if we touched them. We were also encouraged to notice how horses used their sensory organs, such as mouths and ears, to navigate their world. "Non-representational" experiences also became methodologically relevant, since learning to achieve a "present-moment" state with the horse was encouraged; and intense, almost indescribable experiences of "connection" with the horse were quite common. Careful and creative interrogation of my own experience and those of others helped render these experiences at least partly articulable.

In order to explore the "felt sense" methodology further, I also spent two days in the fields alone with Erin's flock of ten sheep, to experiment with her methods over a longer period, and to explore how transferable such skills were to other species. The sheep were chosen to avoid the safety risks of spending time alone with the horse herd. My aim was to be allowed close enough to them, without the use of food, to be able to learn something about them. I describe one of my experiences with the sheep and its implications in Chapter 12.

The QBA site

Ethnography was also conducted at Moor University, although access to the laboratory itself was limited, both because much of the work with live mice had been completed, and because my access was contingent on Maria's availability to supervise me. Nonetheless, in total I spent approximately seven days in participant observation. I hoped this would allow me to understand more about how the mice were kept and about patterns of mouse-human interaction; the kinds of natural talk that emerged about mouse subjectivities; and to experience how QBA assessments were conducted.

I took part as an assessor in three "Fixed Term testing" sessions (see Chapter 8), scoring the mice from a series of video recordings, but also observing how the work was introduced, and how the activity unfolded. I then attended a team meeting in person with Howard, Maria and Francoise, where the statistical results of these sessions were shared and discussed. Once the QBA tool had been statistically verified and approved, I entered the laboratory and observed Maria's pilot of QBA, observing how she handled, observed, and scored the mice. The next day, at my request, we re-entered the laboratory and conducted QBA together on three cages of mice, comparing our scores and discussing our findings, so that I could experience her instruction, and understand more about her own experience of the technique. I then observed the protocol being piloted by two technicians, before conducting a short group interview to gain their response. And on several occasions, I also asked for access to the laboratory where I sat for ten minutes or so, listening, smelling, observing the daily work rhythms and use of space, watching the mice flit in their rows of Perspex boxes, and asking passing laboratory technicians informal questions about their own experiences of the space.

Method 2: Qualitative Interviews

Interviews can be an important part of sensory methodologies. Mason and Davies (2009) have warned against believing that researcher must attempt to directly experience the same sensory experiences as their participants. They argue that qualitative interviews are often more than adequate ways to invite participants to share sensory experiences through verbal accounts of their experience (ibid:597). Whilst I agree, the danger is that riskier, alternatively-attentive methods are too

quickly overlooked, not because interviews are more appropriate, but because they offer more familiarity and security (Back, 2010). Nonetheless, it was certainly the case that qualitative interviews, in both sites, yielded rich sensory data which it would have been difficult to sense during ethnography. Below, I explain how I used interviews in each site.

Interviews at The Forge

At The Forge, I conducted three interviews of approximately one hour with the facilitator, asking questions about the development of her work and its location amongst wider influences, and about any challenges or benefits of working in this way. I also conducted interviews with ten participants with whom I had shared retreats, to discover how interactions with the horses were made sense of, and how useful they felt Erin's sensory techniques were for gauging the meaning of the horses' behaviour. This was especially important in evoking the sensory contours of horse-human encounters that were perhaps less easy to share on retreat.

Interviews at Moor University

Qualitative, sensorially-orientated interviews became especially important at Moor University, since some of the work had taken place prior to my arrival. I interviewed PhD student Maria, her supervisor Howard and Francoise Wemelsfelder three times each over the course of the fieldwork. Questions were directed towards the imperative for the work, the challenges they hoped QBA would address, the intricacies of project design and, in the case of Francoise, the historical development and contemporary significance of QBA from her perspective as its developer. In order to gain insight into the world into which QBA might be introduced, I also interviewed ten of the expert participants in Maria's "Free Choice Profiling" term development exercise (see Chapter 6). Six of these participants were animal welfare scientists, ranging in seniority from Professor Emeritus, to doctoral students. One participant was the resident veterinary surgeon, two were animal technicians, and one was a trained vet now a medical researcher.

I asked these participants questions about their experience of the QBA sessions, their faith in its principles of interspecies interpretation and about the current climate of laboratory animal welfare. I also asked questions designed to help me understand

the sensory, craft knowledge of animal care that QBA purports to harness. For example, I asked technicians about their experience of animal handling training, their day to day relationship with the mice, how they knew if a mouse was content or stressed, and what kind of language they used to describe their emotional demeanours. In addition, I conducted a focus group with the third year BA Animal Science students who had participated with me in the "Fixed Term testing" trial, ascertaining how QBA compared to the kinds of animal behaviour expertise they were being taught on their course, and asking them about their experience of assessing the mice.

Interviews are also socially-shaped accounts like other methods, and did not give me an unmediated access to a lived reality (Rubin and Rubin, 2011). Les Back urges us to treat the interview encounter as productive, learning to work with what particular accounts *do* as well as reveal (Back, 2010:20). This is particularly salient when interviewing experts, since Bognor et al (2009:2) have warned how the authoritative status, crystallised knowledge, and verbal fluency of experts can lure social researchers into what Becker called "*a hierarchy of credibility*" (1967:241), the normative belief that those with seniority have a fuller understanding of the social world under consideration than anyone else. Special care was taken with senior members of staff to remain attentive to how institutional responsibilities and personal reputations can place pressure on the reliability of an account (Becker, 1967:242) and I was careful to interview participants from a range of institutional positions.

Method 3: Visual methods

Visual methods are useful to the study of human-animal interactions in a number of respects. Firstly, *video elicitation* activities, where participants are shown visual material to discuss during interviews, can offer a way for participants to re-engage with sensory memories or imagine themselves into embodied practices (Pink, 2015:90).

Secondly, possessing footage of human-animal interactions allows a closer scrutiny of micropolitical events which may be missed in real-time, especially useful when expressions are subtle, complex or unfamiliar (Bear et al, 2016:17; Lorimer, 2010:243). Thirdly, as Bear et al cautiously claim, video footage has the potential to allow the

animals in the interaction greater "voice" when shared with the reader. At the very least, it "*reduces the primacy of the researcher's interpretation*" (Bear et al, 2017:20). For this reason, throughout the thesis, there are links to videos so that readers can form their own opinions on some of the encounters being analysed.

Visual methods at The Forge

At The Forge site, the use of film and photography was restricted by the facilitator, as such methods had the potential to disrupt others' encounters, and also interfere with one's own ability to be fully "present". Whilst I initially experimented with mobile head-cams, I quickly discovered that the instability of the camera made for nauseous, frustrating viewing. Instead, in the fields, I asked Erin to take some photographic and film footage of myself and others, if their permission was granted. I also set up a camera in the arena to film individual interactions with horses. Once I had set it up, some way behind the fence to avoid the attentions of the horse, I could not touch it again, to avoid distracting the encounter. This inevitably meant that footage was imperfect and some interesting encounters were out of range. However, the footage became invaluable for participant elicitation, enabling me to gather participants' verbal interpretations of what was being played out, and what sensory and affective impressions they recalled.

In addition, I asked participants to bring to interview the drawings that Erin asked us to complete every night. The drawings often symbolised strong emotions; and experiences which participants may otherwise have found difficult to describe.

Visual methods in QBA

Visual elicitation also became important at Moor University. In the interviews with participants in the Free Choice Profiling sessions, I showed them all the same video of a mouse that had been used in the Fixed Term data trials as a tool for reflection on the qualitative interpretation of its behaviour. This helped me understand how participants constructed the subjectivities of the mouse through its embodied behaviour, the kinds of language that they used, and how consistently they agreed on its demeanour. Photographic material also became surprisingly important in some interviews, when participants unexpectedly produced their own photographs

in response to questions. In one interview, an animal welfare professional produced a twenty-year old photograph of a gerbil with multiple wires badly embedded in its head, in response to a straightforward query of a technical point. Refocussing the interview on the significance of the photograph revealed that, having conducted this poor experiment himself as a young cancer researcher and caused suffering to the animal, he had kept the photo as a reminder of why he now worked in animal welfare, evoking a powerful and unexpected emotional dimension to the interview. In another, Maria unexpectedly produced a set of *"cute"*, affectionate photographs that she had taken when alone with the mice in the laboratory at the weekend. This allowed me to ask questions about the sensory-emotional experience of interacting with them, and she later agreed to allow me to reproduce some of them in this project.

In summary, as Mason and Davies (2009) observe, I found that visual methods helped participants evoke memories of encounters that bridged observable phenomena, kinaesthetic affects and ephemeral impressions, and, combined with ethnographic and interview data, not only helped to provide a much broader set of sensory data in situ, but also allowed me to trace decisions and assumptions "upstream", through revisiting the sensory contours of experiences for which I was not present.

In the final section of this methodology, I outline my analytical approach to the data, reflect upon ethical considerations, reflexively position myself within the research and acknowledge some of the project's limitations.

Conceptual orientations in analysis

The research project resulted in a variety of data, including fieldnotes, interview transcripts, and visual materials such as photographs, videos and drawings. These were analysed under an interpretive, inductive framework, sometimes referred to as *"grounded theory"* (Glaser and Strauss, 1967). However, grounded theory does not banish all theoretical preconceptions, since analysis unavoidably begins with the conceptual framings behind our research questions (Becker 1998:17). A reflexive approach to analysis is important to avoid merely making the analysis fit pre-conceived theoretical commitments (ibid:19). I tried instead to allow plenty of room

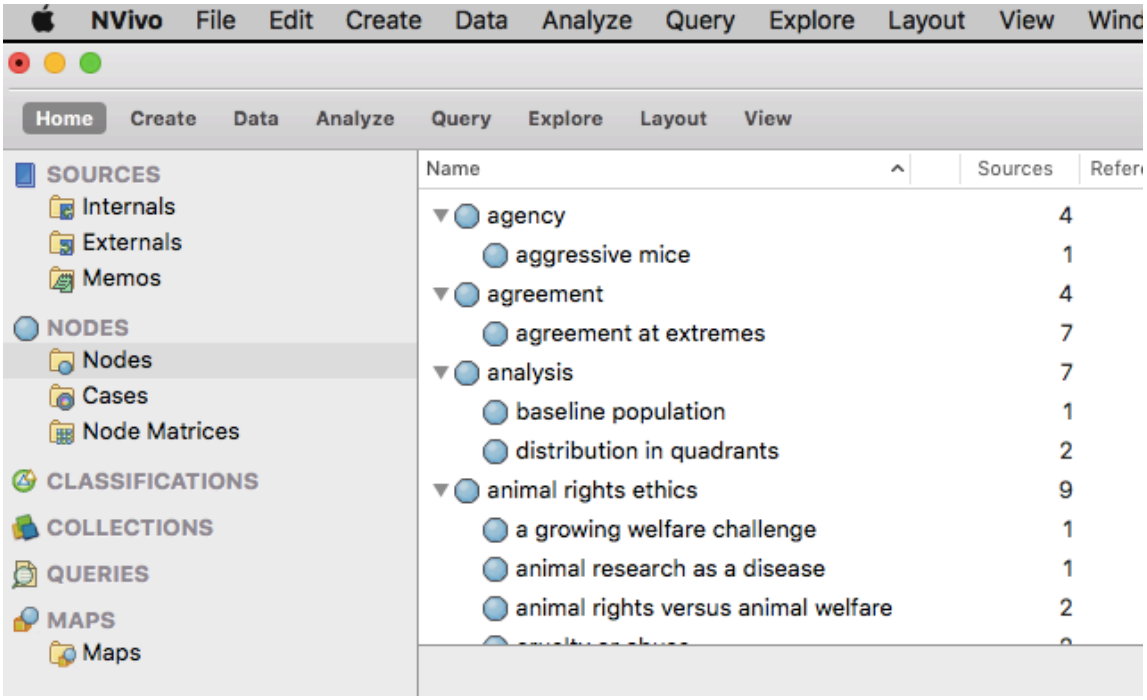
to "*let the case define the category*" (ibid:124), allowing emerging findings to reshape established theoretical concepts. This was achieved through using "thick description" (Geertz, 1973) in fieldnotes to help expand my thinking beyond the habitual; and also by being careful to look for *"negative cases"* that contradicted my assumptions or preferences and which might help rework subsequent explanations (Becker,1998:58).

Coding of written data

Each fieldwork site was initially analysed separately. Where visual-elicitation materials were used, the participant's audio discussion of them was overlaid on top of the video using editing software (iMovie), so that I could see clearly how the reflections related to the content. It was also transcribed as text. Thematic analysis of all textual data took place via coding using NVivo software, where the aim is to inductively "*raise the data to a theoretical level*" (Corbin and Strauss, 2008:75), gradually connecting the lives of the participants to wider social processes with the help of theory. However, coding decisions and interpretative judgements proceed just as much on intuitive hunches as on technique (Rapley, 2011:279). The use of NVivo software facilitated creativity here, as the drudgery of longhand, manual procedures and the fear of losing context was removed, encouraging experiment and textual intimacy without sacrificing rigor (Bazely, 2007:9). I also kept Stickies notes on my desktop to record flashes of insight or puzzling questions, and alternated close coding with critical distance by keeping PowerPoint overviews of emerging themes for discussion with my supervisors.

Initial coding took place through quick, provisional and detailed coding of *"mini-phenomena"* (Bazely, 2007:61). I began with *"low-inference descriptors"*, (Seale, 1999:147), coding *in-vivo* as often as possible, in the language of the respondents, to keep the theory as grounded *as possible* in the participants' meanings. Then, using a process of comparison, I grouped the nodes into more theoretically abstracted *parent trees*. This left a kind of theoretical *"taxonomy"* (Bazely, 2002:67) which can be seen below:

Figure 3: A screenshot from NVivo analysis



Writing up results helped produce more ideas and associations, and original materials were sometimes re-visited, so that analysis and theoretical development remained an open-ended and iterative process.

Bringing the two sites together: facet methodology

The detailed analysis described above gradually fed into the meta-analysis that I used in order to bring both sites analytically together throughout the thesis. Here, I have been inspired by an approach known as "facet methodology". This is a way of thinking that was developed by Jennifer Mason and colleagues at the University of Manchester (Mason, 2011). It was conceived through a desire to highlight the vital and ephemeral aspects of social life, and as a response to a collaborative process in which an analytical through-line felt limiting.

The significance of Mason's "facet" approach to methodology can be explained through its use of a *gemstone* as a metaphor for a research problem. A gemstone has many faces of different size and shape, which respond differently to the light: full of intensity and colour on some facets, with others cast in shadow. Each surface is asymmetrically carved by the researcher through method, analysis and write-up, as so many ways of highlighting something illuminating or interesting about the

findings. Each juxtaposition yields *"flashes of insight"* (ibid:76), that also give a vital and affective sense of lived experience. The aim is not to present a linear and comprehensive analysis, but to tell a story through a more patchwork approach, with facets juxtaposed strategically and inventively, rather than democratically. As Mason explains:

It is in the way the light is cast and plays in the facets that we come to perceive and appreciate the distinctive character of the gemstone. The facets are different shapes and sizes, and they catch and cast the light differently, depending on the direction and strength of the illumination as well as which planes and depths are left in shadow. It is important to note that sometimes it is the smallest facets that create particularly intense or brilliant shafts of light and colour. (2011:77).

This approach has been invoked through the unusual structure of this thesis. Each Part in the analysis section, takes one of the research aims as its problematic. Within that structure are facet-chapters of different sizes, whose analysis is worked through a lively event from fieldwork which illuminated something important or interesting about critical anthropomorphism. By placing these chapters strategically alongside each other, I hoped that the associations, patterns, differences and disjunctures between them would appear. These open up analytic pathways, whose contours I trace in the conclusions to Parts IV-VI through the device of an imagined "agenda" for critical anthropomorphism. These agendas are framed as a series of "decisions" to be made on the basis of my findings, in what Mason calls a "*constellation*" approach to analysis: *"thinking, imagining and writing (one's) way across and through different facets and clusters of facets as they follow particular lines of enquiry"*. (2011:81). Pace Mason, however, I have chosen, in line with the sensory deprivileging of sight in the thesis as a whole, to speak of "*drawing the threads together*" rather than "*constellations*".

Having outlined the methodological and methodical approach to this research project, in the following section, I take a more reflexive attitude, outlining how I dealt with the ethical issues the project raised for both human and nonhuman participants, situating myself in the research process and considering its limitations.

Reflexivity and ethics

Feminist theorists (Harding, 1986; Campbell 1998) have consistently argued that all knowledge-practitioners are part of the world that we are trying to explain, and that inquiry is never neutral. As Howard Becker argues, in research there is always "*a side we are on*" (1967) which shapes our research questions. Taking a reflexive approach which acknowledges that our personal identities affect how others respond to us, that our values and our professional training shape our perspectives and that our research changes the world we enter "*allows us to become answerable for what we learn to see*". (Haraway, 1988:583). It can also aid our understanding of the social world under investigation, clarify our intentions and help improve others' research (Back, 2020: webpage). In what follows, I outline where my sympathies and resistances lay in this project and how I dealt with this.

I had no prior experience of Equine Assisted personal development, but the world of The Forge was not culturally unfamiliar to me. I had taken riding lessons as a child, and my experience of the world of performance and of various alternative body techniques gave me certain sympathies towards the emotional climate of the retreat and its attentional, sensory practices. "Insider" research of this kind is often assumed to yield epistemic privileges. However, it can contain pitfalls, as it locates the researcher as both "*instrument of inquiry and subject of inquiry*" requiring reflection on how one's preconceptions can shape data collection and analysis (Labaree, 2002:105). I was careful to treat any expectations I had only as *"guideposts"*, (ibid), and use the same analytical rigour for my own reflections on the field as for those of my participants, listening carefully for evidence which challenged my assumptions.

The QBA site contained a more difficult set of reflexive challenges given the controversial nature of the site. I have been a professional animal protection campaigner for some years, and at the time of research, I was simultaneously active in a public campaign to protect decapod crustaceans under animal welfare law, based on scientific experiments which supported their ability to feel pain. My activism could have made access challenging, but I found that conversely, it provided some common ground, and I felt I was accorded a significant amount of trust. I truthfully informed the gatekeeper that I had my own views on the ethics of

animal experimentation but that these debates were not the focus of my research, and that I was supportive of efforts to improve laboratory animal welfare.

On the other hand, there were often moments where my broad ethical opposition to the use of animals as experimental models made research uncomfortable. Whilst I never asked for such details, listening to disturbing accounts of procedures from participants could be an uneasy experience, and I sometimes worried whether my project made me complicit. I was reminded, though, that understanding can be of service to political objectives. In reflecting on the ethics of his research with far-right groups, Les Back argues that we should understand "*a sense of disorientation (…) as an interpretive position*" (2011: 260). It can be an uncomfortable, but insightful and important practice to look for the mundane in practices of power, for the surprising commonalities we share with our participants and to explore how their own choices were made sense of (Becker (1998:28). We need to leave room for our own preconceptions to be challenged, whilst being sure to critically evaluate the views of our participants. A "*mutual destabalization is thus produced on both sides of the ethnographic divide*" (Back, 2011: 253), which Back argues is at crucial to ethical inquiry and the production of understanding in contentious research fields. Understanding the effect of our research on the animals concerned, however, is important.

The ethics of ethnographic research with animals

Nonhuman animals are rarely considered research subjects by humanities ethics boards. However, there is a growing conversation about the need for formal ethical protocols to accommodate animals (Cudworth, 2018:500). Lynda Birke (2014) argues that we should commit to treat them not as objects, but as co-producers of knowledge in our work, foregrounding their subjectivity, agency and their "*voice*" through close observation of their behaviour and responses. She also believes that researchers should be required to consider the ethical implications of their work, both for the specific animals concerned and for others of their kind:

Could there be a direct improvement, for those specific animals? Has the research been intrusive, or presented those animals with difficulties or stressors? Might the research have

implications for the lives of other animals? What are the broader political consequences of our research? (2014:81).

I considered these questions carefully. My thesis has been written with the subjectivity and agency of mice and horses at the forefront of analysis; and the inclusion of images of animal participants renders visible their lived presence and their contribution to the formation of knowledge. But there were more complex questions of the impact of my research on these animals and others of their kind. At The Forge, any ethical concerns were significantly mitigated by the apparent emphasis put on the horse's "*voice*" and their care by Erin, and so it only remained to be seen how these ethical commitments played out in practice. I felt confident that the insights I would gain and share would have positive benefits, both for these horses, and for others.

However, the issues were obviously more complex at Moor University, since the QBA development was taking place in a site of extensive, and sometimes violent animal exploitation. Even welfare scientists often have to inflict pain in order to study it. Kathryn Gillespie argues that sociological research in these contexts is never justified, that *"researchers and teachers in effect become complicit through passive participation in violence against nonhuman animals"* (2019:3).

However, Qualitative Behavioural Assessment does not cause animals any discomfort beyond that of observation; and given that its aim is to help re-animate the subjectivities of animals that are otherwise intensely objectified, I felt that this was a worthwhile project. I hoped that my research could provide a unique space for animal welfare professionals to ethically reflect on how they understood the subjectivities of their animals, and that it would be genuinely useful in their incremental attempts to improve their lives. However, I was also careful not to add to any mouse suffering. It was clear that my presence was a stressor for them and that trying to build trust in this context was futile, so the desire to know was subservient to ethical requirements. I did not ask to touch the mice, and I tried to be mindful and quiet around their cages.

Ethics with human participants

The British Sociological Association's *Statement of Ethical Practice* (2017: webpage) does, in contrast to the above, cover a full range of guidelines related to the protection of human participants, underpinned by the principle that the pursuit of knowledge does not permit overriding of either legal rights or trust. All fieldwork received ethical approval from Manchester's *University Research Ethics Committee* (UREC), and all research participants were forwarded, via email, a *Participant Information Sheet* and consent form at least a week before the commencement of fieldwork[7]. They were asked to sign a consent form which explained the nature of the research, the uses to which the data would be put, and their right to withdraw consent. The use of photographs and videos featuring participants and/or their animals was drawn up in a separate consent form in line with the BSA's *Statement of Ethical Practice: Visual Sociology* (2006:pdf). Gatekeepers were asked to approve each image for release.

As part of a broader ethical commitment to make social research *"more sociable"*, and not a process in which participants have their lives merely scrutinised at a distance (Back and Sinha, 2014:483), I decided to write separate draft reports on emerging findings for all gatekeepers (Francoise, Erin and Howard/Maria) and to meet with them in person to discuss them. This was because I wanted my research to be of some benefit if possible, and because I was committed to the benefits of cross-disciplinary engagement. It also offered a chance to check that factual information was correct, and gave participants the opportunity to respond to my findings. These discussions were audio-recorded, allowing me to transcribe areas of fresh insight where relevant. Participants seemed to appreciate this, and any concerns that they would put pressure on my academic independence proved unfounded.

There were, additionally, some ethical issues which related specifically to each site, which I will outline below.

[7] The exception to this was participants from The Forge's beginner's retreat. Erin felt that emails about research prior to joining a retreat could create feelings of anxiety towards an already unknown experience. In those retreats, I agreed that I would introduce myself as a researcher conducting autoethnography only but, after building a relationship with the clients, I could ask if they would be happy to take part. Seven agreed to participate in this way.

Ethics at The Forge

Ethical considerations at The Forge primarily related to the vulnerability of some participants and the sensitivity of the workshop environment for both humans and horses. Whilst not attending for "therapy", Erin advised me that many participants suffered from mild to moderate anxiety or depression, and painful emotional issues were often gently explored. With only four participants per retreat it was necessary that I, too, contribute to a supportive and trusting group dynamic, and be sensitive to the personal issues which occasionally arose during interviews.

In addition, the work involved close attunement to emotions, bodily sensations and other participants, and so stillness, silence and focus were often key requirements. Any obvious research activity could spoil this experience. For these reasons, I agreed in advance with Erin that I would not discuss my research during Erin's work, but answer questions only in breaks. With the exception of times when note-taking was a group activity, I did not take notes in situ, and participated fully as a normal member of the group at all times. As previously explained, videos had to be taken from a fixed camera position, and all participants were asked not to take their own photos when interacting with the herd, as this would, Erin said, *"change the relationship"* with the horses and disrupt our attention. These restrictions posed some challenges for data collection, but they were also telling in their construction of the social world and had some advantages in terms of my own immersion and engagement in the work.

Ethics at Moor University

The most important ethical issue at Moor University was the potential identifiability of participants. Whilst every effort was taken to anonymise the participants and the organisation, since the team hoped to be the first to publish on the use of QBA in laboratory mice, links could potentially be drawn between their research and mine. These concerns were heightened in considering the controversial nature of the research site. It was important that my work did not allow either individuals or the university to become the target of groups opposed to animal research. I therefore paid particularly close attention to the anonymisation and protection of data in accordance with my *Data Management Plan*, and any representations of the team's

data are fabricated approximations in this thesis. I also addressed the possibility of the organisation being identifiable both in the PIS form and verbally with each participant. As most of the participants were academics themselves, this was readily understood. I took the decision to send back transcripts to participants and allow them to review them for sensitive or identifiable material. Most never took this opportunity (although one junior participant decided to withdraw after reviewing theirs), but overall I believe this fostered a relationship of trust that was worth the risk of revisions or withdrawals.

Following discussions with Francoise Wemelsfelder, the decision was jointly taken not to anonymise her in the research, reflected in her consent form. As the sole developer of QBA she would be easily identifiable, and so to anonymise her would have created a false sense of security. Since my work entailed a deconstruction of her scientific methodology and an exploration of her personal journey in developing it, we agreed that I would balance honest, independent reporting of my findings with the ethical requirement to ensure the wellbeing of participants were not adversely affected by sociological research (BSA, 2017: webpage). In addition, we agreed that whilst I could use all our interview material for general analysis, she would review all sections of the transcript from which I might directly quote. Therefore, the reader should note that all quotations from Francoise Wemelsfelder in this study have been reviewed in this way.

Limitations of the research

All research is situated, and researchers' choices necessarily limit the findings. As previously discussed, comparing two sites yielded significant analytic advantages, but it also meant that there were aspects of both which I did not have time to explore. Qualitative Behaviour Assessment, for example, is a particularly complex methodology, and much more time could have been spent analysing its scientific papers, exploring its statistical assumptions, or shadowing Francoise. In particular, my findings must be understood in the context of the more limited opportunities to observe human-animal interaction, something which I mitigated through careful interviewing and video elicitation as described above.

The QBA project must also be situated in the context of it being primarily a student endeavour, not one directly conducted or even doctorally supervised by Francoise. This means that one has to be particularly careful in generalising from this project to QBA's professional practice. Yet this context is still analytically important because failures of understanding can yield important insights about the mainstream scientific practice which QBA must navigate, as explored in Chapter 11.

At The Forge, my research would, I believe, have benefited from more time spent in different aspects of Erin's practice, such as by engaging with the facilitator training programme or by ethnographically exploring "behind the scenes", operational aspects of the business. Whilst this would have yielded a greater understanding of how Erin's teaching differed between client groups, and would have socially situated The Forge in more depth, time and financial resources prohibited this, and so my findings relate solely to the three-day adult retreats. One also has to consider that my status as a full participant in the work necessarily led to a very different interview encounter to that of QBA. Participants, I felt, were sometimes liable to treat the interview encounter as a test of what they had learned rather than as an opportunity for critical engagement. After this emerged, I mitigated it by reassuring participants at the beginning of interviews about their freedom of expression; and I was particularly careful in the framing of questions to make it clear that positive, negative or indifferent responses were all equally welcome.

Conclusion

This chapter has laid out in detail my own epistemological, methodological and ethical commitments in this research project, and has explained how I will bring two very different sites together analytically. After introducing two seemingly very different sites, The Forge and the QBA project at Moor University, I explained that they in fact combined a shared commitment to qualitative methods with a disciplined, methodical approach which made them suitable for an investigation into critical anthropomorphism. After explaining how access was achieved, I then turned to the methodological commitments which informed this study, highlighting how an unusual blend of post-constructivist Science and Technology Studies and a sensory methodology had informed my ontological and epistemological approach to the knowledge practices of my methodological entrepreneurs, allowing me to take the

establishment of facts as the starting point for an analysis that traces their development upstream; and expanding my methodology through a wider range of the senses, understood as relationally constituted through space and activity. This was achieved through sensory ethnography, qualitative interviews and visual methods.

I then outlined my inductive approach to the analysis of each site, and explained how I used "facet methodology" to bring the two sites analytically together in the chapters which follow, tracing illuminative paths across the similarities and differences in each site to reveal interesting "constellations" of critical anthropomorphism in each Part's concluding summary. Finally, I expounded upon the ethical considerations raised for both humans and animals by my research: in particular outlining how I dealt with emotional sensitivities, the identifiability of some participants, and the controversial nature of the Moor University site. Taking a feminist approach to the situated nature of all knowledge, I reflexively outlined how the research was worked through my own insider/outsider positionings, and I outlined some of the limitations of the research through which the findings should be considered.

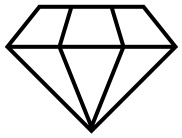
The next Part commences my analysis in two chapters, "crossing the threshold" to introduce the sites in more detail, before drawing on biographical interview material with Erin and Francoise to explore, as per the first research objective, how each knowledge practice emerged and its significance within its own community of practice.

PART III: THE BACKGROUND

Introduction

Chapter 3

"I just follow my nose": selfhood, herd-hood and the significance of place at The Forge



Chapter 4

"I'm going to face this thing head on, this thing about subjectivity and its place in science": Francoise, the development of QBA and Moor University

Conclusion

Research Objective: Compare the "epistemic cultures" (Knorr-Cetina, 1999) of at least two sites of animal behaviour expertise which practice "critical anthropomorphism". How has such work emerged and what is its significance within its own community of practice?

Introduction to Part III

In previous chapters I have argued that expert understandings of nonhuman animal subjectivities help shape the world. They circulate and materialise in public attitudes, governmental practices and in relationships. In Part III, I turn the question around, and explore how the innovative methodologies developed by the two animal behaviour experts were socially, historically and materially situated. In the last chapter I explained that what both sites shared was a belief in a fundamental human ability to qualitatively interpret the subjective experience of animals. They are committed to explicitly placing that assertion at the centre of their methodologies in a *critical anthropomorphism*. However, each knowledge practice is differently situated, elaborated through very different frameworks, and answers different kinds of questions. Facet methodology will allow me to place these particularities alongside each other, generating unexpected flashpoints of connection and moments of telling diversion.

In this first empirical chapter, I will draw on interview material with Francoise and Erin to account for the social and political milieu in which each knowledge practice developed its ideas about animal subjectivity, the human-animal relationship and its techniques of expertise. In particular, I want to understand why both Erin and Francoise wanted to build their methodologies around the assertion of the shared, continuous lifeworld of human and nonhumans, and what epistemological pathways were already available to them to begin deviating from established convention. This allow me to show that, despite their differences, both take a *phenomenological* approach to their methodologies. I also clarify why they felt that "critical" checks on qualitative interpretations were needed, and how they were developed.

The materiality and rituality of entrances and introductions is often sociologically significant and helps set a lively and affective sense of place, which scholars have argued is often missing from research to the detriment of social understanding (Back et al, 2012). Therefore, both pieces begin with my experience of *crossing the threshold*, giving a more-than-human evocation of the locality. I have chosen to share my understanding of Erin and Francoise's accounts largely uninterrupted, returning to a

thematic analysis afterwards. Given the analytical importance of *the way* in which the shape of a life is articulated (Plummer, 2001:402), I believe analytic comprehension is best served through an understanding of this narrative arc and its affective chronology before deconstructing some of its themes. More straightforwardly, I also hope this gives a more animated sense of characters-in-relation (Mason, 2018:50-51), whose marginal stories are rarely heard in mainstream professional accounts; and charts the development of an epistemology as situated, affective, relational and ongoing, rather than as a ready-made intellectual achievement.

A biographical account of a life is an encounter shaped by the attentive presence of the researcher, and the narratives that emerge are necessarily partial and performative. They cannot be considered a reliable reflection of a singular, truthful, linear series of events. However, nor do I take the view that a biographical account is merely *"narrative text"* (Plummer, 2001:401) whereby the lived experiences of the teller are of less interest than the rhetorical structure of the narrative and the teller's construction of meaning through its devices. What I have tried to do instead is to acknowledge that the telling of life stories resonates with the cultural preoccupations of the period described by the teller, but that it also speaks to *contemporary* concerns in the process of retelling that story. As Plummer puts it, "*the composing of a life is always bound up with political and moral processes*" (ibid:408), in which participants account for their choices by drawing ethical distinctions between roads taken, and roads not.

What emerges in each piece is a sense of what Annemarie Mol (1999) calls the *"ontological politics"* which led each founder, already committed to an ontology of their animals as sentient beings with agency, to develop their knowledge practice in *deliberate contradistinction* to a practice they were already involved with, in order to help materialise their animals in particular ways. As described in the methodology, ontological politics understands realities to be *enacted,* not given, emerging through our materially and historically contingent practices. This makes the crafting of methodologies politically significant because, Mol argues, they contribute to the material shaping of reality. I do not suggest that either Francoise or Erin endorse the multiple reality thesis associated with this model; and indeed, as I outlined in the methodology, I myself remain somewhat cautious about how far sociology should

operationalise this theory. And so here, I use the concept in the more limited, but still useful sense, to suggest that both experts believed that new methodologies were needed to discover, amplify and fully acknowledge latent aspects of their animal's subjectivities, to allow them to intersubjectively emerge, flourish and *become-with* others.

I also briefly introduce the research participants (the clients at The Forge and the principal investigators at Moor University), explaining why they wanted to engage with each practice, what relevance it had and what needs it fulfilled. This is important for understanding how these interspecies epistemologies are politically and culturally situated, and what their generative potential might be.

Chapter 3: *"I just follow my nose"*: selfhood, herd-hood and the significance of place in the development of The Forge

Some of the herd cantering into their top field. Credit: Maisie Tomlinson

The Forge is located down an English country lane about four miles from the nearest town, in a former Victorian dairy farm. Pushing open the gate sets off the deep barks of an elderly German Shepherd named Margie, Erin's constant companion, who galumphs stiffly out from the kitchen with a wagging tail, Erin following behind. She is a tall, athletic, calm woman in her late thirties. Greetings are warm with a hug and a kiss, as most people have had some contact with Erin before attending, to ascertain their experience with horses and any personal needs. There are also only four participants per retreat to allow enough individual time and space with the horses, and so there was an expectation that interpersonal relationships form quickly.

A large, horseshoe-shaped courtyard with ivy-clad outhouses is the centre of both home and business. Erin and her husband Rob live in the main farmhouse, whilst Erin's parents live next door. The cracked, crazy paving is flush with oxeye daisies, poppies and cornflowers in the early summer morning of my first session, and the thriving birdlife is immediately evident as swallows swoop in and out of the outhouses and young starlings chatter noisily from the roof.

The wooded, hilly, meadowed landscape beyond owned by Erin and Rob is extensive at a hundred and ten acres. Erin is an ethical vegan and they do not farm themselves, although they keep ten rescued sheep to help manage the grassland and sell their fleeces. The herd of fourteen horses and two donkeys are rotated between fields in different seasons, and each pasture has natural shelter and different plants grown for the horses' dietary needs. Some fields are rented out or used for hay, and others are left wild. It is an undeniably beautiful and charismatic space, especially with the woodland areas that rustle and change colour with the seasons.

We begin, however, in a comfortable modern barn where each morning's group activities take place. The barn is a clear demarcation of safety, comfort and human domesticity from the muddiness and wildness of the surrounds. Clean slippers and piles of checked woollen blankets sit near the door. There is a sofa and a woodburning stove, sheepskin rugs, a pine table with a biscuit tin, a kettle, shelves of herbal teas, as well as a bookshelf full of materials on horses. Paintings of the herd by Erin's husband Rob adorn the walls, and there are framed photographs of previous participants with horses, faces pressed close or bodies stretched out together on the ground. It's a noticeably feminine, middle class environment, and is significant for the way it sets up the possibility of emotionally expressive conversations and multi-species encounters.

Each retreat begins with tea, biscuits and introductions around the table. It is worth noting that Rob had played a key role in the intellectual and structural foundation of The Forge and was, Erin says, a frequent early attender. However, in common with both amateur equine and therapeutic communities, the workshops tended to be overwhelmingly attended by women - only one of my ten participants was male, attending with his wife. Most were over the age of fifty.

Many were professionally embedded in the *"therapeutic cultures"* (Swan, 2008) of practices such as counselling, bodywork or psychotherapy, though not always as their first careers. They had often heard about The Forge through such networks. However, few told me that personal development was their prime motivation for attending, and some had not realised the part it would play. Personal development epiphanies might bring them back to the Advanced retreat, but in the first retreat it was contact with horses from the ground that the women were after, especially since many of them were no longer able to ride due to increased physical vulnerability. "*I just love the whole...being around them, the smell of them*" *(Jemma).* Many expressed frustration with the lack of opportunities to be with horses from the ground:

I just get on and ride. And yeah, I've always liked it if we had to lead them, and be down there with them. But that hardly ever happened. You know, the horse is ready, on you get, go for a ride. Humans Ride Horses. (Lyla)

Finally, Erin introduces herself and always tells a brief story of how she came to own and run The Forge. Key to this account is the way in which the relationship with her horses became changed through a moment of personal and professional crisis, and how this led her away from conventional horsemanship towards a gradual exploration of new possibilities of interaction and the establishment of her own business.

In this first essay on The Forge I will begin here "at the table", with Erin's extended version of her biography as told to me through our interviews. As explained in the introduction, the shape of my retelling will broadly follow Erin's chronological account in the first instance, and then thematic analysis will then follow. My intention is to explore *why* Erin felt the need to develop an epistemological method which insisted upon the availability of the horse's communications, why further "critical" checks on anthropomorphism were needed, and what form those checks took. I explain how new epistemologies emerged through an intense experience of care and loss, foregrounding the importance of affect in the production of Erin's "felt sense" knowledge practice. It was also made possible, I argue, by the available counter-cultural practices of the time, in which broadly *phenomenological* modes of knowledge practice could be navigated and generate more available and

communicative animal subjectivities. This occurs for Erin in a relational paradigm in which finding the right space to practice becomes crucial and in which the horses themselves play a role. Her story emphasises what Annemarie Mol (1999) might describe as the *"ontological politics"* of her methodological choices, in which not only *representations* of horse subjectivity are at stake, but the very emergence of those subjectivities themselves.

The performance of biographies is thought to have a particular popularity in late modernity, with the *"interview society"* (Atkinson and Silverman, 1997) typically endowing personal revelations with special authenticity and significant social currency. In the much briefer introduction to her life-story at the barn table, Erin not only provides factual information but also grounds the work in an ethical context; and models, for us the participants, a level of emotional availability. What is emphasised is the transformative potential of crisis in developing new relations with nonhuman others, something which the personal development side of the retreat would emphasise in the sessions to come. The extended story below was conveyed largely in one interview, and the way in which it is told is told also reveals a very contemporary preoccupation with the authority of what Anthony Giddens (1991) calls the *"reflexive self"* and the search for its authenticity. This is crucial because this reflexivity of the self becomes the operating framework of the "critical" in the critical anthropomorphism of The Forge.

Early career and finding the "felt sense"

Erin did not come from a particularly horsey family, but describes herself as obsessed with them from the moment she was lifted onto a pony at a local fair as a small child. She rode throughout her youth, particularly enjoying show-jumping, and dreaming of being a stunt rider. She became a riding instructor after leaving school, and then progressed fast in conventional equestrian environments, liaising with dealers to purchase horses and then training them up herself, before being offered the opportunity to take over the livery yard from her boss aged just twenty-five.

She traces the very beginning of her methodology in esoteric experiences with "*energy*", which led her to an interest into horse healing and rehabilitation:

I'd feel really drawn to a certain area on a horse, and I'd want to put my hands on a horse - it's going to sound a bit out there - and when I did that it's like – a bolt of energy would come through? And I didn't understand it, and the horse would always respond, there was always a response, and I started just becoming more aware of where I thought there were areas of pain and discomfort going on with the horse.

A friend whom she confided in suggested she attend an animal healing circle with a psychic who worked with equine "chakras", and though Erin puts the word "healer" in air quotes "*I don't really like the word*" and dropped out of the psychic circle after a year with misgivings, she insists "the *energy* was *something different for me*". During this time, she ran her own competition yard, where as well as using conventional rehabilitation techniques she began to experiment with crystals and vibration, herbs and oils, and the playing of music, noting the horse's responses. Although her own yard was a stabled livery, the contrast with a more "*old-school*" facility across the road, whose approach she felt was "*robotic and conveyor-belt*", helped cement her values. She describes how she began to inhabit a difficult marginal identity, whereby the opportunities being offered to her were no longer in line with her new priorities. Crucially, she wanted a place where the horses would have pasture access.

I think there was this internal change happening in me, but still playing out the old way, because that's what I knew? I was actually really miserable...like I say, it wasn't in my heart, I knew that but I...I overrode that.

At the same time, she says, she began to notice that her own emotions were having an effect on the horses she rode:

I'd started getting some of these moments with the horses, of awareness. Erm, and particularly in the handling, but also in the riding, you know, just noticing where I was in myself, where my mind was at, how that was creating tension in my body and how that was being translated through whether the horse was tense when they were being ridden, or not. And I noticed that as I was letting certain thoughts go in my mind, I'd soften, the horse would soften. So there were lots of these kind of things that I was starting to notice.

It was around this time that illness struck her new yard. Two virulent and aggressive diseases, Equine Herpes and Equine Distemper, arrived at the same time. The yard closed whilst the staff battled for three months round the clock to save the horses. Erin lost two, one of them a foal, James, that she had bred from her own mare, and with whom she had later planned to compete. The experience of such intensive care and traumatic loss, she says, completely changed her relationship to her horses. And she was left with a dilemma when she realised that two of the horses with whom she had planned to train professionally in show jumping, Red and Albert, had been permanently physically compromised from the illness.

Red. Credit: Erin

Arthur in the foreground. Credit: Maisie Tomlinson

With this future in question, Erin became aware of Equine-Assisted Therapy, and sought advice from a practitioner. Inspired by a new world of horse-human relations, she decided she wanted to work with disadvantaged young people. She began to experiment in human personal development with the horses she was helping rehabilitate, but found she was seeing as much change in the *horses* as she was in the human clients:

I was really starting to notice some of the healing accelerate for them, in terms of their confidence, in terms of their emotional and mental....I was starting to see shifts in them. As I was working with people.

Her new husband Rob became an important support, and together they began to search for a home where Erin could move closer towards her vision. Finding the right land, where the horses could roam with natural shelter, environmental stimulation and a variety of forage - was, she said, the priority. When they eventually found the right location and let the horses roam freely as a herd, she says that "a *whole new world"*, liberated from the labour of conventional stable management, opened up:

I started bringing a bit more of my work into the herd, and I was just recognising the horses were so much happier, of course they were outside, I was happier.....I would go and hang with the herd for ages, and it would be the most amazing thing (...) seeing the differences in them, towards me, and then slowly starting to take some groups out with them, and they'd often lie down with us and.....yeah it just....like a whole other world opened up to me. I just saw the possibilities, and the benefits, for people. But more than anything, for the horses, and I just knew that I wanted to provide an environment for them that was stimulating, that was self-sufficient as much as possible, and that they were thriving. So that became the goal.

Erin has now not ridden or used her horses for riding for seven years. This is not, she is careful to say, because this is a final decision which she will never reverse – but because prefers the relationship she has with them now, from the ground. She says she continues to see the change in her horses now, so that in the arena work, simply encouraging clients to acknowledge her horses' subjectivity and agency *in itself* results in them behaving differently; and how the human over-reification of behaviours as personality, *in itself* creates difficult conduct:

I get the biggest buzz out of this work when the child or the adult recognises the horse in the interaction. And there is an acknowledgement, and then you see the animal, the horse, come out of themselves, come alive, you know.... And the more that I notice my horses being heard, I just see it a different quality in them (...) There's so much assumption, so much labelling, so much conditioning around, the horse. "He Is Just, X", you know, "She Is Just a Moody Mare" blah blah blah. And....sure, there might be elements coming from the horse, that are their ways, their personality traits. But I'm interested in the conditioning around the animal that a), creates that behaviour, but also, that creates our interpretation, of that behaviour. Because so often when that behaviour changes, it doesn't exist. When <u>our</u> interpretation shifts. Erm. And I think that ties in with the listening.

It is notable that when asked directly about her influences on her present-day practices, Erin struggles a little, conceding that she has had influences but situating her practices much more in her own trial and error, and from what she says her clients teach her.

I seem to work a little bit backwards. It seems to be a little bit more....I have an experience... and then I share that, and then in some ways... I learn from my clients, and from others coming in an organic way, and then I might explore, research something.

Trained as a life coach, Neuro Linguistic Programming (NLP) practitioner, Forest School leader, and zoopharmacognacist (equine complementary medicine), she is also significantly influenced by Rob's introduction to psychotherapeutic practitioners, and she cites professionals who emphasise the role of vulnerability, trauma, empathy and the body such as Peter Levine, Bessl Van Der Kolk and Karla McClaren. Her notion of the "felt sense" derives partly from psychotherapeutic traditions, originally coined by psychologist Eugene Gendlin in 1978, and now widely used by contemporary practitioners like Levine to describe a felt, dynamic, affective landscape of ever-shifting sensations that embody a source of knowledge about the world (Levine, 2009: 69). It is also inspired by natural horsemanship expert Bill Dorrance's concept of a developing a *"feel"* for the horse (Dorrance and Leslie, 2001). Other than this bricolage of influences she has had no formal therapeutic training. This is, she says, an ongoing question for her, but she has worried in the past that she would lose the authenticity of her own process:

Because I could go on and on and on forever like that, but actually, there's something more organic going on, which is....my process. And ultimately The Forge wouldn't exist without my process (...). So I'm learning from myself all the time. And it would probably be okay now because I think I have enough awareness not to allow A Training to come in and....for me to lose that, but I think, not that long back, it might have overshadowed it and I would have doubted myself and I would have lost that part of me...(original emphasis).

The other reason she has not trained as a certified therapeutic practitioner, for example under a scheme like EAGALA (Equine-Assisted Growth and Learning Association), is partly because it is unnecessary for personal development work, and partly because of her commitment to what she calls *"the horse's voice"* in her work:

EAGALA is much more about "doing" things with horses to get insights for people and I was (and still am) moving away from that, and exploring the "being" and allowing the horse freedom to have a voice, and this is why it didn't resonate with me." (email exchange).

Likewise, the influence of Natural Horsemanship, a methodology that emphasises keeping horses in a "natural" state and working with them in a spirit of partnership rather than domination, is acknowledged, particularly in her use of Bill Dorrance's notion of developing "*feel*" for the horse, but is played down in her account. She has experimented with certain techniques, and uses some work to break up scuffles in the herd, but dislikes what she sees as Natural Horsemanship's enduring use of dominating practices, what she calls its "*packaged*" performances, and what she sees as a robotic, step-wise methodology without sufficient self-processing and awareness.

And the thing that seems to lack you know, it's like (...) there's this....method. You do this step-then this step -then this step-then this step and then you'll be <u>There</u>. But – excuse me but – it's more than just actions.....most of our communication comes from here [pointing to her body] - it's our intent. It's our mood, it's where we at. And for a lot of horsemanship stuff, I don't think that's addressed.

That said, her horses live in similarly "natural horsemanship" conditions, outside year-round, unshod save for regular horse podiatry visits and treated with zoopharmocognacy and equine osteopathy as well as mainstream veterinary medicine. When bringing horses in from the field Erin says she tries to respect the horses' choices by choosing only those who *"present themselves"* as much as is practically possible, and believes this also ultimately benefits the clients' experience.

The Forge opened in 2011, and now offers approximately seven three day retreats a year at "beginners" and "advanced" level; occasional "herd-days", and one-to-one sessions, sometimes with the client's own horse. Unlike many equine-assisted therapeutic organisations, it is open to all, not just to professional referrals. Erin says that financially, she would like to do more, but she does not want to work the horses more than four hours a week each. However, at the time of research she was also working with the local authority and 24 young foster children. Other projects include working with an addiction charity, and she has recently set up a six month training programme for those who wish to teach The Forge's method themselves.

Reflecting on her journey, it's clear that Erin places a high degree of commitment to "giving the horses a voice"; and that she reflects with some regret on her previous

style of interaction with horses, seeing it partly as a manifestation of her own need to feel and exert control:

I think as a kid...it was just that pure passion and that pure joy and that ...innocent connection, and I just couldn't get enough of them (...) I just wanted to be with the pony. And I think, as I grew up....(pause) things changed. I definitely moved into a place of feeling that I needed to be more on my guard, I needed to have a certain bravado, in order to survive at school. And that echoed through into my relationship with the horses (....) And I think it moved from a pure joy and an innocence into a control, erm, relationship. And not necessarily too conscious of it, but that's what it became (...) working on the bit, and you know, getting more technical with things (...) I think there was a massive disconnect, and therefore I was not listening to the horses. I thought I was. And I thought I was doing the best for them, you know, they were groomed perfectly, the tack was cleaned, the bed was immaculate. But the actual relationship? Was all about me. But my projection was – I thought it was all about the horse. And so.....I feel this work....has given them their voice back. And any time there's a point of conflict that might appear between me and the horse, it's because I'm not listening. (...) So I think this work (..) has made me...slow down, and open that out, and to realise I don't....have to control, in this physical way. The control comes from that kind of self-mastery of self. To be able to process self, to recognise where I'm at, to recognise what's going on. And as soon as I do that then the horse works with me. In whatever way. Or shows me a different way.

Analysis

In tracing Erin's story of the development of her "felt sense", critically anthropomorphic methodology, one begins to gain a sense of the personal, historical and relational conditions that led her to her belief that the horses were communicating with her in a way that was to some degree transparent, once the *critical* labour was done on oneself. In what follows I will analytically explore what I see as three emergent themes from her narrative - the phenomenological influence of "New Age" practices, the importance of the "reflexive self" in a relational context, and the "ontological politics" of her knowledge practice.

Phenomenology, perceptual entrainment and New Age Practices

Whilst undoubtedly Erin's more conventional training with horses also developed her sensitivities, we can see from her story above that her experience of equine intensive care and rehabilitation, as well as her engagement with so-called "New Age" counter-culture, seems to have played a particularly important part in Erin's shift towards new methodologies of knowing horses[8]. The former is emphasised through the central place the virus at the yard occupies in her narrative arc, and the effect that the death of her foal James and the subsequent disabilities of Red and Albert had on her, emphasising the importance of the circulation of affect and the relational contribution of the horses *themselves* to the development of her epistemology: contributions that are typically overlooked in detached scientific accounts of knowledge production (Latimer and Miele, 2013). The latter, as experienced through animal healing circles, evidently allowed her to identify, validate and explore some unusual experiences of perception within a certain cultural milieu, situating the development of her "felt sense" methodology and her belief in the *availability* of horse subjectivities, very much in a particular time and place.

The term "New Age" is used with some caution, as it is a label usually applied by outsiders, with a significant connotation of scepticism about what is perceived as the anti-rationalist *"mumbo jumbo"* (Wheen, 2004) of some of its practices. Nonetheless, it is a useful organising term for a set of eclectic beliefs and practices arising from the 1970s to the 1990s in the UK, which tended to reject mainstream Christian theology and scientific rationalism (Hanegraaff 1998:331) in favour of drawing on, amongst other traditions, Eastern religious ontologies such as Buddhism or Hinduism. Many believe in a unitary consciousness whose divinity is present in all living beings, and the global transition to the eponymous "New Age" of global harmony, therefore, lies in the transformation of the *self,* midway between a spiritual and psychological project. New Age practices usually aspire to reject the *dualisms* of mind/body or human/nature, favouring more "holistic" ideals – therapies treat the "whole person", humans must rediscover their inseparability from nature, and so on (although Ruth Barcan notes that in practice, dualisms often persist (2009:219)). More broadly,

8. It is worth comparing Ann Game's 2001 account of the rehabilitation of her horse K.P and its similar effect on their relationship.

rationality becomes only one form of bodily intelligence, and there is an emphasis on developing heightened or altered forms of intuitive perception and wisdom through the practices of meditation, bodywork, or other forms of *"spiritual apprenticeship"* (Barcan, 2009:219).

Erin's membership in this community seems somewhat partial and negotiated, as she is quick to place *"healing"* in air quotes and to distance her work from *"psychic"* abilities and practices. Nonetheless, it seems to have been an important formative community, and arguably helped shape a highly *phenomenological* methodology. Whereas, as we shall see, Francoise takes up an explicitly theoretical phenomenological defence of her work, for Erin perhaps the most accessible way into similar ideas is through these popular practices. The characteristically *experiential* epistemological emphasis becomes evident in the importance of felt experience in her emerging methodological practice, recounted through, for example, her early experiences with "*energy*", her creative experiments in rehabilitation with crystals or music and her account of the inspirational importance of time spent "*hanging with the herd*". Her account is peppered with passive rather than active forms of enquiry, such as "*I would notice*", emphasising the importance of felt experience and the influence of Eastern ontologies such as meditation. Intellectual deconstruction comes later - she works "*backwards*", she says, experimenting, sharing, and reflecting before turning to research; and my repeated queries about her influences or plans raise just the slightest note of impatience "*It's like I said to you (..) I just follow my nose*". A phenomenological approach is also evident in the apparent non-dualism of her approach to equine behaviour. She does not describe a detached process of looking for something essential *within the horse* that explains its behaviour, but is concerned with the way in which self/other, human/horse subjectivities emerge together. For example, she expresses frustration with the *labelling* of the horse, in which behaviour is reified as personality ("*just a moody mare")* and emphasises that these human assumptions co-create equine conduct "*it doesn't exist, when our interpretations shift*". It is also notable that, unlike Francoise, who tends to emphasise the importance of how animals are *seen,* Erin's language tends to emphasise the importance of "*listening*" to the horses, in a *"sensory model"* (Classen, 1993) in which the acoustic is given moral priority, perhaps influenced by the cultural emphasis on turning inwards for insights and missives. It is important that this is not understood as a literal, one-dimensional description of

what physically unfolds (Classen, 1993:135-7) and so it remains to be seen in further chapters what epistemological significance the experts attribute to the senses in lived practice.

This is not the place for an extensive discussion of the "New Age" movement, but the important point here is that The Forge shares with QBA a *phenomenological* orientation (as we will see in the next essay). One is cultivated explicitly, through a postgraduate education, and one is learned, facilitated, and given a discursive framework through the available "New Age" counter-cultural movements of the time. Horses' subjectivities became more available because new epistemological frameworks, emphasising alternative perceptual abilities, become available for knowing them. Such popular, practical epistemologies, I would argue, have much in common with phenomenological epistemologies, albeit tending to emphasise a spiritual dimension which is absent in the latter, and often bound up with a problematic Western consumerism and individualism. It is this emphasis on *the self* and its expression which I will turn to next.

The authentic late-modern self

The second theme I wish to draw out of Erin's account is the role of *the self* in the development of a "felt sense" that is sensitive to horses' communications and able to discriminate between erroneous *"projections"* and authentic equine communications. Erin's story is resonant with contemporary tropes about self-knowledge, and the self's capacity for authority and agency. Here, Giddens' (1991) theory of the *"reflexive self"* helps situate Erin's development of a "felt sense" in a thoroughly contemporary moment. He describes how *"high modernity"*, an era characterised by industrialisation, bureaucratisation and globalisation, has caused an epochal shift in the experience of the individual. Place no longer anchors social relations, because globalised institutions have become disembedded from their locales. Relationships are more impermanent than before. Traditional roles decline. Intense and multiple flows of information generate increased scepticism about the authority of formal expertise. The experience is one of fragmentation, discontinuity, and unpredictability, what he calls *"ontological insecurity"* (Giddens, 1990).

In an era of such flux and uncertainty, he argues, the self has taken over as the source of security and meaning, a *"reflexive project"* which must be continually worked on to satisfaction (Giddens, 1991:75).[9] Expert systems of self-help have arisen to help individuals build a coherent narrative arc of the life course. Personal crises are appraised anew, not as misfortunes but as opportunities for 'growth' and change (ibid:138-9). The amplification of thoughts, feelings and bodily sensations is used to build a "*coherent and rewarding sense of self-identity"* (ibid:75) through constant self-questioning in order to tease out an *"authentic"* self.

To say that Erin's journey maps onto these modern values is not to call into question the sincerity of its telling, but it is to emphasise that the development of the "felt sense" methodology is entangled with accounts of the self that are historically specific. It is notable, for example, the role that *"self-processing"* plays in affirming Erin's confidence in her methodology. She explicitly affirms the authority of the self above other, more formal modes of learning: "*there's something more organic going on, which is....my process.... I'm learning from myself all the time"*. The account also resonates with notions of authenticity "*it wasn't in my heart, I knew that, but I over-rode that*". Crucially, it is an ability to be in touch with an *authentic* self which allows true empathy and true perception to be disentangled from the unreflexive importing of personal issues:

But the actual relationship? Was all about me. But my projection was – I thought it was all about the horse.

These *"projections"*, then, are barriers not just to knowledge of the self, but to knowledge of the other. And so the *critical practice* in this critical anthropomorphism becomes emotional self-awareness and self-processing. She describes how this self-work enables a certain kind of *control: "The control comes from that kind of self-mastery of self. To be able to process self, to recognise where I'm at, to recognise what's going on"*.

As such, the connection between the two aims of The Forge becomes clear. "*Learning about horses*" and "*learning about oneself*" are inextricable from one another. To do the

9. Drawing on Giddens' account in his analysis of the human-animal relationship in modernity, Adrian Franklin (1999) famously argued it is the experience of "ontological insecurity" which leads to companion animals becoming reliable "substitutes" for the kind of dependable, enduring human relationships of the past.

former well, and with sufficient discrimination, one must engage in the latter. This, then, is the "critical" check in Erin's particular version of critical anthropomorphism.

Giddens has been criticised, for example by Brian Heaphy (2007:101-2) for conceiving of the self as overly rational, self-aware and coherent. From this perspective, is interesting to note the tensions in Erin's account. On the one hand it is rationalistic in the sense that events are made to cohere into a story of a life with a clear narrative arc, through which somatic experiences can be interpreted. On the other it purports to be profoundly non-rationalistic, according priority to *"noticing"* what is already unfolding in one's somatic experience and then *"following one's nose"*, with rational decisions only taken after sufficient emotional self-processing.

Ontological politics and taskscapes

The analysis above shows that Erin believes that new methodologies are needed in order to render equine communications more available, and also to critically check erroneous "projections" of self. As we shall see in the following chapter, Erin shared with Francoise an increasing discomfort with the mechanistic, objectivist practices she saw in the world in which she wanted to build a vocation, such as the *"robotic and conveyor belt"* practices of the neighbouring competition yard. However, Erin's account further emphasises the *co-creation* of mechanistic behaviour in-situ, because behaviour isn't the visible emotion of an individual, it is an *intersubjective achievement*. Not only does she see this knowledge as ethically important, but she seems to go further and understand it as, once recognised, a way in which *new subjectivities* can emerge as a result: *"...you see the horse come out of themselves, come alive, you know..."*. In this sense, despite her relatively modest ambitions for the scope of her project in comparison to that of Francoise, she is undoubtedly practicing an *"ontological politics"* (Mol, 1999) in which she hopes her choice of method allows new possibilities for intersubjective co-flourishing which are hybrid: a horse-becoming-with-human (Despret, 2004; Deleuze and Guattari, 1980). Landscape, too, is enrolled relationally into this becoming-with; because it was, according to Erin's account, the absolute priority in searching for the right space, giving the horses what they needed, freeing Erin from a significant amount of instrumental labour, and enabling more sociable encounters in which she could *"go and hang with the herd for ages"*. It enabled new relations, perceptions, behaviours, agencies and transformations that

were previously not possible: *"a whole new world opened up to me"*. In a similar way to Mol, Tim Ingold argues that the world does not precede perception, but he places more emphasis on mileus or what he calls "taskscapes", the environments that afford certain social, practical, embodied and emplaced activities (2000:195). Releasing the horses onto pasture enabled a whole new set of tasks and activities and therefore, from this perspective, it is unsurprising that Erin feels a whole new set of perceptions, subjectivities and convivialities emerged. Further chapters will examine how this relational *becoming-with* is shaped when *human* flourishing shifts into focus in her "personal development" work.

Conclusion

In the first essay of this chapter I began by setting the scene of the fieldwork site, giving a sense of the charismatic importance of The Forge's rural location, and the *"socio-atmospherics"* (Mason, 2018) of the barn and its objects, designed to facilitate the possibility of emotionally expressive encounters. I briefly described the demographic of the participants and their motivations for attending, noting that most stated that their reasons for attending the first "beginners" retreat was less to do with a wish for personal development and more a desire for an alternative kind of contact with horses, later in life, than riding. I also outlined some of The Forge's living and working arrangements, and I described how it differed as a site to many other EAPD organisations because of its emphasis on horse behaviour and communication, the availability of the work to those without diagnosed conditions and the fact that the horses were no longer ridden.

Erin's biographical story then helped situate the development of her "felt sense", *critically anthropomorphic* methodology in its historical context with its various influences, but I was interested in *why* she felt the need to develop an epistemological method which insisted upon the availability of the horse's communications, why "critical" checks on anthropomorphism were needed and what form those checks took. Three major themes emerged. Firstly, I noted a distinctly phenomenological approach to the development of the "felt sense" methodology in which experience and experiment takes place before intellectual deconstruction, primarily rooted in Erin's early experiences of rehabilitation and care, and in the "New Age" counter-culture of the 1990s. Secondly, attention was

turned to the evident importance of the project of the self to Erin's understanding of the development of her methodology. Drawing on Anthony Giddens analysis of the *"reflexive self"* in the context of the *"ontological insecurity"* of late modernity, I situated her account in late modern values. Finally, I argued that the development of Erin's method performs a kind of "ontological politics", in which landscape and human behaviour is enrolled in the production of equine subjectivity and behaviour. *Reifying* the horse's behaviour as the product of a fixed personality results in one kind of horse, whilst *listening* to the horse's voice results in another.

Exploring these themes has provided an insight into Erin's own self-understanding of the significance of her critical anthropomorphism methodology in its socio-historical circumstances; and how the harnessing of certain existing cultural practices helped shape its development. In future chapters, we will investigate how some of these ideas play out in practice, and discover more about the relationship between the two aims of The Forge: "learning about horses" and "learning about yourself".

Chapter 4: *"I'm going to face this thing head on, about subjectivity and its place in science"*: Francoise, the development of QBA and Moor University

I arrive at the university reception to be guided down to the Centre for Animal Science (pseudonym), a basement centre composed of staff offices and the animal laboratory itself, which houses mice, rats and macaque monkeys. CAS is accessed through an unmarked metal door with a keypad entry system. Descending the clinical linoleum staircase, the attention is drawn to soft, artful photographic portraits of laboratory animals - a piebald rat cradled by blue-gloved hands, a portrait of a macaque with "Billy" tattooed across his chest. At the bottom is another set of double metal doors. A strong smell of warm rodent bodies and sawdust hits you here from a vent, but disappears once you step inside a modern office space, where I am signed in. Moving through the offices, a door opens onto a robing area, where we must first enter a sealed "air shower" unit to blast away surface contaminants from our bodies and then, on the other side, don disposable white coats, hair and shoe covers and latex gloves.

Then Maria pushes open the double doors to a large, blue, sterile room, brightly lit. Down one side is a narrow bench with some large computer screens, glowing with mouse screen savers. Down the rest of the room are about seven rows of trolley racks, each row containing about 150 cages on each side. The cages are not the wire cages I expected – they are identical, clear-plastic, shoebox-sized cages that slot in on runners. The impression is entirely that of a toolbox rack, which seems in some ways appropriate given the stated purpose of the animals' lives. The room contains thousands of mice.

A similar cage system to the one at Moor University. Credit: Anima Lab

I sit on a chair underneath a poster graphically illustrating a mouse oestrus cycle as Maria does her checks. The room is strangely soundless apart from the hum of ventilation systems, but in the peripheral vision, inside each cage, dark shadows flit. Maria explains that mice are usually housed in social groups of four or five, calculated by a floor space x mouse weight ratio. Each individual cage has its own air supply, to avoid cross-contamination, and mice should only be examined underneath a bench with an extractor fan. Moving closer, I see that cards on each cage are numbered with a series of codes and the occasional note: "soak diet" "keep under observation" "pregnant". There is a thin layer of sawdust on the floor of each cage and a cardboard tube, nesting materials, pellets and a water bottle. Most of the mice, being nocturnal, are curled up in their nests. Others are shuffling around the cage. They are all black "C57" mice.

I reflect on my own feelings - it's surprisingly difficult to emotionally engage with the mice, an unnerving experience for me in itself. It strikes me that this is not surprising given the whole architecture of the space, its objects and the choice of

experimental species are designed and chosen in part to distance us from the animality of its inhabitants. (Fieldnotes extract)

The contrast of Moor University site to that of The Forge is clear, not just in the materiality of the environment, but in its purposes, objectives and limitations. The artificiality of the materials, the standardised housing, the highly-controlled environment, even down to the purified air and the staggering multiplicity of its inhabitants, also reflect the very different aims, epistemological priorities and ontologies attached to Moor University. Here, only a welfare status is sought, rather than more elaborated intentions or motivations. With standardisation the ruling currency, any perceived individuality of the rodents tends to be a problem, and human-rodent bonds are largely discouraged.

It is somewhat ironic that my entrance into the world of Qualitative Behaviour Assessment should begin here because Francoise Wemelsfelder's journey into animal welfare science began, she tells me, with a refusal to experiment on animals at university in the 1970s. Together with some other students she organised peaceful, if vocal protests demanding alternatives that grew into a nationwide student movement. Now her work is entering such a space for the first time, seeking to ameliorate their lives in already compromised circumstances. Unlike The Forge, QBA does not have a specific location that can be cultured in service of its methodology - it travels.

In this second essay of the chapter I will explore, in a similar way to the first, the socio-historical conditions which led to the development of QBA and its particular version of *critical anthropomorphism*. It will take the same structure, with a chronological, biographical overview of the QBA journey preceding an analysis section. I will then use Francoise's account to explore why she felt that a methodology which explicitly affirmed the *continuity* of human-animal experience was necessary in the field of animal welfare, and what form its *critical* component took. Throughout, significant overlaps with the rationale for The Forge's development will emerge, despite many obvious differences. Firstly, I show that Francoise Wemelsfelder is similarly concerned with the *ontological* implications of her methodology and what it means for the emergence of the animal's subjectivity and agency. I then argue that she shares Erin's phenomenological approach, albeit

shaped by a more explicitly theoretical tradition, and emphasising different phenomenological qualities. And finally, I demonstrate how the critical checks imposed on her qualitative methodology can only be understood through the history of animal welfare science as a discipline and how it created new imperatives for prospective animal welfare scientists in the 1980s and 1990s.

Introducing Howard and Maria brings us up to the present day, with QBA now a successful and reasonably well-accepted methodology. With their motivations and practices explored more fully in later chapters, here I will just briefly introduce the two academics and the nature of the project that I followed, before outlining briefly why QBA attracted their interest.

"Subjectivity and its place in science"

Francoise is originally from Holland, where her university training took place until a post-doctorate brought her to Scotland's Rural College, where she has remained ever since. Animals played an important part in her early life, with many pets at home in the suburbs, including a beloved dog, and animal ethics shaping the family's vegetarianism. They were nature enthusiasts, walking in the forest every weekend, and Francoise was a keen and talented bird-watcher as a child. She was certain from a young age that she wanted to be a wildlife ecologist, and in 1976 she enrolled at the University of Groningen in the Netherlands. Almost immediately she became politically active when she found she was expected to conduct vivisection, and refused. With other students, she organised protests and liaised with other university groups to create a nationwide movement that Francoise was active in throughout her undergraduate years.

She quickly discovered in that first year of her degree that discussion of animals' felt experiences was not considered “scientific”. Those who were interested in it were told to take philosophy or art. Shocked, she suspended her studies to re-consider her options, eventually deciding that the question of animal sentience in science was more important for her to pursue than wildlife ecology:

I thought that's really bizarre, if that's what science is I'm not sure I want to have anything to do with it. (...) So I thought either I'm leaving, or I'm going to face this problem head on, this thing about subjectivity and its place in science.

Returning, she persuaded her lecturers to allow her to study pain and its experience, and, impressed by her drive, her lecturer offered to write her a separate exam on this subject in place of the standard physiology paper. The presentation of her first project, however, was met with some outrage:

I remember presenting my first-ever results as a science student about measuring pain behaviour [in the castration of piglets]. And standing in my university and concluding that therefore these piglets suffered pain. They all jumped up and said "No no you can't say that!! You – you know, you've measured pain behaviour", that is a physical concept. That has no bearing on what the animals feel subjectively, at all.

Indignant at this reception, she moved on to a PhD in "theoretical biology" which allowed her to combine both biological and philosophical questions. Her supervisors combined expertise in both physiology and phenomenology. She chose to study *boredom* in farm animals, something which played a very important role in her later theorising about agency and consciousness, because of the resistance to the idea that an animal *could* be bored, or that this was a welfare problem. Drawing on Thomas Nagel and the phenomenologists, her argument centred around ways of conceiving of boredom not simply as an objectified brain state, but as a lack of *agency* experienced throughout the whole animal. This *dynamic* conception of animals' emotions became very important to her thinking, and whilst other biologists began to break through into the study of animals' emotions by using quantitative, physiological measurements more in tune with conventional scientific practice, she felt certain that subjectivity was not adequately recognised or captured by physiological measures, and that it needed to be studied as a dynamic quality:

If I'd been willing to....look at consciousness and emotion as an object, I would have gone in a completely different way, and people would have understood and been pleased with that, but right from the start, from my first year, I knew that was not the way for me. It's very clear to me that I have never been on that path. I was always like, animals are primarily subjects.

They are not merely objects. So you're going there, and I'm going there, and I'm going to insist on calling it science. What the hell does that mean.

The breakthrough for the development of QBA came when she was offered a post-doctoral position at SRUC in biology in 1993 and started to search for ways in which she could operationalise her philosophical convictions in a scientific methodology. She began by using ethograms[10], but whilst they allowed her to capture the physical movements, they didn't adequately capture the emotional quality. And then, she said, one day, looking at her pigs, "*the penny dropped"* that qualitative descriptors were needed:

I needed, a qualitative, fundamentally integrative, as I would say now, whole -animal based, methodology, that started with completely different types of descriptives, that would capture that immediate emotional expressivity instead of having the physical behaviour categories from which you can only infer the actual feeling.

Soon after this she discovered Peter Hacker's writings on Wittgenstein, whose writings on mind, body and expressivity proved to be the intellectual crystallisation of her intuitions about the inherent *visibility* of an animal's subjectivity through its embodiment: "*the hair on my neck stood up...(....) and that was all I needed. That is literally what I'm doing."*

She began writing and publishing papers in animal welfare science journals (Wemelsfelder, 1997; 2001), making the philosophical case for the direct visibility of animals' subjective experiences at what she called a "*whole-animal*" level, where time is taken to observe the context and to integrate dynamic, shifting expressions together into the right word, rather than merely recording, for example, a decontextualised "sitting" as data. This is, she argues, what prevents her work from becoming "anthropomorphic" in the sense of insufficiently attentive to the species-specific lifeworld, because attention to the "whole animal" in the context of its activity is likely to yield a more accurate interpretation (as explored in Chapters 9 and 11):

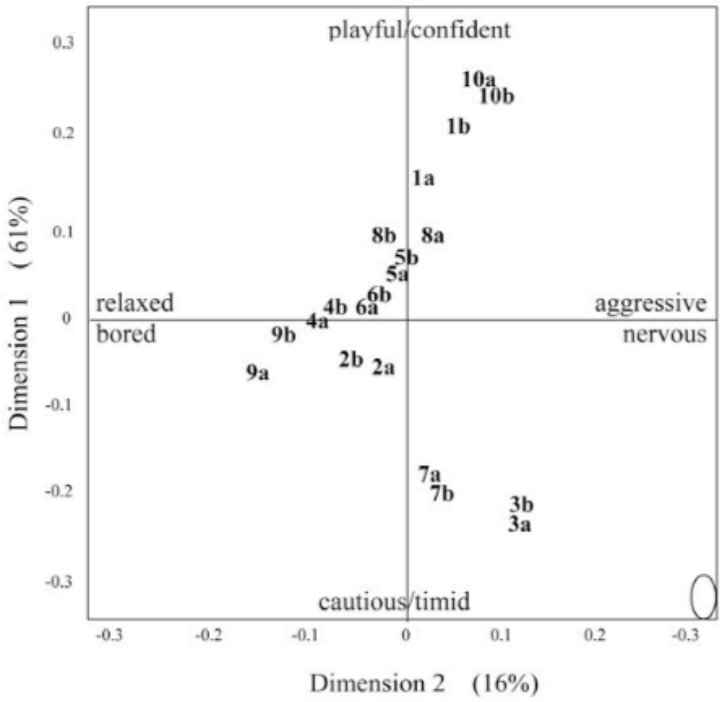
10. An ethogram is a species-specific fixed list of typical physical behaviour attached to basic emotional labels such as "in pain" or "aggressive". Behaviour must be observed from these categories for a label to be used. It tends to be quantitatively measured in some way, for example the number of times an elephant sways from side to side to measure stereotypy.

…what makes [anthropomorphism] more likely to happen is if you only look at parts of the animal. If you look only at these ear positions and the facial muscle positions, the risk of misinterpretation there is much greater because these are only very small parts of the animal's overall expression, and scientists tend to want to fix the meaning of certain forms, and then there is no movement at all (...) And that is not the frame within which QBA works. So I say, the feeling, the actual activity of experiencing, un-symbolically, the reality of it, only happens logically at the whole-animal level. So when you look at the animal, and you look at it in all its complexity - in the context, what it's doing - you are then, as far as I'm concerned, properly observing the feeling agent, and therefore that will vastly reduce your risk of anthropomorphism because you are now actually looking at the animal itself!

At the same time, she began recruiting MA students to observe pigs that had been kept in conditions with different levels of "enrichment", and to write down in qualitative terminology what they saw. In these experiments, she insisted her student participants must choose their own terms, contesting the objections of her senior colleague that she must fix them in order to make the results measurable and comparable. She argued that she needed to understand what her participants spontaneously and independently saw, but her colleagues were insistent. Something of an impasse was reached.

However, a chance conversation with a new statistical advisor revealed that a technique used in food science, "Free Choice Profiling", combined with a statistical procedure called "General Procrustes Analyses" (GPA), might allow her to do both. She could allow participants to use their own qualitative terms to describe the animals, and then in a second stage, ask them to quantify the intensity of their own terms. This means that using GPA, collective patterns of agreement can emerge, even when the variables participants use are different because they have been freely chosen (Arnold, 1985; Oreskovich et al 1991; Wemelsfelder et al 2000). Patterns of agreement emerge not on individual words, but on *strings* of words, or conceptual dimensions, such as playful-confident, or cautious-timid:

Figure 4: Dimensions of pig behaviour as scored by observers. Numbers denote the individual pigs observed and their location in expressive dimensions. (Wemelsfelder et al, 2012)



This was the break that Francoise needed, and with her colleagues she repeated her experiment with the pigs, applying a control whereby half of the pigs had been given an enriched environment for three weeks, and half a barren environment. Could blind observers, observing the animals in a test pen from behind a screen, score the animals using their own terms, in such a way as to pick up on the treatment? The resulting GPA analysis provided encouraging results, demonstrating some good agreements (Wemelsfelder et al, 2001). It was enough. With GPA giving what Francoise calls a "*street cred"* to QBA, her head of department supported her with an application to the Department of Environment, Food and Rural Affairs (Defra) for a three-year development grant which she won.

Over the next eight years or so the methodology was repeated and refined. Studies showed significant statistical agreement on animals' emotional demeanours, even when the participants came from different professional and political backgrounds (Wemelsfelder et al, 2012). An Australian research group used QBA to assess sheep welfare in transit, simultaneously assessing its correlation with more established physiological measures of welfare, such as heart rate (Wickham et al, 2012). The study demonstrated successful parities, putting QBA increasingly on the map of mainstream animal welfare assessment. A review of the QBA literature in 2016

(Fleming et al, 2016) concluded that QBA was an effective tool for livestock welfare assessment. Critics, however, accuse QBA of vulnerability to observer bias, and not all studies have supported inter-observer agreements, or good correlations with other indicators (Broom and Fraser 2015; Bokkers et al 2012; Tuyttens et al 2014).

Francoise Wemelsfelder is now Professor of Animal Science at Scotland's Rural College, where she participates in a government-funded livestock Animal Behaviour and Welfare research group. She also teaches a module in Animal Cognition and Consciousness on the MSc in Animal Welfare at Edinburgh University, and contributes to an MSc course in Holistic Science at Schumacher College in Devon, ratified by Plymouth University. In 2011, intrigued by the explosion of work in animal studies and by the work of renowned anthropologist Tim Ingold, Francoise took a sabbatical at Aberdeen in Social Anthropology, an experience which she found very valuable and influential, but in which she felt the role of science was explicitly sidelined. She returned to Scotland's Rural College, but increasingly engages with scholars in the humanities, and is referenced regularly as a progressive example of animal science (Aaltola, 2013; Greenhough and Roe, 2011; Fudge, 2018; Birke, 2014; Buller, 2012; Charles et al 2018).

Most of her work now takes place on a consultancy basis, supervising the work of animal professionals exploring QBA in different contexts with different species and co-publishing papers with them. It was in this consultancy capacity that she was working with Howard and Maria at Moor University, acting as a remote advisor, and assisting with term generation and data analysis to make sure the principles of QBA are followed. I will complete this section by briefly introducing the Moor University team.

The Moor University team: Howard and Maria

Maria

At the time of research, Maria was a third-year PhD student at Moor University, studying under the supervision of Howard and two other scientists. Originally from a country in the Global South, Maria's first training was as a vet. Lacking opportunities to pursue her interest in ethology in her home country, she gained a

place at Moor University to do a Masters in Animal Behaviour and Welfare with Howard as a principal lecturer. It was in reading for her dissertation that she first came across QBA, and was attracted by the way that it "*tries to integrate emotions and animal welfare in a scientific way*". However, the head of department, she said, "*just laughed*" when she asked him about the method, because, she says, "*he thought it was too subjective*". She thought this was unfair:

…the thing about QBA is that....even though people say that it's subjective, the assessment of animal welfare itself is subjective! Because it's the person who actually decides, all the time. Is the health of the animal okay? I'm the one who decides that. Is the behaviour of the animal okay? I'm the one who decides that – subjective all the time!

Maria was encouraged, however, by Howard's more positive response, and when an opportunity arose for a potential PhD collaboration with him as her supervisor, she re-stated her interest in QBA. He agreed, but since his own expertise was in laboratory animal welfare, a project with rodents was the condition. Maria readily agreed, with few qualms about the controversial nature of the setting. She had had little previous experience of mice, and no prior experience of entering an animal research laboratory.

Maria's photographs of some of the mice she worked with. Credit: Maria

Together Howard and Maria drew up a doctoral project which they hoped would result in a Laboratory Mouse Animal Welfare Protocol, a collection of indicators to be worked through systematically by an animal welfare assessor during routine assessments. At present, Howard told me, animal welfare tools for lab mice were used in a relatively ad-hoc way between facilities. They hoped to develop a comprehensive set to render this process more universally comparable, incorporating what Maria described as "*objective*" and "*subjective*" indicators. *"Objective"* indicators included environmental factors such as facility temperature

and physiological methods such as coat condition, weight, and the condition of the nest. The *"subjective"* indicator would look at the psychological welfare of the mice, and use QBA as the sole indicator. QBA would thus be the "wild card", the indicator introduced by Maria out of curiosity. Since it had not been used in rodents before, its species-specific terms needed to be developed and validated from scratch, and Maria would lead this process.

Howard[11]

Whilst the QBA project was Maria's own, Howard's support, advice and influence would become very important to the project and to its future. He had been taught by Francoise as a student, and evidently held her in high regard. He described with anger how she was sometimes treated at early conferences, blaming a culture that had become obsessed with fitting into the accepted values of mainstream science at all costs:

I remember going to seminars with very very eminent animal welfare scientists who were quite vitriolic about QBA, and towards Francoise, I mean I have seen Francoise torn into by people....and that was based upon fear. That was based upon fear of animal welfare being considered to be (...) a pseudoscience (...). It's been one of the best things about the twenty years I've worked in animal welfare, seeing that opinion about QBA change, and I've said this to Francoise, I think she has immense intestinal fortitude to stick at it.

He says he had long been hoping to find an opportunity to incorporate QBA into his work, and despite spending most of his career building precise quantifiable indicators, he was intrigued by QBA for three reasons. Firstly, he had started to doubt the efficacy of quantifiable, standardised indices for the measurement of animal welfare, such as coat condition. He had an intuition that humans had an innate ability to read other animals, albeit with some better at it than others. Moreover, he suspected that such indices were, in fact, parasitic on an a-priori qualitative evaluation:

Secretly I think there's something about that I think that we all do, so ....if I am asked to assess the welfare of a laboratory animal, that is what I'm doing. I might have indices in my

11. Howard's biography has been generalised to preserve his anonymity

head, but I think QBA is what I'm doing. So I've always liked that idea, with a little bit of training, but ultimately just asking people to use their intuition.

Howard had a preference for practicality and efficiency in laboratory welfare assessments, and he thought that QBA's intuitive judgements were potentially much quicker.

Secondly, he saw epistemological limitations in the use of standardised measures: *"the assessment of welfare is only as good as the indices you have*", and that therefore there was a risk that poor welfare could be missed with poor indicators. QBA, he thought, was safer, because it allowed residual indicators to be picked up through allowing assessors simply to notice what was there. Thirdly, he saw an exploration of QBA as a means of addressing epistemological questions that bothered him. What emerged through our interviews is that, albeit working in a very different disciplinary paradigm, Howard was fascinated by many of the same questions I was – *why* we see what we see, what makes some people more talented at assessing animal welfare – and by the ethical potential of certain methods of observation over others. He thought QBA could help answer those questions, and make his colleagues think more deeply about why they observe what they do. The methods with which he hoped to "deconstruct" QBA for this purpose will be explored in Chapter 6.

Analysis

Through introducing the biographies of Francoise, Maria and Howard together, one gains a sense of the very different context in which QBA's critical anthropomorphism is situated in comparison to The Forge; the controversy of its application; and the potential impact of its adoption in the laboratory animal welfare community. A historical perspective, as understood through a biographical narrative, also helps us understand why Francoise felt so strongly that a methodology which explicitly acknowledged the availability of animals' subjectivities was necessary, and why it should take place *within* science, not outside it. In the following analysis, I will draw out three important themes which help locate the ontological and epistemological significance of the development of Qualitative Behaviour Assessment: its location at the birth of animal welfare science, the epistemological importance of Francoise's phenomenological training and how, like The Forge, QBA performs an *"ontological*

politics" (Mol, 1999) with the animals which in effect turns them from objects into subjects.

The emergence of QBA within the growth of animal welfare science

It is striking that Howard and Maria are quite comfortable with suggesting that the visibility of their mice's emotional expression is already there. Maria is convinced that one should be able to read the emotions of animals "*in a scientific way*", and Howard suspects that a qualitative assessment always takes place *prior* to a supposedly more "objective" use of standardised indices. Yet these beliefs are not universal or historic. Howard's experiences of colleagues' "*vitriolic*" attitudes towards QBA in the early 2000s and Maria's experience of a senior academic "laughing" at the idea that she should study it, give some indication of its controversial relationship with conventional animal welfare science.

Francoise's account of her undergraduate experience is firmly situated in the broader controversies of what came to be known as "animal welfare science" in the late 1970s/early 1980s. It is evident from her account that a significant amount of "boundary work" (Gieryn, 1983) was conducted by scientists at the time against the notion that the study of animals' felt experiences could form part of its domain. What Francoise observed in her piglets, she was told, was not *pain*, but "*pain behaviour"*. The psychological theory of Behaviourism, pioneered by John B. Watson at the turn of the century, was still prevalent in animal behaviour studies, aspiring to model principles of behavioural analysis on the laws of classical physics in a positivistic framework. The question of consciousness was considered an inconvenient and unscientific barrier to the otherwise mechanistic purity of these laws, and all that could be talked about, they argued, was externally observable behaviour, not feelings. Niko Tinbergen, the pioneering ethologist, enthusiastically embraced behaviourism, agreeing that the subjective experience of animals should be excluded from scientific consideration. "*Because subjective phenomena cannot be observed objectively in animals*", he wrote, "*it is idle either to claim or to deny their existence*". (q.i Fraser, (2008:82).

It was in this late 1970s environment that Francoise entered her university career and was told that the study of animals' experiences as "pain" or "boredom" was not

scientifically verifiable and thus not part of her studies. Yet her growing involvement in an animal welfare movement was part of a broader intellectual interest in animal ethics, with the publication of books such as Peter Singer's *Animal Liberation.* The field of animal science began to take the question of animal welfare as a *scientific* topic seriously, guided by the formation of wider social judgements in both the UK and the Netherlands on the acceptability of certain practices (Bock and Buller, 2013). However, unlike the qualitative route that Francoise would take, the overwhelming emphasis became to demonstrate that good or bad welfare could be *indirectly inferred* from quantitative physiological measurements. Marian Stamp Dawkins' "*Animal Suffering: the Science of Animal Welfare",* published in 1980, was part of a trailblazing series of works from young animal welfare scientists including Donald Broom, Ian Duncan and David Fraser. They set out to pioneer new methods of controlled experiments into animal welfare with quantitatively measurable outcomes, so that Donald Broom can declare: "*a key point of agreement among animal welfare scientists in the early 1990s and later has been that animal welfare is measurable and hence is a scientific concept*." (Broom, 2014:28).

So Francoise's epistemological rebellion and methodological innovation have to be understood, as with other pioneers of the time, as partly a reaction to the strictures of behaviourism. These strictures helped shape some controversial farming practices through the denial of animal mentalities, causing growing public controversy. As a result, new scientific innovations to understand animal welfare were supported by the state and helped Francoise gain funding in the UK. In this sense, a new climate caused by the intellectual insurgencies of young scientists eventually facilitated her innovations. However, at the same time, animal welfare's acceptability as a science was contingent on the use of strictly *quantitative* measures which only *inferenced* the presence of animal subjectivities, which were considered empirically unobservable. As a result, Francoise's insistence that participants use qualitative words which *directly* described an animal's emotional condition and that participants chose their own terms, rendering quantitative comparison difficult, was frequently condemned as unscientific. As Howard would later say, there was a "fear" that animal welfare studies would be rejected from the scientific community as a result of qualitative work.

This explains why it was the enrolment of a quantitative approach in the form of "Free Choice Profiling" which finally won QBA acceptability in the scientific community. This became an important "critical" element of Francoise's critical anthropomorphism, one which enabled her to quantitatively establish group *agreement* on any freely-given interpretation (broadly conceived as a *dimension* of felt experience rather than an individual term); and for this to be additionally correlated with a physiological control treatment. These quantitative techniques became important because they not only "validated" the overall principle that observers could qualitatively agree on the felt experience of the animal, but also because they continue to be used to help develop species-specific qualitative terms, as we will see in Chapter 4. However, epistemological theories were also pivotal to the intellectual justification of QBA's qualitative methodology, and it is to these phenomenological influences that we will now turn.

Phenomenological availabilities at the "whole-animal" level

In Erin's story of her methodology, human and horse subjectivities emerge together, and felt experience at an *emotional, pre-reflective level* takes epistemological priority, making her work *phenomenological* in its emphasis. Francoise explicitly cites phenomenology as one of her influences, but, in contrast to Erin, describes herself as taking significant *intellectual* inspiration from books, formal education, and supportive senior academics. Her Dutch doctoral interdisciplinary training evidently made new ways of conceiving of animal subjectivity possible for Francoise, and intellectually legitimated her intuitions that animal subjectivity was visible and available.

This becomes evident in her "whole-animal" epistemology and in her early academic papers, where she argues that anthropomorphism can be avoided if subjectivity - *"the actual activity of experiencing, un-symbolically, the reality of it"* - is understood to be infused throughout the whole animal in its active engagement with the environment, rather than discernible through decontextualised measurements of separate parts. This is typical of a phenomenological approach, which prioritises the epistemological significance of the pre-reflective *purposes and intentionality* of a subject's action in the world as they unfold together *with* that world (Merleau-Ponty, 1965:125). It is this intentionality which unites the animal's movements as a whole,

as enmeshed with the environment, and makes it meaningful. For a phenomenologist, this meaningful intentionality is the first *condition* of any knowledge which tries to further deconstruct, and Francoise emphasises that the animal must be understood at the *"whole-animal level"* of the subject in its environment, as the fundamental unit of study. Thus, the visibility and availability of animal subjectivity, not as indirectly inferred but *seen,* is legitimated through a phenomenological approach; this is where, she said, "*the penny dropped"*, when she realised she must use qualitative descriptors to capture this. The "whole animal" approach is the second "critical" framework of QBA, because it directs the attention of the assessor in specific ways, which may not be comfortable or familiar (see Chapter 5).

Note that Wemelsfelder does not reject more objectifying or mechanistic practices per se, since she believes that they may be crucial for understanding the physical *causes* of the animal's behaviour or be a useful form of triangulation, but only emphasises that what she calls a "*perspective-based*" knowledge, understood through qualitative concepts, is ethically crucial as an integrative guide for understanding the *significance* of any such findings for the animal's experience (Wemelsfelder, 2012:243). She also believes that it can create a more empathetic, intersubjective communicative flow between "meeting subjects" (Wemelsfelder, 2012:232).

Ontological politics

What Erin and Francoise very evidently share is a belief that the *critical anthropomorphism* they perform is both ethically necessary and that it makes the lively subjectivities of animals present and tangible. Francoise's work is driven by the early conviction that, as she says, "*animals are primarily subjects. They are not merely objects"*. What her "whole animal" methodology, with its striking rejection of the necessity of inference, seeks to do is to, put crudely, turn the animal *inside out,* from an opaque carrier of internal information to an expressive being. This is the ontological shift from an *object* to a *subject* which for Francoise is an ethical, political achievement, something that acknowledges and renders *real* the pain of a castrated pig, and does so *within* scientific practice, not only in philosophy or art.

This is complemented by the influence of Ludwig Wittgenstein, whose writings as interpreted by Peter Hacker during her early years at SRUC evidently proved so inspirational "*the hair on my neck stood up....that is it...that is literally what I am doing*". Wittgenstein's influence will be explored more fully in the next chapter, but his (1958) argument was that the distinction between "inner" experience and an "outer" behaviour is false, a product of our "language games" that construes the mind as an inner space through which ideas and experiences of an innermost, spirit-like self float. He argued instead that behaviour was already infused with unmediated, visible meaning: *"the human body is the best picture of the human soul*" (Wittgenstein, [1953] 1974: 178). Hacker's analysis of the significance of Wittgenstein's writings supported her intuition that to observe an animal carefully and contextually was literally to see its embodied experience.

Conclusion

In this chapter I have used an analysis of Francoise Wemelsfelder's biographical narrative to explore some of the socio-historical conditions which led to the development of Qualitative Behaviour Assessment methodology; why, like Erin, she felt there was a need for a methodology which stressed the availability of animal subjectivities to perception, and how and why the "critical" checks on interpretation were developed. I have suggested that Francoise's work was given its impetus by her personal experience of the intersection of two intellectual currents in the late 1970s – the continued influence of behaviourism on the one hand, which denied that the subjective experiences of animals was part of biology's remit, and a growing animal rights movement on the other, in which Francoise quickly became immersed. This was eventually to lead to the development of animal welfare as a science, forging new opportunities for Wemelsfelder but also tightly shaping the limits of what was acceptable, which was why the development of a quantitative, "critical" validation of her qualitative method in the form of Free Choice Profiling and General Procrustes Analysis was considered so important. Secondly, I outlined how an explicitly phenomenological influence shaped the "whole animal" approach of QBA through its emphasis on the intentional engagement of an organism in its environment, with Francoise arguing that incorporating the behaviour of the whole animal in its context, instead of measuring decontextualised parts, would help avoid anthropomorphic error. And finally, I traced the "ontological politics" of QBA, which

sought to turn an *object* of quantitative, atomised investigation into a *subject*, a feeling creature for whom its surroundings have meaning.

I also briefly introduced the Moor University team: Maria and her supervisor Howard, explaining how they hoped that QBA would function as the sole *"psychological"* indicator in the ten-indicator Laboratory Mouse Welfare Protocol that Maria was developing for her PhD project. Both worked in a largely *objectivist* tradition of welfare assessment, but both shared a keen interest in QBA's potential. Maria believed it gave the attribution of emotions to animals scientific respectability, and Howard believed that harnessing the intuitive dimensions of animal welfare assessment was more efficient, safer and less limiting than relying on standardised indices of welfare alone. He also hoped that exploring QBA could answer bigger ethical and epistemological questions about the nature of knowledge. Francoise was to act as an external consultant to the project.

What has become clear here, however, is that, like Erin and The Forge, the aim of QBA was not just to facilitate a more reliable assessment of animal behaviour, but was designed to bring a new relationship between knower and known; in an ontological move which brings the lived experience of the animal to the centre of epistemology, rather than agnostically bracketed alongside it. The development of such knowledge and methods (and, as I will show, their subsequent practice), is formed not in the mind of the pioneer, but is relational, embedded in a network of socio-material assemblages. Francoise's ideas cannot be separated from a childhood spent in the forest, from the uniquely interdisciplinary opportunities on offer in Holland in the early 1980s, from the piglets whose denial of pain upset her or from parallel developments in food science. All of these elements are enrolled to produce a unique practice, and in subsequent chapters we will follow Howard and Maria's engagement with QBA's methodology as they work to build the descriptive term list for laboratory mice and test its reliability.

Drawing the threads together: Conclusion to Part III

In these two short chapters, I have explored how and why two distinctive knowledge practices, embedded in very different social worlds, emerged with a common aim. Both experts wished to render animals' subjectivities more alive, present and directly perceptible, and both wanted to stress that assuming a continuity of human-animal experience was meaningful and credible. The Forge emphasises the presence of horses' communications through an intercorporeal medium of the felt sense, whilst Qualitative Behavioural Assessment takes a discursive pathway and asserts that using the kind of qualitative language normally eschewed in animal science as "anthropomorphic" is the best way of capturing the lived experience of the animal.

Erin and Francoise are a generation apart and were raised in different countries. However, what this biographical, facet methodology analysis of the historical opportunities available to them has shown, with the differential influences of "New Age" mind-body practices and the emerging science of animal welfare, is that UK cultural mores in the 1990s/2000s were highly influential for both. It was during this period that Francoise won state funding and published her first papers and that Erin was engaging with formative animal healing and rehabilitation practices which led to new imaginings of practice. This is significant because, as Adrian Franklin (1999) has noted, the last decades of the 20th century have been crucial in forging a new and distinctly postmodern relationship with animals; in part, he argues, as a response to the "ontological insecurities" of high modernity that Giddens identifies. The increasingly affectionate and familial relationships with pets, the building of national parks in which an appreciation of fauna could be nurtured, new media representations which emphasised human responsibility for the welfare and flourishing of animal lives, and the rise of vegetarianism and animal ethics provide the backdrop for the sensibilities which arguably shaped both Erin and Francoise's sense of responsibility. In executing this, both have had to negotiate marginal identities throughout their early careers, but both are now experiencing what they consider to be heightened social interest in their work.

Their biographies have very different performative qualities. Whereas Erin speaks of the need to "follow her heart" and turn away from practices that feel uncomfortable, Francoise's narrative is primarily one of active confrontation of the epistemological status quo. Its timbre emphasises strongly held prior intellectual convictions rather than emotional transformations, and though her journey has also involved huge amounts of experimental interaction with animals, theoretical considerations have played a much greater role in comparison. However, what is common in both Erin and Francoise's account is their affective experience of the suffering of animals for whom they felt responsible, an active rejection of knowledge which objectified or mechanised animals and the seeking out of atypical knowledge practices in order to operationalise strong prior intuitions.

I have argued that both experts' ontological politics understand the use of their methodologies (or relational *"method assemblages"*, Law, 2004:13) as an ethical choice which forges new realities, amplifying the liveliness, agency and subjective presence of the animal in the production of knowledge. To accomplish this, both draw on a phenomenological approach, with Francoise explicitly referencing this philosophical tradition and Erin drawing on a closely allied psychotherapeutic discourse which valorises embodied, felt experience. Different "sensory orders" (Classen and Howes, 1991:257) inform their approach, with Francoise's scientific discourse prioritising the visual manifestation of animal subjectivity, and Erin's therapeutic discourse emphasising the importance of "listening". Moreover, both have developed what they understand to be critical checks on interpretation. For Francoise, this is twofold: the qualitative observation of the "whole animal" in its environment; and a statistical, objectivist validation of agreement between observers. For Erin, the critical lies in an embodied, reflexive *"self-mastery of self"*. Here it is the observer which must first be attended to before attention is paid to the animal, an iterative journey of attention between self and other which establishes a critical epistemology through emotional self-processing, to avoid "projections" onto the horse. In both methodologies the qualitative is important, but the location of the qualitative and the sensory qualities of its perception in the methodological process diverges.

What I believe these accounts jointly demonstrate is that whilst Erin and Francoise have both displayed individual creativity, fortitude and determination, these epistemologies of animal behaviour assessment have not emerged solely out of the

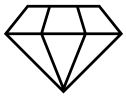
persistence and agency of these individuals, but have been forged and negotiated in the nexus of historically and culturally contingent forces, enrolling some as allies (eg New Age healing practices) and others as adversaries (eg Behaviourism). The presence of an "authentic" self which carries epistemological authority merges as something historically situated, and is entwined in a relational affective ecology with the influence of numerous human and nonhuman entities and forces. Landscape, squealing piglets, beloved dogs, disabled show-jumpers, statistical procedures and supportive human mentors were just as central to the new methodologies which emerged. I have tried to focus on the particular conditions of possibility which help elucidate how and why the practical techniques of these methodologies unfold in particular ways, and how they come to constitute the particular kinds of human-animal relationships that we will find in further chapters. It is to these lived, practical experiences of the techniques that we will now turn.

PART IV: TECHNIQUES OF EXPERTISE

Introduction

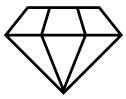
Chapter 5

"Clean communication" and the responsive reflexivity of the felt sense: Janice and Evy



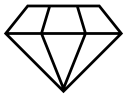
Chapter 6

"Making visible" in Free Choice Profiling: qualitative language and the socio-zoological imagination



Chapter 7

Victor and the Oak Tree: uncertainty and "affected perspectives" in equine epistemology



Chapter 8

Observer 11 Outlier: Fixed List testing and objectivism in QBA

Conclusion

Research Objective: Understand what practical techniques of expertise are comprised in these methodologies. What "critical" scientific or phenomenological practices constrain liberal "anthropomorphic" interpretation, how they are learned, and how are they negotiated with each other?

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Introduction to Part IV

Part III explored why Erin and Francoise considered it necessary to develop their new, critically anthropomorphic methodologies, both of which explicitly asserted the shared, continuous lifeworld of humans and nonhumans. As well as exploring the historical milieus which helped galvanise and channel their work, I argued that both wished to effect an "ontological politics" with their methodologies, choosing techniques which they hoped would make the subjectivities of their animals more immediately present and available. To accomplish this, I suggested, both drew either explicitly or implicitly on phenomenological ideas and practices, and both developed different "critical" techniques for checking qualitative interpretations.

This section, Part IV, specifies these critically anthropomorphic techniques of expertise more concretely, and opens them out for deeper critical analysis. There are four mini-chapters, two for each site. Each begins with a telling vignette from fieldwork, or a reader-participation exercise, through which a critical exploration of the principles and practices of each methodology is worked. One objective of this chapter is broadly pragmatic: to familiarise the reader with a sequential overview of the main steps and processes of each methodology (also available as a step-by-step overview in the Appendix). Thus, *Clean Communication* explains the arena-based work and the group exercises which took place on days one and two of the retreat, whilst *Victor and the Oak Tree* describes the third and final "herd day" out in the fields with the horses. Likewise, *Making Visible* outlines the first, "Free Choice Profiling" stage of work with QBA in which qualitative terms are spontaneously generated, whilst *Observer 11 Outlier* focuses on the second, quantitative stage of testing the final "Fixed List" of mouse behaviours.

These explanations are incorporated, however, within a critical analysis designed to interrogate the principles and practice of each methodical step. Throughout, I wish to bring particular attention to the *tensions* between generous intuitions and cautious questionings that a practice of critical anthropomorphism entails. Sometimes, an "anthropomorphism" which endorses the continuity of human and animal experience sits somewhat uneasily alongside a critical set of "special skills" which delimits and shapes interpretations. In practice, I will argue, each methodology navigates a sometimes delicate path between distance and proximity, self and other, human and nonhuman.

This has theoretical (and methodological) relevance for animal studies, because, as explained in Chapter 1, the rise of multi-species ethnography has sparked significant ethical questions about the liberatory possibilities of embracing "anthropomorphism" on the one hand (Crist, 1999; Irvine, 2004:68; Taylor, 2011) and the risks of colonisation and reductive anthropocentrism on the other (Latimer, 2013; Nimmo, 2016). I also showed that the relational thinking which has dominated posthumanist thought is increasingly being questioned in its ethics. Does acknowledging our entanglement with other beings help *combat* anthropocentrism, or are there overlooked epistemological and ethical possibilities in foregrounding experiences of *detachment* and relationships of exclusion? (Ginn, 2014; Giraud, 2019; Candea et al, 2015). These questions will guide my analysis in the coming sections as I work my way through the different possibilities of the "critical" and the "anthropomorphic".

Taking a "facet methodology" approach (Mason, 2011) helps highlight the thematic connections across sites throughout this Part IV. Chapter 5's *Clean Communication* (The Forge) and Chapter 8's *Observer 11 Outlier* (QBA) both explore whether human emotion is a valuable source of knowledge or a distorting influence to be eliminated. *Clean Communication* uses an interaction between Janice and Evy the horse to explore the use of the "felt sense" as a form of critical, profoundly embodied *reflexivity*, which nonetheless presupposes a deep entanglement between horse and human, where self is the source of knowledge about the other and vice versa. It is, however, an encounter where entanglements must not be left tangled, but identified, traced, and tidied. In contrast, *Observer 11 Outlier* mediates qualitative interpretation with *reflexivity's* usual scientific parallel, *objectivity,* as the team work to test the reliability of assessors' qualitative judgements through statistical procedures and experimental controls. Here, participants' emotions were treated not as a source of knowledge, but as a nuisance to be eliminated. And yet, the overlooking of participants emotions in the experimental setting directly resulted, I show, in a problematic statistical outlier.

Similarly, Chapter 6's *Making Visible* and Chapter 7's *Victor and the Oak Tree* both problematise *proximity* as an assumed epistemological privilege. With QBA, I show how Francoise has devised strategies to extend what I call, following C. Wright Mills, the *socio-zoological imagination* of co-workers familiar with animals, through the use of expressive quadrants and qualitative language to "make visible" animals' experiences. In *Victor and the Oak Tree*, I show how Erin allows a far more posthuman series of encounters on "herd days"

than she does in the arena work, through her use of what Despret (2013:56) calls "affected perspectives", in which human bodies are *made available* to be responsive to and transformed by animals.

In a concluding summary at the end of the Part IV, I ask: what do these chapters suggest about the decisions which a critically anthropomorphic methodology must make about its practice? This time, rather than synthesise four very different chapters in long-form, I map out, through a "*constellation*" style of analysis (Mason, 2011:76) which compares and contrasts some of their insights, what an "agenda" of critical anthropomorphism might look like according to the emergent themes in this chapter. This is a device I will repeat in Part V and VI as I work to build an overall picture of the contours of this concept and practice.

Chapter 5: *"Clean communication"* and the responsive reflexivity of the felt sense: Janice and Evy

It's Day One of the beginner's retreat. The first two days are spent taking turns working individually with a horse for 20 minutes each in one of the arenas. Erin brings some of the herd from the fields into a corral, trying as far as possible, she says, to choose those who "present themselves" to her in situ. Privately, she asks you what intention you want to work with, and then asks you to choose your horse. The client returns to the arena and Erin brings the horse in, releasing them without a head collar. She retreats behind a fenced off area with the other participants who sit silently, watch, and take notes. There's deliberately no task, no instructions, and minimal speech. The person can approach the horse if they wish, or not. Erin looks for how that person deals with the interaction, how they meet its challenges, and what shifts in the emotions of horse and human take place. She'll comes in at various points with questions for the client – *"how do you feel about what's playing out?" "Is that reflective for you in your own life?"* At the end of their interaction, the client's peers may be invited to give their feedback.

Janice, an experienced horse-owner, is waiting as Erin leads Alfie through the gate into the indoor arena. She removes his halter, briefly strokes his cheek and joins us behind the fence. He's a small compact horse, dull brown-black, with a quiet nature. He stares at us each in turn, ears pricked, before lowering his head and ambling around the arena breathing in its scents.

When Alfie becomes still, Janice rises to her feet and walks purposefully over to him. She gives him a confident rub on the shoulder. He moves away. She turns on her heel and walks away, hands on hips. Over the next 15 minutes, this became a repetitive pattern. He would accept her coming near, but ease away as soon as her hand came close. She would then turn abruptly and walk away. It felt quite unsettling to watch.

Erin asked how the session had been for Janice. Janice said that he wasn't really interested in her, that he wouldn't *"let her in"*. Erin said, *"did you notice that every time you turned away from him, you put your hands on your hips? Do you know what that is about?" "Hmm, don't know"* said Janice. *"Just be aware"* said Erin.

Jemma, another client, added: *"If he didn't respond the way you wanted him to, you turned away straight away. I wondered how it would be to go slower with him?"*

Janice said, *"You're right. I set my intention for the session to work with 'shutdown', deliberately, to see how he would respond."* **She explained that she had a problem with anger.** *"It's awful. When I'm like that – people scatter to the four corners".* **Erin asked her what she had observed about Alfie. She said that Alfie had been unsettled, "keeping an eye on her" the whole session.** *"And he was like "oh no! Not going near there! That's scary that is!"* **Erin and Janice briefly explored Janice's fierce temper, her need to take control, and how that might have played out in interaction with Alfie.**

Day Two. Janice chose a different horse, Evy, a slender, graceful black mare with white socks. The interaction began in an unpromising way. It was a windy day and Evy seemed anxious, pacing briskly around the arena and whinnying sharply to the herd. Again, Janice kept her distance, briefly coming to greet her with a stroke on the nose, but moving calmly and smoothly away at the first turn of the head and going to lie down in the sand, resting on her elbows to watch as Evy's pace gradually settled, and she rolled in the sand. Eventually Evy settled to a place by the fence, dragged her bottom a few times against the posts and cocked a hind hoof. Janice walked calmly over to stand beside her, lowering her gaze. Evy reached out to sniff her and Janice gently stroked her neck. Evy nosed her face and rested her chin on top of her head. They stood together for ten minutes, sometimes completely still, sometimes with Janice stroking Evy, sometimes with Evy shifting her head from side to side, or snuffling her hair.

Afterwards we sat with blankets and cups of tea out in the sunshine. Janice was visibly moved by her experience with Evy. She said *"She was so giving. For those minutes, nothing else existed. There was nothing else in the world."*

The next morning Janice presented a visual representation of her experience:

Figure 5: Janice's mandala. Credit: Janice and Maisie Tomlinson

She explained how the pink border around the edge is the *"barrier"* to a communication with the horse. The grassy clumps around the edge represent her busy thoughts and objectives. Working towards the centre is a movement towards a present-moment state. Finally she reaches the clarity of the white space, the space of *"connection"*: *"When I make a connection there's just nothing. There's nothing in my head. It's just this...you're in ....awe almost of this....critter. With these big soft brown eyes."*

Janice's white space is significant because it is reminiscent of the fullness of attention, the *"forgetting of self"* (Shapiro, 1997) and the bracketing of analytical or cogitative enquiry that the phenomenologists and naturalists in Chapter 1 (Aaltola, 2013:264; Shapiro 1997:280, Smuts, 2001:300) believed was so important to a critical practice of interspecies interpretive inquiry: one which avoided anthropocentric anthropomorphism and cultivated empathetic immediacy. At The Forge, this was conceived as finding "connection", which in turn was thought to enable what Erin called *"clean communication"*, a place from where the horse's active voice can begin to be *"heard"*. It requires a reflexive methodological labour in order to shift habitual modes of self-presentation and practice. A "clean communication"[12], occurs "*when we get out of the way...and we do come more from that embodied place"*. Erin says:

[12] "Clean communication" is a term widely used in family therapy to describe clear and consistent requests.

So, in the past (...) I'm unaware that actually I carry a low-level grade of anxiety all the time. And that actually, there's tension in my body quite a lot, and I react to things quite a lot, and actually my mind's quite busy (....). But all those things are now impacting on my communication with the horse. They are not going to give me a clean communication with the horse. And I don't end up seeing the horse properly. I just have that idle picture of where we should be, and "why aren't we getting it, and so come on!", and so we're just going through the motions. And so I forget, to have a communication with my horse, where we both can be heard– I move out of the present moment.

In Chapter 3 I introduced the idea of Erin's "*self-mastery of self*" as her "critical" check on anthropomorphism. In this chapter I use Janice's story to explore how, in practice, the "felt sense" was cultivated as a mode of animal behaviour expertise that uses this *responsive reflexivity* as the instrument of inquiry. Above, Janice explores the effect of her angry emotional presentation on Alfie, and then works *on her self* in order to achieve what she feels is a much more rewarding experience with Evy. The horse's behaviour is therefore understood to be a response to her own feelings. The "connection" she experiences as a visceral feeling of complete absorption and attunement, what Lorimer might call an *"interspecies epiphany"* (2007:921), where ruminative and emotional cogitations are experienced as dissolving into emptiness: "*there's just nothing*", mirroring Erin's use of the concept of "clean communication".

Following Beth Greenhough and Emma Roe's (2014) analysis of cow-human relations, I argue that in cultivating "clean communication" through the "felt sense", The Forge engages in a form of human-nonhuman *"experimental partnering"*. This is a form of improvised, temporary becoming-with another, in which the embodied *habitus* (following Bourdieu, 1991) can learn to shift in ways more conducive to reciprocal human-equine communications. Janice moves from an interaction where a horse won't *"let her in"* to an interaction where the (different) horse is *"giving"*. However, whereas Greenhough and Roe articulate the methodological *difficulty,* even *impossibility* of sustained attention to experimental partnering, The Forge, I argue, shows that it is possible, and what might be needed to achieve such an embodied, reflexive, and relational method. It does so through an elaboration of the felt sense that is developed through two main dimensions of practice: "getting into the body", and "extending sensory sensibilities". Having described what that

involved, I then use video footage to illustrate the participants' shifts in *habitus* as they began to conceive of "connection" differently. I conclude by suggesting that The Forge offers a mode of interspecies "reflexivity" as its principle "critical" practice, which, whilst still eligible for critique in further chapters, understands the horse's behaviour as phenomenologically co-produced, rather than as an object of study, with the horses in turn playing an active role in the shaping of knowledge.

In the following section I will consider the potential significance of the "felt sense" as a responsive *reflexivity*, with potential to reconfigure the *habitus* across human-nonhuman assemblages.

Reflexivity and the habitus

In her reflections upon "clean communication", Erin refers to a set of her own embodied behaviours of which she was unaware in the past: a *"low level anxiety"*, *"tension in my body"*, *"mind quite busy"*, and how detrimental her ignorance of those things was to her communication with the horse. It is this lack of awareness which she is trying to address through her work with Janice and ourselves. What Erin is referring to might be described as the "habitus". Pierre Bourdieu (1990) proposed this term to describe an individual's patterns of embodied habits, tacit knowledges and everyday practices encoded in the body, disposing individuals to act in particular ways which allow them to "get by" in their social group. This might include our use of personal space, how expansive or reserved our gestures are, and our modes of speech, all of which embody social knowledge, preserved as traces in the body. Bourdieu (1984) argues that the habitus has an experiential dimension, acting as a "*memory jogger*" which "*awakens (…) a universe of ready-made feelings and experiences*". For Erin, her own *habitus* impacts on her perceptual ability "*to see the horse properly"*.

The theory of the habitus has been extensively debated and elaborated on over decades in ways which will not receive a full review here, but Beth Greenhough and Emma Roe's (2014) discussion is particularly useful for its extension of the concept to human-animal relations as they analyse an event in which they joined in the chaotic rounding-up of some cows by inexperienced participants. Their concept of *"experimental partnering"* during *habitus* formation is based on a twofold critique of Bourdieu's notion of the same. Firstly, that it is too deterministic, rendering bodies largely inert once shaped. They argue that

social life has a creative excess which is improvised, and that therefore the habitus retains a certain instability and mutability. Secondly, they argue that its conception is too anthropocentric. Habitual practices, they argue, are forged through engagement in a more-than-human world. The concept of "experimental partnering" is intended to draw attention to these moments of improvisational assemblage, paying attention to instances of failure as well as success, and noticing where they instigate a shift in *habitus.*

However, attending to experimental partnerings as a researcher-participant, they suggest, requires an embodied reflexivity:

Not only can experimental partnering inform how we interpret what is going on in the world, it also can place our own research practices under closer scrutiny. The "experimental partnering" approach to studying habits brings the researcher's eye, nose, mouth, hand, body, etc. to be curious in a world that is dynamic, busy, playful as well as awkward, limiting and more than what appears. (2014:54).

And yet they note the difficulties of attending to embodied practices and behaviours, particularly those conceived of as fluid and intangible, or "*non-representational*":

...we simply do not have the methodological resources and skills to undertake research that takes the sensuous, embodied, creative-ness of social practice seriously. (ibid:49).

At The Forge, however, the sensuous, embodied nature of social practice *was* taken seriously, and was elaborated into a methodological practice of learning about horses. This was through a "*somatic mode of attention*" (Csordas, 1993), known as the *"felt sense"*, that was highly relational and encouraged the *habitus* to shift through what we might consider to be the "experimental partnering" that occurred in the arena. This is, in fact, the reflexive "self-mastery of self" that Erin refers to in Chapter Three, the critical check on interpretation. Learning the felt sense involved several dimensions of practice. Here I will outline two, and explore with Janice the impact these practices had on her behaviour with the horse.

Getting into the body

Throughout the retreat, as with the phenomenological theorists and naturalists referred to in Chapter 1, there was a significant problematisation of cogitative and intellectual modes of being with horses. From day one a key distinction drawn between us and them was our

possession of an advanced "prefrontal cortex", which enabled us to analyse, categorise, and elaborate our experience into meta-narratives, leading us to dwell busily *"in our heads"*, too often disconnected from our bodies and emotions. For the horse, Erin suggested, a busy mind acted as a kind of communicative distortion. It was agenda-driven, deaf to equine communications and ultimately discomforting:

Because that's how a horse's world operates. They are present in their body. You know, if Duncan the leader was in his head, the others would be pushing him around left right and centre, because – where are you? Who are you, how do we know that you are – present? They want to feel us energetically present in our body, and I think as a human, most of the time, or a lot of the time, people aren't, because we operate from here [pointing to forehead].

Much of the work, therefore, revolved around techniques to bring the clients more fully into their embodied experiences. The first day consisted of understanding somatically what was meant by "inner connection" with oneself, and "outer connection" to others or the environment. This involved being led through a guided scan up and down the body to somatically explore the experience of inner and outer connection in turn, observing sensations, emotions, shifts of weight, tension, and quality of breath. The "body scan" became an important exercise throughout each retreat. Before each encounter with a horse or with the herd, we were led through this exercise before we entered their space, and asked to notice the balance of our "inner" or "outer" connection, expressed roughly as a percentage. And then in the arena, Erin would ask us to become aware of what was happening in our bodies as the encounter played out. So, for example, someone who appeared nervous about approaching the horse might be asked *how* they were feeling, *where* they were feeling it somatically, and where in the space they would like to place themselves to feel more comfortable. Someone who was insistent about stroking a horse that was not keen to be touched would be asked to use "outer connection" to notice how the horse was responding, and then asked to reflect upon the manner in which they had approached them.

Noticing one's own emotional embodied sensations became an important aspect of a feedback process in which the horse's response functioned as a clue to one's embodied *habitus*; perhaps showing discomfort with "busy minds", tense bodies or instrumental goals; and rewarding a fully emotionally embodied presence. So rather than this *responsive*

reflexivity being an introspective processes, the horse's behaviour was often scrutinised to ascertain how well one was doing at *"getting out of the head"* and *"getting into the body"*.

Watching the replay of her encounter with Evy in a video elicitation exercise, Janice illustrates this relational feedback process (watch **here**):

Figure 6: Video, Janice's observations of Evy

So one could say that one aspect of the "felt sense" involved using the horse as an "experimental partner" to gain feedback on one's habitual embodied patterns and deliberately help shift one's *habitus,* where the horse could pick-up levels of embodied energy and respond accordingly. One could gain the reward of connection, of being "*let in"*, as Janice puts it, only when one had done sufficient work on oneself. Rather than manage or repress these emotions, however, the emphasis was on releasing or simply "owning" them and staying present with them, to which the horse was widely believed to respond. (The politics of this so-called "prey-animal" responsivity and its direction of travel between horse and human will be discussed in Part V).

Extending sensory sensibilities

The second key dimension of the "felt sense" that Erin tries to encourage is an *expansion* of attention and curiosity: what Latour (2004:207) might call "*learning to be affected*" by new

information coming through a reconfigured use of the senses. The second day of the retreat was themed around "noticing". We began in the barn by taking each of the senses in turn, isolating our senses and maintaining the attention on each one for a few minutes, being curious about what we could hear, what we could smell, what we could feel, then what we could see in a focused attention to one spot. We then took that out into the fields, experimenting by ourselves with different sensory ranges and types.

The "boundary exercise" followed, in which two people would stand twenty feet apart. One person would walk towards the other, in silence. The standing person would put up their hand and say "Stop" as soon as they felt uncomfortable. Erin would then ask why, with reference to our bodies. A rising feeling of tension in the chest? Perhaps the tightening of the smile on the face of the other? Did one person try and take control of the interaction by walking too briskly and purposefully; or by reaching out for a hug six feet away?

These multi-sensory practices were thought to improve your attentional skills in finding what Erin called an "*outer connection*" with the horse, and becoming more sensitive to their feelings and intentions. For example, we were asked to feel the tension of the musculature under the skin, or to respect and respond to the horse's own boundaries of proximity. Out in the herd, Erin would ask us to use "outer connection" to keep ourselves safe, using peripheral vision and hearing to be aware of who might be approaching. Finally, it also became a way into what Erin called a "present moment state". Erin might ask us to draw our attention to a visual spot on the ground for up to ten minutes before we even interacted with the horse, to calm the mind, become more receptive and responsive, and allow oneself to "just be" without any predetermined agenda.

Janice describes how she used this process to connect with Evy:

So yeah, I just remember this erm....in my heart wanting to connecting with the horse (...) So I remember trying to use the senses that she taught us to use (...) I think it was my hearing (...). *I think that brings you down doesn't it, I think that brings your pulse down (...) so I think it does help you, to put you in what she calls present moment.*

So the horse being "heard", then, emerges not a literal description of a mode of sensory perception, since a much fuller range of the senses are engaged in Erin's work. Instead it is a metaphorical expression of acknowledgment of an actively communicating Other,

reflecting the therapeutic influence on her practice, which privileges listening; and the counter-cultural influences in which more subtle communications are attended to.

The impact of felt-sense practices on horse-human interaction

Whilst the motivations of the horse and the "cleanliness" of communication remain under question, I would like to suggest that learning to apply the "felt sense" resulted in evident, visible and sensible changes in human-horse interactions, suggesting some kind of improved understanding on the part of the human participants. Most initial encounters were focused around gaining access to stroke the horse. Whilst some horses readily accepted, for many it involved a fair amount of following a restless horse, on the move, around the arena. Over the course of the retreats, participants worked on themselves to allow themselves to "just be" with the horses, to become more sensitive to their communications and more respectful of their space. This had increasingly tangible effects. Horses calmed and nervous horses allowed contact or lay down to snooze. Participants reported being flooded with feelings of wellbeing at moments of "connection". Affective atmospheres changed and observers reported being completely held by the experience of watching others.

These were different horses with different personalities and preoccupations, but Janice's journey was broadly reflective of that of many participants over the three-day retreats. The different ways in which participants tended to conceive of and embody "connection" at the beginning, and then at the end of the retreats, through working on their embodied *habitus* through the "felt sense", can be seen in the videos below, where I have used video-elicitation to explore the sensory experience of connection by my participants. In the first, Jemma is having her first experience in the arena with Patch (watch **here**).

Figure 7: Video, Jemma and Patch

The talk, humorous in places, is an often self-deprecating reflection on Jemma's wish to control the encounter through *"horse whispering"*, ideally with the horse following her around the arena - a common fantasy that several participants admitted hoping for. In common with many first encounters, she is focused on being able to touch and stroke the horse for her connection, and is trying to get the horse to come to her. It is evident that her attention is closely attuned to Patch's embodied signals. However, having learned that the ears are a good indication of where the horse's attention is, she is using the ears as a somewhat isolated signalling device with a narrow sensory focus on this visual signifier.

In the second video, Heather is on the final day of the advanced retreat, six days further ahead in her training than Jemma. She has been asked to take up a physical position and mental frame of mind that Erin called "neutral" where she focuses her attention on a visual spot on the ground for ten minutes to quiet her thoughts and slow down her somatic energy, before being allowed to interact with Duncan (watch **here**):

Figure 8: Video, Heather and Duncan

Here, it is evident that Heather has started to conceive of a different kind of *"connection"*: "*but without words*", one more akin to the kind of subtle or intangible communication that a leader of a fleeing herd might give from within the middle of the group, she says. She has foregone visual contact completely, and does not initiate haptic contact, but yet believes that she senses this connection. Duncan stayed close to her in this position for approximately ten minutes, and whatever his motivation, what is evident is that he is content to be close to Heather for that period of time, signifying at the very least trust and confidence in her presence.

Whilst of course these were entirely different horse-human pairs and therefore cannot be directly compared, I would say that the evident difference in the horse's behaviour was broadly consistent with the way in which horse-human interactions shifted over the six days of the two retreats, as the humans worked on their embodied *habitus* using Erin's "felt sense" techniques. This is not to suggest, however, that participants habitus changes permanently in a fait accompli. This might be the eventual aim over time, but the moments I experienced and witnessed were temporary and unstable.

A posthuman responsive reflexivity

I suggest that Janice's experience of "experimental partnering" with Alfie and Evy, as with the other participants described above, was an attempt to engage with a posthuman, relational and embodied *reflexivity*. The process involved a kind of phenomenological "bracketing" (Husserl, [1931] 2014:δ31) in which habitual modes of affective self-presentation (hands on hips, indulging in anger) become the object of self-attention. As phenomenologists have pointed out, the body-self is both a *subject* that we inescapably *are,* our only point of view, and an object of introspection (the "I" versus the "me", as Mead ([1934]1972:173) conceived of it). However we cannot experience both simultaneously, we oscillate between the *experience* of being subject and being an object, so that, as Merleau-Ponty ([1945] 2006:106) put it, in touching one's own hand, one has to shift between being aware of touching and being touched. They do not coincide.

Whilst initially seeming quite a dualist process, Crossley (2005:1) argues that it should be understood as *reflexive* rather than dualist. Such "reflexive body techniques", he claims, oscillating between the "I" as subject and "me" as object (which he applies mainly to physical training or improvement, but which also works well for emotional and behavioural self-labour), do not imply a dualistic mind-body split. Instead they are phenomenologically reflexive. They are both techniques *of* the body (the embodied, affected agent working on themselves), and *for* the body (whose purpose is to effect change on that same body-self) (ibid:10). Janice is thus working *with* herself, *on* herself, in playing with the effect of an improvised "habitus" on the horse. But, as Crossley argues, it is possible to become more or less *I* or *me,* to lose oneself in an extended period of pre-reflectiveness or *"flow"* (Nakamura and Csikszentmihalyi, 2009). Janice's experience of "connection", where *"nothing else exists"*, and from which "clean communication" can begin, seems to mirror this experience of absorption.

But The Forge introduces another element to the notion of reflexive body techniques– not only are they non-dualistic but they are also relational and posthuman, at least to some degree. Developing the "felt sense" does not imply a split between self/other and human/animal. The effect on the horse tells you something about yourself, and simultaneously, one's self-understanding produces an interpretation of the horse's behaviour. Later, in Part V, I will argue that there is, in fact, a problematic

anthropocentrism to this process. However, here, the point I wish to make is that The Forge's promotion of the "felt sense" as *responsive reflexivity* brings a more-than-human dimension to the work on embodied reflexivity that is being conducted in, for example, studies of meditation (Pagis, 2009; Schipper, 2012). Its profound, in-situ embodiment in methodological practice also usefully extends the way in which multi-species reflexivity is usually conceptualised as an ontological awareness of species privilege, or becoming aware of the biasing influence of discursive social categories of animal.

Conclusion

In using Janice's story here I have outlined a process of the deliberate, reflexive alteration of the *habitus* as conducted *with and through* the horse, using a somatic mode of attention called "the felt sense". The "felt sense" was a form of craft-like, embodied skill that enables participants to slow down, and pay greater attention to their own embodied feelings and to the responsive communications of the horse. Here, rather than being the instrument of inquiry, the cognitive mind was usually described as getting in the way. Instead one's body becomes the instrument of knowledge in the first instance, with verbal reflection following when the session is drawn to a close. Two important dimensions of the felt sense were "getting into the body" and "extending the senses". Janice's story shows how she used these techniques to shift her *habitus,* at first imaginatively recreating her guarded, defensive patterns of behaviour and noting Alfie's response, and then learning to keep her energy at a "*really low state*" and enter a more "*present moment"* mode of interacting. In this way, Janice feels she was able to achieve "connection" with Evy. Connection is understood as a place of "clean communication", "*when we get ourselves out of the way*", a *condition of possibility* in which the horse can begin to be "heard". In this way it bears some significant similarity to sociological concepts of methodological "reflexivity", albeit in a more intercorporeal, multi-species and affective sense than is usually deployed.

In learning about horses, therefore, the horse was not an object of study, which we must learn to try not to affect. As Vinciane Despret would say, it was recognised that we are both *affecting and affected* in our interactions with the horse, we co-produce each other in that moment. The level of attention to our bodies allowed space for us to understand how such *"anthropozoo-genesis"* takes place (Despret, 2004), as clients focused their attention intently on the moves of the horse for clues as to their progress.

Practicing critical anthropomorphism, in this sense then, is a form of multi-species reflexivity. It is a phenomenological appreciation of the horse not as an object (a means to an end in an "agenda", or a removed object of knowledge distinct from oneself), but as a subject, knowledge of whom is fundamentally dependent on one's own perceptual capacities in that moment. Learning this became a *"turning towards"* oneself in a culturally elaborated *"somatic mode of attention"* (Csordas, 1993), in which self becomes inseparable from other; and at the same time a source of knowledge about the other. Likewise, the other becomes a source of information about oneself. Finding a "clean communication" here disentangles self from other only in the last instance, because the self has to be worked through fully with the help of the horse before it can be released, since such knowledge is understood as actively co-produced by the horse.

Chapter 6: *"Making visible"* in Free Choice Profiling: qualitative language and the socio-zoological imagination

A key part of developing a QBA tool for a new species is a process called Free Choice Profiling. As part of a video-elicitation exercise, I have asked Julian, a senior animal welfare professional who took part in Maria and Howard's project as a participant-assessor, to recreate this exercise. Whilst watching the video below, I have asked him to spontaneously employ as many qualitative, "common-sense" terms as he likes to describe its emotional expression. You can watch and listen here:

Figure 9: Julian's Free Choice Profiling exercise. Video: Maria; actor voiceover of Julian: Martin Pirongs

Julian seems to find the task relatively easy, readily choosing words such as *"curious"* and *"cautious"*, finding nuanced ways of expressing inquisitiveness and apprehension in the mice, and speculating on the meaning of digging behaviour. This video conveys a sense of how two key methodological techniques are enacted in QBA: firstly, the selection of relevant video material, and secondly, the process of improvised term generation which will finally lead to a "fixed list" of qualitative terms deemed empirically reliable for describing mice.

In this chapter I will explain and analytically explore the significance of these two methodological techniques, both of which form part of an important QBA process known as "Free Choice Profiling". I argue that in different ways, they are both designed to "make visible" animal subjectivity, as part of the ontological accomplishment of turning objects to subjects described in Chapter 4. Firstly, I will explain what these Free Choice Profiling techniques involve. Then, I argue that the choice of QBA's video material is designed to extend what I call the *socio-zoological imagination* of animal professionals, extending the amount of behavioural variation that they might be accustomed to seeing in restricted environments, and thus making subtler states of suffering and contentment more apparent. Using Bruno Latour's critique of the optical metaphor in science, I show that this is done, however, through an ocularcentric narrative which does a particular kind of onto-epistemological work in the interpretation of animal behaviour.

I then focus on the significance of language as a technique in QBA for "making visible" animal experience. I use the work of Eileen Crist to support Francoise's assertion that the use of qualitative language about animal behaviour shapes new observations and helps to dissolve mechanistic inferences about a dualistically theorised "inner life" separate from "outer behaviour". However, I argue that James Gibson's concept of *"affordances"* better captures the relational nature of perception, with language fundamentally embedded in activity. Conversations with laboratory animal welfare professionals showed that the use of qualitative language was still challenging in some contexts, but that it was the contingencies of their *available time* for observation, in which qualitative language was embedded, which was significant, affording what Crist calls an *"episodic"* understanding of animal behaviour, imbued with meaningful context.

Free Choice Profiling: the process

In preparation for Free Choice Profiling, Maria and Howard were first asked to collect around 20 videos of mice which, in their opinion, displayed as full a range of behaviour as possible – either individual mice or pairs. The video above, with a gloved hand inside the cage to stimulate responses from the mice, is one such example. Secondly, a group of around 15 expert and student participants were

recruited. Like Julian, they were shown Maria's videos and asked to independently write down as many words as they felt described the emotional expression of the mice. In a second session a week later, they were re-presented with their own terms, each one attached to a blank visual analogue scale,[13] and asked to score the mice again. The quantification of the scores enabled the statistical identification of "high loading" terms. Next, a process of discussion occurred to narrow down these terms to a list of twenty overlapping descriptors. Finally, the team worked on term definitions for the quality of movement that each term suggested (avoiding merely factual descriptions of what the animal might be doing). The process then moves on to the testing of the list as described in Observer 11 Outlier (see later in this Part).

We can see from this outline how structured and technical the methodological process of devising a species-specific QBA tool is. Whilst participants at every stage are asked to work quickly and intuitively, the process of generating a formal list of terms for a new species from this spontaneous interpretation - one that will satisfy critics - is technically complex. It is a world away, qualitatively, from the "critical" process of doing the work on oneself at The Forge. Julian's video also gives a sense of the very different relational conditions under which the QBA technique is developed, before being used with "live" animals. The sensory and contextual experience of this encounter is vastly reduced, mediated by a fixed-position camera. Assessors do not know who these mice are, , what human has lifted the lid off their cage and filmed them, or what sensory phenomena surrounds them; nor can they touch or smell the animals. In a much greater way than at The Forge, then, the experience of the mice is reduced to the sensory order of the methodology's ocular discourse.

The wide selection of twenty or so video clips for FCP participants is designed to address a particular problem: the familiar *ordinariness* of animal behaviours to those that work with animals; behaviours that may, in fact, suggest welfare problems. For example, video clips of physically healthy stock mice, such as the footage that opened this chapter, were chosen by Maria for their assumed wellbeing, in the hope that this would generate some positive terminology. However, this assumption can

[13] A visual analogue scale is an undivided score line running from a minimum value on the left to a maximum value on the right. Scorers place a cross anywhere on this line they feel is appropriate. The location of the cross from the minimum limit may be measured later.

obscure conditions like boredom and lack of agency, which may present through very subtle behaviours (Wemelsfelder, 1985). Whilst acknowledgement of boredom as a possible welfare problem has increased in recent decades, Francoise still believes that assessors may become so accustomed to seeing animals in restricted environments that they may come to see these quieter, more passive forms of suffering as simply "normal":

If an animal is screaming and vigorously trying to escape, it's pretty obvious something is wrong…but to make boredom visible it's very important to get video footage of animals when they're actually truly alive, you know, and present; and we're so used to having animals in enforced human captivity, people forget that that's not who they really are. So to make that passivity visible. (my emphasis).

Here we can see, as in Chapter 4, the emphasis that Francoise places on a certain *labour* required in QBA to reveal animal suffering, to *"make visible"* a *"passivity"* which may not otherwise be available to perception. We can also see a distinction she makes between animals in enforced captivity and *"who they really are"*. Certain strategies are required to address such errors of judgement, so-conceived. Below, I will address these strategies and the significance of the optic metaphor.

Extending the socio-zoological imagination: quadrants of mood and energy in video collection

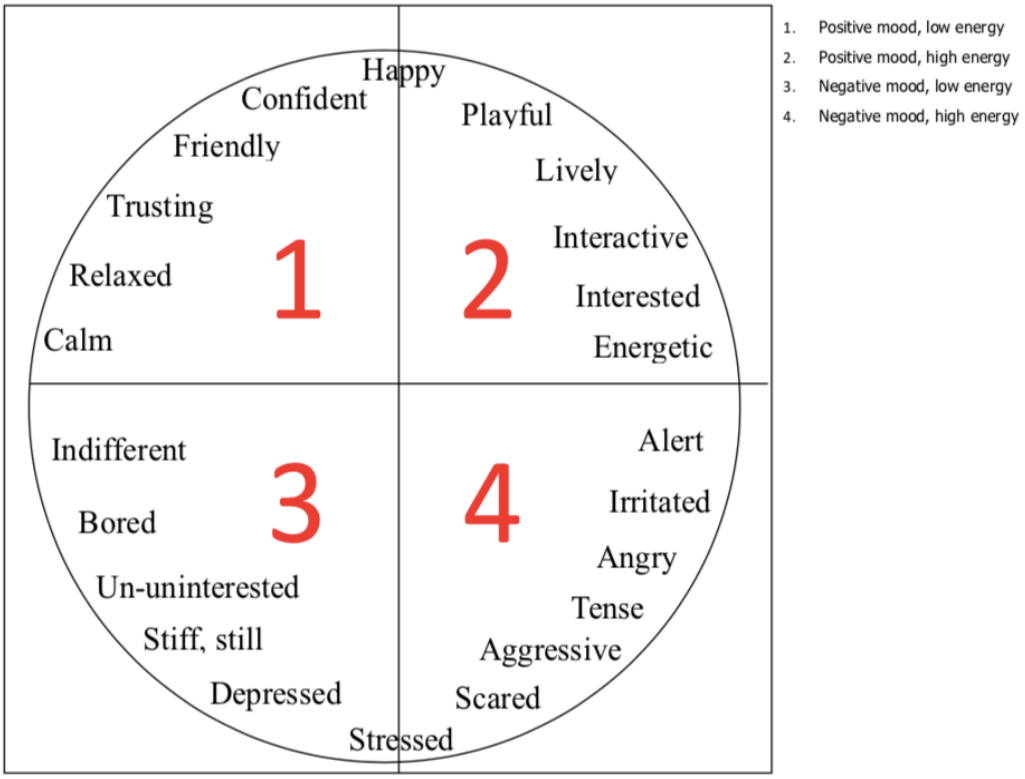
In order to disrupt the normality of animals' everyday behaviour for assessors, Francoise asks that developers of fixed lists for a new species begin by finding footage of those animals: not only in the confined conditions in which they will be assessed, but in extensive domesticated or wild conditions (including, perhaps, positive human-animal interactions), in order to "make visible" diverse affective dimensions of subjectivity. Free Choice Profiling participants then have a variety of recordings to compare and contrast, and are more likely to recognise when confined animals are either presenting or missing those expressions. This is important since studies have suggested that QBA Fixed Lists developed without an adequate range of footage may miss key elements of behaviour, such as tiredness in horses (Fleming et al, 2013, cited in Clarke et al, 2016:81). Julian, too, agrees that mice in restricted

environments are limited in their behaviours, and he thinks far more could be learned by providing mice with material with which to be creative:

They like to burrow. And we need to give them opportunities to burrow. And we might see...subtleties of behaviour that we're not picking up if we give them the opportunities (…) you give them something that is the equivalent of a mouse box of Lego! Rather than giving them a house, and a bed, and a carpet, you give them a load of stuff that they can build house-bed-and-carpet with themselves, in the way that they want, and they might tell you something quite interesting about which bits they use for what, and they sort of sleep on the carpet, and use the bed as a toilet or whatever! And you might learn something. (Julian).

Francoise has very recently begun to modify the instructions for footage collection to ensure enough diversity. Rather than researchers deciding where to begin and end their search, they are asked to collect footage in which behaviour falls roughly into four quadrants, along two axes of "mood" and "energy", as can be seen below. This is what Maria was asked to do.

Figure 10: A word chart given to Maria to help her collect different kinds of behaviours



In the first instance, then, perceptions are shaped by this framework, or ideal type. Francoise goes further, telling me that the quadrants *"seem to form a universal kind of sentience framework"*, although she also insists there are terms that fall outside of it. She concedes that the quadrant system is reductive, and perhaps anomalously so, given QBA's emphasis on the spontaneous generation of terms;but contends that the quadrants have organically emerged out of repeated dimensional patterns in the data over many years.

The epistemology of the quadrant system will be explored in more detail in Chapter 9. However, to comprehend QBA's methodology it is important to grasp a core principle here, which is that asking researchers to collect footage along a broader range of emotional expressions than they might be familiar with, asks them to extend and disrupt their idea of what a "normal" member of that species is. This, in turn, generates a fuller list of terms for assessors, prompting them to look for emotional expressions that might otherwise be overlooked or denied. In this way, I argue that QBA aspires to cultivate a kind of *socio-zoological imagination*. Here I draw on Arnold Arluke and Clinton Sanders' renowned (1996:167) concept of "the socio-zoologic scale", which is a normative model of the social, moral ranking of different species of animal according to their relationship with humans, such as "friend", or "vermin". I also draw on C. Wright Mills's ([1959] 2000) concept of the *"sociological imagination"*. Mills thought that becoming conscious of the way in which one's personal biographies and beliefs connected with the contingencies of history would have an illuminating effect, often referred to subsequently as *making the familiar strange*. This shift in perception is expressed most evocatively in Mills's description of someone finding themselves:

…suddenly awakened in a house with which they had only supposed themselves to be familiar…Older decisions that once appeared sound now seem to them products of a mind unaccountably dense. Their capacity for astonishment is made lively again. They acquire a new way of thinking, they experience a transvaluation of values. (ibid:8).

One of the promises of the sociological imagination was an understanding of what kinds of individuals were formed in history's wake:

What varieties (..) now prevail in this society and in this period? In what ways are they selected and formed, liberated and repressed, made sensitive and blunted? (ibid:7).

A *socio-zoological imagination*, then, is an ability to grasp the socially and historically situated nature of relationships between human and nonhuman animals; the way in which this forges beliefs about the moral status of different species; and how it transforms the capacities and sensibilities of those individual animals *themselves* through social practices. Through asking participants to consider material from the same species of animal in different contexts, I suggest that Francoise is prompting a deliberately disorientating experience of *making the familiar strange*, illuminating the historical and biographical circumstances which foster different interpretations of animal behaviour. We will see a similar kind of device in the next chapter at The Forge, when participants are taken out in the fields to observe the horses *as a herd*.

However, QBA seeks to achieve this experience through a discourse and practice which is strikingly visual, especially in comparison to Erin's auditory discourse and multi-sensory practice. QBA relies heavily on video footage for its validation; Francoise talks about *"making visible"* boredom and passivity; and, as we will see below, she argues that QBA brings about a radical shift in the assessors' *"way of looking"* . The trope of "making visible" is a common one in science, but has attracted criticism from Bruno Latour (2000) in his writing about primatology. This is firstly because it suggests that such a thing as a clear, uninterrupted view is possible; secondly because it treats knowledge practices as lenses which filter and "bias" an otherwise direct understanding; and thirdly because "views" assume static observers and static objects. This misses the point, he says, because there is no independent production of knowledge without mobilising worlds: funding, instruments, textbooks, maps, field sites, and even the animal's responsive cooperation. What are commonly conceived of as biases, he argues, such as gender, are often simply opportunities for knowing primates differently, through treating them differently and thus gaining different responses. For example, treating *"boring sheep"* as if they were "*charismatic chimps*" for the purposes of an experiment, as did primatologist Thelma Rowell (see Chapter 8), gives sheep an opportunity to be intelligent, to tell us new things about their capabilities, to articulate differently (Latour, 2000:374). Julian makes the same point in his argument above for offering mice more options to be creative. The optical metaphor, Latour argues, is unhelpful

in this regard, because it encourages a view of good science as one in which the observed are static and unresponsive and in which *"the only good gaze (…) is the one that is interrupted by nothing"* (ibid, 369). In contrast, he says, any facts are always produced in a vascular model, whereby knowledge is circulated bidirectionally in flows and transformations between knower and knowns. Sever the flow of an artery in an attempt not to affect the observed, he argues, and the production of any knowledge is impossible (ibid:365).

Through her sabbatical in social anthropology, Francoise has some familiarity with the work of Latour and similar theorists. In this light, the persistence of the visual metaphor in her discourse is particularly striking. However, we might also speculate that to emphasise the collective mobilisation of any facts is a particularly risky business in animal welfare science. This is because of the historic precarity of the discipline's position in the scientific community; because of the particular risk that QBA is treated, as Francoise says it was in the beginning, as merely a *"human perception study";* and because of the history of behaviourism which often weaponised the fallibility of human judgements to deny the reality of animals' consciousness, to somewhat devastating effect on the animals themselves. The ocularcentrism of QBA does ontological work, insisting upon the lived reality of animals' subjective experiences like suffering.

However, as I suggested in Chapter 4, it also does epistemological work. Whilst her academic writing does sometimes emphasise the significance of reciprocal intersubjectivity in knowing animals, she also claims that this can be abstracted and narrowed to a removed observation and/or an attitudinal mind-set:

Such "being-with" does not necessarily depend on close contact, but can also involve observation from some distance, or be technologically mediated. Essentially it is an attitude, a realization that relating to animals as "fellow living beings" grounds the study of how they experience their world. (Wemelsfelder, (2012:229).

I found that this sense of abstraction was mirrored in QBA's vernacular discourse too. There was often a sense that animals are behaving as if sealed behind glass: knowledge is produced unidirectionally, by an epistemological shift in the human viewer who learns to look differently. This was reinforced by Francoise's

acknowledgement that she rarely asks assessors to consider the impact on animals of their own embodied behaviour *during* assessment:

So no I don't, I don't tend to specifically say you must try to engage an animal in this or that way….because there are so many species where that's not possible (…) It's a good point, yeah no I don't. Maybe I should. (Francoise).

In contrast, Erin's acoustic model is much more "vascular" in its epistemology: knowledge is produced in-relationship and in-communication, circulating in continuous co-transformations between horse and human.

In the next section I will move on to explore a second important technique of "making visible" in QBA's critical anthropomorphism: the use of qualitative terminology. Drawing on work which explores the importance of language in shaping scientific perception, I use my conversations with Free Choice Profiling participants to explore the epistemological and political significance of the introduction of qualitative language in this exercise, as they strove to find descriptors to portray the emotional condition of the mice they observed.

Language as an affordance

Julian's Free Choice Profiling exercise where he readily uses words such as "curious" "at ease" and "cautious", demonstrates how far welfare professionals' attitudes have moved on from the behaviourist framework which dominated Wemelsfelder's undergraduate education. Animal scientists now speak far more readily about animals' emotions. Yet usually, there is a still a conceptual difference. Most welfare scientists, at least in publication, will indirectly *infer* feeling from their findings, arguing that subjectivity is an inner, private state. But, influenced by Ludwig Wittgenstein's work (Chapter 4), Francoise argues that *the feeling itself* can be seen, suffused throughout the whole movement of the body. It is this which justifies using direct qualitative descriptions of emotional expression, such as, for example, "pessimistic" rather than "negative cognitive bias", its mechanistic correlate; with the common-sense term relegated to popular publications, or informal conversation. She argues that qualitative language has perceptual effects in which the animal's sentience becomes visible:

…the way I introduce it and the way we develop the terms together, all of that brings about a shift in their way of looking at the animal as a sentient being (..) And suddenly that shifts, and then they get it, and then they see it (..) And I've been told so many times by people I've worked with that it brings about irreversible change. You know, inspectors saying to me like: "we've never looked at animals the same way again".

This belief in this directness of communication is caveated, because she also claims that ultimate unknowability is the very thing which constitutes an animal's subjectivity, and compels a lived interaction:

…getting to know another being requires that we concede their un-knowability, the essential incompleteness of our grasp of them, their existence as a unique, not-to-be-controlled "other" (…) acknowledging another's unknowability lies at the core of knowing them as subjects, however uncomfortable this makes scientists feel. (Wemelsfelder: 2012:230).

Knowledge, she tells me, also varies with relationship, and some things can be partially withheld, or more difficult to perceive in some species. Her main concern is to see expression as a dynamic continuum from *"inner"* experiential life to visible *"outer"* expression, rather than as a hard, dualistic divide between the two; and to sustain an ongoing acknowledgment of the experiential life of the animal, even as the exact nature of their feelings remains uncertain. In contrast, conceiving of an epistemological gulf between observable behaviour on the one hand and feeling on the other, relegates feeling to what she calls an *"intervening variable"* in a causal, mechanistic system, from brain activity to behaviour.

It could be argued that this inference is merely an acknowledgement of the mediated nature of knowledge of other animals. Matei Candea, for example, argues that scientists are merely practicing what he calls *"epoche'"* – *"an active suspension of belief"* (2013:433) regarding the mindedness of the animals under study. This is not incompatible, he argues, with *"meaningful interactions"* (ibid:426) in which mindedness is assumed, nor is it necessarily the wholesale endorsement of positivism. But others are in agreement that there is a distinct difference between acknowledging uncertainty and treating subjectivity as an *"intervening variable"*. For Eileen Crist, for example, such an "epoche'" is neither benignly neutral, nor

inconsequential for the production of knowledge. It is to ascribe only *"behaviour"* to animals, rather than what she calls *"action":* intentional, purposeful engagement with the world (cf Mead, [1934] 1972). Moreover, to conduct our social life as if the experience of others is a private object known only to their own solipsistic introspection, she argues, would be contrived. It disrupts the naturalness of ordinary reasoning about both animals and humans that we depend upon for normal social functioning (1999: 217). We do not, she argues, hear language or see behaviour and then make a secondary judgement as to its likely interior meaning – we rely upon seeing the feeling in the expression. The kind of *"technical idioms"* typically used by science to demarcate an inference (such as "pro-social behaviour" instead of "empathy") might avoid anthropomorphism, and not intend to deny animal sentience, but they bring their own *"visualisation effects"* (ibid:206) because language shapes our visual apprehension of the world. She argues:

In behavioural works, styles of description matter (…) the ways that activities and expressions of animals are engraved in the writing lead to a strong link between reading and seeing. (…). To the extent that descriptions of animal behaviour open up visual fields upon sciences, we see animals as aware and intentional, or conversely we see them as unconscious and meaning-blind. (original emphasis). (ibid:205-6).

Here, Crist argues that what the use of *"anthropomorphic"* language does is make animals' movements visible as authored and meaningfully experienced. Francoise's belief in the power of qualitative language to *"bring about a shift in their way of looking at the animal"* in which subjectivity can be directly perceived, echoes Crist's analysis.

However, Crist deals mainly with the written word, and its effects on visual observation and conceptual understanding. In lived practice and speech, we might instead think of qualitative language acting as an *affordance* in QBA, better capturing the multi-sensory activities through which such perceiving and understanding take place. The term *"affordance"* was originally coined by James Gibson in his radical ecological approach to perception, to mean something in the ecological niche of any human or nonhuman animal which offers opportunities for a particular activity ([1979] 1986:127). In Gibson's basic framework, this might be, for example, a medium like air which affords respiration, surfaces like the ground which afford locomotion, or objects of moderate size and weight which afford throwing. Animals apprehend

things as, for example, *"climb-on-able"* or *"get-underneath-able"*, relative to their physiology (ibid:128), and this constitutes their very act of perception. Gibson also argued that *"behaviour affords behaviour"* (ibid:135), so that other people and animals too, are affordances, through interaction. The *"highest level"* of affordance, he claimed, was provided by speech, images and writing, which provided a *"staggering"* number and complexity of affordances for behaviour (ibid: 137). Gibson noted this only briefly, but the notion of *language* as affordance provides an important conceptual advance, in combination with Crist's analysis, because it emphasises how language is situated in activities or in *"forms of life"* (Wittgenstein, ([1974] 1959) that constitute perception. As Tim Ingold puts it:

Affordances are ways to carry on your life, or alternatively, what get in the way: opportunities and hindrances (...) Affordances are the ways in which things come into the immediate presence of perceivers, not as objects-in-themselves, closed in and contained, but in their potential for the continuation of a form of life. (Ingold, 2018:39).

The point is that Francoise believes that qualitative language affords animal subjectivity in QBA, in the sense of making it *recognis-able* and *communic-able*, distinguishing them from objects. In turn, she hopes, animals themselves become an affordance for new interventions and interactions in the process of improving their welfare.

Qualitative language was something that, at The Forge, would be taken for granted, with the availability of horses' subjectivities never in doubt, even if specific interpretations were. Of course, the allowable margin of error of interpretation in a laboratory welfare assessment, where animals are deliberately harmed, is potentially much narrower than at somewhere like The Forge, since the choice of words might have immediate life or death consequences for the animals. Nonetheless, QBA's dogged and almost singular emphasis on the significance of qualitative language raises questions about why it deserves such attention, what reflections it generates on the nature of mouse-hood and how its use is relationally implicated in situated laboratory activities.

The challenge of qualitative language at Moor University

All of the laboratory professionals I spoke to agreed that mice were capable of experiencing emotions at some level. Emotional descriptors peppered our conversations. Most were careful to make a distinction between themselves as animal welfare professionals and the scientists who used the animals for human-benefit research (hereafter "human-benefit scientists"), whose views they characterised as variable, but usually far more objectifying than their own. Two of the older scientists, whilst welcoming generational change in the acceptance of mouse consciousness and emotions, were more cautious about the risk of making analogous assumptions between humans and mice. But in general, it seemed that the kind of scrupulous avoidance of any talk of animal emotions, so common at the start of Francoise's career, no longer applied.

When asked about the suitability of using qualitative terms to assess mice, welfare professionals tended to draw a distinction between words acceptable in conversation and words used in formal assessment or in publications (cf Birke, 1994:50). In the latter, trigger words like "depressed" were avoided because they might risk the welfare of mice even further, with journal reviewers demanding brutal experimental evidence involving "forced swim" or "tail hang" tests to assert this was the case. Conversely, words like "happy", one scientist thought, could dissuade human-benefit researchers from taking animal welfare professionals seriously and thus inhibit improvements. Power relations seemed embedded in who could use such language, with Julian admitting that he would be allowed more latitude to do so by dint of his senior status than a technician. So the choice of language and its intended audience evidently still had to be considered carefully.

The ease with which participants engaged with Free Choice Profiling varied. Some, like Julian, found generating descriptive terms quite easy, whilst others found it harder to articulate what they saw. A few said they had become so used to avoiding certain words that it was difficult to bring them to mind:

I found it really hard actually. Because you are so trained not to use those sorts of words – I would never feel comfortable to say, like in a research setting, "oh I've got really happy

mice". So I found that really hard because you're almost suppressing those descriptive words. (Holly, research scientist).

For others, their diagnostic expertise interfered with their ability to think of "basic" terms:

….you're trying not to expand with all these things of analysing it (…) you almost forget the most simple things. (Julia, senior technical professional).

The difficulties that Holly and Julia have suggest that the affordance of language is in itself embedded in a relational assemblage of lived practices, whereby certain activities, settings and training inhibit some discourses and afford others. Despite a general acceptance of mouse emotions in principle, it seems that the use of qualitative language in practice still presented a significant challenge in this environment. The freeing of conventional professional constraints on language use did not always lead participants to revert to what Crist would see as a more *natural* way of relating to mice, instantly illuminating mouse subjectivity. In the next and final section I shall consider, however, what perceptual innovations the use of qualitative language *did* afford.

Episodic description in QBA

Crist argues that a significant feature of naturalists' written descriptions of animals, in contrast to that of scientists, is that they are *"episodic"* (1999:73). In paying close attention to the subtleties of an individual's expression, and in summarising the behaviour of animals as series of events (such as "hunting prey" or "building a nest"), it preserves *"the holistic character of the act"* (ibid:74), whereby an animal's behaviour is embedded in an awareness of the immediate past and future, as events in their lives unfold. It foregrounds actions as the achievements of intentional individuals, who are their authors. Key to this, she suggests, is the longer-term immersion of the naturalist in the animal's world. Sustained observation becomes important for revealing animals' agency (ibid:78).

Rather than qualitative language being a descriptive technique that makes subjectivity visible, the significance of QBA for the participants seemed to lie in the *time* it took, to consider the mice's behaviour for long enough to integrate it into

suitable words capable of capturing the episodic nature of the behaviour. For example, Julian's description of a mouse *"trying to bury the threat"* in the video suggests the mouse's grasp of both imminent danger and the consequence of their actions. Later, he reflected that QBA's chief importance might be in the time and curiosity that it could bring to welfare assessment, something which involved episodic and intersubjective understandings of mouse behaviour:

I'd like to see it used to get people to look at the mice more (…) that if you just spend a bit of time, with this thing, it might be just like a bridge, to looking at the mice in a slightly different way. Or just to be slightly more, I don't know, thorough (..) Try not to make a big noise when you enter the room; and then see what the mice are looking like when they don't know you're there yet; and then see how they react when they do know you're there (..) And also that possibly they'll do things more slowly because there's several different things that you're marking the mouse on? That actually, even if those aren't really the right things to mark, the fact that you've taken longer to get there, you might get an overall impression, and you look at down and you say well, it says everything's good but I'm not sure why I'm not happy with the mouse!

The comparison to be made with The Forge here is striking, in the transformational possibility of slowing down and accepting uncertainty, perhaps going beyond "making visible" to considering the relationality, and, here, even the *"vascularity"* (Latour, 2000:365) of behavioural co-responses. These have the potential, Julian thinks, for cultivating an emotional intuition that might convey more than the prompts on a standardised welfare assessment sheet.

Technicians Molly and Barbara, who were otherwise a little sceptical of QBA, confirmed that QBA afforded them time to observe the mice's responses to their own behaviour. Here they have just reflected on how the mice flattened themselves to the floor after being released from tail-handling:

Barbara: We don't, sort of .....get time to stand and watch. It is all about time constraints, isn't it really, when you think (Molly: Yes). You know, we've got hundreds of cages. To go through. So we can't stand and do an observation of each cage.

Molly: Yeah, your pets you actually watch them play don't you, and you...(..) can tell the little sort of nuances of when an animal isn't well or isn't happy. But to do this is a totally different - because it's work, and you don't normally get that time do we? (Barbara: in all honesty). It's actually really interesting.

Barbara: Yeah - I quite enjoyed it!

(…)

Molly: and I would also say, from an ethical point of view (...) I think we should all take the time, to actually watch the animals, because we do tend to see them as a scientific model - (…) we do see them as animals -

Barbara: oh definitely, because otherwise we wouldn't be doing the job we do but…

Here Barbara and Molly make an interesting point about how institutional practices of time management affect their perceptual abilities. The more complex task affords them the time to observe the nuances of subjective expression. Language is embedded in, and thus afforded by, a relational set of practices. They also hint at a striking, if swiftly managed tension between seeing a mouse as a *"scientific model"*, and seeing it as an animal. They were not the only ones who felt that QBA might help people rehabilitate mice *"as animals"*, a somewhat recurring theme:

I think it might give people a bit more understanding that they are animals at the end of the day, they're not just a means to an end for their research. I think it would be nice if they did look down at their actual animals, and try to see the way they're behaving. (Holly).

This is reminiscent of the startling effect of the socio-zoological imagination described above: the contingencies of time, setting and work activities suddenly become apparent, and a new entity, an "animal" as opposed to a "scientific model", emerges. In Chapter 7, we will see the parallels with the emergence of the *horse-as-herd-member* through Erin's field-work.

So it seems that Crist's assertion that an "episodic" understanding of animal behaviour constructs animals as the authors of their own actions is supported by an

investigation of QBA's affordances in lived practice. The use of qualitative language did not *directly* afford the visibility of mouse subjectivities. However, when discourse is understood to be relationally constituted, the time taken to integrate subtle nuances of behaviour, within an episodic sequence, into a suitably descriptive word such as "cautious", was thought to afford the re-animalising of otherwise objectified tools of the laboratory, in an extension of the socio-zoological imagination.

Conclusion

In this chapter, I have used a video-elicited demonstration of Free Choice Profiling to explore two key methodological techniques in QBA: the strategic generation of video footage of mice, and the subsequent generation of qualitative terms to describe those mice. In structuring the collection of video footage in accordance with the quadrant system, Francoise intended to address the problems posed by everyday proximity and familiarity with animals, extending what I called the *socio-zoological imagination* of assessors, illuminating the historically and geographically contingent nature of their interpretations, and thus giving animals the opportunity to convey quieter, more passive forms of suffering. However, I argued this was done through a discourse and practice that was strikingly ocularcentric and conceptual; and that this did onto-epistemological work, affirming the reality of animals' suffering but also shifting the labour of knowledge production almost entirely onto the human observer.

Secondly, I explored the significance of qualitative language for Qualitative Behaviour Assessment, showing that Francoise believes qualitative language can dissolve inference and, with some caveats, directly describe the animal's experience as it manifests throughout its whole body. I drew on the work of Eileen Crist to show that language was enrolled in our visual apprehension of animal behaviour, but that James Gibson's concept of *affordance* better captured the way in which language is embedded in practice. This was demonstrated through engagement with Maria and Howard's laboratory colleagues, who, whilst suggesting that the use of qualitative emotional descriptors still presented a significant challenge in some contexts, asserted that its value was in the way it afforded more time to engage with "episodic descriptions" of mouse behaviour, which rehabilitated their animality and

encouraged curiosity about the co-production of behaviour and the epistemological value of intuition.

Practicing critical anthropomorphism, then, was as much about the *expansion* of the imagination, through techniques which destabilised assumptions and altered attentional practices, as it was about placing constraints on liberal interpretations of animal behaviour. In the next chapter, we will explore how The Forge also tried to expand the kind of phenomena participants paid attention to, and to disrupt conventional, familiar modes of interaction with horses, as we turn to the significance of its "herd day".

Chapter 7: Victor and the Oak Tree: uncertainty and "affected perspectives" in equine epistemology

The shadow of the oak tree. Credit: Erin

One day out in the fields, observing the herd from a distance, it began to rain. We moved under the shelter of a large oak tree in a gully dividing two fields. As we waited for the shower to pass, Victor, a small white Welsh cob, trotted down the hill at some speed towards us, head held high, body taut, nostrils flared. He stopped about twenty feet away, and whinnied sharply, staring at us. Erin told us to observe him. Instead of explaining his behaviour, she asked us questions that encouraged us to use our own judgement. What did we think was happening for him? What did we notice about his body?

Victor seemed to want to come closer, taking anxious steps forward and then backing away, pacing the arc of an invisible bubble. At one point he skitted away, but then came back, defecating as he returned. Erin asked why. ***"Marking territory?"*** **some said. Erin said no, it's the fight or flight response – bowels release in all mammals when afraid. Lyla said** ***"He's showing us he's the big man, but really he isn't."*** **Erin asked** ***"What it would look like if was playing the big man?"***

There was general uncertainty. She said he would be more at ease in his body, come closer.

Victor turned and raced away up the hill back to the herd.

Only then did Erin use biographical knowledge of Victor to explain. She said that Victor and the smaller ponies are kept in a separate field during summertime, but that Victor frequently jumps the partition fence to be with the bigger herd. However, he has a very close relationship with the pony he grew up with – Manon – and can on occasion become anxious at being separated and rush back to her side. Erin explained that not only we were we standing in the path of his route to Manon, but that because we were in the shade of a tree, we appeared as indistinct shapes which were likely to feel threatening, as horses don't see as much detail as we do in dim light. So he felt anxious about passing us, even though there was plenty of room.

Victor returned, displaying similar behaviour. Someone asked – "would it be better if we didn't look at him, turned away?" Erin said ***"let's try it"*****. We dropped eye contact, fell silent and turned our bodies away slightly from him. Victor came closer, dropped back, edged closer again, and then pelted past us through to the other side of the field to his enclosure with Manon.**

Later Erin took us to the place where he was standing and asked us to look back to the tree so that we could see his perspective – it was very dark and we could understandably have looked quite threatening. (Fieldnotes, July 2017).

In this chapter I use this encounter with Victor to explore the significance of the techniques that Erin used to explicitly teach horse and herd behaviour on the final day of each three-day retreat. The encounter is striking for a number of reasons. Firstly, for the intensity of Victor's communication and emotion in our presence: the tension in his body, his directness of gaze, his inching forward then skitting back. Secondly, Erin's management of the situation is telling: instead of immediately offering her biographical or ethological interpretation, she gathers and even acts on ideas from the group. And thirdly, in the way that she engages our bodies and imaginations with Victor's experience by taking us to his viewpoint. I argue that the

final *herd day* offered what Vinciane Despret refers to as *"politeness"* in animal behaviour expertise, allowing animals to demonstrate what questions *matter* to them. It was therefore, in comparison to the dyadic human-animal relations in the arena, a far more posthuman epistemology of equine behaviour and a partial reversal of power relations, through which horses' agencies in the arena became relationally constituted. The epistemological value of uncertainty is also revealed as an important methodological tool. Finally, I use Despret's notion of *"affected perspectives"* in animal behaviour expertise to explain why Erin's use of embodied methods of *"corresponding"* with horses (Despret, 2013) is so significant.

Making horses "more interesting"

Bringing the participants into the fields for an ethological lesson, as Erin did on the third and final day of each retreat, is a relatively unusual activity for an EAPD organisation, and is significant in the expansion of the questions that participants were encouraged to ask about horses' behaviour, beyond how it related to their own presence. The French psychologist and science studies scholar Vinciane Despret has long been occupied with the nature of these questions as they are posed by ethologists and other animal behaviour experts. In her work of studying animal ethologists, she argues that animals are continually responding to the terms of the experiment, and to those conducting it:

…the animal construes, interprets, give meanings to the experiment as an intentional procedure requesting something from him/her, and to the human who asks the question. (2010a:webpage).

Success in learning about animals is not about objectivity, she says, since objectivity pretends neutrality when in fact the animal may well be responding to the researcher's rejection of a relationship. Instead, she argues, a successful experiment depends on whether the question interests the animal, whether it allows them to participate in a reciprocal interaction with a responsive researcher, and whether it allows them to share what matters to them. Without this, *"science"* she writes *"may transform compliant beings or helpful animals into stupid ones"* (Despret, 2010a:webpage). Learning about animals means learning about the kinds of questions which unlock ways for the animals to become *"more interesting"*, *"that*

mobilise more and more activities", that discover the conditions that animals *"require to expand their repertoire of behaviours"* (2010b:368). This is what she refers to as *"politeness"* in animal behaviour studies. A paradigmatic example of this, she argues is Thelma Rowell's application of primate research design to the study of sheep, something Rowell hoped would allow sheep the opportunity to demonstrate more complex social organisation than had hitherto been assumed (Despret, 2010b). Politeness might seem like a jarringly superficial term, but I interpret it as a playful way to emphasise respect and reciprocal sociality as a basic point of departure for any investigation.

Bringing the participants into the horses' field was, I suggest, a form of "politeness" in which animals were given the freedom to demonstrate what mattered to them, and in which the questions that could be asked of them were expanded. After the hermeneutic confines of the arena work, Erin did succeed in enlarging the range of possible meanings of the horses' behaviours beyond the emotional demeanour of the human, by opening up a much greater wealth of relationships – to land, sky, other horses, birds, flies, trees, water sources – from which the human was decentred, and in which new questions could be asked. It was not, however, a naïve idea of horses requiring completely "natural" conditions in all scenarios in order to thrive, a idea that is common in "natural horsemanship" circles, but which has been criticised (Birke, 2007). The horses had dentists, osteopaths, podiatry appointments, and fly-masks in summer.

Entering the field was a notable reversal of power relations in which understanding what mattered to the horses suddenly felt vital to one's safety. Spreading out alone into a herd of 14 horses, with Erin perhaps some distance away, was a little nerve-racking even for the experienced horse-owners in the group. It was also a far more humbling experience than the arena work. Now it was the horses that had their own objectives – grazing, co-grooming, asserting themselves, and snoozing, and the meaning of the space was rearticulated to their interests, not ours. In such a context, what you might wish from an encounter was rapidly revised. On the other hand, when an individual horse walked over to greet you on their own terms, surrounded by all the other things they could be doing, the meaning became enchanted: it felt like an honour which drew gratitude and a certain amount of awe from the participants, including myself. The contrast with the total control, of everything

down to the air supply of individual cages in the mice's laboratory, could not be more sharp.

Interestingly, several of the participants felt that the way in which Erin's horses lived afforded the agency, communicability and receptivity they experienced in the horses' behaviours in the arena work:

I was thinking of the regimentation of the riding school horses (..) They weren't able to be receptive in the way that those horses were (..) Like you know, like a really busy person can't listen (..) And that, with Erin, the horses actually have the space to be receptive (..) it makes you realise what Erin has actually achieved, by bringing these horses to their natural state, and taking them out of the demands that were made on them. (Jacinth).

Entering the horse's territory therefore, encouraged a view that these horses were special; legitimising, for some, their responsiveness in the arena. It also extended the *socio-zoological imagination* in a similar way to that of QBA's "Free Choice Profiling" (Chapter 6), directing questions about a horse's behaviour at least partly away from its entanglement with the self, and out towards a much richer and more expanded set of relationships from which human interests could feel profoundly decentred. In part this was due to the biographical information about individual horses and their relationships with each other which Erin began to share. In the arena, even the horse's name was usually not given unless asked for, and any idiosyncratic tendencies were usually allowed to be interpreted as a response to the emotional demeanour of the human. This was, perhaps, partly why the arena work was carried out first, although prior confidence building around horses might also have played a part). Out in the field, the bonds that horses had with each other became very evident and, as in the story above where Victor and Manon's historical bond is used to explain Victor's behaviour, Erin would often tell stories of how different horses had come to her, who was related, what kind of personalities they had and the different roles they took in the herd. However, even out here, in the first instance, this information was often deliberately held back. Below, I will explain why this was the case.

Manon (left) and Victor (right). Credit: Maisie Tomlinson

Uncertainty as method

Erin's pedagogical style tended to be one which fostered more questions than answers, through a methodological technique of deliberately fostering uncertainty. For the first half hour or so, we stayed as a group, observing the herd from a little distance. During this time, Erin employed an interrogative style of teaching as we discussed herd structure, behaviour and communication. What qualities, she asked, did we think a herd leader should possess? Did we know how a wild herd would be organised? How do we think horses communicate with each other? How does this one, approaching, feel about our presence? We were encouraged to use observation, deduction and imagination before Erin came in with her own knowledge, knowledge often based on ethological as well as biographical information.

It was in this phase of activity that Victor approached. What is notable about this encounter is that Victor's behaviour is not immediately explained but opened up for group discussion. The authority of Erin as expert is held back. It is only in the second instance that she assists, by drawing attention to certain aspects of his behaviour – the quality of his body language, the defecation – and only in the third by ethological and biographical expertise. In taking this approach, one of uncertain speculation and imaginative empathy, Erin explicitly rejects a didactic mode of teaching and de-prioritises the "truth" of the encounter. Instead, she employed a facilitative style in which participants were asked to direct their curiosity in certain

directions, and then encouraged to conjecture. In so doing, Erin not only believes that she is developing her clients' skills and confidence, but she also emphasises the accessibility of equine subjectivities to lay perception. As I will explain below, this accessibility is contingent, however, on a certain kind of emotional availability which she feels conventional education prohibits.

The influences on Erin here are various. Equine Assisted therapeutic and personal development programmes tend to be founded in the "experiential learning" tradition, founded by American philosopher John Dewey. Experiential learning emphasises a "learning by doing", "problem solving" approach, believing lessons are more effectively learned if participants are allowed to find their own solutions. It was likely in this spirit that Erin set us problems to solve when we were released to wander freely: could we could guess, from the basic ethological information she had given us, the lead gelding and lead mare?

In alignment with such a tradition, Erin clearly felt strongly about the impact that conventional educational traditions had had on her clients and, crucially, the way it had marred their ability to use their *"felt sense"* with the horses:

…there are a lot of people who feel very uneasy about me not giving them a full set of instructions for what to do with the horse. It brings up a lot. Am I going to get it right. Whatever 'right' is. And I think that is something that perhaps sits in our culture. School days, you know, it's all about getting it right, being the best in the class, getting all the merits and the stars.

Influenced by popular psychologists like Brene Brown, she tended to emphasise that her pedagogy involved using uncertainty and vulnerability as a productive space, something which forced participants to use their "felt sense":

Erin: But I think somehow, by putting people into that space, it allows for a shift. More chance of a shift, because -

Maisie: In a space of.....?

Erin: Vulnerability. And not knowing. And not being told all the answers, and they have to...they have to start coming back to self. (..) So start listening to themselves, start working with their felt sense.

Vulnerability and uncertainty went hand-in-hand with a rejection of a textbook account in which the horse's behaviour always has the same meaning regardless of context. In a similar way to Francoise's "whole-animal" account, she believed that there were shared qualities of embodied expressive behaviour between all creatures, such as tension, or direction of movement. These qualities should be, she thought, reasonably simple to read, but their interpretation was hampered by scholastic habits of learning:

I think there's a general overall communication between all species. And that's what I'm trying to tap into and work with in people and with myself, it's like – it's just a common thing. Is there tension being held in the body, or not? Is the horse moving away, or not? It's a – it's something that anyone can see. You don't have to train – but somehow, all the people want to know is : "what does this mean, what does that mean". Well you've got to look at the whole context. But also feel it. (Erin).

The relative value of species expertise versus amateur perception will be explored in more depth in Part V. However, it is worth noting a striking sensory insight in Erin's last words. Instead of, as with QBA, "making visible" being the primary imperative, *looking* becomes only part of a technique of expertise, and *"feeling it"* completes it. In the next section I will explore how Vinciane Despret's notion of *"affected perspectives"* versus *"semiological perspectives"* helps distinguish Erin's technique from conventional animal behavioural methodologies in which each gesture has a defined, fixed meaning.

Affected perspectives

Despret observes that the way in which animal behaviour researchers use their bodies is rarely mentioned in scientific accounts of animal behaviour. Doing so, she says, is a *"risky practice"* (2013:57), because the body of the observer is supposed to be detached and passive, and the animal should ideally respond as if one is not there. Nonetheless, she argues, animals may perceive aspects of our bodies of which we

are unaware, and respond whether or not we would like them to. She gives numerous examples of occasions where ethologists learned something important, sometimes accidently, from using their bodies to make animals respond. What distinguishes behaviourists like Jacob Von Uexkull from ethologists like Konrad Lorenz is the willingness to take not just a *"semiological perspective"* , which sets out to list what has meaning, what phenomena exist for the animal, in its umwelt, through its cognitive processing of information; but to search for an *"affected perspective"*, for what *"matters"*, experientially, to the animal. This in turn, she argues, requires the engagement of the observer's feelings:

Searching for what "matters" no longer involves just producing a cold and disaffected inventory, untied to the observer's feelings. The searcher is no longer pursuing a semiological query: as a result, understanding another being's perspective requires the researcher to take into account the fact that some things are more meaningful than others; it requires the observer to give them some worth, some affective values. (Despret, 2013:55).

Primatologists like Shirley Strum and Barbara Smuts, she argues, transform themselves in embodied ways, learning baboon body language, eating their food and following their routines in order to forge "polite" relationships and to learn from how the animals respond. Doing so, she suggests, disposes one to certain emotional experiences. This is not, she says about feeling what the other feels through mimesis, but it is about "*making the body available for the response of another being"*, (2013:70) – in other words, allowing oneself to be affected, responding appropriately, and learning more from doing so. She calls this *"corresponding"*, from the Latin cor (together) and respondere (respond) (ibid:70).

Unlike in the practice of QBA, where one's own embodiment in the practice of animal behaviour assessment was largely downplayed, here it played a central role. Out in the fields, Erin teaches interesting ways of "corresponding" with horses. First she taught us how to greet a horse by holding out the back of a gently curled fist until they had taken in our scent, the way she said that horses greet each other with their noses. She also taught us a way of sharing proximity with the horses without touch – by "grazing" alongside them, pulling up the grass with our hands, as a familiar sound and non-instrumental, companionable activity (watch **here**).

Figure 11: Video, grazing with Evy. Credit: Erin

But as can be seen from the story above, there were other ways in which she encouraged participants to use their bodies to understand what an experience of a horse might be like. Her proposal that Victor's behaviour might be explained by fear is imaginatively responded to by one participant, who wonders if us looking away might calm him. This is taken up by the expert who asks us to *"try it":* we huddle round, drop our gaze to the ground and the horse responds by bolting past us towards Manon's enclosure, confirming Erin's explanation. Placing the participants in the position of Victor, looking back to the dark space under the trees, is an interesting example of being asked to *"feel it"* - encouraging a more embodied, experiential, and empathetic understanding of the horse's experience. It is a classic "experiential learning" approach designed to give confidence to the participant, and in this case, its role is primarily to emphasise the innate competence of amateurs in reading animal behaviour (see Part V). Interestingly, whereas guided visual observation played a crucial role in the field work, in this case, it is the absence of gaze to which the horse responds: we "made visible" paradoxically by not looking.

Conclusion

Entering the herd on the final day went a considerable way towards de-centring the human in The Forge's equine behaviour expertise, in comparison to the 'personal

development' arena work. Here, participants were asked to become affected by, and responsive to, the horses' activities and preferences, following and observing them, "grazing" with them and adapting our greeting style to their sensory preferences before initiating further contact. It was also an interesting example of how quotidian judgments were fostered and encouraged: using the methodological tools of uncertainty, imaginative guesswork, embodied empathy, and biographical knowledge. I showed how Erin considered an embodied education in these craft skills more valuable than simply transferring "textbook" information about the typical meaning of certain behaviours to participants, something that Despret also critiques for its disembodied, cognitive, *"semiological"* understanding of an animal's lifeworld. Visual attention played an important role, but unlike in QBA, *"feeling it"* was considered far more important to the successful interpretation of a horse's moves; and sometimes it was in the aversion of a gaze that knowledge was confirmed.

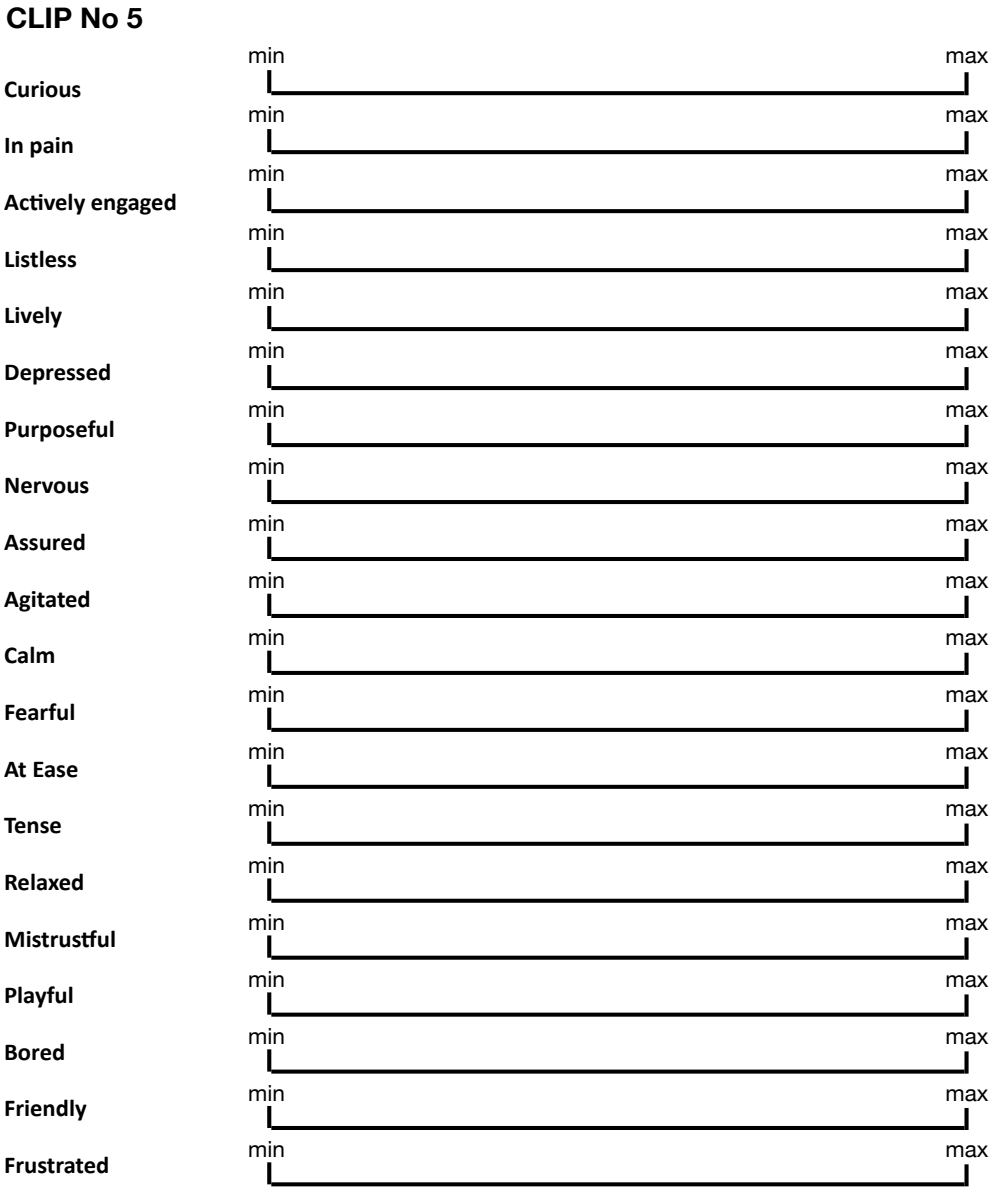
I suggest that Erin's herd day, with its rich human-nonhuman entanglements, experimental embodied practices and a pedagogy which encouraged imaginative empathy and speculation, embraced what Despret calls "politeness" in animal behaviour expertise, privileging making animals *"more interesting"* over ascertaining singular truths about the meaning of behaviour. However, it is also the case that imaginative empathy was fundamentally underpinned not just by the biographical knowledge that Erin had of her animals, but by textbook ethology and biology, whose assumptions generated questions, guided insights, and often eventually "corrected" the participants. This interplay between objectivist and qualitative, "felt sense" knowledge needs further investigation, and will be one of the subjects of consideration in Part V.

Chapter 8: Observer 11 Outlier: Fixed List Testing and Objectivism in QBA

An Exercise:

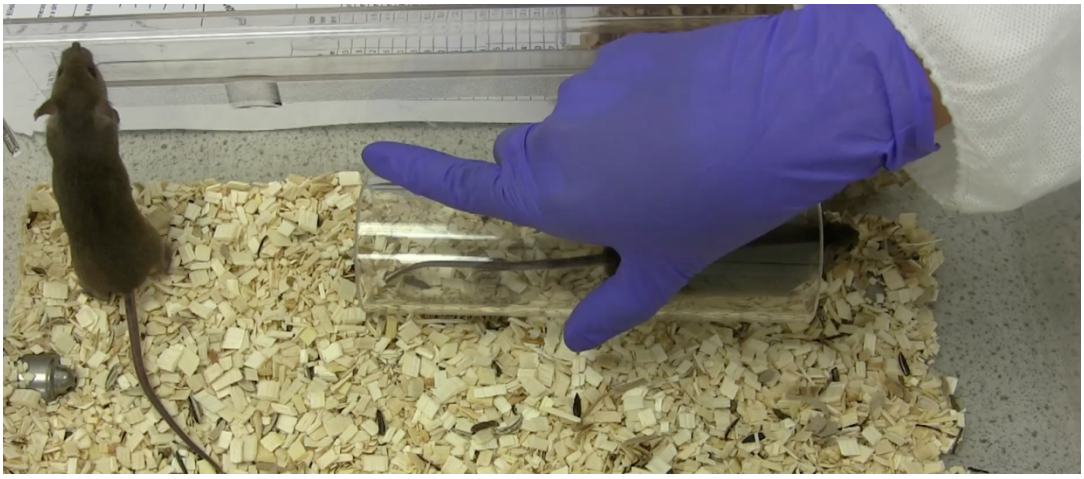
The following exercise was one in which I ethnographically participated to help validate the terms that were eventually chosen from the Free Choice Profiling exercise, described in Chapter 6. In order to gain a sense of what this process involved and its sensory dimensions, I invite you to participate in this exercise. Read through the list of terms on the following page. It is a score sheet, so you may wish to print it out.

Figure 12: The Fixed List score sheet for mice (paraphrased for anonymity)



Now watch the video below carefully. Then, working from memory, score the mouse's overall demeanour by placing an imaginary or real cross on each line of the terms overleaf, roughly averaging the emotions between the two animals. Scores towards the minimum mean that quality is not present, scores towards the maximum means it is strongly present. Work quickly, taking no more than a couple of seconds to make a decision on each term. Watch the video here:

Figure 13: Video, Fixed Term scoring exercise



In Chapter 6's *Making Visible*, I introduced the "Free Choice Profiling" (FCP) stage of QBA which prompted the spontaneous generation of terms from a group of animal welfare professionals. What the list above demonstrates is the resultant "fixed list" of terms, which have been drawn up by Francoise and the Moor University team: firstly through a statistical General Procrustes Analysis (GPA) process to identify "high loading" terms; followed by a manual and interpretive process of discussion to narrow the terms down to a list of twenty. This is not the end of the development process, however, because the list now has to be tested for reliability. As with The Forge's use of *the felt sense* to encourage reflexivity in Chapter 5's *Clean Communication*, this is an important part of the "critical" process of QBA's "anthropomorphism".

If you have done the exercise above, you have now gained some idea of what it might be like to use QBA in a Fixed List testing exercise (as well as in a routine welfare assessment, albeit this would be with live animals). You will have appreciated the relative two-dimensionality of the process: placing a mark on a line with a pre-given list of terms, and the sensory and contextual flatness of working

from a video. But you may also have found the instruction to watch first, and score from memory second, challenging, especially with so many terms, some of which are overlapping. You may have found it more or less easy to know where to place your cross on the line, especially with two mice to score. If you were carrying out this process in a real study, what you would not know is that the mice have been subjected to a control treatment, and that you are carrying out a "blind" study. Your "scores" would now be compared with those of others who have watched the same videos, through the statistical production of a series of visual inscriptions, to ascertain how appropriate the choice of Fixed List terms is in allowing participants to score with "reliability" and "validity".

QBA was originally developed so that assessors could use their own words to describe the emotional condition of the mice, as Francoise wanted to ascertain whether assessors would spontaneously agree on what they saw. However, unlike Free Choice Profiling, which relies on all assessors observing the same animal to conduct the statistical GPA analysis, Fixed Lists allow different, trained[14] inspectors to work separately, but then remotely compare the welfare of different animals in different facilities. In this way, the Fixed List instrument becomes what Bruno Latour calls an "*immutable mobile"* (Latour, 1986:7), a device that may be circulated without being changed, and which mobilises others to carry out projects along the same lines. It facilitates the *visibility* and thus comparison of the animal welfare status of multiple colonies of laboratory mice across globalised environments: "*so that all the instants of time and all the places in space can be gathered in another time and place" (Latour, 1986:19).*

In this chapter I explore the tensions that became apparent in the intriguing combination of a "subjectivist" ontology on the one hand, embracing uncertainty and intuition in the FCP development of the terms and in the subsequent scoring procedure outlined above; and on the other hand, a strongly "objectivist" epistemology, through its use of an underlying control treatment and the statistical analysis of results. The chapter begins with a technical explication of the process for clarity, and gradually moves towards the story of a "statistical outlier" that was

14. Training is referred to in multiple QBA publications, whereby assessors are asked to spend time calibrating their understanding of the terms and the use of the scale. Sometimes training makes a big difference to results. See, for example, Minero et al (2016) for both an explanation of the training process and its impact.

discovered in the data: an assessor whose scores did not correlate with the control treatment or with their fellow participants in the way that was to be expected. I begin by explaining the experimental procedures which formed the basis of the Fixed List testing, in order to better unpack the epistemological assumptions which go into its construction. I then draw on Thomas Nagel's work to explore the role of objectivism and realism in the validation of QBA as a subjectivist methodology, and, in particular, to explore some of the ways in which Francoise methodologically negotiated some of these tensions. Finally, I argue that whilst the team did not endorse a "view from nowhere" idea of objectivism, the logic of the scientific method led to attentional blind spots in the construction of the experiment. I show this by describing discussions around the existence of an "outlier" in the statistical findings, and give an ethnographic insight into how the experimental procedure, as "*situated knowledge"* (Haraway, 1988), in fact *contributed* to its presence.

In what follows I will briefly explain two important features of Fixed List testing: the treatment structure, and the statistical analysis of scores, before moving onto what they reveal about the epistemology and ontology of QBA.

The "treatment structure": handling the mice before Fixed List testing

Once the terms for the Fixed List had been chosen, there were two criteria to meet to achieve validity or reliability. The first stage was to assess its correlation with an experimental control, referred to as a "treatment structure". Groups of mice were exposed to different conditions over a number of weeks, conditions which the literature suggested would result in psychological changes with measurable behavioural effects. The aim was to see whether respondents' scores for each pair of mice on the fixed list would correlate to the a priori treatment structure for those mice.

At Moor University, this was accomplished through handling. Two groups of mice were exposed for nine days to two different types of handling. The first group of ten were handled by the base of the tail (the standard method) and the second group of ten were coaxed into a clear tunnel in which they could be inspected without being touched (the video at the top shows such a tunnel). This treatment was chosen because existing scientific literature (e.g Hurst and Gouveia, 2017) suggests that

tunnel-handled mice show measurably less anxiety in novel situations than tail-handled mice. After nine days of handling, pairs of mice were exposed to a filmed "interaction test", whereby either the hand or a tube was re-introduced into the cage, so that the behavioural style of the mice's interaction with these objects could be observed. These videos were labelled either “tube” or “tail” and became, as per the video shown above, the behavioural material to be assessed.

It is important that assessors work “blind” to the treatment structure and cannot guess what it might be, and so in this case a group of third year undergraduate Animal Science students were used. A brief introduction to QBA and the scoring procedures was given, and then assessors worked individually and in silence to score the animals: in this case, the *pairs* of animals as one "experimental unit"[15]. The video is watched first without scoring, and then afterwards the mice are scored by placing a cross on the visual analogue scale of each term above, an unstructured line ranging from Minimum behaviour observed to Maximum. They are asked to work quickly and not worry about being exact. The same assessors participate in two separate sessions on different days. Unbeknownst to them, they are assessing the same mice twice.

Statistical analysis of scores

Whereas they *present* as unstructured lines for the assessor on the page, the lines are pre-conceived as structured - into 125 x 1mm intervals. After the assessment takes place, the distance between the beginning of the line and the mark the assessor has made is measured by the researcher in millimetres and recorded. The scores of all observers are then statistically analysed using Principle Component Analysis. The aim is to assess two things. Firstly, how successfully their scores correlate with the expected behaviours of the handling treatment: i.e, whether tail-handled mice tend to score higher on terms such as "anxiety". Secondly, the *level of agreement* on the behaviour of the mice is assessed - both *between* observers and between the two sessions for the same observer (inter- and *intra*-observer reliability). Agreement is

15. It is common for QBA to be conducted on groups of animals at a time in large facilities. It is less common for this to happen in fixed term testing, but it was justified by the team because a) mice placed on their own can become very stressed, b) the handling protocol also worked with the mice in pairs so filming them this way was consistent, c) we were not asked to choose a mouse to score because of the perceived difficulty of distinguishing one mouse from another.

ascertained not on individual terms, but on the mood/energy *dimensions* into which the assessors placed the mice (see Chapter 6, *Making Visible*), which is ascertained as part of the process. Finally, a number of effects on the assessment were statistically controlled for using an Anova statistic (see Appendix 2 for more details).

Figure 14: Results from a statistical analysis of nineteen assessors' Fixed List assessments. Each dot represents a mouse pair experimental unit, and the colour shows how it has been handled. The graph shows distribution of the mice across the four quadrants, with the yellow, tail-handled mice in the negative axis and the pink, tunnel-handled mice in the positive half.

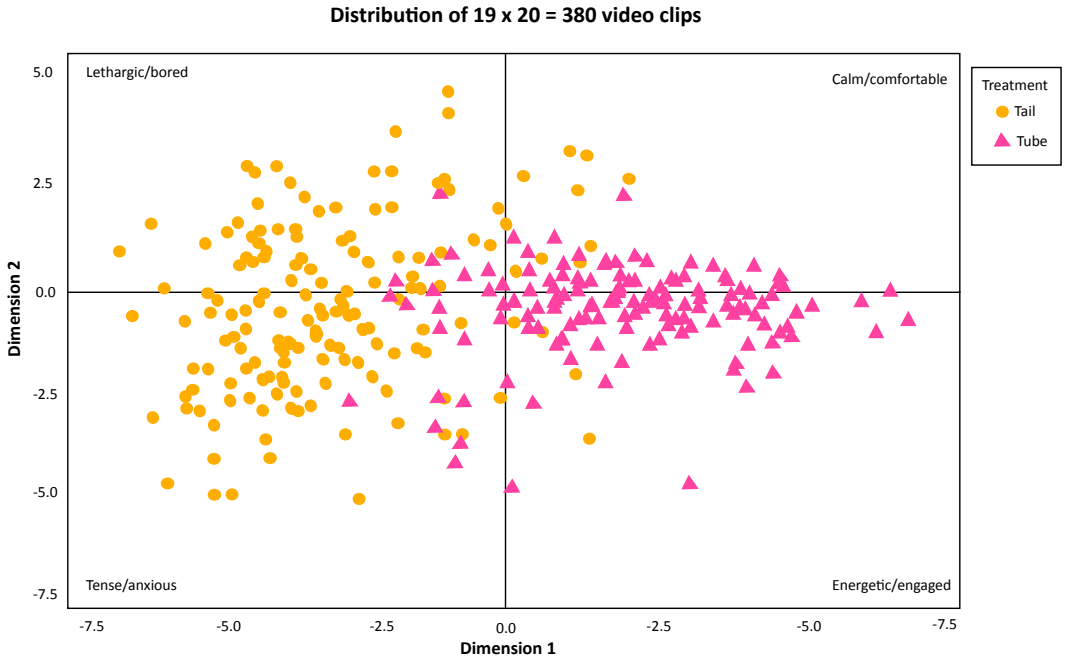


Figure 15: The results from the Principal Component analysis, assessing nine assessors' intra-observer reliabilities between Sessions 1 and 2. The Value column represents the strength of correlation, with 0 being the lowest and 1 the highest. These are fabricated to preserve anonymity, but with similar results. Note the low value for the final assessor, Observer 11

Spearman's Correlations		
Correlations n=20		Value
PC1r.1a-PC1r.1	Correlation coefficient	.659
	Sig (2-tailed)	0
PC1r.2a-PC1r.2b	Correlation coefficient	.818
	Sig (2-tailed)	0
PC1r.3a-PC1r.3b	Correlation coefficient	.444
	Sig (2-tailed)	0
PC1r.4a-PC1r.4b	Correlation coefficient	.518
	Sig (2-tailed)	0
PC1r.5a-PC1r.5b	Correlation coefficient	.782
	Sig (2-tailed)	0
PC1r.6a-PC1r.6b	Correlation coefficient	.412
	Sig (2-tailed)	0
PC1r.7a-PC1r.7b	Correlation coefficient	.721
	Sig (2-tailed)	0
PC1r.8a-PC1r.8b	Correlation coefficient	.838
	Sig (2-tailed)	0
PC1r.9a-PC1r.9b	Correlation coefficient	.699
	Sig (2-tailed)	0
PC1r.10a-PC1r.10b	Correlation coefficient	.702
	Sig (2-tailed)	0
PC1r.11a-PC1r.11b	Correlation coefficient	.388
	Sig (2-tailed)	0

Objectivity and realism in the validation of QBA

What is immediately striking about the presence of the control treatment and the complexity of the statistical analysis above, is the role that reification and quantification play in the validation of a methodology whose raison d' être is to assert the irreducible dynamic subjectivity of animals, and the value of qualitative judgements. These techniques show that there is, at least in this "validation" phase of the species-specific QBA tool, a high value placed on discovering a singular reality of the mouse's emotional condition. At The Forge, imaginative speculation was encouraged and Erin generously accommodated multiple interpretations. Here, the team are practicing what Latour calls a *"subtractive empiricism"* (Latour, 2017: ix), where the purpose is to assess the truth of a hypothesis (here, that people can use the QBA tool to identify the different emotions believed to be induced by a treatment structure). Alternative explanations for this correlation are not encouraged, but must be eliminated.

In this sense, then, Francoise and the Moor University team are asking realist questions which a) presume a reality external to the assessor's understanding of it, and b) assumes that this reality is best known by diminishing the significance of an individual's interpretation. In line with the first commitment to realism, they deploy a treatment structure in which observers are made blind to a prior condition of the animals, induced by handling. If the dots in Figure 14 show the tail-handled mice falling in the appropriate quadrant, this is believed to lend scientific validity to the truth claims of the observers, or at least to "triangulate" the evidence for such claims. In line with the second assumption, reliability is assessed, a process whereby multiple opinions are sought and compared in the belief that the number of times the same belief is expressed is ontologically significant. So if, as in Figure 15, a majority of participants have high correlation scores between Sessions 1 and 2, this is broadly understood as evidence that the mouse's condition is the cause of those scores, and not some other factor. The quantification aspect of this process means that both the human assessors and the mice are reified for the purpose of measuring tightly defined events. The qualitative language recedes into the background, and instead mice become dots on a graph and assessors become numbers in a table.

These approaches are typical of ontological and epistemological *objectivity*. Objectivity takes the realist view that there is an external world separate from our understanding of it, that its laws apply predictably and universally, and that it can best be understood, at least in principle, through detaching from the subjective perspective of the knower, working towards what Thomas Nagel (1986) famously called "*a view from nowhere*". The positionality of the subject is conceded to be "*an irreducible feature of reality*", but to contain barriers and pitfalls to knowledge, so a "*pursuit of detachment*" (ibid:7) is needed, he argues, which moves away from subjectivity:

A view or form of thought is more objective than another if it relies less on the specifics of the individual's makeup and position in the world, or on the character of the particular type of creature he is (...) we may think of reality as a set of concentric spheres, progressively revealed as we detach gradually from the contingencies of the self. (ibid:6).

Objectivity as both aspiration and supposed achievement has been heavily critiqued in sociology, particularly by those in the feminist and social constructivist traditions

(Feyerabend, 1981; Winch 1958; Keller, 1985; Harding, 1986; Hartsock 1983). In recent years, post-constructivist accounts have tried to defend the feasibility of a faithful account of reality without conceding to realism by describing reality as an *achievement* of particular practices rather than as an a-priori *external* actuality (Karen Barad's *"agential realism"*, 2007; Lynda Birke et al's *"performativity"* 2004; John Law's *"method assemblages"* 2004; Mol,1999; Despret, 2004; Latour, 1986). According to some Science and Technology scholars, scientific cultures too are moving away from the kind of naive confidence in research findings that may have characterised an earlier age (Meloni, 2014; Nelson, 2017). It is worth considering, then, to what extent the Moor University team had faith in the "objectivity" of their methodology, before moving on to explore one instance where this objectivity was challenged, and the emotions of one assessor brought radically into focus in a way that The Forge might recognise.

Howard and Francoise's navigation of objectivism

These competing conceptions of objectivity are useful for thinking through the ontological and epistemological claims of Howard and Francoise, the more experienced scientists, as they reflected on the mixed results of the Fixed List experiment in a team meeting. Neither could be said to treat reality itself as an *achievement after the event,* in the manner of Barad et al. Francoise has had philosophical and anthropological training, and expressed keen interest in, for example, animist knowledge practices, but she explicitly distinguished whole-animal "*subjects*" from bodily "*objects*" in our conversations together and frequently defended the visible *reality* of the animal's experience against rival claims, made by others, that QBA was a study in "*human perception*". Howard, whilst in fact seeming frequently preoccupied with questions of ethics and epistemology, also expressed a self-confessed impatience with idealistic ambitions and a discomfort with complexity, wanting methods that delivered, as he put it, clear *"answers"* which made demonstrable progress for animal welfare in the world as he found it.

That said, neither Howard nor Francoise could be said to naively embrace the *view from nowhere* dogma of objectivism. Francoise, whose whole career was founded on a critique of hyper-objectivism in animal welfare, was well aware of the potential

contradiction in the use of reifying practices to validate QBA and sometimes publicly expressed her concerns, but clearly considered the compromise worth it:

The process of quantification and statistical analysis will inevitably to some extent put a restrictive framework on that direct perception and understanding of animals as expressive sentient beings. In the end, Principle Component analysis is a reductive tool, and it serves to establish patterns of animal expression that are robust scientifically. So I do sometimes say that to people, I say "look at the word chart, all those lovely terms. With all their beautiful subtle distinctions - all we are extracting from all that information is only two dimensions" - that is a reductive process. And I feel that is a compromise. And the compromise there is that – to transform that observation, that subject-based observation into science.

There were, however, a number of ways in which she tried to preserve the dynamism of the subject in the work. Firstly, as part of her *whole-animal* thesis, she insists that researchers never use QBA by separating out the terms into individual states to be measured. They must, she says, be presented as integrated, dynamic *dimensions*, either in quadrants (eg *"positive mood high energy")* or in strings of words, such as *"confident-playful-energetic*". Secondly, she suggested that researchers linked videos to some of the nodes representing the mice on the graph:

I think it's incredibly important that through all that quantification, that you can find the animal back. This is an agitated animal and this is a bored animal, and how can you find this back in this abstract figure? The videos are where the animal is still, you know, speaking.

Thirdly, in a similar way to Erin, Francoise seemed fascinated by a Gestalt relationship between uncertainty and knowledge. As described in *Making Visible,* she believes that QBA ultimately accepts the *unknowability* of the animal, and that this unknowability actively constituted what it was to be a subject:

…this is a journey of discovery for me to to....to resist that thing that biologists are taught to aim for, to invade the other, to move beyond a meeting and fix it, and say we know you, this is how it is. So the respect is to stop. And to say, "we're not going to invade you, we accept the uncertainty, we are going to listen" but what you gain by doing that, is that the subject then becomes real! And this is what is so nice.....it's like a magical twist...not fixing it makes it real?

It was because of this faith in uncertainty as a methodological tool that she insisted on an undivided visual analogue scale, forcing scorers back onto what she called a *"subconscious"* process – something which she believed made the process *more* scientific because subconsciousness is inherently *integrative* (see Part V):

And besides, I also think that there is a very good chance that it's actually a sharper tool quantitatively if you don't force people into preconceived categories (...). And to a lot of an extent that is subconscious, so....if that's what you mean by intuitive....it may to some extent include what people feel or their level of empathy, but in the end people are not scoring what they feel, they are scoring the animal.

It is interesting here that she rejects my suggestion that this was a more *"intuitive"* process, something that for her places too much value on the observer's feelings *as inherently opposed to* the reality of the animal's experience. The contrast with The Forge's knowledge practice is stark. Her discomfort can be traced perhaps to her intense efforts over decades to insist on the reality of the animal's emotional experience and the respectability of its scientific study in the face of behaviourist scepticism. Given that objectivist scientists nonetheless habitually consider themselves to be accessing an unmediated reality, QBA, perhaps she feels, must be defended in the same terms, even though elsewhere she also writes that objectivist practices are highly mediated by theoretical assumptions (Wemelsfelder 2001, 2012). Still, these repeated assertions of direct, unmediated access to the animal's experience are somewhat problematic.

It is doubtful whether these epistemological nuances about integration, uncertainty, and unknowability are fully appreciated by most users of QBA. Certainly, Howard seemed to struggle on occasion with Francoise's philosophical assertions, admitting he did not always understand. However, he too was under no illusions that the Fixed List testing was a purely "objective" investigation:

So the more you understand about statistics, the more you come to realise that statistics isn't a hard and fast objective science. It's a subjective science based upon expert opinion (...) I guarantee to you that when we publish this level of detail, we will get a torrent of comments,

that that's the entirely wrong way to do it. (...). I suppose the best way to sum it up is that there are many many wrong ways to do it, but there are also many many right ways to do it.

Yet, however nuanced the methodological caveats in conversation, I suggest that it is in observing the methods *in practice* that epistemological blind spots can be demonstrated, revealing the purification of complex social practices out of science. QBA's objectivism is still *"situated knowledge"* (Haraway, 1988), fundamentally, inescapably e*mbodied,* and there are, I will show, consequences to this being overlooked. I want to turn to one story that helps illustrate how the situated knowledge of the student observers was overlooked, and thus potentially compromised the scientific product. The issue arose in a team meeting with Francoise, Howard, Maria and myself all present.

Outlier Number 11

On first results, as can be seen in Figure 5 above, all participants appeared to show good agreement on whether each mouse was in positive or negative mood, and mapped that "correctly" onto the treatment structure.[16] On further analysis of the Spearman's Correlation of Figure 13, however, there was one observer (visible in the final row) who was an "outlier". In other words, their assessment of the mice neither mapped onto the treatment structure, nor agreed with the rest of the group, nor agreed with their own findings of the week before. The presence of outliers is a common problem in statistical analysis. Their removal can sometimes vastly improve the statistical findings, but should usually be explicitly justified.

In the meeting, when Francoise reveals the problem with the outlier, Howard makes the case for their potential removal from the data:

Howard: So is there a justifiable reason for removing person 11 from our analysis? (...) Because (...) the inherent problem we've got with the two sessions is that the emotional state of the observer in those two sessions could be completely different. Observer 11 might have been having a bad day in Session 2, and that's going to influence the outcome of how they

16. Conclusions should not be drawn from this, as there turned out to be some serious methodological errors in the process.

observe the videos. And that's something we can't control for. (To Maria) You did record who it was?

Maria: Yes of course.

Howard: Because (...) it's worth identifying who that participant was and asking them that question - was there anything different? (...). Because we didn't anticipate that, and maybe I should have thought about that (...) because what I've been doing subsequently is trying to get some level of the observer's emotional valence when doing multiple testing over time to see if we get that factor has an influence. (...). So that particular student may have had, God knows what, there may be some crisis that had occurred on that particular day (..). "I was just feeling off that day" - that doesn't work. But if they turn around and say "I crashed my car that morning". Then I think you may have a slightly more tangible reason to look at that. Just a thought.

Here, it is through an apparent error or anomaly that observation is revealed as a situated activity – both for the student assessors whose emotions pose a risk to the stability of the findings in this instrument's *"trial of strength"* (Latour 1986); and for the QBA team, for whom statistics involves continuous and active modelling, using subjective and social judgements to decide what to include and exclude. Whilst at The Forge the emotional situation of the observer is potentially a useful source of knowledge, here the emotional situation of the observer is problematised, vividly highlighting the situated nature of knowing, and threatening the stability of the Fixed List instrument and its ability to *speak for* the mice. Howard's suggestion that emotional *"valence"* (mood) tests would be useful is a strange inversion of Erin's body scan – one where one is not asked to take responsibility for one's emotional condition and either work to dissolve it or adjust one's interpretation accordingly, but instead where one can be simply eliminated for the wrong kinds of feelings; in which *"feeling a bit off"* doesn't affect a judgement but a car crash does. The assessor is an unruly variable contravening the order of the experiment – it's *"something we can't control for"*.

Whilst at The Forge the situation of every judgement was interrogated, with regards to spatial location, distribution of horses and the emotions of the participants, here, what was not considered was how the conditions of the experiment itself

contributed to the outlier. The situation of the observers was assumed to be settled once sampled and recruited. As noted in Chapter 6's *Making Visible*, Francoise conceded in interviews that she did not discuss with assessors their embodied *style* of observation and its intersubjective effects, and conceded that whilst this might be challenging with stockspeople, she probably could do more. She did, however, speak vigorously in interviews about the importance of the experimental set-up: "*you're priming your instrument – you're setting up people's motivation to pay proper attention (...) you're trying to get them to another space I think (...) you have to take them there*". However, when the QBA sessions that I attended were introduced by Maria, very little *"priming"* was in evidence. Having spent two weeks preparing the *mice* for the experiment, the student *assessors* were assumed to be experiment-ready. Perhaps unwilling to acknowledge the intersubjective basis on which participants' knowledge of the object was produced, they were treated somewhat mechanistically, with Maria making little attempt, it seemed, to engage their interest or make sure they understood what to do. The twenty mice videos were almost indistinguishable from each other, and the sensory experience, already flattened by the mediation of video, was further reduced by the sound being turned off. The experiment took almost an hour with no break, and I noted that there seemed to be a marked distractedness from the students, many of whom would score and then instantly pick up their phones in the few seconds before the next video. In the focus group that followed, the students expressed some worry and confusion about the instructions, and some admitted their attention and interest had wandered:

Joanna: I was engaged at the start (others: mmm) and then just tailed off. Cos it was quite long (another: yeah). And I did try to stay focused but towards the end you were just like "ach, it looks a bit like...." (others: yeah) – you didn't really think about it as much.

Throughout the session in which Observer 11 was present, Maria's attention was absorbed in the computer from which she was controlling the videos, and I did not observe her look up to scan the room. If she had, she would have seen Observer 11, eyes closed, head nodding, waking up at the sound of pens across paper and scoring completely blind.

Conclusion

In this chapter I have explored QBA's process of validation as it attempts to create a final, Fixed List scientific instrument. If successful, this will go on to become an "immutable mobile" which mobilises QBA in multiple laboratories and facilitates the comparison of data. Throughout, I explored the ways in which the epistemological principle of *objectivity* guided the critical assessment of mice, in a process whose aim was to deauthorise the significance of individual's judgment and to validate or triangulate the observer's assessment using a physiological treatment structure with measurable results. Noting the seeming contradiction in the deployment of a series of objectivist knowledge practices to validate a methodology which had been so critical of the reification of animals in welfare assessments, I then considered the extent to which Howard and Francoise endorsed a view of science as either an objectivist "view from nowhere" or as "situated knowledge".

Howard readily asserts the *situated* subjectivity of statistical analysis, claiming it is more about judgement than objectivity; but his interest in more complex philosophical challenges is limited. Francoise expresses some ambivalence at this objectivist validation process, but justifies it by recourse to scientific legitimacy, and used a number of strategies which she believed subverted the reification of observers and mice to some extent. These included using visual analogue scales to induce a more *"subconscious"* process of assessment, insisting on the integration of overlapping terms into more dynamic dimensions, suggesting that researchers linked videos of the "real" mice to the graph nodes, and claiming both uncertainty and unknowability as legitimate elements of the experiment and constitutive elements of the mouse's subjectivity. Throughout these justifications it becomes clear, however, that she considers access to the mice's experience through the videos as somewhat unmediated, and seems suspicious of the role of *"feelings"* in such assessments.

Finally, I suggested that there was perhaps a gap between theoretical conversations which acknowledged objectivity as situated, and methodological practice. This was the one of the key strengths of an ethnographic approach. Rather than simply point out disjunctures between informal talk and formal publication, watching and taking part in a QBA assessment revealed far more clearly both the situated nature of

scientific assessment, and the epistemological blind spots in scientific conduct, even when objectivity was acknowledged to be flawed and emotions conceded to be relevant. Whilst Francoise's own practice may well be very different from Maria's, when QBA was translated into a conventional scientific environment it seemed that insufficient attention was paid to the social construction of the experiment, and the way in which it affected the confidence and focus of the human assessors, eventually resulting in an outlier.

This story demonstrates that there was a close relationship between objectivist and subjectivist epistemologies, with objectivism reifying the mice to little more than dots on a page so that QBA can be authorised to qualitatively assert their complex subjectivities; and subjective judgements about statistical modelling and editing explicitly shaping the ostensible objectivism of the experiment. It also suggests that the social conditions of the experiment for the human participants are overlooked, or seen as problems to be erased, rather than reckoned with reflexively. Given the intense preparation that took place to emotionally prepare the *mice* via handling, this seems somewhat ironic. Nonetheless, it is also true that the statistics themselves, however mediated and problematic, were able to say something interesting: to highlight dissent, and to challenge the authority of an individual's judgement. It stands in stark contrast to The Forge, in which the emotional condition of the observer fundamentally draws out the meaning of the horse's behaviour, even if, in a similar way, the eventual aim is to *"get one's self out of the way"*.

Drawing the threads together: Conclusion to Part IV

In this Part comprising four short chapters, I have both outlined and critically explored some of the key principles of QBA's techniques of expertise, using reader exercises and examples from fieldwork to explore how these worked in practice and their significance in situ. What has been revealed is that critical anthropomorphism is fraught with methodological decisions about how best to render the subjectivity of the animal not just more available, but more richly so. There are also questions of how much authority to extend to the observer's feelings, body and gaze in the process, and whether or not these things are entangled.

In this concluding section, I want to briefly draw together some common, emergent themes by asking: according to both field sites, what would a methodological agenda of critical anthropomorphism look like? Rather than attempt a synthesis, in the spirit of "facet methodology" I have considered the particular *"flashes of insight"* that are afforded by placing these chapters alongside each other, which direct comparison would not allow. Together these create a "*constellation*" of insights (Mason, 2011:76), and I re-imagine this constellation as a series of decisions to be made in the development of a critically anthropomorphic practice.

Therefore, "critical anthropomorphism" means deciding:

What is the epistemological role of affect?

If a qualitative methodology problematises the idea of a *"view from nowhere"* (Nagel, 1986), then to some extent the embodied emotions and sensations of the observer have to be recognised and either harnessed or managed. With QBA, a *"subconscious"* process of scoring was deemed valuable, but a suggestion that the process might be *"intuitive"* was rejected by Francoise because the concept involved *feelings*. Whilst *"making visible"* resonated more comfortably with scientific practice, feelings highlighted the multi-sensory, affective and empathetic nature of knowledge, and were a threat to the *reality* of animal subjectivity. Empathy could only be the *result* of perception, not an instrument of it. The Moor University team also tended to accept that observer emotions may shape perception, but investigation of this was

primarily to allow unsuitable observers to be *excluded*. It was never conceived as a valid source of knowledge in and of itself in the way that it is at The Forge. Emotion was conceived by the Moor University team as a problem, something that was difficult to control for and needed to be erased.

However, given that this resistance cannot be explained by a straightforward *view from nowhere* concept of objectivism (given Francoise's published critiques of such an idea), her discomfort with this may give methodologists pause for thought concerning the pragmatic political and epistemological consequences of using *feeling and the felt sense* as a methodology. Politically, Francoise's hesitance suggests the continued scientific distrust of feeling as a sense, as something that cannot easily be objectified, circulated and scrutinised through inscriptions. And with the legacy of behaviourism, arguments about the authority of observer emotions, is, perhaps, too easily co-opted into an argument that QBA represents nothing but "anthropomorphic" human perception, existing only in the mind of the observer as "projection" and potentially erasing animals' real, felt experiences. In Part V, we will look more closely at the role of participants' emotional interpretations, their ethical consequences and their epistemological possibilities and contradictions.

How far will behaviour be explicitly understood as co-produced?

Whilst both QBA and The Forge's "felt sense" methodology assert that animals' subjectivities are publicly available through their bodies, only one methodology emphasises *how the animal reads your body in the process of your reading theirs*. At The Forge, the circulation of affective, more-than-human knowledge practices is not just recognised but assayed as a form of inter-species *"enskilment"* (Ingold, 2000:357), where learning about horses involves the alignment of one's own embodied and affective activities. The production of knowledge is inseparable from what oneself is feeling, because it may only be through the horse's behaviour that one is prompted into an awareness of one's own emotional self-presentation; and through one's emotional, affective and sensory presence that the horse's decisions are given meaning. In contrast, the body of the researcher was almost entirely absent from discussions of QBA's methodological procedure, and Francoise does not, she says, discuss this with her clients at present. A recognition that handling style can affect the emotional level of the mouse was built into the control treatment; but it is

mechanised, pre-standardised, the kind of stepwise method that Erin explicitly rejects, as for example in her suspicion of Natural Horsemanship methods. Once the videos are selected, the role of the film-maker in co-producing a mouse's behaviour is absented from discussion.

Methodologists in critical anthropomorphism may therefore need to decide whether to emphasise and incorporate this entanglement into a mindful, ongoing epistemology in situ, or whether to delegate it to a priori standardised procedures like handling methodologies. Overlooking the entanglement of human and animal behaviour seems counter-productive, but does the kind of methodological focus on human feeling and sensation that The Forge promotes lapse too readily into anthropocentrism? It is this question which we will address in Part V.

Should one choose reflexivity or objectivity (or both)?

Both methodologies sought to delimit and shape what could be observed, and to ascertain some level of reliability or truth-value from the encounter, which often involved some kind of *purification:* the goal of *"clean communication",* or the erasing of problematic emotions in the exclusion of an outlier. Both, in some ways, seek to move away from the *"contingencies of the self"* (Nagel,1986). QBA does so by assigning importance to the number of times an observation is made by multiple observers, and by validating or triangulating with a control treatment rooted in objectivist practice. The Forge does so by using the "felt sense" to deploy a *responsive reflexivity*, observing, identifying and phenomenologically bracketing one's feelings, then working with them: either to dissolve them (to *"get oneself out of the way")* or take them into account in one's interpretation. Janice's mandala of concentric circles moving towards *"clean communication"* and *"connection"* is almost a direct visual illustration of Nagel's "*concentric spheres"* of the contingencies of the self, described in *Observer 11.* In both contexts, then, the self is problematised - at The Forge, the habitual self in its *habitus,* and in QBA, the local, situated self making any one observation at any one time.

But without reflexivity, the experiment falters and the Spearman's correlation produces an outlier. And interpretations at The Forge do not undergo the same levels of scrutiny nor are subject to the same fallibility as the objectivist portion of QBA.

Alfie does not undergo physiological tests or experimental conditions to ascertain whether he was indeed *"scared"* by the encounter with Janice; and whilst group consensus was invited, opinions given were always significantly mediated by caution for a fellow human's emotional journey.

How to understand what questions matter to them?

Both experts develop methods to navigate a risk that in learning about or researching animal behaviour, participants' experience of the animals in limited and restricted environments may mean that important aspects of their species-level and individual expressivity is missed: so that a term list may lack "bored" in a pig farm, or a horse's connection to their herd be overlooked in a stable yard. Vinciane Despret's argument about "politeness" in animal behaviour studies, a form of respect that allows animals room to share what questions matter to *them,* finds methodological operation in the work of both The Forge and QBA to some extent, and the extension of the *socio-zoological imagination* is important to both. Out in the fields, the arguably narrow and anthropocentric questions of the arena work (see Chapter 10) give way to an expanded set of questions, more akin to a natural history approach, as we are asked to consider the relationships between herd members and the way they respond to the weather, to the presence of threats, and how they use their environment. With QBA, in a far more restricted environment, Francoise uses the quadrant system of video-gathering as a way to develop new opportunities for animals to behave differently, to *"make visible"* animals' full range of expressivity, and to free up the possibility of using an expanded vocabulary in which words like "bored", "playful" or "sociable" become meaningful; whilst Julian suggests that giving mice the equivalent of *"mouse Lego"* in the form of burrowing material and non-functional *"furniture"* might expand the range of insights gained. What will become clear in Part V is the extent to which *species-specific expertise* grinds the lens through which participants will later look. Who looks for the full range of species-expressivity, and how is it judged to be completed?

To cultivate uncertainty as *special skill* rather than as failure

Both sites saw uncertainty and unknowability not just as something that had to be tolerated and accounted for, but as having a *constitutive role* in knowledge about

animals. The actor primarily responsible for this uncertainty, however, differed. The Forge placed the emphasis on one's *own feeling* of uncertainty, cultivating a certain amount of vulnerability in participants, because of the way it refocused attention back on *a different kind of sense or ability,* encouraging them to heighten their attentiveness, and *"start working with their felt sense"* instead of relying on mechanistic, textbook knowledge of horses. In some ways, Francoise too emphasised the value of the observer's uncertainty in the *"subconscious"* process of scoring that she encouraged. This is because, as we will see in Chapter 11, she believed that the subconscious could *integrate* numerous phenomena into a "tacit knowledge" of the animal under question. However, she tended to emphasise that the cultivation of that uncertainty came less from the observer and more from the nature of the animal itself. In *Observer 11*, I described how she believed that a labile, irreducible *dynamism* and fundamental *unknowability* was, in fact, *constitutive* of an animal's subjectivity. By accepting this and the uncertainty it generates, then, she believed that one paradoxically renders the subjectivity of the animal *more present and available,* so that *"it's like a magical twist...not fixing it makes it real"*.

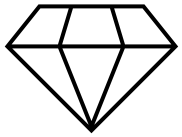
If uncertainty plays such an important role in critical anthropomorphism, then what role does training, expertise, and species-specific knowledge play? Or is there a certain epistemological privilege in *amateur* interpretations? It is these questions which we will turn to in Part V, as we consider the role of species expertise and models of animal ontology at both The Forge and at Moor University.

PART V: CONTROVERSIES

Introduction

Chapter 9

"There's no such thing as a calm mouse": species expertise and "processing the qualitative thing" at Moor University



Chapter 10

Cathy and Red: the guiding logic of a prey animal ontology

Conclusion

Research Objective: Explore how the subjectivities of the animals in question are imagined, and how far ontological proximity to humans is assumed. How is alterity either constructed or dissolved?

You can give a mouse fear but you cannot give it friendship.
If you want to learn its ways, it must not know you're watching.
Peter Crowcroft ([1966] 2009) ***Mice all over.***

Introduction to Part V

The penultimate section of this thesis continues to combine a chronological exploration of each site's process, mapped loosely onto four key research questions. In Part IV, I mapped out the main techniques of expertise deployed by QBA and The Forge, critically exploring their epistemological principles and largely, though not exclusively, exploring instances where participants felt that they worked or were successful. In Part V, I move to the mid-stages of each project, and explore moments of controversy, failure or difficulty for the participants in each site as their studies advance. In particular, I focus on what it tells us about how each knowledge practice conceived of mouse or horse *subjectivity.* In this Part there are two chapters, the first located at Moor University and the second at The Forge. Again, each theme is explored through an opening vignette which illuminates a particular *"research problematic"* (Mason, 2011:76) for further critical analysis.

In the following chapters I will show that The Forge and Qualitative Behavioural Assessment embody very specific ideas about the underlying subjectivities or *ontological archetypes* of the animals they study, archetypes which then help facilitate interpretations of animal behaviour. The Forge uses the concept of "the prey animal" to structure and legitimate participants' understanding of horses as emotionally expressive and responsive. For QBA it is the "quadrant" system, structured along two dimensions of mood and energy, conceived as *"a universal sort of sentience framework"* (Francoise) that can be applied to any species to help generate qualitative terms. The study of QBA is complicated by the fact that this sentience framework must also interact with the beliefs of its users about the ontological archetypes of the animals with whom they work in applied settings. Therefore, rather than engage in a theoretical critical analysis of the legitimacy of the quadrants, I instead explore, in Chapter 9's *"There's No Such Thing as a Calm Mouse",* an ethnographically encountered moment of controversy at Moor University, when the supposed universality of the quadrants was challenged by the failure of the team to observe a "calm mouse". This raised questions about the extent to which species-specific, scientific expertise was necessary for practitioners of QBA, or whether in fact it was a certain *style* of perception that was more important.

At the Forge, controversies are less overt, as definitions of failure are explicitly avoided and conflict is usually redefined as opportunities for self-growth. However, sessions with horses in the arena were often riddled with quiet controversy. Horse and human often had to negotiate their relationship and come to an agreement about how they would share their time. And when moments of emotional intensity arose, participants often struggled to identify what the horse was thinking or feeling and how to interpret their moves. I therefore take one such moment of controversy in Chapter 10's *Cathy and Red*, when Cathy "broke the rules" of the exercise to engage with Red the horse, wrestling with the feeling that they had picked up on each other's grief. I use this as a starting point to explore how "prey animal" responsivity facilitated interpretations of horse behaviour in the site, and I explore the empirical and ethical consequences of this in relation to Lynda Birke and Keri Brandt's (2009) feminist critique of "prey-animal" ontology with horses. Finally, we hear Erin's explanation of how she deals with a situation where the horse fails to conform to a "prey-animal" responsivity in the arena.

Throughout both pieces a number of important ideas emerge with respect to critical anthropomorphism. I argue that "critical" anthropomorphism does not refer only to an appreciation of species-specific physiology and sensory *umwelts*, but to a certain *integrative style* of qualitative perception, an idea I will elaborate on in Chapter 9. This can be disrupted, *in both species-experts and non-experts*, by over-confidence in one's own knowledge. I demonstrate that this may be through self-assurance in one's own scientific expertise, or through overconfidence in the knowledge of others, such as when the mice are assumed to have good welfare *by default* because of the laboratory's conformation to legal standards. However, qualitative perception can also be disrupted by a certain anthropocentric narcissism, in which one's own emotional satisfaction takes priority over the admission of uncertainty, or of unknowable alterity. Sometimes, I argue, horses were brought so near to ourselves that they appear as *extensions* of ourselves with their alterities erased, conceived to respond almost mechanistically to our emotional fluctuations. I argue that a qualitative style of perception is shaped by the *"education of attention"* (Gibson, [1979] 1986:254) in which one has been schooled. Participants, it appears, not only differ in how they *interpret* what they see but in *what* they see. Sometimes, they cannot see expressions until they are physically pointed out, even when they are looking directly at the site of expression. Throughout, it emerges that qualitative perception

is not a "neutral" skill that lies unproblematically beneath expertise, but is something that has to be learned or *re-* learned in a relational assemblage, albeit together with a critical interrogation of how one tacitly imagines the lived ontology of the animal.

It becomes clear that each chosen model of animal subjectivity in both QBA and at the Forge - the quadrant and the prey animal - acts as a kind of "boundary object" (Star and Griesemer, 1989), whose role is to provide *scientific authority* for the legitimacy of qualitative, non-expert interpretations of animals. This is important to both Erin and Francoise because the essential visibility of animal subjectivity is key to their methodologies. It is interesting, however, that the model of the "prey animal", which both sites share, is marshalled in such different ways, with a mouse-as-prey-animal dissembling and obscure, and a horse-as-prey-animal becoming transparent and responsive.

Overall, this Part is relevant to debates about the epistemological value of lay expertise or "beginner's mind" versus formal scientific expertise; the ethics of appreciating alterity and detachment versus entanglement and proximity; and about the possibility of an interspecies phenomenology of perception. In the conclusion, I take the same approach as in Part IV, and imagine an "agenda" for critical anthropomorphism, asking what these controversies tell us about the kind of methodological decisions that might have to be made.

Chapter 9: *"There's no such thing as a calm mouse"*: species expertise and *"processing the qualitative thing"* at Moor University

Sitting together at her computer, Maria was showing me the collection of mouse videos she made for the purposes of the Free Choice profiling exercise, in which qualitative terms were generated through the collection and observation of diverse video clips. Maria, at this stage, had little experience with mice, and relied, she said, on the advice of her laboratory colleagues to help identify the relevant behaviours for each quadrant. All proceeded smoothly with quadrants 2, 3 and 4. However, Quadrant 1, she said, gave her difficulties:

It was difficult for me trying to find a mouse that is "good, calm", in that quadrant? Because (...) in my perception, a good calm animal is just still, like, quiet, just sitting there, doing nothing (...) but for mice, they never rest. (Maria).

At first, this was attributed to the difficulty of observing calmness in mice, and her own lack of species-specific expertise. However, when it emerged that the Free Choice Profiling participants, mostly laboratory mouse experts, also failed to agree which videos signified a low energy, positive mood, "calm" mouse, the team's discourse began to harden – there was, they began to claim, *"no such thing as a calm mouse":*

…because the mice are never still! If they are like that it's because they are sick or in pain. Or sleeping. (Maria).

And in the Fixed Term testing, when the Principal Component Analysis was run, it emerged that whilst there was excellent statistical agreement on whether the mood of each mouse was judged to be generally positive or negative, there was almost zero statistical agreement on the energy with which that mood was expressed. In other words, whilst participants agreed which mice had poorer welfare overall, they did not agree on whether a mouse was playful or calm; or agitated or depressed. Howard, then, began to argue that this was to be expected,

and even made the results more valid, since mice confounded typical mammalian behaviour in being particularly energetic and fast-moving:

The energy was always going to be difficult because mice are energetic, and unless you have a really sick, debilitated mouse, we don't see a low energy animal. So in a way I was pleased that that actually came out in the [statistical] analysis (...), I thought, that actually makes sense in relation to mice, and I think that makes it more valid, because it actually represents what you physically see with mice, rather than being an artificial artefact. (Howard).

Therefore, identification of *"calm"* with *"physically still"* not only led to a reimagination of the dimensions of "mouse-ness", but challenged the universality of Francoise's quadrant system and even the usual logic of statistical tests of significance. It was only much later in the project, when talking to Francoise, that Maria discovered the mistake: that qualitative description was not about *what* an animal was doing (e.g. sitting still, running, grooming), but *how* it was doing it:

***An animal can be content or relaxed in a million different ways, you cannot really define what contentment or any other expression looks like in any specific physical way (...) it's fundamentally the whole animal. So you can be incredibly active and be content and relaxed. You can have an animal that's very still, yet you can just see, it's just quivering with fear and tension.* (Francoise).**

Maria suspected her inability to distinguish between the two was due to her own lack of species-knowledge:

***I don't know if it's because I don't have a lot of experience with mice that I still find it difficult for me to assess that kind of thing.* (Maria).**

And Howard agreed, arguing that species expertise was necessary to be able to distinguish qualitative energy levels:

I think you'd need to give them a better understanding of what normal mice do. And I think that's the fundamental issue here. Is that an awful lot of our participants didn't really know a lot about mice? Where species often differ is in the energy

levels, it's the drive with which they carry out the activity (...) [and] the difference in the energy thing is a much more subtle difference. It's not an all or nothing – we're not talking about an active animal and an inactive animal. We're talking about a much more subtle difference in the level of energy. (Howard).

However, Francoise identified a wider problem, not of species-knowledge, but of scientific perception: there was often a more general problem in distinguishing the *style* of behaviour from its *facts*:

Many people will interpret calm and relaxed as explicitly associated with when the animals are physically resting. Physically. It's because they haven't really processed the qualitative thing enough, they are stuck somewhere in a space between what they're used to and what QBA asks them to do. (Francoise).

Maria and Howard's learning curve throughout this controversy of whether the "calm mouse" exists, together with the failure of the Fixed List testing exercise, demonstrates the emergence of two themes whose inter-relation will be the primary concern of this piece: species-expertise, and modes of perception. As outlined in previous chapters, Francoise, like Erin at The Forge, claims that in QBA species-expertise is not critical, that the animal's subjectivity is visible and can be elucidated through the affordances provided by qualitative language and video material. Yet Maria and Howard's conclusions about the difficulties of perceiving an animal's energy levels make us question how important species-expertise is to QBA. While Maria blames her lack of expertise on being able to find the calm mouse, Francoise suggests the problem was the *style* of observation –a failure to process "*the qualitative thing*". Once the misunderstanding is clarified by Francoise, Maria and Howard *conflate* species knowledge with a certain mode of perception; whilst Francoise asks them to *distinguish* species expertise from qualitative perception and see it as a new method that has to be *"processed"*.

In this piece, I use the controversy over mouse subjectivity as bereft of "calm-ness" to explore this relationship between perception and expertise. I argue, in essence, that there is no neutral knowledge of animals to be revealed once species expertise is "peeled away" from observation, and that it is better to understand QBA not as a return to amateur knowledge or as a non-scientific, "lay" expertise (Wynne, 1996),

but as its own set of *"special skills"* (Serpell, 2005:128) in which perception is shaped by socio-material conditions.

I begin by exploring to what extent species-specific expertise was considered important in the qualitative assessment of animals, both within the formal QBA methodology as developed by Francoise, and by Howard and Maria as they considered the potential value of harnessing the intuition of observers. I describe how both Francoise and Howard downplay the importance of species-specific knowledge, believing that a non-expert, species-*familiarity* has some epistemological value over species-*expertise*, in the form of a generalised "tacit knowledge". However, conversations with Howard and Maria's laboratory colleagues problematise the notion that those who are merely familiar with animals necessarily have epistemic advantages over the experts. It reveals that species knowledge, whether expert or inexpert, is never neutral, but always socially located, affecting what is perceived in mice in stark and sometimes surprising ways. I endeavour to explain this with reference to the underlying archetypes of mouse subjectivity that participants hold in mind, and with phenomenological accounts of perception: in particular the work of James Gibson's ([1979] 1986:254) *"education of attention"*, to explain how such stark perceptual variations might arise. Finally, returning to "the case of the calm mouse", I argue that QBA is best understood not simply as a *negative* ability to put aside expertise and start with a "beginner's mind" of uncertainty (as valuable as that may be in itself, see Chapter 4), but is also as an affirmative *"skilled vision"*, born out of an *"ecology of practice"* (following Grasseni, 2004), different from typical scientific objectivist knowledge. I suggest that, to a large extent, this might explain Howard and Maria's difficulty with identifying "the calm mouse". Expertise emerges as an embodied *sedimentation* (Bourdieu, 1990; Merleau-Ponty, [1945] 2002) of perceptual skills-in-action, learned in social contexts.

In the first section of this piece I explore both Howard and Francoise's beliefs that amateur knowledge has epistemic advantages.

Francoise's beliefs about the role of species expertise

My basic stance is that ideally for QBA, you should have people that know a species very well. I mean right at the beginning of developing QBA, my whole argumentation about the

visibility of the body language meant anybody can do it and I still think that's essentially true. But it generates resistance from scientists. Not only are you saying: "this is visible, you can do it", you're also saying, "you don't really need training as a scientist". But I'm very happy to say well yes, why don't we use people who know their species..... If they know the species, it can only get better. So that works better for scientists, it means you work with "experts" (Francoise).

Here, Francoise makes three interesting points about the place of species-specific expertise in QBA. Firstly, she acknowledges that her epistemological argument has historically relied on the claim that body language carries an inherent visibility, *beyond* species expertise. Secondly, she implies that power relations are at play in the denial or acceptance of this essential visibility. And thirdly, she suggests that it's easier to acquiesce since, in any case, expertise can only improve qualitative observation. It's clear that there is some ambiguity in her thinking, and whilst these were never entirely resolved in our conversations, below I will unpack these claims in order to understand how she seems to arrive at the figure of the *"stockperson"*, the professional, but non-scientifically trained animal care-giver, as possessing the kinds of skills that QBA requires.

Firstly, expertise is a problem for QBA since, as she says, QBA's entire philosophical justification relies on an essential "*visibility of the body language*", conceived not as private and interior, but public and distributed through the animal's body. Whilst Wemelsfelder believes that mechanistic thinking, inadequate observation *and* lack of species-specific knowledge can interfere with this visibility, it's fair to say that during our conversations this essential visibility remained extremely important to Francoise: *"it's where all theoretical argument stops, at the videos"; "in the end people are not scoring what they feel, they are scoring the animal"*; and:

The integrated nature makes it easy, you don't have to measure that the side of the ears and the tail are in position four and five, there's so much more information than that in the moving animals, and we see it all at once. We have no idea how the brain does it, it just happens. I think that's what happens. It's the whole sentient animal. Speaking to us!

QBA, she implies above, is essentially accessible to amateurs, the function of a tacit, unconscious, and somewhat mysterious capacity of fellow subjects who possess

certain epistemic privileges by dint of being subjects themselves (Wemelsfelder, 1997:84), whose unconscious assessment transmits the "speaking animal" more or less directly into view.

Moreover, there is a hint of dissatisfaction with the elitism and detachment of scientific practice; rooted, no doubt, in the rejection of behaviourist attitudes whose dominance drove the counter-development of QBA. It is for this reason that she writes that qualitative language can and should bridge public and scientific understanding of animals, so that concepts like "suffering" can no longer be rejected out of hand (Wemelsfelder, 1997:76). She told me:

I think that Whitehead's[1] *"fallacy of misplaced concreteness" is really interesting in this context. It implies that scientists regard their theory as more real, more robust and valid than the "raw reality" underlying those theories. They view that reality as essentially anthropomorphic, a matter of "lay perception", or "folk psychology", and their theory as a measure for how real things are, "objectively". I think there is a paradigm issue here about power relations. About science dispensing my mother's ability to say: "I know my dog is relaxed.*

And, like Erin, she believes that there is an essential *universality* to forms of qualitative expression throughout all species, hence the quadrant system, which she tells me has emerged organically from multiple datasets, and which has close parallels with Mendl et al's (2010) widely accepted, more objectivist quadrant framework of positive/negative *"valence"* and high/low *"arousal"* (which she rejects for what she sees as its objectivist, mechanistic epistemology and discourse). Whilst she says that the emotional expressions the quadrant system affords may vary slightly according to different species (so that some animals might rarely be "playful", for instance), and that there may be some expressions which fall outside it, so that it is not all-encompassing, she does believe it is *"a universal sort of sentience framework"*, which to some extent negates the need for species-specific expertise. When pushed on this question, she refocuses the argument on what she sees as the more urgent pragmatic, ethical advantages of recognising proximity:

I'm quite happy to accept that there is a huge area of animal experience that may well be out of our reach. That may be true, but there's so much commonality that science is still denying

at present that my working basis is, we have so much progress to make in what we can do, what we have in common, which is happening now, let's focus and do that shall we!

Despite a seemingly foundational discomfort with formal expertise, it was also true that in our conversations she frequently acknowledged the need to understand the ways in which different species-specific characteristics became relevant, and that for this, scientific, ethological knowledge was important:

But where I do think biology is important and animal science is important, is that to make that a successful "meeting" [referring to Martin Buber's concept[17]] *you need knowledge about the animal's character. It's all very well with the pigs, it works, because pigs are very curious and they're very like humans and they're nice and big and you can crouch down and look them in the eyes. But what if it's a guinea pig and you just scare it off, or a bird, and you know nothing about its body language. So you can't just say, meeting is possible by just engaging and looking and being careful.*

It is perhaps as a way of resolving the tension between species-specific knowledge as valuable information and expertise as elitist and largely unnecessary, that she apparently has come to the conclusion that the *"stockperson"* is an ideal observer, possessing *dormant skills brought out* by their training in QBA, and resulting in a marked and permanent shift in perception:

And the way I introduce it and the way we develop the terms together, all of that brings about a shift in their way of looking at the animal as a sentient being, which of course was already always there. It's something that particularly caretakers in zoos and laboratories, and stockpeople on farms, they do it anyway. But it's seldomly talked about explicitly. Both because they don't have time for it, and because they're often told it's not valid. And suddenly that shifts, and then they get it, and then they see it, and then they realise it's tacit knowledge, how much they already have that. And so it's more my goal of – waking that up. And I've been told so many times by people I've worked with that it brings about irreversible change. You know, inspectors saying to me – "we've never looked at animals the same way again." (my emphasis).

[17] Buber, Martin ([1958] 1986).

There is a sense here that this *"tacit knowledge"* lies almost *beneath* the habitual knowledge practice of animal caretakers. It's a quality borne out of familiarity but suppressed as *"not valid"* by the dominance of scientific expertise and the time pressures of their working day: a *"subjugated knowledge"* (Foucault, 1997:7).

So for Francoise, it can be said that species-specific *scientific* expertise *is* necessary for QBA, but only to a point. However she does not articulate any disadvantages to expertise as regards *perception,* perhaps because that too would *"generate enormous resistance"* from the scientists that she relies on to propagate QBA as a methodology; perhaps because of a wish to preserve the essential visibility of animal subjectivity; or because of confidence in her methods to generate new forms of perception – in an *"irreversible change"* – whilst preserving the advantages of scientific species knowledge. The stockperson has advantages in all three regards, being a non-scientist and yet with enough familiarity with their animals' key, species-specific traits to understand how their behaviour might vary.

The view of the Moor University Team on species expertise

Whilst Maria, new to working with mice, appeared to value expertise highly – both the lay expertise of technicians and the scientific expertise of her supervisors, Howard tended to emphasise its disadvantages. Both Howard and Maria shared a notion of QBA as a kind of non-scientific-expert methodology, with Maria emphasising the proximity of its language to those of the technicians, and Howard telling Francoise in a team meeting:

See, this is the thing about QBA that I keep coming back to, that I like, is it actually doesn't matter whether you are familiar with the animal. This is asking you just look at the animal and make a judgement. So it's taking out, to my mind, the need for that species expertise, which in a way actually gets in the way, sometimes, because when you have an expertise in something you come with preconceived ideas about what you're doing, whereas this - you're asking people just to...score what they see. (Howard).

It is striking that it was the most experienced person with mice, Howard, who was the most forthright about the perceived disadvantages of expertise, because it imported what he described as *"preconceptions*" which, again, gets in the way of an

essential visibility. These preconceptions were live to him, something he elsewhere described himself as sometimes having to "*battle against*". It was for this reason that his model of the ideal observer seemed to be less the familiar stockperson, and more the average member of the public, whom, whilst acknowledging they would also bring ideas about mice, he was keen to use more frequently in welfare assessment research. QBA, with its lay language, amounted almost to a kind of "beginner's mind" in which observers could simply *"score what they see"*. Similarly to Francoise, there was a sense that there is a *naturalness* about reading animals' behaviour that lies underneath formalised knowledge practices, or even on which the latter is dependent (cf Polanyi, 1966:20):

I believe that humans innately are very good at assessing the welfare of animals - or can be very good innately. And sometimes I think we try and enforce a structure onto that. And I've always wondered whether that's the right thing. And I spend my career forcing a structure onto that, but actually, ultimately is that the right thing to do, should we not let people get on with it (...). You don't need to use all these indices, you can just look at the animals and make a judgement, and how good is that judgement? There's something about that that I like. Secretly I think there's something about that I think that we all do, so ....if I am asked to assess the welfare or the state of a laboratory animal, that is what I'm doing. I might have indices in my head, but I think QBA is what I'm doing. So I've always liked that idea, with a little bit of training, but ultimately just asking people to use their intuition. (Howard).

Whilst his idea of *"a little bit of training"* does quite a lot of work, because all training is dependent on developing skills through another's expertise (and, as we shall see, what is considered a "normal" mouse is contingent), it speaks to a feeling that *some* familiarity with mice is needed. This was, in fact, reinforced as the QBA project progressed and particularly as the dire levels of statistical agreement on the "*energy"* dimension on the Fixed Term trial emerged. As the story of the calm mouse at the beginning shows, once Francoise pointed out the difference between a *qualitative* reading of what a "calm mouse" was versus an *objectivist* reading, he once more moved towards a feeling that *"a better understanding of what normal mice do"* was indispensable for distinguishing this "*much more subtle difference in the level of energy*". It seems to be, however, a generalised, non-expert familiarity he is after, rather than a specialist scientific expertise in mouse evolution or in formal welfare indices.

Familiarity is never neutral: how archetypal beliefs about *mouse-ness* influence perception

Many of Howard's colleagues in the laboratory largely agreed with him that experience could breed preconceptions, with one, Frederick, even conducting an experiment comparing the observational skills of their technicians with those of the public, and reportedly finding a significant percentage difference in favour of the public. Again, there was a sense that for a basic understanding, one needs *"to know what normal is"*, but not much further than that. As Eric puts it:

I'm very sceptical about anybody's ability to assess welfare state, without using some validated metric. But picking up normal, abnormal. I think there are lots of people who can do that, and some people can do it better than others. I don't know that it's necessarily experience. I think you need some experience to know what normal is. But you don't need years and years of it. Erm, you can get junior technical staff who can pick up changes in an animal very very quickly. (Eric).

The problem is that familiarity with, or basic training in the species is never neutral, nor is an assessment of what *"normal"* is. It was revealing that, in conversation with Howard and Maria's colleagues who had participated in the Free Choice Profiling exercise, participants spoke reflectively about how social and historical environments appeared to yield sometimes vastly different interpretations, whether from scientific experts, lay, non-scientific experts, or non-experts. Indeed, some professionals were pursuing psychological tests of observers before assessments, in an effort to try to understand the phenomenon. This indicated that acquiring basic *familiarity* in a "normal" mouse was a messier affair than either Howard or Francoise had indicated, and that an observer's underlying, normative archetype of *mouse-ness* often shaped not only their *interpretations* of what they saw, but *what* they saw.

In the following section I describe three examples of this: normative notions of a "normal mouse"; the mouse as a "prey animal", and the mouse as (un)like us.

i) The "normal mouse"

As the project progressed and I began to observe laboratory pilots of the Fixed Lists with Maria and two technicians on stock mice (held in supply but not yet used for experimentation), it became evident that the trope of "the normal mouse" was shaping what participants saw and how they interpreted it through QBA assessment, including by Maria. This was important with regards to Francoise's ideal observer of the stockperson, because it shows that how the three technicians I spoke to interpreted the mouse's behaviour was highly conditioned both by what they believed a "normal laboratory mouse" to be, and the belief that this was equivalent to "a mouse with good welfare", which affected how they scored. In a professional context, I believe that there would have been more training on what Francoise earlier referred to as the *"waking up"* of *"dormant"* skills. It would certainly have been more training than Maria gave in her very brief introductions to the technicians (and indeed, perhaps more than Maria herself received) and so this may be an effect of a student project that is lessened in professional contexts.

In particular, training might have been augmented by including having a fuller range of video material on mouse behaviour for the QBA team to compare, something which may have guided their instruction of the technicians piloting the Fixed List. Laboratory mice posed a problem here for the team, because of the controversy of suggesting that wild or pet mice in more enriched or extensive conditions were an appropriate comparison point with highly genetically modified mice. It emerged that it was also because of a failure to understand the purpose of collecting such diverse material. Therefore the collection of video material was limited to the contrast between mice under experimental, and under stock conditions. Nonetheless, the lack of training overall had significant effects on what was perceived and thus what data could be collected.

The "normal mouse" could be identified in three ways. Firstly, it conformed to its genotype, shaping expectations of what behaviour would emerge:

I think we probably recognise what's normal behaviour? We know these are Black 6 mice (...) so we kind of know what to expect from their behaviours I guess. (Barbara).

Secondly, a "normal" mouse was a *physically* healthy mouse; if the mice was physically healthy, said one junior animal welfare scientist, then QBA did not add much to assessment because it could be assumed to be psychologically well:

Maisie: So you feel that really it's the mouse's condition of health which most affects their emotional state in that sense?

Holly: I guess in a laboratory setting yes. I would say so. Because if they're just normal stock mice it's hard to ...you're just taking that as your normal mouse. I mean in a more naturalistic setting they might not be considered normal. So it's a tricky one to do in a lab setting in that sense, I think.

This had real effects on scoring procedures, because one technician whom I observed piloting QBA with stock mice simply translated physiological indicators of health into the positive behaviours on the QBA sheet, making the kinds of inferences QBA was supposed to avoid:

Barbara: Nothing in the cage to me looked ill. So I tended to go more towards, the positive behaviours?

Maisie: So you found yourself looking for sickness, first.

Barbara: Mmm. Because I think that's er - easier to define. Or recognise.

Even a senior welfare scientist, sceptical about QBA, admitted to doing this:

Frederick: I was still looking for the criteria that I believed to be important, without actually doing what I was being told. It was difficult to remove myself from what I've been trained, and trained myself, to look for. As opposed to...what the instructions I received were: to write down words, about what....I felt, I was seeing (...) So I was trying to score them. Using my own criteria, as opposed to the instructions I received.

Maisie: And then trying to translate that into descriptive terms?

Frederick: Yeah.

Thirdly, a normal mouse was defined by law and convention, so that welfare wasn't seen, but assumed to be absorbed into the techno-legal apparatus of the laboratory. As one technician put it:

So if you're overall looking at an animal that should be happy if it's had nothing done to it, it's not having any procedural work, it's been given a lovely environment, it's got nutrition, it's getting enrichment, it's got water, it's got its cage mates, you're doing everything possible to make that little animal there as happy as can be. So every one should be marked as happy, really. That's the way I would see it. (Mandy).

This was not just for those technicians using QBA for the first time with no prior knowledge, but was also the case for Maria, who I observed informing technicians before assessment that none of the stock mice they saw should have problems. It is here that having a fuller range of video material may have challenged her assumptions. Indeed, she was becoming, by the end, very frustrated at what she saw as the futility of piloting welfare assessments on physically healthy mice:

Maisie: Is it possible for a stock animal to have poor welfare?

Maria: Yes. Yes of course, but I mean.....a stock animal is an animal that is there waiting to be used (...). So by default, because we have very strict regulations and laws and all processes put in place to look after these animals, by default they have good welfare (...).

In this way, it emerged that whilst technicians might be scoring, they might not be *seeing* what they scored in the kind of radical emergence of mouse subjectivity that Wemelsfelder describes, facilitated through the *affordance* of a qualitative score sheet (Chapter 6), but rather, continuing to make indirect, inferential assumptions. In other words, it seemed that some assessors were not scoring based on their judgement on the emotional condition of the animal, but seeing only health or illness and then inferring, in a fairly crude way, what the emotional state might be, so that with a stock mouse *"every one should be marked as happy"*. It is worth here contrasting with the way in which The Forge radically challenged the idea of the "normal horse", stabled, shod and ridden. The herd work and to some extent the arena work, which emphasised agency, decision making and herd relationships, led many participants

to radically question the subjectivity of the riding school horse with whom they were familiar: now reconsidered not as a "normal" horse, but one that is shut down, resigned, not listened to and often unfairly separated from herd life (see Part 6). Animal subjectivities became understood as co-extensive with the environment in which they emerged. In QBA, Francoise's *quadrant* methodology of collecting diverse video material of animals in different conditions is, in principle, designed to challenge the normativity of animal behaviour in the same way (Chapter 6), but the fact that this collection was so limited meant that the "normal" mouse couldn't be challenged.

ii) Prey animals

The second way in which a familiar assessor might draw on an *ontological archetype* of mouse subjectivity was through an understanding of a mouse as a "prey animal", whose behaviour could not be trusted. As will be described in Chapter 10, at The Forge, a foundational understanding of horse subjectivity as a "prey animal" led to participants' belief in a heightened responsivity and emotional availability of the horse. However, in the lab, the concept was marshalled differently to explain why observation caused mice to freeze, dissemble, or otherwise become *"stoic"* – a common term for a species that hides their pain. In the scientific literature, mice behaviour is frequently attributed to the effect that predation reportedly has on prey-animal behaviour, reproductive and foraging activities (Meyer, 2007) and many studies of pain expression in laboratory mice attribute pain "masking" behaviour to mice as one of these prey behaviours (Richardson, 2014:22; Whittaker and Howarth, 2013:2; O'Williams et al, 2008:8) although authors rarely seem to cite empirical research on the topic. Unless really sick, I was told, an injured mouse would instantly "act normal" on the opening of the cage, so a lack of understanding of this tendency might lead to an animal being judged as having good welfare when it did not. The technicians who piloted QBA explained why they therefore found *qualitative* assessments, that assumed an inherent visibility of mouse experience, difficult, since a prey animal could not be trusted:

Molly: ..because some animals do, I think it's called displacement behaviour, and it pretends the exact opposite of how they're feeling to distract the person if they're frightened?

Barbara: They play dead, sometimes, to stop being attacked, basically. So it is quite difficult to know for sure isn't it?

Molly: They might be pretending everything's fine, to cover their anxiety (Barbara: Yeah).

This, they explained, was why they found physiological indicators so much easier to use:

Barbara: they can't pretend to us that they're not sick, I think. You know, because they tend to have, piloerection [hair standing on end] *(...) but I think to know their behaviours, you know, from an observational point of view, I think that can be a bit more difficult.*

Maisie: Their emotions, do you mean?

Barbara: Yes, emotions (Molly: yeah)

So a mouse understood as "prey animal" led to situations in which mice's behaviour could not be taken at face-value, and technicians tended to emphasise the consequent *unknowability* of their emotional states and score *solely* based on features that could not dissemble, like pilo-erection.

The significance of these differences in perception is illustrated by the fact that, in some cases, not only might familiar non-experts interpret the same phenomena differently, but they might also differ in *what* they see. Dorothy described how her medical research colleagues, who were familiar with mice but as objectified tissues-in-the-making rather than as subjects, demanded measurable evidence before they could believe the evidence of their senses. It sometimes, she said, left them mutually *"floored"* that they could not see what the other saw:

I think that maybe they think we're a little bit insane, because they can't see what we're seeing. (..) It's to the point of shocking when they bring it to you and they say – "which is the sick mouse?" and it's just – to me – you're floored, because it's the one that obviously is not moving, it's breathing strange....(Dorothy).

And a senior professor described how his veterinary students *could not see unless they were physically shown*. Most non-experts, he asserted, looked at the face first and for

longest when assessing animal welfare, and yet they could not see that mice were making small facial expressions of pain (the so-called "Grimace Scale"):[18]

Eric: We showed them randomised video clips, and said, "score which ones are in pain and which ones are not". Most people just couldn't get it right. Then you showed them the behaviours, and did it again, and they could spot them (...) So it's a reflection of how poorly we observe animals. Even when we're supposed to be looking at them very hard. And at the time we were interested in why they weren't seeing the staggers and the abdominal contractions and what have you. And they weren't seeing those, because they were looking at the face most of the time. But equally they weren't seeing the squinting, and the ears going back.

Maisie: So they were looking at the face but they weren't seeing -

Eric: - they weren't seeing what was happening. Which was extraordinary.

iii) The mouse as (un)like-us

The third way in which an observer's underlying, normative archetype of *mouse-ness* shaped which phenomena they perceived seemed to be in how accessible, comprehensible and human-like they believed their subjective, sensory experience to be. Two of the senior scientists felt strongly that taking a naïve, anthropocentric approach and not appreciating the alterity of a mouse's *unwelt* could lead not just to futile, time-consuming interventions, but also to the missing of important welfare issues. This might include underestimating the suffering of a mouse whose whiskers had been "barbered" (chewed off) by another mouse, usually a sign of stress:

…this is like us having our fingertips sandpapered off (…) and you know, we're dismissing this as a not particularly important issue (…) And since they rely so much on vibrissae for sensing where they are, what's in their environment and so forth, losing them might be the equivalent of us not losing our fingertips, but suddenly going blind. And if I said, my lab mice (..) they've suddenly all gone blind –"oh that's terrible, that's a huge welfare problem,

18. Leach et al, 2012

we need to fix it".(…) I think it illustrates why you need to make a mouse-centred assessment of these things. (Frederick).

But sometimes, mouse alterity was constructed as not just as something that could be accessed with a well-educated leap of the imagination, but as fundamentally inexplicable. Mice were often described by laboratory professionals as having a *particularly evasive alterity,* in spite of being one of the most studied animals in the world. Howard, for example, often emphasised that mice were "*fundamentally different*" to other mammals, and he began to blame the mice *themselves* for failures in the QBA process. He believed he had been "*a bit mean to Maria*" in encouraging her to study QBA in mice rather than rats. Participants often compared laboratory mice unfavourably to the relative sociality and predictability of rats. Frederick, a highly experienced scientist, claims that the failure to achieve reliable pain control for mice is partly due to the mice *themselves:*

..so I got really really familiar with what rats do (…) But I find mice....just far more unpredictable and difficult to sort of....for want of a better word – interpret. Just because they just seem so random in what they do. And I think that's the problem and why there hasn't been so much progress with mouse welfare assessment. I mean to date there's still <u>no</u> proven effect of dose of <u>any</u> drug to prevent pain, following <u>any</u> procedure, in mice (…) Despite the huge body of literature that's available (...) <u>nobody</u>, has got an answer. (original emphasis).

So, in summary, my conversations with technicians who piloted QBA and with other animal welfare professionals, suggested that even *familiar non-experts,* including technicians (Francoise's ideal observer) and animal science students, including Maria, based their judgements on an archetype of mouse subjectivity (the *normal mouse*; the *prey-animal*, the *mouse (un)like us*). This shaped how they scored with QBA, how they interpreted what they saw in terms of welfare, and even *what* they saw, even when they were looking directly at the site of expression, such as the face.

I suggest that success in QBA is not predicated on a return to amateurism, conceived as a negative absence of expertise. Howard and Francoise may be attracted to qualities of what is sometimes colloquially referred to as the Zen concept of "beginner's mind"– curiosity, open-mindedness, close attention and sustained focus – that they see as valuable to animal welfare assessment (cf McGrane, 1993 on

"beginner's mind" in sociology). This may well be worth cultivating - indeed, Erin teaches something very similar when she teaches close attention to the horse, forms of *being-with* that foster curiosity, a comfort with uncertainty, and the deployment of unfamiliar senses. Yet such qualities can arguably be developed in experts and may conversely be difficult to develop in a non-expert. Instead, I suggest that the ability to conduct qualitative assessment is the product of an affirmative perceptual training in certain skills, skills not necessarily possessed by an "amateur" or lay expert per se. In the final section below, I return to the story of the "calm mouse", and draw on phenomenological theory to explore what QBA perception might consist of, how it develops, and why Howard and Maria may have found it so challenging.

The calm mouse and the phenomenology of perception

As the story of "the calm mouse" shows, even Howard, an experienced mouse expert, was not able to identify a calm mouse. One could argue, of course, that a calm mouse was not available for observation, especially given that the team only sought footage from the laboratory; and that the very condition of "making visible" the mouse for welfare assessment – transferring cage, removing hiding materials - created very active mice. However, Howard and Maria's insistence that calmness was not available in the species testifies to the same inability to know what one would look like. Or it may be countered that Wemelsfelder's quadrant system is flawed. Perhaps there *is* no such thing as a calm mouse. However, Maria and Howards' admissions of their misunderstanding still suggests an epistemological error, as does Francoise's observation about the regularity of the problem.

Howard argues that "*Where species often differ is in the energy levels"* – in other words, that the qualitative aspects of a mouse's behaviour are where the "essence" of the species is located. Yet if even a mouse expert found it difficult to discriminate between these energy levels, it suggests that there is something specific about qualitative, as opposed to objectivist perception. Francoise does indeed think this is the case. Similarly to Erin's belief that instead of asking isolated questions about ears or tail ("*what does this mean, what does that mean? (..) You have to look at the context*"), to perceive qualitatively, for Francoise, is an essentially integrative skill. It is one capable of integrating small subtle details and shifts in bodily tension, pace, and

flow, observed and understood in its full, situational context.[19] In her writing, she gives the example of a ewe separated from her lamb, who "*will walk about with her ears pricked up, stopping frequently to look around, bleating loudly, all the while appearing agitated, anxious and distressed*" (Wemelsfelder et al, 2001a:209-10). Thus QBA is a "whole-animal" assessment, where things that are difficult to isolate and measure are incorporated, as are the situational contexts (e.g. a sheep's behaviour following the loss of its lamb). A calm mouse, therefore, is not so much seen in *what* the animal is doing (e.g. sitting still, not moving), but in its *style* of behaviour (Wemesfelder et al, 2001:211) – its speed of movement relative to its ordinary pace; the amount of tension or release in its body. Thus "a*n animal can be content or relaxed in a million different ways"*. It is through this integrative process of dynamic details that the animal's actions becomes meaningful and subjectively experienced, making animals' bodies inseparable from their minds in an ontological *and observational* move. *"Feeling"* she tells me *"is a verb"*.

Yet Maria and Howard were aware, in principle, of the difference between the "what" and the "how" of behaviour – indeed I observed Maria describe the difference to her student assessors in the Fixed Term trial. So why wasn't she able to distinguish it herself?

The explanation lies, perhaps, in phenomenological accounts of expertise, which emphasise how embodied, skilled perceptual abilities develop, not as first and foremost an accumulation of "representational" information (e.g. being told what QBA means), but as the attunement of the whole, embodied perceptual system with its socio-material environment (Ingold, 2001). Differences in perception are conceived not as shifting perspectives on an a priori, separate object, but as a sensitivity first and foremost to what the thing affords us in our activities, in what Ingold describes as a *"wayfaring"* (Ingold, 2011:11-12). In practice, what this amounts to, argued the ecological psychologist James Gibson, is an *"education of attention"* ([1979] 1986:254), whereby perception is the result of an embodied sensitisation to new information as the result of social activity in a particular environment. Apprentices strive to align their own identification of phenomena with relevance to their *"community of practice"* (Lave and Wenger (1991:98). Cristina Grasseni uses

19. In some of her writing, Wemelsfelder refers to a behaviour "style" which seems not to be fully captured by the concept of integration. It is perhaps worth bearing in mind other aspects of qualitative movement. Rudolf Laban ([1950] 2011:22) for example argued that movement consists not only of its bare facts, but of "motion factors." He defined these factors as "weight" (the level of force behind the movement), "space" (its direction), "time" (its speed) and "flow" (the level of tension in the body as it is performed).

these ideas to explore how "skilled vision" develops in cow breeders on the one hand and cow farmers on the other. Sensory skills like vision, touch and hearing, she argues, are learned, disciplined and internalised through the imitation of others and through immersion in certain discourses, power relations and social aspirations. They are also tied up with the circulation of artefacts like diagrams, advertisements, herd registers, magazines and videos, *"which mediate and propagate the training of the eye"* (Grasseni, 2004:44).

If we understand Wemelsfelder's qualitative assessment as an embodied skill, we become less dependent on notions of amateurism versus species-expertise, and more dependent on understanding how an *"education of attention"* takes place within different *"ecologies of practice"* (Grasseni, 2004). Francoise's background sensitised her to the ethical importance of recognising and naming an animal's subjective experience, and her interdisciplinary education provided her with intellectual resources that licenced certain ways of seeing and understanding usually denied to other scientists (see Chapter 4). In contrast, Howard and Maria have largely been trained in a highly specialised monoculture, where animal welfare's uncertain and unstable acceptance into the scientific discipline means that deviation from its key tenets like atomism and reification is risky. Their practice is one where behaviours must be first clearly identified, "paused" in their dynamic relationality, and clearly defined by being separated out from other behaviours in a highly-specialised visual skill, then rendered definitive in a species-specific ethogram where each possible behaviour is described in full. And for many decades, qualitative observation was explicitly and scrupulously shunned as methodologically unscientific.

We might also want to speculate on the environment in which perception is taking place and how material objects and written materials *"mediate and propagate the training of the eye"* through the reinforcement of certain messages about mice. From the tool-rack style design of their housing with its neat segregation and the inferring of a mechanistic identity; to the posters on the wall displaying defined photographic examples of common physiological welfare problems; to the precision and standardisation with which daily tasks must be achieved with weights, rulers, calculators and statistical programmes; to the constant circulation of documents which demand and reward adherence to welfare law or local policy, the laboratory is a place where caution, clarity and precision of thought and deed rules over intuition

or messy integration. And unlike at The Forge, there are few opportunities for mice to demonstrate what interests *them*.

So if, as the phenomenologists argue, perceptual skills emerge in an ecology of practice that is social and bound up with the formation of identity and the circulation of materials, then understanding how the perceptual skills of Howard and Maria might differ from those of someone like Francoise means accounting for the historical ways in which scientific observation has meant the "education of attention" away from visual practices that gather and collate, towards instances that can be separated and isolated. A "calm mouse" in the latter paradigm is one where emotion can only be inferred from physical definitions in an ethogram, clearly separated out – the mouse is "sitting still" and thus can be defined as at ease. Aspects of behaviour which are mixed up with others and difficult to isolate or measure are ignored.

Conclusion

In this chapter, I have used the story of the search for a "calm mouse" to explore the relationship between species-specific expertise and the skilled perception of mice as it is operationalised in QBA. A misunderstanding over what is meant by *qualitative* assessments led Howard and Maria to question why a calm mouse was so difficult to identify, and why participants failed to agree on the energy levels of the mice they scored on in the Fixed Term trial. They conclude that lack of expertise about mice behaviour is to blame. However, Francoise suggests that it is less about species-specific expertise, and more about a certain mode of perception that they have failed to "process". I used this as a starting place to explore the ambiguous role that species-specific expertise plays in QBA, and the advantages and disadvantages it was perceived to import. Both Francoise and Howard identified a certain desirable quality in the ideal observer, a kind of "tacit knowledge" borne out of familiarity rather than expertise, whose mind conducts an intuitive, unconscious assessment, enabling them to "just say what they see", rather than import the prejudices and assumptions of species-experts.

However, conversations with Howard's colleagues suggest that, far from lay-expert familiarities providing an unmediated perspective, both experts *and* non-expert

views were always situated, leading to striking differences in the way that people perceived animals. The archetypal mouse subjectivity that observers held in mind during assessments, whether of "the normal mouse", or the "prey animal" or the "mouse (un)like us", appeared to shape not just how they *interpreted* what they saw, but *what* they saw in the first place.

This suggests that QBA's success as a methodology is not predicated on a return to amateurism, but on the building of explicit, affirmative skills in qualitative perception. I have drawn on theories of phenomenological perception to show how an "education of attention" develops in different social settings. The very different disciplinary pathways that Francoise, Howard and Maria have taken (Chapter 4), I argue, may explain why Howard and Maria found it so difficult to identify a "calm mouse".

Species expertise is certainly part of the story, in that the observer must be able to distinguish, for example, what a “calm” speed looks like in an animal naturally so fast and active in comparison to human rhythms (in turn this defines, of course, what an “agitated” mouse looks like). If the evidence for typical “prey-animal” behaviour is accepted as valid, then there may well be genuine problems in assuming that an animal's behaviour is transparent to the gaze. But I suggest that eschewing *expertise* in favour of a more amateur *familiarity* does not do justice to the particular skill-set that QBA requires; and it does not account for the ways in which tropes about mouse subjectivity such as “the normal mouse” or the “prey-animal” mouse facilitate observation, even by lay-experts.

Chapter 10: Cathy and Red: the guiding logic of a prey animal ontology

Red. Credit: Erin

It's the afternoon of the second day of the Advanced three-day retreat. We have been practicing an exercise that Erin calls *"going into neutral"*. This involved a process of gradually bringing oneself to a *"balanced"* state of attention, stilling the mind and becoming calmly aware of both our own emotional state and what is going on around us. After the horse entered the arena, we were to sit in a chair in the middle and bring a visual focus on a spot a foot or so in front of our feet for ten minutes, paying them no attention. Then Erin would call us out of neutral and we would note the moment of *"pressure"*, when our presence met with the presence of the horse. We would then spend another ten or fifteen minutes interacting how we pleased.

Cathy chose Red to work with. I was taking notes. When he entered, he walked around Cathy's chair and gave it a good sniff. Then went to the centre of the space, sank heavily to his knees, and rolled. Cathy was ambling some way behind him.

As he rose up to shake himself free of sand, I noted that he seemed to become very alert – his ears swivelled in her direction and his eyes seemed to track her from behind.

Erin asked Cathy to return to the chair and go *"into neutral"*, which she did. Immediately, Red walked straight over to Cathy and nudged her arm. She pushed his nose away and returned her gaze to the floor. Red turned to face us, looking at each of us in turn, licking and chewing with his mouth. Then he turned towards Cathy again, whose gaze was on the floor. His body was relaxed. But he seemed to be edging closer, shifting forward every few breaths by changing foot. He breathed the ground, I guessed to get her scent. With no response from Cathy, he wandered away, rolled again, and stretched out on the ground.

After a few minutes, he got up, moved to her again and faced her directly, a couple of feet away. She was supposed to still be "in neutral", facing the ground, but this time, she broke the rules and looked up. They looked at each other straight in the eyes. It was immediately arresting - watching from my chair, I took an intake of breath. They were both very still and quiet, and held each other's gaze for half a minute or so.

Then she moved to touch his face. He allowed her briefly then moved away. He returned and nuzzled her again. She didn't respond. I felt he wanted to be scratched and was showing her where, as we were told horses sometimes do – he kept whipping his head round to nibble his side and his chest.

Cathy slipped from the chair to kneel on the ground, looking up at him. Suddenly her face changed - she looked overcome with emotion. She got up and walked away. Red turned and followed. She stopped. She lowered her face to his nose and they stood together that way, breathing together for some time until Erin brought the session to a close. It was lovely to watch.

A few weeks later, I asked Cathy what that experience was like.

Part of me was going: "Erin said I have to stay in neutral" (laughter). And I just thought "I just have to come out of neutral". It was like, I was drawn, by his gaze.

So I looked up, and I just looked into his eyes. And....I don't know what happened, I just looked at his eyes, and he's got the most amazing eyes, that horse, and I just....I thought (whispers) "my god" (...). It was just such a powerful thing, that my emotions kicked in, and I was nearly in tears, I just kept looking at him, and I just thought [whispers] "wow, this is amazing". (..) It felt almost as if, he was, erm, empathising – and this could all be projection – he was sensing something in me. Over the last month or so, I had quite a lot going on, in my life, (..) there's been quite a lot of emotion around all of that. And possible sense of loss, I don't know. And...whether he was picking up on that....I don't know, I think possibly I thought he was – kind of on a very deep level, some kind of connection of empathy. Then afterwards I read that of course he was a great friend of the horse that had died recently (...), apparently Red was one of his close mates. I'm sure horses grieve in the way humans do. So then I thought well, is he picking up on something in me, that.....or am I picking up on his sadness? Maybe it's both?

Disobedience, failures, mistakes and disagreements tended to be smoothed over at The Forge by being redefined as moments of vulnerability, creativity or learning, in a classic psychotherapeutic model. However, there is a certain amount of quiet controversy in this story as Cathy negotiates her instructions and her emotions; and as Red and Cathy negotiate how to share their space. Red surprises the group by being the first to initiate contact, but Cathy pushes his nose away. Later she goes to touch him, but he moves away. He nuzzles her again and she ignores him. Finally his presence causes Cathy to "break the rules" of Erin's exercise, which had asked for no contact for the first ten minutes. And when she does, an interpretation of his meaning is uncertain for Cathy, and contested by at least one observer, myself. Watching, I initially have a sense of a more mundane desire to be scratched; but am struck by the way he holds her gaze, following her when she moves away and allowing her face to rest against his nose. Cathy too is torn, wondering if it is all *"projection"*, but driven by the singular emotional impact the encounter had on her. She speculates that there is a deeper interest in her underlying feelings of loss. Yet what is notable is how entangled this grief is: she believes it initially to be hers but later wonders whether it is his. There is a sense of emotional exchange. "*So then I thought well, is he picking up on something in me, or am I picking up on his sadness? Maybe it's both?"*

At The Forge, not only were horses considered continually responsive to the emotional state of the human client, but were often considered deeply empathetic and intuitive, sometimes to the point of all-knowing. In this chapter, I argue that this was licenced by the ontological construct of the horse as a "prey-animal", immediately responsive to their environment. In the previous chapter, I explored how the archetypes of mouse ontology to which the observer subscribed tended to shape the perceptions of the assessor. There, the behaviour of mice was often explained with recourse to predator-defence behaviour. However, whilst in mice their "prey-animal" status was said to cause them to freeze or dissemble, obscuring an interpretation of their welfare condition and its human co-production, with horses the concept was mobilised differently, making not only *their* feelings uniquely transparent and visible, but also our own. As such, the concept overwhelmingly shaped participant interpretations of horse behaviour, turning them into what I'm calling *emotional natives,* who easily intuited and navigated the emotional landscape of the situation; and imbuing them with psychotherapeutic or even somewhat deistic abilities. Whilst thus preserving a horsey otherworldliness in some respects, it also inscribed a problematic anthropocentrism, and raised gendered questions about who was responsible for the ultimate success of the encounter. More prosaically, it was a claim that seemed empirically difficult to sustain: sometimes, as I show later, even creating difficulties for Erin when the horses occasionally failed to conform to their *prey-ness*, leading to moments of confusion and methods of repair, as the two aims of The Forge, "*learning about horses"* and *"learning about yourself",* came into tension.

Cathy and Red's interplay, its itinerant, fragile communications and Cathy's own wrestling with her intuitions, forms the basis of a discussion about "prey-animal" ontology in this chapter. I begin by locating the concept of "the prey animal" in both its ethological history and in its recent popularity in contexts of human-horse relationships. Lynda Birke and Keri Brandt (2009) have criticised the concept in Natural Horsemanship circles for what they see as the disempowerment of horses: helpless and culturally feminine against the hyper-masculinity of the cowboy. However, recently, the concept has become ubiquitous in Equine-Assisted Personal Development and Therapy circles. Here its use is rather different. Firstly, prey-animal ontology provides a scientific authorisation for an understanding of horses as in constant and visible *response* to a human client's inner emotional life, due to their evolutionary heritage of vigilance for predators. Secondly, rather than signifying

weakness and deficiency vis-à-vis the human, as Birke and Brandt argue, I show how the concept of the "prey animal" in this context grants horses a certain kind of epistemic authority and power, as in the story of Cathy and Red. Thirdly, the "prey animal" concept acted as a kind of "boundary object", translating between scientific expertise and lay interpretation, and between herd relationships and human encounters. As such, it also licensed non-expert interpretations of behaviour in a similar way to QBA's quadrant system of "mood" and "energy". The final section explores the empirical and ethical consequences of these tropes, arguing that whilst horses *did* evidently respond to the humans' emotional state in the arena and whilst the horses' needs *were* acknowledged, the prey-animal model often tipped into a problematic anthropocentrism. I draw on Valerie Plumwood's work to show how this reinforced some of the dualisms that Birke and Brandt criticise, and finish with another example of controversy: Erin's description of how she manages an encounter where a horse refuses to respond with appropriate emotional sensitivity.

Prey versus predator in ethology

Cathy's interpretation of her interaction with Red speaks to the sensitivity, responsivity and emotional intuition of the horse, which, in some equine circles, is attributed to a prey-animal ontology. The theory that an animal's "trophic relations" - their ecological position in the food chain - shaped social behaviours began to become a popular topic of study in the 1970s, when ethologists became interested in how living in a social group might be of evolutionary benefit to animals, helping share the burden of staying vigilant for predators, and allowing more time for eating and sleep. Studies were largely ethological and based out in the field, but forged in the objectivist, quantitative model: for example, measuring the relationship between group size and the length of time each member was able to feed or sleep (Pulliam, 1973; McNamara and Houston 1992). Prey animals were understood to rely on a more or less permanent *"vigilance"* to stay alive, a way of describing an innate attunement to potential threats: rustles in the grass, silhouettes in the sky, vibrations on the ground, unfamiliar smells and so on (Beauchamp, 2015:8). Wild horses are vulnerable to attacks from big cats or canids depending on their ecological location, and lacking horns or antlers their primary defence response is flight (Goodwin, 1999:16) (cf Chapter 9 and laboratory mouse prey-behaviour). *Social* vigilance was understood to be part of the same awareness – the animal's sensitivity to potentially

aggressive or friendly behaviour within social groups (ibid). Naturally, in the scientific writing conventions of the time, the emotional experience of vigilance and group living was typically ignored, demonstrating how Despret's *"affected perspectives"*, so integral to the work out in the field, (Chapter 7) do not necessarily travel all the way down. It is striking, therefore, that the "prey-animal" concept is now ubiquitous in qualitative interpretations of horse emotions.

The equine ethologist and Natural Horsemanship practitioner Lucy Rees has done much to popularise the idea of prey-animal ontology as a *new paradigm* for the understanding of horse social behaviour (Rees, 2017:7), arguing that it should supplant what she sees as an anthropocentric and outdated dominance/submission paradigm in equine ethology. She says:

Gradually I came to see that their whole social organisation and relations reflect their adaptation to the ever-present possibility of predator attack (...) – even those of domestic horses that have no practical experience of predators. (2017:7).

As a result, she says: "*They are always aware of others around them: their placing, their attitudes, their activities and their state of arousal.*" (2017:66).

Whilst Lucy Rees's influence is growing in ethological circles, the idea that trophic relations can explain horses' interactions with *humans* has been promoted for several decades in Natural Horsemanship. Natural Horsemanship is a mode of rider training originating in the cowboy traditions of the Western United States. It is based on observation of the social dynamics of wild or feral herds of mustangs conducted by pioneers like Monty Roberts (1997) and claims to treat the horse with more kindness and sensitivity towards its natural instincts. Pat Parelli, a leading figure in Natural Horsemanship whose methods are used all over the world, is known for positioning the human rider as a potential predator versus the horse, needing to modify their behaviour to gain the horse's trust. He argues that "*the human is the horse's biological enemy*", and that horses are predisposed to fear humans because we share certain markers with other predators, such as eyes in the front of our head, and even a certain inattentiveness to our surroundings. Humans need to "*learn to act like a partner, not a predator*", and that means understanding that certain behaviours are likely to be caused by fear rather than by mischief (Parelli [1993] 2004: 14-16).

Through Natural Horsemanship, participants learn different ways of interacting with horses to find a trusting relationship between original biological "predator" and "prey".

The "prey-animal" paradigm in natural horsemanship has attracted some limited critique. The equine ethologists Francesco De Giorgio and Jose De Giorgio-Schoorl argue that it can be too reductive, normalising fear and reactivity in horses, when this may be more a product of insensitive human behaviour than of innate evolutionary pressures (2016:12). In a similar vein, sociologists Lynda Birke and Keri Brandt have criticized "prey-animal" discourse in Natural Horsemanship, for what they perceive as its gendered overtones. The human "predator", they say, is often metaphorically figured by the highly stylised masculinity of the cowboy, whilst the horse is portrayed as figuratively feminine, passively *"acted-upon"* by emotional instincts it cannot control, needing help to *"think through"* and override its instincts. They say:

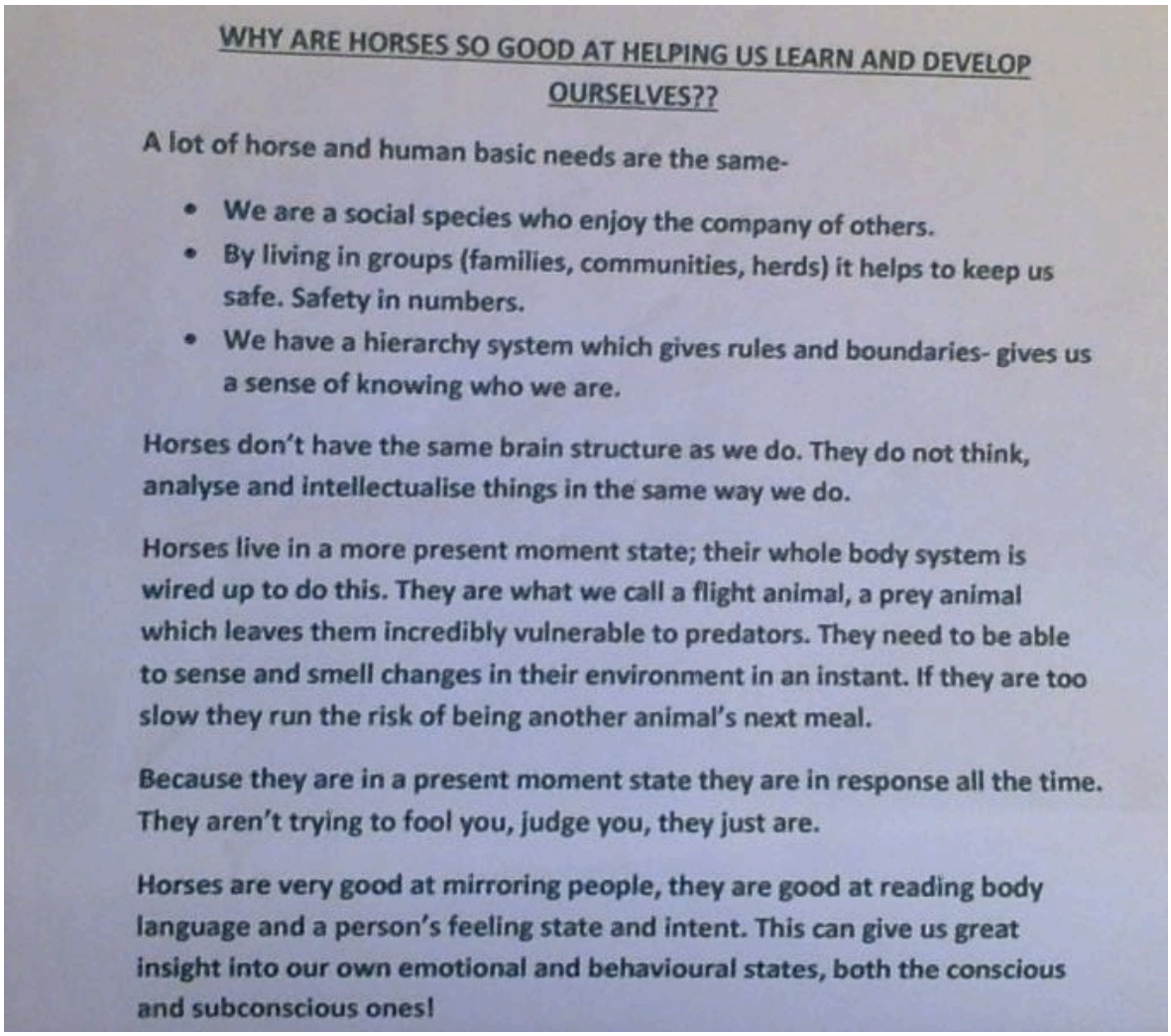
Horses, as potential prey, then become figured at least partly as feminine, as needing help to think through their emotional flight response. Moreover, NH advocates speak passionately of the need to learn to "speak horse" – hinting at a desire to transform oneself into horse just as hunters perceive prey. In this way, horses and women are figured similarly – the horse is at the mercy of its own instincts, its essential nature, and the human can help the horse override its instincts so that the two can participate in a goal-oriented relationship (…). At the heart of this community is the cowboy who, while appearing gentle and caring, is still a commander of the "beast." (Birke and Brandt, 2009:194).

There is, however, remarkably little critical discussion in any discipline on the increasingly widespread use of the prey-animal model in Equine Assisted Personal Development and Therapy. In EAPD its use is interestingly different to that of Natural Horsemanship. Here, it plays a role in the scientific authorisation of horses' social and emotional sensitivity and responsiveness. Both EAPD organisation websites (eg EAGALA, 2020) and the psycho-therapeutic literature on equine assisted practices repeatedly emphasises the value of this prey-animal evolutionary heritage for human personal development and therapeutic work. Writing in the field of psychology, Notgrass and Pettinelli say:

*Horses are prey animals, as opposed to predator species like dogs or humans, and therefore have developed a keen awareness to non-verbal communication as a means to survive in the wild (...) Within an EAP session, the horse's automatic responses give the participant and the facilitating team valuable information, **l**ike an instant bio-feedback machine.* (Notgrass and Pettinelli, 2015:6). (my emphasis).

The "prey animal" at The Forge: a scientific legitimation of equine emotional sensitivity

Whilst not rendered in the mechanistic language of a "bio-feedback machine", The Forge also emphasised the value of *prey-ness* for human personal development. On the first day, sitting round the table together, clients are asked why they think horses might be good for *"helping us learn about ourselves"*. A variety of answers might be given before Erin makes clear that her work is grounded in the prey-animal model through which we should understand horse behaviour, and distributes this handout:



WHY ARE HORSES SO GOOD AT HELPING US LEARN AND DEVELOP OURSELVES??

A lot of horse and human basic needs are the same-

- We are a social species who enjoy the company of others.
- By living in groups (families, communities, herds) it helps to keep us safe. Safety in numbers.
- We have a hierarchy system which gives rules and boundaries- gives us a sense of knowing who we are.

Horses don't have the same brain structure as we do. They do not think, analyse and intellectualise things in the same way we do.

Horses live in a more present moment state; their whole body system is wired up to do this. They are what we call a flight animal, a prey animal which leaves them incredibly vulnerable to predators. They need to be able to sense and smell changes in their environment in an instant. If they are too slow they run the risk of being another animal's next meal.

Because they are in a present moment state they are in response all the time. They aren't trying to fool you, judge you, they just are.

Horses are very good at mirroring people, they are good at reading body language and a person's feeling state and intent. This can give us great insight into our own emotional and behavioural states, both the conscious and subconscious ones!

As can be seen above, the social lives of horses are aligned to those of humans with their common need for safety, order, and community. However, their experience of *time* is understood to be shaped by a different corporeal "*wiring*" from that of humans, and so they are understood as being ontologically and temporally located *elsewhere*, in a "*present moment state*". This is evolutionarily acquired through being a *"prey animal"*, one that must be highly attuned to the environment to avoid "*being another animal's next meal"*. Whilst this ecological positioning involves severe vulnerabilities, it also gifts certain talents – a fullness and immediacy of sensory experience "*they are in response all the time*"; a talent for reading body language "*they are very good at(...) reading a person's feeling state and intent*"; and an emotional authenticity framed as compassionately non-judgemental - their behaviours cannot be seen as comments, only responses: "*They aren't trying to fool you, judge you, they just are"*. This is why, Erin says, horses can help us "*learn and develop ourselves*".

Compare this to understandings of *mice* as prey animals at Moor University in the previous chapter, where Holly says that they "*act the opposite of how they're feeling to distract the person if they're frightened"* and Howard says "*They are more difficult to assess than something like a dog, because they are a prey-species"*. It is interesting that in two different sites, the same concept is mobilised in very different ways with regard to animal behaviour. This suggests that institutional imperatives are helping to constitute its definition, although a face-value reading might acknowledge the possible significance of species, location, situation and learning (Blanchard at al, 1998; Eilam et al 1999).

Throughout the retreats, the horses' emotional ontologies became framed very much around these qualities of a *"present-moment"* state, sensitive body-language reading skills and emotional authenticity. Birke and Brandt have associated prey-animal behaviour with the *feminisation* of the horse, their characterisation as emotional, irrational and helpless. How far does the story of Cathy and Red bear this out?

Horses' Truth: authoritative emotional natives

At Moor University, mice could be sensitive to phenomena which humans could not detect, such as distant building work sensed through ultrasonic hearing. However, with the exception of some limited reference to the role of confidence and human gender in physical handling, mice were never described as emotionally intuitive towards humans. But at The Forge, there was a strong sense that horses were *emotional natives*: that emotion was the language with which they navigated, understood and communicated with the world, and that they did so with a greater sophistication and expertise than humans. *Prey-animality* facilitated the interpretation of horse behaviour, in the sense that horses were understood not only to be highly attuned to the affective registers of others, but even to emotions which were *invisible to the facilitator and perhaps even unacknowledged by the participant themselves.* Therefore the most skilled expert in the scenario was not Erin, but the horse. Facilitation worked through what Erin called *"horse's truth"*: that it was the horse that had the most insight and authority into the emotional dynamics of the horse-human interaction, so that when the horse made a choice, the client might be asked: "*what was going on for you just before the horse turned away*?". In this sense, Erin

would say, the horse *"sees you for who you really are"* in that moment. The horses' bodies undergo a kind of transubstantiation in the presence of the human client, transforming into a visible and accessible version of the client's "inner self".

While a few participants were more sceptical, this idea of horses as emotional experts was readily taken on by the clients. In the arena work, the group narrative often became one in which the horse became insightful to the point of all-knowing, or even displayed a deistic quality of unconditional empathy:

I could feel the love. I felt love. I felt kindness, and compassion, and...like.....it's that reassurance, that he was telling me, "everything's okay" (pause). Yeah. "You're okay". (Amy, participant).

And then when I had to do my feedback, he came right in between me and the people, and stood in front, between us. And like put his head over me (...). I think he felt really that I needed....a sort of barrier between me and this kind of....feedback, observation. So almost like a protective barrier. (Hannah, participant).

And above, Cathy describes how she thinks there was *"on a very deep level, some kind of connection of empathy"* with Red which *"felt very loving actually. Very loving."*

Cathy's reference to a *"very deep level"* is significant here because this emotional literacy and fluency was conceived spatially as well as epistemologically. Both Erin and the participants often spoke of horses as communicating and receiving information *"on a different level"* to that of humans – i.e as *"down in their bodies*", rather than *"up in their heads"*. Theresa, a participant and trainee facilitator, explicitly associates this in our interview with the prey animal ontology that she has been taught:

Theresa: That's where the horses are. They are not in their heads, but in their senses, feelings, body language, it's all to do with their safety, they've got to keep an eye on the environment the entire time, to be aware of what's going on, erm....so they're listening on a different level, to us.

Maisie: Do you think that this work could be done with another animal?

Theresa: I mean I know you can get therapy dogs... Erm. But I think the difference between dogs and horses is that the horse is a prey animal. So...that shifts, er, the amount of information the horse will be getting, because they need to stay safe themselves. A dog doesn't need to do that.

Hannah, a participant and trainee facilitator at a different site, also feels that the horse's sensitivity is at least partly to do with their prey-animal status:

I don't know if I'm accurate, but I think they can read us, below our mental states, so they read us emotionally, and physically (...). And I think that's partly to do with their flight nature.

So rather than this prey-animality making the horses irrational and helpless, as in Birke and Brandt's critique, the embodied emotional expertise it generates here is a source of power and epistemological authority, albeit in a culturally feminine model of emotional expertise, inverting the usual hierarchy of Reason and Emotion. It's not so much the case that "*the human can help the horse override its instincts so that the two can participate in a goal-oriented relationship",* but the other way around – the horse was figured as explicitly helping the human to *"get out of our heads"* and *"into our bodies"* so that we could find those underlying, half-conscious emotional states, and do the work to allow us to connect with the horse more fully. I explore this dichotomy between head and body and its often intensely *moral* dimensions more fully in Part VI.

The prey animal as a boundary object

The second way in which the prey-animal model facilitated interpretations of horse behaviour was through the way it positioned itself between universalistic scientific authority and local qualitative judgements, giving scientific credence to accounts of a horse's behaviour as a "mirror" to human emotions. In *The Calm Mouse* and *Observer 11 Outlier***,** we saw that QBA's quadrant system, as a trans-species framework of animal affect that emerged from multiple QBA datasets, mapping reassuringly onto existing, well-known, objectivist models of animal "valence/arousal", fulfilled a similar function. An objectivist, quantitative validation provided an epistemological

defence of a full and free choice of qualitative interpretations. The prey-animal model at The Forge went somewhat further, because it translated between different *umwelts* (von Uexkhull, [1934] 2010), facilitating accounts of social relationships between horses and humans, but also social relationships between horses in the herd. It provided an effective narrative bridge to the close social relationships that we learned about between horses out in the fields, where their social roles, synchronisation of movement, co-grazing and co-sleeping cycles were also explained by predator-defence mechanisms. In this way, the prey-animal model functioned as a kind of a kind of "boundary object". Boundary objects are:

…scientific objects which both inhabit several intersecting social worlds (...) and satisfy the informational requirements of each of them (…). They have different meanings in different social worlds but their structure is common enough to more than one world to make them recognizable, a means of translation. (Leigh Star and Griesemer, 1989:393).

The "prey-animal" ontology of horses, in its intrinsic relationality, facilitated translation between a number of worlds: between the objectivist scientific authority of sociobiological experiments and qualitative, amateur interpretation; between the psychotherapeutic theories of personal development and the evolutionary theories of ethology; between horse-human relationships and the social world of the herd. The concept was elastic enough to encompass and translate between all of those social worlds, mobilised in different ways by each. It is perhaps for this reason that Cathy, who was on the second stage Advanced retreat and so had already had exposure to the herd work, could consider that not only could Red sense her feelings of loss, but that he could grieve the loss of his "*mate*" "*like humans do*". De Giacomo and De Giacomo-Schoorl criticised the prey-animal paradigm for being too reductive, naturalising fearful behaviour. This point seems valid, if prey-ness is associated solely with fear and flight. However, if understood more broadly as a *responsive and relational* ontology, the concept was, on the other hand, extremely expansive.

And yet this model of intense responsivity was also in some ways problematic, from both an empirical and an ethical perspective.

Fieldnotes: how apparent was prey-animal responsiveness?

In my view, the prey-animal model did rather too much work in shaping the observations of the participants. This was not to say that the horses were insensitive to the emotional embodiment of the human. As my account of Cathy and Red demonstrates, it seemed to me that they were often extremely responsive and communicative to the client's emotional state. Red's evident wish to be near her even when she did not pet him spoke at the very least to an ease with her presence. More generally, as participants learned to seek connection *without* touch, to become physically and mentally stiller and calmer, and began to inhabit a mode of *being-alongside* the horse rather than a goal-orientated relationship, the qualities of the encounters changed markedly, as I demonstrated with the videos in Chapter 4, *Clean Communication*.

However, as an ethnographic observer, I had doubts about the *extent* to which this responsiveness was taken. Rather than conceived as more or less time-averaged over the course of an interaction, the horse was often credited with an almost mechanistic moment-to-moment reciprocity. As the client came back to describe their experience and receive feedback from the group, every move of the horse was scrutinised for its relevance. Perhaps for pedagogical, therapeutic or simply sympathetic reasons, Erin rarely contradicted anybody's interpretations unless the horse was communicating unnoticed discomfort. And interpretations sometimes concerned innermost thought-processes, knowledge of which would seem more akin to mind-reading or Notgrass and Pettinelli's *"biofeedback machine"* than embodied attunement:

And every time I went back into thinking about the...emotions....the negativity and stuff that I'd brought with me, he started scratching. And every time I let it go...he'd just chill and relax and sit there while I stroked his neck or touched him or whatever. (Heather).

But the other problem was that the theory of responsiveness was so elastic it could stretch around whatever evidence confronted it, and it seemed that at the very least, knowledge of the individual horse was necessary to know whether there was a direct response. Looking at my data, a horse walking straight through a person could be evidence of dominant indifference (Lyla) or the tough love of "*asking me to hold my power*" (Amy). A horse might accept touch because of a person's clear

intention (Heather), or because they *released* intention and were content to *"just be"* (Theresa). They might gallop around the arena because the person was in too heightened and needy a state (Cathy) or because they became anxious when the person withdrew themselves calmly into "neutral" (Lisa). I felt the most misgivings with this approach at the end of the session, when Erin would call the person over to the fence to describe their experience and receive feedback from the group. For some, this might touch on sensitive emotions. Often, at the same time, the horse would approach the client. This was usually interpreted as being because a person was *"owning"* their experience, and was usually welcomed warmly by the group as an instance of equine empathy. But it seemed equally possible that the horse was simply interested in the sociality of this new group encounter and was moving to share in it.

Ethical issues: the erasure of alterity in prey-animal ontology

Whilst Birke and Brandt's feminist critique of the prey animal as helpless and irrational was not borne out at The Forge, where a feminist critique *is* useful is in highlighting how the alterity of nature can be erased through a colonial assimilation into sameness. Whilst to some extent this was mitigated by the herd work out in the fields, which *did* bring difference to the fore, and resulted in many participants citing a new appreciation for the importance of posthuman interdependencies, the arena work risked a problematic anthropocentrism with the prey-animal archetype, because the horse was conceived as so "present moment" and responsive that it was focally orientated towards the human client to the exclusion of all else. This was a move that sometimes erased their alterity, distance and independence. As Valerie Plumwood (1993) has argued in her critique of deep ecology's belief in a universal Self or consciousness, emphasising the interconnectedness of humans and nature becomes problematic when human selfhood is simply extended out into a nature that embodies it, unidirectionally. While the ethical logic is that compassion is thus fostered through a sense of enlarged self-interest, Plumwood argues that it ignores respect for difference and autonomy, whereby it can tip into colonial assimilation. To see the Earth as passively in response to the active initiations of humans reinscribes forms of chauvinist humanist thinking. *"The question of just whose response counts for both of us has important political implications"* (ibid:178).

A similar argument might well apply to the arena interactions in which the horse was rendered almost permanently in response to a human self. Cathy's identification of *Red's* emotions initiating the entanglement was rare. Erin wants her horses to be heard, but there is a tension between her two aims of "learning about horses" and "learning about yourself", so that what the horses *say* is often a comment on the human client. In conversation, Erin was clear that horses *did* come into the session with their own moods and interests. But in practice, when participants assumed the horse's behaviour was a response to their own emotions, they were never contradicted. This became particularly evident on the occasions when horses seemed to behave in ways that contradicted what was expected of them, such as readily accepting touch from a busy, nervous person. This was a problem for Erin because her work required commitment to a *"horse's truth"*, where the animal could read the client's subtle, otherwise imperceptible emotional expression, and respond in a way which made that visible to her. But sometimes, she too was left bemused, and had to work to repair the performance of her own and her horse's expertise:

There are also occasions where the horse will seemingly approach someone who, from my perspective, is disconnected. And, they have quite a nice interaction. And therefore it makes it a lot harder to work with that, because the horse isn't giving you something, to work with (...) so the client's feedback is – it's okay. But it's not! You can feel it's not! But you've got nothing concrete to pin that on (....). I've also had sessions, numerous times, and I've felt the horse is just completely switched off. Doesn't want to know, stood at the gate. And...so I can lock into that, "this horse doesn't want to know", this horse wants to go out. That's one reality. And that might be very true. But if I lock into it from the human's perspective....so maybe I explore a horse itching their leg in a metaphoric sense (...). We could play with that, whether that has a relevance for you (...) is it the left leg or right they're itching, you know, we could work on belief systems based on male-female, you could work on irritation, or (...) you know, self-harm. There's loads of places you can go there, but that's in a metaphoric sense. That's not the horse, necessarily in direct response to you. There's a difference (...). So many times, then, through us having that conversation, the horse will switch back on... (Erin). (my emphasis).

So Erin makes clear above that where a client isn't learning the core lesson that she's trying to teach, that commitment to helping the client *listen to the horse's voice* comes second, and she reserves the right to bracket the horse's indifference as only "*one*

reality"; to "*go metaphoric*" and to lock into *another reality,* the *"human perspective"*, which paradoxically has the effect of "*switching the horse back on*" through opening up the client's emotions. It is a model remarkably similar to Despret's belief in the importance of "*trust"* in an animal's abilities to making those abilities emerge (2004: 122; see Chapter 1). But it does raise questions about what is lost when this happens. In such moments, I suggest, Erin chooses to ignore behaviour that does not fit the model of the "prey animal", and in so doing, rejects contradiction, indifference, unpredictability and unknowability *as part of* a horse's truth for the client. Instead, she tells a story that smooths out controversy, and risks an anthropocentric interpretation of the horse's behaviour as a straightforward psychic mirroring of the human client. What remains is a horse whose alterity is erased, and a person who feels overly responsible for the success of that interaction – something that, with a client base of almost exclusively women, can reinforce gendered norms of emotional labour (Hochschild, 1983).

Conclusion

In this piece I have critically explored how a model of "prey animal" subjectivity facilitated interpretations of horse behaviour at The Forge. A model grounded in the study of "trophic relations" in socio-biology and popularised through Natural Horsemanship, it authorises an understanding of the animal's behaviour as continuously, relationally responsive; it licenses broad-minded, "non-expert" qualitative interpretations in a comparable way to QBA's quadrant system; and even grants horses significant epistemic authority in the encounter. Whilst the Natural Horsemanship model of the prey animal has received feminist critique for constructing the horse as helpless and irrational, the story of Cathy and Red shows that in Equine Assisted Personal Development work, the horse becomes an *emotional native*, an expert in navigating the affective fields of encounter in a culturally feminine inversion of the usual dualistic hierarchy, to the extent that they sometimes became insightful to the point of all-knowing. In some respects it also acts as a "boundary object", facilitating the translation of horse-human relationships over to the more posthuman relationships that we later encounter in the fields, bridging qualitative and quantitative knowledge practices, and spanning amateur and expert interpretations of horse behaviour. However, whilst horses *did* appear to respond to the general emotional embodiment of clients, the extent to which participants' more

specific interpretations could be empirically upheld was doubtful. The prey-animal archetype also helped inscribe a problematic anthropocentrism that risked the erasure of horse alterity. As such, I believe that a feminist critique which foregrounds this is deserved.

Drawing the threads together: Conclusion to Part V

This Part has taken two moments of difficulty or controversy mid-project which illuminate the fact that both sites, in practicing critical anthropomorphism, must address the question of the animal's species-specific lifeworld. In both sites the relevance of species expertise is considered important in some respects, but also somewhat ambiguous. Chapter 9 investigated an instance where Francoise Wemelsfelder's "quadrant" logic of universal species expressivity was challenged by the team, who insisted that a "calm mouse" did not exist. Optimism about the benefits of non-expert perception with QBA soon gave way in the team to the belief that discerning the subtle levels of energy required was difficult, and required species expertise. Francoise's refutation that it was an integrative, qualitative style of perception which was more relevant prompted a theoretical discussion in the chapter about the phenomenological basis of how perception emerges in different *"ecologies of practice"* (Grasseni, 2004). In Chapter 10, we examined a complex negotiation of space-sharing between Cathy and Red, where the horse interrupts the exercise by initiating physical contact with Cathy, leading her to break the rules of the exercise. This led to a discussion of how this encounter was interpreted through an archetype of horse subjectivity known as "prey animal", licensing horses as *emotional natives*, infinitely responsive to human cares and concerns.

In the constellational analysis that follows, I return to an imagined "agenda" for critical anthropomorphism, asking what these chapter-facets show about decisions that may have to be made, or cares taken, in developing a methodology.

Choose a "critical" ontological archetype that legitimates "anthropomorphism"

In developing their methodologies, both experts have chosen ontological archetypes of the animals that they study which help structure and guide further interpretations. For Francoise, this has recently become the quadrant system of qualitative affects of mood and energy, which she argues is more or less universal and has emerged from her data. This guided the selection and creation of Maria's video footage, and therefore the spontaneous choice of terms in the "Free Choice Profiling" exercise. For Erin, it is the "prey-animal" model of the horse, responsive and relational. Once assumed, both of these foundational models leave species-

being, to some extent, loose, open-ended, and non-essential – in other words, open to an entanglement with an "affected perspective" of the observer. They act as a kind of "boundary object", whose role is to provide scientific authority for the legitimacy of qualitative, non-expert interpretations of animals. This is important to both Erin and Francoise, because the essential visibility of animal subjectivity to non-experts is key to their methodologies.

Yet it is worth noting that both of these archetypes have depended for their emergence on "expert" objectivist epistemologies. The quadrants have emerged from previous quantitative data sets; and the notion of behaviours specific to "prey animals" has emerged from ethological research into the evolutionary benefits of prey-animal "vigilance", quantified in time-budgets for feeding and sleep, and devoid of any experiential dimension. This is interesting in the light of human-animal studies literature, which tends to emphasise the importance of *"affected perspectives"* (Despret, 2004), *"matters of care"* (Puig de la Bellacasca, 2011), *"response-ability"* (Haraway, 2008) and so forth. Might the dependence on detached observation and mechanistic perspectives in objectivist science for enabling and legitimating such practices be underplayed in such accounts? Certainly, at The Forge and with QBA, "affected perspectives" did not travel all the way down, suggesting that a less oppositional, more itinerant relationship between detachment and entanglement than Despret suggests in her formulation might be part of what it is to practice critical anthropomorphism.

Be careful the "critical" doesn't inhibit the anthropomorphic

Both QBA and The Forge recognise the importance of ethological knowledge, which to some extent is built into their methodologies; but both have some misgivings about the certainties of expertise and what Eileen Crist would call its *"visualisation effects"* (Crist, 1999:206), potentially distorting what might otherwise be a more apparent reality. Thus Erin tries to emphasise the common-sense visibility of equine expression, conceived as a *response,* in an attempt to generate confidence and *communication*. Francoise believes that species expertise is necessary for QBA, but only up to a point. Citing Whitehead's *"fallacy of misplaced concreteness"* (1997:52), she worries that abstract theories of expertise can become more concrete in the mind of the observer than the events unfolding in front of one; and seems, in places,

suspicious of the power relations at play in scientific authority. It is striking that Howard, a mouse expert, agrees that expertise can create excessive *"preconceptions"*, a kind of situated knowledge, without which the animal might more easily come into view and enable one to simply say what they see. And yet the *generalised familiarity* with mice that Howard and Francoise thought was ideal was problematised by accounts from laboratory colleagues. These suggested that perception was never neutral among familiar non-experts such as students, medical researchers, technicians, or even Maria, all of whom held strong ideas about what was "normal", or how a "prey animal" might behave, sometimes shaping not only *how* an observation was interpreted, but what phenomena *became apparent*.

This suggests that there is a tension inherent in critical anthropomorphism, in that the kind of ethological or even lay expertise inherent in the "critical" knowledge practice shapes the more "amateur" perspective in ways which can delimit and obscure, as well as reveal and inform. It suggests that a reflexive awareness of the "critical" perspective, whether lay familiarity or expert science, is necessary, if dogmatic certainties are not to overwhelm a more "open-minded" qualitative interpretation.

Become skilled in a qualitative style of perception

Whilst species-specific knowledge has to be learned in *"special skills"*, *"anthropomorphism"*, says James Serpell, *"tends to come naturally"* (2005:128). But given that even non-expert, species-familiar assessors may import objectivist epistemologies and values, can this be assumed? Both experts and non-experts struggled to describe *what* the mice were doing as distinct from *how* they were doing it in QBA. Likewise, even in her non-scientific context, Erin clearly feels that inter-species social interpretation requires some encouragement and help. Both sites assert that a *style* of perception is important, distinct from some knowledge of the species. In QBA, this is a qualitative integration of the situated "how" of movement in a "whole-animal" approach; and at The Forge, trust in one's "felt sense". This, Francoise and Erin seem to think, can do a lot of work before species expertise becomes relevant. And this, I argued, is a relational achievement. When learning about animals, proficiency does not come through the ever-increasing accumulation of representational information, but lies in the co-attunement of a situated, embodied sensory framework. One's "natural" human abilities may be relevant here,

in that human bodies, senses, dispositions and "anthropomorphic" skills have emerged with and through other animals over aeons. But this corporeality emerges together with a whole field of practices, social activities, objects, and other beings (Ingold, 2001) which shape perceptual abilities in more or less interpretive and integrative, or otherwise atomist and objectivist ways.

Decide: does alterity, disjuncture and failure of understanding make, or stifle progress?

Phenomenologists argue that perception arises in the course of our activities and *intentions,* so that what one perceives is fundamentally tied up with the task into which it is embedded (Merleau-Ponty, 1962:144). This might help explain some of the contradictions at Erin's site. The Forge does, in arguably a much more radical way than in QBA, ask learners to respect the alterity of horses, in the field work. And yet in the arena work, this alterity risks almost total erasure at times. As long as the horse remained *in dialogue with* the client, so that actions could be conceived as a response, a certain narrative was maintained and no interaction could *fail.* But it is notable that the only failure, so-defined, at The Forge was when a horse absented themselves from a conversation, when it *"doesn't want to know",* forcing Erin to *"go metaphorical"*. This underlines the importance of the "prey-animal" model to an understanding of failure as progress, because in this way, the horse is always responding to, and productively commenting on, oneself.

It is striking, however that the model of the "prey animal" which both sites share is marshalled in such different ways, with a mouse-as-prey regarded as dissembling and opaque, and a horse-as-prey becoming transparent and responsive. The horse-as-prey, on the one hand, achieves a kind of otherworldly wisdom, becoming an authoritative expert in the encounter; whilst on the other hand it is conceived as preoccupied with the human, to the extent that its responses become a mirror of our needs. In some ways, then, they come *"from over the horizon"* (Berger, 2009:15) but are still made in our image. In contrast, the *mouse* as prey, dissembling in its behaviours, is judged to be *more* inaccessible, despite the intense and invasive proliferation of knowledge about mice. This may be a result of certain species-specific tendencies or environmental affordances, but may also reflect the different kinds of work that the concept needs to achieve and the problems it needs to explain. Yet the fact that something can be more unknowable for its transparency, or more

knowable for its otherworldliness, suggests that there is not a straightforward relationship between knowledge and power, or uncertainty and wonder. Rendering bodies endlessly transparent can produce ever more surplus and evasive alterities. *"The more we know*", said John Berger *"the further away they are"* (2009:26). But at The Forge, with horses almost *deified* in some contexts, participants tend to bring the animal ontologically closer.

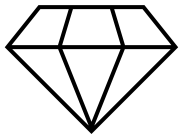
In the final Part of this thesis, I turn my attention towards such conceptions of the human-animal relationship, as the narrative of this thesis moves towards the end of my fieldwork period and I consider the future of both QBA and The Forge.

PART VI: FUTURES

Introduction

Chapter 11

Eye tracking, "objectification pressures" and whole animal assessment: the future of QBA in laboratory science



Chapter 12

Becoming-prey: Human origins, moral relationships and the future of The Forge

Conclusion

Research Objective: Understand the relevant political justifications and implications of different epistemologies. How is the significance of the work understood by those who sanction, commission and conduct it? What kind of human-animal relationship is assumed, or envisaged as a result of each practice?

Late in the summer the strange horses came.
We heard a distant tapping on the road,
A deepening drumming; it stopped, went on again
And at the corner changed to hollow thunder.
We saw the heads
Like a wild wave charging and were afraid.
We had sold our horses in our fathers' time
To buy new tractors. Now they were strange to us
As fabulous steeds set on an ancient shield.
Or illustrations in a book of knights.
We did not dare go near them. Yet they waited,
Stubborn and shy, as if they had been sent
By an old command to find our whereabouts
And that long-lost archaic companionship.
In the first moment we had never a thought
That they were creatures to be owned and used.
Among them were some half a dozen colts
Dropped in some wilderness of the broken world,
Yet new as if they had come from their own Eden.

Extract from *The Horses*, by Edwin Muir

Introduction to Part VI

In Part V, I explored two moments of failure or difficulty in each site which illuminated the *ontological archetypes* of animal subjectivities with which both practitioners were working. This led to a critical analysis of the role of species expertise, the inter-dependencies between qualitative and objectivist knowledge practices, and the relational nature of perception.

In this final chapter, I look towards the future of QBA in the laboratory and The Forge. I examine the success of the different projects relative to their aims, the plans their experts had for the future, and how participants conceived of the social relevance of the work. Each chapter returns to broader sociological contexts as I consider how the futures of both sites are bound up with institutional concerns, new social attitudes, and burgeoning trends in popular and academic thought. In particular, these are considered with regard to what they say about the vision of the human-animal relationship embedded in each practice, and some of the ethical and epistemological questions they raise.

Twenty years on from the development of each methodology (Part III), I discover that both sites find themselves with new opportunities to expand and disseminate their practice, but each comes with risks. Chapter 11, *Eye tracking, "objectification pressures" and whole animal assessment* shows that whilst QBA's first trial in an animal laboratory was not an unqualified success, it did enough to convince Howard, an influential potential "broker" for QBA's more mainstream entry into the community, that it was worth continuing to pursue. This was because in a climate of flourishing animal welfare research there was some emerging frustration with the limitations of standardised conventional indices. However, Howard's plan to *"deconstruct"* QBA highlights the ontological and epistemological gulf between QBA and conventional objectivist science. There is a risk that without a "broker" who fully comprehends its logic, QBA's complex "subjectivist" epistemology may succumb to what Francoise calls the *"objectification pressures"* of conventional environments. Exploring these tensions leads to a productive discussion on the nature of so-called "tacit knowledge", its amenability to deconstruction, and the risk that complex social factors become reduced to the study of unconscious physiological reflexes.

In Chapter 12's *Becoming prey: Human origins, moral relationships and the future of The Forge*, a conversation with Erin during an experiment with her sheep leads to a discussion of three kinds of moral relationships that emerged for group reflection during the retreats: intercorporeal relations with horses, institutional relations, and existential relations at the species-dimension. There was evidence that The Forge's handling and teaching of these relationships had a significant impact on Erin's clients and the way they interacted and communicated with horses on the ground. However, more existential questions of The Forge's social relevance found it toying with the dualist discourses of new psychotherapeutic and ecological disciplines, as horses became configured by participants as *teachers* for a new age of moral decline. This offers an opportunity to explore how understandings of horses might undergo *psychotherapeutic pressure* as a result of their emerging role as therapists, paradoxically entrenching interspecies and intra-human relations of power.

Throughout both pieces a common paradox becomes clear. Whilst previous chapters have emphasised humanity's innate *ability* to interpret animal subjectivities, here we begin to see how both sites believe that human understanding of animals is also innately *compromised* by species-level physiological tendencies. This leads to ethical questions of whether individual labour to improve one's skills is necessary or desirable. Can individuals rebuild a more receptive and communicative relationship with animals? Or is the endeavour fruitless?

Overall, this Part speaks to theoretical questions about the nature of tacit knowledge, the new role of horses in late modernity, the ethical possibilities of both QBA and The Forge, and the phenomenological importance of intentionality in knowledge practices. In the conclusion, I draw the threads together for the final time, asking how the future of critically anthropomorphic practices might assure itself in new times.

Chapter 11: Eye tracking, *"objectification pressures"* and whole animal assessment: the future of QBA in laboratory science

As the QBA phase of the Moor University project began to draw to a close, interview conversations began to reflect on the possible future of QBA in the laboratory, and how it might need to be adapted. It soon emerged that a potential intellectual conflict between Howard and Francoise may be on the horizon, with respect to certain further work that Howard wished to do with QBA that challenged some of its key epistemological principles and assumptions.

I left the project as Maria was compiling the final chapters of her thesis. The results had been mixed, due in part to some methodical errors in the process, but QBA was also judged too impractical and time-consuming with the cage system of mice, in which every one of hundreds of cages had to be opened before a several-minute-long assessment (doing so also radically changed the behaviour of the animals). It would not make it into the final welfare protocol since Maria felt that whilst QBA was promising, it needed further adaptation before it could be pragmatically incorporated into a routine welfare assessment.

However, whilst Maria had been leading the QBA research, Howard's perspective on QBA was also very important. As the first established laboratory welfare scientist to be involved in a QBA project, Howard's support and influence was likely to be highly significant for the future of QBA in laboratory environments. As such, he has the potential to be what Etienne Wenger (1998:109) calls a "broker", someone who coordinates between different communities of practice: translating meanings, introducing new practices, negotiating conflicting interests, and helping find solutions to problems. In this regard, Howard was keen, because he believed that QBA had wider potential than as a welfare tool. He thought it could reveal something about why people varied in their ability to read animal behaviour. For this reason, he wanted to continue to work with QBA, but in a different way:

What I really want to do, which Francoise's never going to condone is, I want to deconstruct it. I want to understand what is happening (...). I want to be able to take what works for QBA and apply it to other stuff. I want to know why it's successful, because I think it is; why it works, so that we can learn from that, and improve other types of welfare assessment. **(Howard).**

His plan was to use glasses that track the movement of the eye retina during QBA assessment to analyse *where* on the animal's body observers direct their gaze. Similar projects had found that participants tended to look at the face of those animals first, and for longest. He suspected this might be an innate feature of human behaviour which could call into question the *"whole-animal"* method that QBA assessors were supposed to be conducting:

Howard: If you can weigh up the information we're getting from every component of the animal and its environment, what weight are we applying to all those different stimuli, all that information coming in? And I would hypothesise that we apply more weight to information that we're getting from the face, than we do from anywhere else. (...) I'm not saying that we don't take a holistic view. I just don't think it's an even distribution. I suspect that it's weighted in some ways. And that weighting may change. It may change on our relationship with the animal, on knowledge about a species....

Maisie: So the implications of that are, if you see that during QBA people are focusing on the face, and you want to make more efficient indicators, then you ask people to look at the face?

Howard: Yeah. Or....not worrying about where they look, because I know where they're looking. So not worrying about teaching them to look in other places because, actually teaching them to look in other places doesn't work (...) It's a way of trying to come up with a scale that efficiently and effectively gets at the animal's welfare state. But instead of looking at it from the animal end, is to look at it from the human end. What are we good at? And add the weight to the ones we're good at, and less weight to the ones we're not good at. Does that make sense? It's turning it round a little bit.

Howard was insistent that he was supportive of QBA, that he greatly respected Francoise, and his intention was only to work with QBA in a different way. However, according to Howard, Francoise had expressed substantial discomfort with the idea[20], which made him hesitant. He admitted to some confusion:

Howard: I have got to find a way to persuade Francoise... (..) I know why* [she] *worries about it, I get that.

Maisie: Do you? Why do think?

Howard: (sighs). I think – she comes back to this objectifying it. And she's worried that it will lose its.....(sighs). I think she's - (sighs, struggles a bit) – actually do you know what, I'm <u>not</u> really sure I understand why. But I respect her enough to think...there must be... it's not an irrational reason (...) I respect her enough for her to be reluctant about it, and for that to give me a note of caution.

This emerging intellectual conflict, which loomed over the future of QBA at Moor University, raises questions about the amenability of the "tacit knowledge" of welfare assessors to physiological, technical and statistical deconstruction. Francoise's reported concerns and Howard's confusion over their rationale highlights the epistemological gap between QBA and conventional animal welfare science. But Howard's wish to interrogate the physical activities of assessors when they use QBA, and to study how they vary by demographic, also suggests an acknowledgement that perception was not simply a case of applying a universal scientific gaze, but was a human-species-specific sensory experience which might alter according to the *"education of attention"* (Gibson, [1979] 1986:254) of the assessor in their background and training. In this final section on QBA, I consider its likely future in the world of laboratory animal welfare by looking at some of the problems that Howard's deconstruction sought to address, and then by considering the implications of his plans.

20. I did not ask Francoise about her views on this specific matter to preserve Howard's confidentiality in interviews, and to not create any tension between them while they were working together. I have therefore implied her likely feelings about the matter from other conversations, but acknowledge that she has not been given the opportunity to respond.

I begin with an intriguing contradiction: Howard *also* liked QBA for its *abandoning* of the kinds of indices that he describes in his *"weighted scale"*. He favours fostering and endorsing something more mysterious and intangible - what we might call a "tacit knowledge" of mice. I show that this is, to some extent, mirrored in conversations with his colleagues, which suggests a certain *dissatisfaction* with metrics and an increasing sense that goalposts were constantly being moved in ways that prevented knowable outcomes about the felt experience of mice. I then use the work of Harry Collins and Michael Polanyi on "tacit knowledge" to show why Howard's plans are so limiting and possibly, unintentionally, damaging to the future of QBA at Moor University. Finally, I argue that whilst what Francoise called the *"objectification pressures"* from conventional science do represent a threat to QBA in this context, it does not seem insurmountable. A far greater threat to the survival of initiatives like QBA is the wider logic of the laboratory as a site *par exemplar* of human exceptionalism, in which the ever-increasing standardisation of life-forms is the ruling currency, and where all but the most vital welfare improvements must be justified in the last instance with reference to their impact on biomedical data for human benefit.

Indices versus intuition

Similar to Erin's identification of a *uniquely human* tendency for abstract thinking that distorts human-horse communication in Chapter 10's *Cathy and Red*, Howard is also concerned with a human species-specific *umwelt* that is irresistibly and unreflexively drawn to faces. He wants to account for this anthropocentric tendency. Yet at the beginning of our conversations together, the scientific *atomisation* of welfare assessment, which imposed a formal structure on interpretation of animal behaviour, seemed to be what Howard thought QBA could help his profession *avoid,* to the extent that he was beginning to question his own work practices. Like Erin's critique of natural horsemanship methods discussed in in Part III, he seemed to think that mechanistic, stepwise processes risked obstructing or paralysing something more intuitive - or even, for him, "innate". This makes it somewhat paradoxical that he should attempt to find solutions in further deconstruction of QBA:

I believe that humans innately are very good at assessing the welfare of animals - or can be very good innately. And sometimes I think we try and enforce a structure onto that. And I've

always wondered whether that's the right thing. And I spend my career forcing a structure onto that, but actually, ultimately is that the right thing to do, should we not let people get on with it. And I think that's what QBA does, is it kind of comes back and says – "What do you think about the welfare of the animals?" You don't need to use all these indices, you can just look at the animals and make a judgement. (Howard).

But at the same time, his own research had shown him that the interpretation of animal behaviour was a teachable skill, making him torn between the benefits of using formalised indices of behaviour versus the enrolment of a "craft" intuition. In effect, he said, what he wanted was a kind of "*hybrid"* of both indices and the kind of intuition that QBA sought to harness:

(...) I've tried to do this before, and actually you get reasonable accuracy if you just say to people: "Do you think that rabbit's in pain or not?" And they go yes or no. And then you teach them – and yes, you get better accuracy if you teach them but (sighs). I don't know, I just…there's got to be some form of halfway house, there has to be some hybrid.

We will return to this idea of a *"hybrid"* methodology and its significance below when I discuss the notion of tacit knowledge. First, I want to situate this anxiety about formal frameworks in the wider ethical context of animal experimentation at Moor University, before returning to why Howard wanted to "deconstruct" QBA.

A wider dissatisfaction with the demand for metrics

Howard's sense that there was something unsatisfactory about objectivist indices was to some extent echoed by his welfare colleagues, who, whilst remaining overwhelmingly committed to quantitative science, sometimes complained in interviews about the impossible new heights of quantitative evidence they were increasingly expected to provide. There was a sense of continually moving goalposts, and whilst welfare research was flourishing, it faced a significant institutional drag on the actual implementation of new initiatives, since new mouse environments and handling procedures were thought to threaten meaningful comparisons between laboratories or between historical and contemporary data sets. The level of resistance from technicians concerned about workload and from human-benefit scientists concerned about data could be "*amazing"*, as one welfare scientist

put it, and so there was a lot of pressure to provide conclusive evidence that welfare initiatives were not only absolutely necessary and justified, but preferably helped improve the results of human-benefit research via the improved "standardisation" of one mouse to another. In this sense, epistemological dilemmas intersected with governance, ethical and legal issues.

One particular problem was that assumptions about laboratory mouse ethology seemed to be becoming ever more unstable. The great number of new transgenic mouse lines led to different sensitivities to pain, different behavioural predispositions, and a host of other unknowns that made ethological assumptions from wild mice suspect, invalidated the translation of research findings between strains, and made separating pre-existing genetic factors from the effects of biomedical intervention difficult. "*The challenge in mice is just incredible,*" said Frederick, and he worried that despite decades of research he had not achieved his goal of developing adequate analgesics for laboratory mice, because , he said, mouse experience was so difficult to pin down (Chapter 9).

And yet, despite the evasiveness of mouse subjectivity, the demands for metrics on it were becoming increasingly acute. EU Directive 2010/63/EU demanded a report when the severity limits[21] on a project licence had been exceeded, something which could mean instant euthanasia for the mouse and the premature end of the experiment. Because of this, the law required licence holders to use clear, pre-determined indicators to determine when the severity limits on a project had been breached. But there were questions over the *felt* level of suffering of a mouse, and whether negative experiences accumulated in linear or non-linear ways. Is a near-comatose mouse under a "Moderate" project licence suffering severely, in which case the experiment must be immediately ended? Or is it less conscious of its condition and thus the more ethical action would be to finish the experiment? Such indicators were thought very difficult to "objectively" identify and quantitatively defend.

It was because of these increasingly pertinent difficulties in quantitatively measuring changes in mouse experience, that even the most sceptical thought that QBA could be advantageous in some way if it could be shown to be reliable:

21. Each application for a Home Office project licence which inflicts pain or suffering greater than the insertion of a needle must state the projected severity limit for the animal concerned, banded as Sub-Threshold, Mild, Moderate, Severe, or Non-Recovery.

You will have gathered I veer towards – let's have something we can really quantify, and show (...) that it's a linear scale? That it actually is going up as you would hope, from 0-10 for example, and that 10 is twice as bad as five (...) – these are the things that you can address with any sort of metric for welfare that's quantifiable. But by its very nature – the qualitative behavioural assessments are never going to be, I think, testable in that way. But equally, that may be a strength rather than a weakness, that we may never get there with the others, and we can spend an awful long time trying to sort them out. (Eric, senior welfare scientist).

So instead of scientists confident in their knowledge and mastery of mice, what I seemed to find in this *"core set"* (Michael and Birke, 1994) of professionals was a significant amount of critical self-reflection and frustration. Whilst many were sceptical about an "innate" human ability to read animal behaviour for the reasons outlined in Chapter 6, there was some acknowledgement that the paradigm of their quantitative methods might not always adequately capture what was needed. It is interesting, therefore, that in considering the future of QBA in the laboratory, Howard still feels he needs to revert *back* to developing a series of quantitative indices in which the "real" process of QBA could be revealed, helping to "*get at the mouse's welfare state*" by mathematically accounting for erroneous human behaviour in the intuitive process. On the one hand, therefore, he wishes to respect, ring fence and harness the intuitive process in animal welfare assessors. Yet on the other, he believes that there *is* something to unpick and understand.

From a sociological perspective, the *mode* of investigation that Howard wants to use is one that is problematic in its reductiveness, and especially paradoxical in light of QBA's particular epistemological and ontological view of the subject. In the next section, I consider these problems with reference to the particular challenges inherent in studying "tacit knowledge" identified by scholars Michael Polanyi and Harry Collins.

Can tacit knowledge be deconstructed?

As previous chapters have explored, Francoise was deeply committed to the idea that there was something ontologically and epistemological vital about beginning at the level of the whole-subject as the most appropriate primary unit of analysis. The exchanges between Howard and Francoise on this point during a team meeting were illuminating. On several occasions, Howard mused out loud upon different ways of investigating the secrets of QBA's mechanisms in the human, such as human brain

scans and different statistical methods. Whilst emphasising that it was important to use careful statistical analysis *"to be confident that QBA is a reliable tool and that people basically agree in their judgments*", Francoise countered that she was concerned about the disappearance of the animal in ever-more analytical procedures:

Francoise: But in the end you have to ask, what are you doing this for? For me, the purpose of it is to look at the animal and know how the animal responds, and what the animal needs, and what we can do to improve it. And so in that sense, to stay in a certain way at the descriptive surface, at a holistic level is what you want, you don't need to go deeper and deeper analytically. (...) What matters is the seeing, the qualitative awareness, not the exact quantification (....) With QBA what you're assessing is always the animal, as a subjective, living feeling being, and the entire scientific terminology is forever aimed, at thing-ifying that principle. Mechanising it, seeing everything as a thing, and the animal disappears! Who is feeling the depression, the anxiety, the determination? The animals, it's all about the animal's perspective. So if you start talking about this as states, and cognitive states, and brain states, then the animal eventually disappears, it becomes a system again. So this is the deeper underlying importance of it for me, personally.

Howard: No no no no, I very much see your point. I do.

Francoise: The philosophical, the deep philosophical meaning of this is that the animal is a whole sentient being and there is someone there, a real being that we care for, and therefore it's not a thing and we must have a method that recognises that and doesn't bypass it for the sake of analytical explanation. So I will try and preserve this as much as I can, it's all I can do....

Above, Francoise is making the distinction between a *"descriptive surface"* of analysis, which is no less complex for its integration of multiple dynamic phenomena as described in Part V, over an approach which fixes in order to progressively drill down, take apart and reveal mechanisms and laws. Francoise believes that knowledge for its own sake distracts from QBA's intention, which is to recognise the welfare of the animal. Of course, Howard's intention may ultimately be the same, and Francoise has made good use of complex analytical and quantitative processes, so ethical intentions or the lack of them cannot be straightforwardly aligned with either *"deep"* analysis or *"surface"* integration. But having already done significant

analytical, objectivist work to legitimate the "anthropomorphism" of QBA as a methodology, Francoise now appears to have some impatience with Howard's further attempts to understand, concerned that the relevance of the animal's experience will disappear for him in the process.

This uncertainty about whether QBA should stay *"at the descriptive surface"* and what happens to scientists' recognition of the animal in the process of atomisation is typical of debates in the theory of "tacit knowledge": what it is, how it operates, how it constructs the entities under investigation and whether or not it can be meaningfully "deconstructed". In his seminal book *The Tacit Dimension* (1966), Michael Polanyi argued there are things that "*we know but cannot tell"* (ibid:4). What he meant was that some practices are not simply *unstated* but entirely *unamenable* to explication. Tacit knowledge was, he said, inherently integrative in its epistemological approach. He concedes that an attempt to break down the process of knowing an entity could result in a richer, deeper practice or appreciation. But it can also result in *"irremediable"* damage. "*Scrutinise closely the particulars of a comprehensive entity,*" he says, "*and their meaning is effaced, our conception of the entity is destroyed*"(1966:19). The risk is that the emergence of details can result in distorted certainties, a "*mistaken*" belief that "*since particulars are more tangible, their knowledge offers a true conception of things*" (ibid). It cannot ultimately, he said, replace an embodied knowledge of the thing itself, the same way that schooling in the mechanics of a car cannot teach someone how to drive. In their wish to build integrative knowledges of an animal's behaviour-in-its-environment, and their faith in *uncertain* forms of knowledge, we could say that both QBA and The Forge are trying, via the more explicit processes described in Part IV, to *develop* new forms of tacit knowledge where it does not already exist.

Harry Collins, however, has a different perspective on tacit knowledge, which I suggest allows us to be more specific about *when* the kind of damage Polanyi talks about is caused, what Howard is trying to achieve, and what he may be overlooking in the process. Collins (2010) argues that much of what Polanyi labelled "tacit knowledge" is, in fact, perfectly explicable in the right circumstances. He divides it into three types based on its level of resistance to explication – weak, medium and strong. *Relational* or weak tacit knowledge, he says, is based not on the nature of the knowledge itself but how on how social activities are organised, so that knowledge

is either deliberately or inadvertently concealed (for example, an encrypted code of a U-boat site is deliberately concealed from enemy forces, and an in-joke is inadvertently concealed from an outsider, but both are capable in principle of being explained). Medium or *somatic-limit* tacit knowledge is explicable in principle, but the capacity to follow any instructions of execution is limited by the constraints of the human body or terrestrial conditions, and so tends to take place subconsciously (e.g. explicit instructions for how to ride and balance on a bike would be impossible to consciously execute in conditions of normal gravity). Only *collective* tacit knowledge, he argues, provides the strongest resistance to being explained because it is *social.* The meanings grasped by the knower are learned only through experience in the collective body of the social, and are so fundamentally context-sensitive that even given limitless time and affordances, a machine could never be programmed to execute it (2010:120). He gives the example of an episode of *Star Trek*, in which an android called Lieutenant Commander Data is given a dance class. He learns the steps immediately and flawlessly. Collins argues that if he was asked to improvise, however, he would quickly go wrong, because social, geographical and historical context is required to understand when a move is charming, inappropriate, lewd, amusingly anachronistic, or in fashion. He says that such rules are so shifting and dynamic that they cannot be laid down in laws and learned by machines.

Collins makes a very "modern" distinction between the objective/mechanical and the social/ subjective[22], and we might now question some of his examples in an age of increasingly sophisticated artificial intelligence. However, it is not necessary to fully endorse his analysis to appreciate that it gives some shape to an understanding of what Howard is trying to do with tacit knowledge, and where he is neglecting to direct his attention. Under Collins' framework, Howard is trying to unpick Collins' *somatic limit* knowledge – a human body unconsciously drawn to faces in the first instance, possibly variegated by life experiences, but perhaps so ingrained that "*teaching them doesn't work*". But if we are persuaded by Collins' argument that "tacit knowledge" is multiple, with its amenability to explication variable; and if we are persuaded, at least, that social meanings can be so context-sensitive that they at least require some methodological specificity, then a particular problem emerges with

22. It is notable that Collins describes himself as a "social Cartesian" when it comes to considering whether nonhuman animals are capable of "collective tacit knowledge". He does not believe that any animal is capable of learning cultural nuance or social context, at a level worth comparing to human beings (2010:124-6). See Chapter 1's literature review for some refutation of this belief.

Howard's approach. In conflating knowledge he considers intuitive with hidden knowledge of unconscious embodied activities, Howard neglects the *social or collective* tacit knowledge which is thoroughly situated and depends on the subjective attribution of meanings by both humans and mice. Howard's eye-tracking plans are thus insensitive to the intersubjectivity of the encounter, failing to recognise the vital convergence of embodiment and social understanding in defining the situation; or rather, failing to realise that the sensitivity of this variance cannot adequately be captured by a pre-standardised survey of demographic or biographical information. A better understanding of *collective* knowledge would help him achieve the *"hybrid"* of intuitive and explicit knowledge that he originally wanted to pursue.

It would be a shame not to capitalise on Howard's *"hybrid"* instincts, because he did recognise, in his wish to *"turn the question around"* and focus on the *"human end"*, that understanding the behaviour of the animal becomes partly a question of understanding the behaviour of the human. By speculating that the patterns of observations "*may change on our relationship with the animal, on knowledge about a species",* he effectively suspects that it is *situated knowledge* at both a social and a species level. Instincts are at play, then, which has the *potential* to radically challenge the scientific "view from nowhere" (Chapter 8). But although there may well be value in understanding embodied patterns of attention or questioning whether people really do conduct a "whole-animal" assessment with their senses, by reducing situated knowledge entirely to eye position there is a risk that, as Polanyi says, the more "tangible particulars" preferred by objectivist science - the measurable direction of the eyes - come to appear more real than the sociality of the encounter in which meaning and significance is co-shaped. Howard's work could distort understanding of QBA's "whole-animal" methodology as being solely about where the physical gaze rests, neglecting how the use of qualitative language affords a meaningful understanding of the animal as an experiencing subject. As we saw in Chapter 9's *"Calm Mouse"*, this would be a mistake because it is entirely possible to direct the gaze at an animal without discriminating the subtle changes that another sees, or appreciating their relevance. Vision is not simply about the direction of gaze, but is about what *meanings* the gaze is primed to attribute.

This also has ethical consequences, because the relegation of patterns of eye movement to a fixed, essential human tendency, an error to be dealt with only in expert, post-hoc analysis, bypasses the ethical possibilities of helping assessors behave differently in a process more intersubjectively attuned to the animal, which is an important aim of QBA. The contrast with The Forge could not be more stark – a reflexivity there which is grounded in embodied self-knowledge and live feedback, and a reflexivity here which is only in the mind of the expert: assessors don't need to worry about learning to see differently "*because I know where they're looking*" and will weight their responses accordingly, *behind the scenes*.

Furthermore, Polanyi's warning that "*scrutinising the particulars of a comprehensive entity*" can mean "*our conception of the entity is destroyed*" is certainly in tune with one of QBA's fundamental principles as seen in Francoise's exchange with Howard, and in Chapter 9's *Calm Mouse*: that subjective experience is best understood by incorporating the emergent "whole level" of the subject (whether human or nonhuman) as they interact with their surroundings, and that this meaningfulness is irreducible to a collection of moving body parts. The paradox inherent in deploying, at least without reflection, such an atomistic and reifying process speaks to the lack of understanding of the epistemological principles on which QBA is founded. Indeed, Howard admits his confusion at Francoise's discomfort: "*actually, you know what, I'm not really sure I understand why*". He wants to understand QBA better, but, trained in the disciplinary segregations of modernity, he doesn't understand that what first requires deconstruction is the epistemological architecture of his own tradition. If Howard is to be a "broker" for QBA into the world of laboratory animal welfare science, this has significant implications.

The future of QBA in the laboratory

Out in the world, it appears that QBA is quickly gaining new ground and attracting new audiences like NGOs and food businesses, buoyed by a growing public and professional interest in "sentience science" and "positive welfare".[23] In 2017, Francoise Wemelsfelder won the prestigious International Society for Applied Ethology (ISAE) Creativity Award for her contribution to animal welfare science. In 2019, she

23. Positive welfare methodologies shift so-called "sentience science" into the study of animal pleasure rather than a sole focus on negative experience. See, for a review, Lawrence et al, 2019.

presented the initial results of the Moor University study to a professional body of laboratory animal welfare professionals and, despite the limited findings, Howard described being "inundated" with expressions of interest as a result. He and Francoise are now starting a new QBA project with a different laboratory-based species.

Yet Francoise is concerned about her retirement and how well QBA's epistemological principles will survive. She plans to write a book, but at present the only authoritative source on QBA's philosophy is herself, and a major part of her role is to defend the ontological and epistemological underpinning of QBA from what she calls the "*objectification pressures*" of conventional science. This essay suggests that if QBA's principles are to survive the inevitable experimentation they will undergo once Francoise is no longer available to protect them, it needs allies that understand the intellectual framework of her work, since as Chapter 9 showed, it is possible to practice the methodology in a different spirit to that which is intended. In the laboratory world, the engagement of scientists like Howard will be crucial if QBA is to have a future. He has the potential to be a "broker" (Wenger, 1998:109), not just between communities of practice, but also in the *temporal* sense, someone who can negotiate the successful future of QBA after Francoise Wemelsfelder's retirement. However, *being* a broker requires that one incorporates and understands the logic of all sides to be able to translate meanings and negotiate conflicting interests.

More problematic for QBA , however, is the fact that the logic of welfare assessment is always in the last instance subservient to the logic of efficiency and control in biomedical research for human benefit. Whilst Kirk (2008) and Druglitrø (2014:40) have argued that the need for reliable data originally helped *precipitate* concern with animal welfare, it also shapes its limits. If, as Maria suggests, a tool like QBA is time-consuming, it will have to meet the highest bar of evidence. And ultimately, as conversations with Howard's colleagues show, unless a welfare assessment can be shown to improve the data that arises out of biomedical research, it has little hope of surviving as a routine practice.

That said, QBA appears to have overcome many objections in the last decade. If the practical issues prove too great a barrier in routine welfare assessment, the conversations with my participants in Part IV's *Making Visible* around QBA's

potential for rehabilitating the *animality* of the mice, slowing down and noting small responsive details suggests it may well find a successful home as a regular training tool. This is something that could have incremental, yet significant, consequences for mice and mice-human relations. Whilst the embodied, responsive and reflexive dimensions of the methodology are limited in comparison to those of The Forge, it at least allows the time and space for a recognition of relationality in an otherwise highly instrumentalist and objectivist context. As Julian puts it:

I'd like to see it used to get people to look at the mice more (...) Not an education of what it is, and what it does, and even just scoring right or wrong, but actually, as a method of...teaching you that you can use your senses to detect things better than you might think you can, that if you just spend a bit of time, with this thing, it might be just like a bridge, to looking at the mice in a slightly different way. Or just to be slightly more, I don't know, thorough (...) Try not to make a big noise when you enter the room; and then see what the mice are looking like when they don't know you're there yet; and then see how they react when they do know you're there (...) Be a little bit more mindful about what they're actually looking at? And also that possibly they'll do things more slowly because there's several different things that you're marking the mouse on? That actually, , even if those aren't really the right things to mark, the fact that you've taken longer to get there, you might get an overall impression, and you look down and you say well, it says everything's good but I'm not sure why I'm not happy with the mouse!

This emphasis from this animal welfare professional on QBA's potential value as a *"bridge"* to gaining confidence in one's own judgement, spending time noticing how the animals respond to one's presence and taking the time to *"be more mindful about what they're actually looking at"*, has remarkable resonance with the values of The Forge, suggesting that even in a techno-scientific environment whose priorities, preoccupations and cultural influences seem a million miles away from a herd of free-roaming horses and their opinions on human nature, there are kernels of methodological thinking about communication, attention, uncertainty and mindfulness which are shared. It also resonates with Francoise's newfound confidence in new epistemological paradigms since her sabbatical in social anthropology: that perhaps QBA can assert itself *without* so much emphasis on the objectivist validation with which it is in tension. As Francoise says:

What it has helped me do, that whole excursion (...) it has allowed me to develop my science in a more explicitly relational way. Since then, my aim is more explicitly to develop QBA in a way that's helpful to society, to relate better to animals, without always prioritising measurement – I'm bolder and braver now, to talk about new paradigms, and I'm not just wrapping and translating everything I know or think into an objectivist framework. I'm stepping out more.

As animal studies scholars continue to show interest in QBA (e.g. Charles et al 2018; Fudge 2018), it will be worth seeing to what extent these *"new paradigms"* can gain footholds in a scientific discipline that has historically been nervous of epistemological deviance within its boundaries, but which is slowly changing in response to a new generation of scientists and their emerging frustrations about the limits of objectivist knowledge practices and the risks of ignoring social contexts and emotional intuitions. If QBA can help knowledge practitioners relate with more sensitivity and attunement to some of the most vulnerable, sequestered and objectified animals in our society, it will be a substantial achievement; but it must find new ways to protect the integrity of its epistemology and ontology, and to encourage as much critical reflection on the embodied human social practices of its methods as it does on animal behaviour, since the two are inextricably enmeshed.

Chapter 12: Becoming-prey: Human origins, moral relationships and the future of The Forge

Erin and I sit talking in the sheep field on a cold, bright November morning. We have just had an individual session where I tried out the use of her "felt sense" techniques with her flock of seven rescued sheep, much less accustomed to human contact than the horses. Erin began by telling me their names and where they had been rescued from. I wanted to experiment with the work and find out if the techniques transferred to other animals, and so was about to begin two days alone in the field with the sheep, trying to win their trust without using food, and get close enough to learn something about them. Since Erin had warned me that once spooked, any further attempt at approach would be futile, I had begun by skirting the edge of the field about twenty metres away, in what I hoped was a nonchalant amble. Erin called me back. ***"Be careful your gaze and movement isn't that of a predator"*** **she said.** ***"It's what a wolf would do, skirting the edge of a flock, scoping them out."***

We talked about the importance of ***"intention"****, and how if it is placed elsewhere than the sheep, they become more relaxed in proximity, even if one's movement is brisk and business-like. She also asked me to continually ask myself if I was "listening" to the sheep. With the flock gently shifting away behind hillocks or trees every time I became too close, it was evident the sheep were telling me to keep my distance, and it took me nearly 45 minutes to remain within ten metres of them, using "grazing" with my hands as an alternative "intention". They eventually lay down to snooze, with the closest keeping a wary eye on me. Sitting together afterwards, chatting, Erin and I watched the magpies landing lightly on their woolly backs as the sheep cropped the grass, unperturbed.**

"Look"*,* **Erin said**[24] ***"this is what I was talking about – look at how relaxed the sheep are with the magpies. When you watch nature programmes, you see all these animals at the watering hole – the lions alongside the zebra and the antelopes. The***

24. The first two sentences here are paraphrased, not recorded.

other animals know the lion isn't hungry. I think each animal species has their own unique ways of communication - well, I'm not being funny, but you put Margie out there with the sheep, the cats out there with the sheep, the sheep with the horses, or the birds...They all have a way of communicating where they know that they're not going to be hurting each other, or if they are. But as soon as the human wanders in, everyone scarpers. Why? (...) I think there's a general overall communication between all species. And that's what I'm trying to tap into and work with, with people, and with myself.'

In the exchanges above, I suggest, there are three kinds of social and moral relationship that I am asked to become aware of. Firstly, I am made aware of an ethical relationship with the flock, becoming aware of their previous histories of neglect and their rescue. Secondly, there is a moral relationship: Erin asks me to remind myself to *listen* to the sheep, to become aware of how I affect them as I try to draw near – an instruction to gain some kind of *consent* for approach. Finally, in her warning not to behave *"like a predator"*, she draws attention to what she considers a more essential, primal relationship: with myself, the wolf, the lion, the cat and Margie the dog implicitly on a "predator" side of a tropic relation, and the sheep, the zebras and the antelopes on the "prey" side. In a kind of ecological code of honour, all nonhuman predators, she suggests, can communicate *intention* across species, so that everyone can sustain themselves at a shared resource. However, animals *"scarper"* uniquely in the presence of humans, implying something about the human condition as different to the rest of nature. Erin believes that this failing is not irredeemable, because she hopes the work that she does helps *"tap into"* a latent interspecies communicative ability, so that I can manage my inappropriate "predator" behaviour when I walk with sheep.

The vignette above relates of course to sheep rather than horses, but the principles of the work with horses were the same. In this chapter I will explore the future of the work of The Forge and the vision of the human animal relationship that it endorses by exploring what participants felt they learned from their retreats about horse-human relationships, and the potential that they thought the work had for wider social change. Structurally, I will explore this through the three dimensions of moral relationship that were applied to horses in a similar way to the sheep above: inter-personal relations in the arena, social relations in cultural practices, and ontological

relations at the level of the species. Of course these relations have to be understood as enfolded into each other in indistinguishable ways, and I am separating them only as a narrative device, before drawing them back together again. Drawing on Lynda Birke and Kirrily Thompson's (2018) account of what it might mean, in practice, to foster *"conversations"* with horses which respect their social agency, I begin by exploring the first two ways in which participants described changes in their moral relationships with horses following their experience of The Forge. I suggest that The Forge had a significant impact in these domains, modelling practical ways to make a theoretical discourse of "listening", "respect", and "conversation" *live,* and *lived*. However, when participants began to consider more existential questions of humanity's relationship with nature, whereby horses become *moral teachers* of a more fulfilling and socially responsible way of dwelling in the world, I suggest the work risks becoming more problematic, both in its dualism, and in its echo of certain popular, anti-civilisational narratives in psychotherapy and in nature writing. I conclude that The Forge's work presents a progressive set of practices capable of prompting significant ethical reflection, and opens up radical new possibilities for communicating with horses; but that participants' meta-narratives about relations at the level of the species sound a warning about the way in which contemporary trends in popular and psychotherapeutic science could shape equinology going forward.

In what follows I will take the question of interpersonal human-horse relations *in the arena* and consider how successfully The Forge achieved the aim outlined by Erin in Part III: of encouraging people to recognise a horse's social agency and *listen* to them in ways which make them "*come alive, come out of themselves*". What did participants learn about ethical, interpersonal relationships with horses as a result of their retreats?

Moral relationships in the arena: embodied interpersonal communications

In the story that opens this chapter, Erin urges me to be aware of how my intentions are impacting on the behaviour of the sheep and to continually attune to the communications of the flock. Their wishes and choices are ethically made to matter. What this might mean with horses is explored by Lynda Birke and Kirrily Thompson (2018) as they consider how to acknowledge and respect their social agency as

actors. Whilst acknowledging that riding inevitably involves practices of control, they argue that there can be ways of being with horses that open up the possibility of developing *"conversations"* (ibid:123), achieving, where safe to do so, something approximating *consent: "Considering horses as social actors"*, they say, *"means being open to better means for communication that enable the horse to ask, for the human to consider the request contextually and for the human to respond accordingly" (ibid:138).* As examples, they write that:

…our horses "talk" to us every day – they might not walk up when we go to catch them, they might put their ears back when we do up the girth, turn their head away from the bridle or they might dawdle towards the arena. Horses do all of these things and most of us are taught that they are simply being difficult or disobedient, but even if they are – are they not trying to communicate with us? How should we respond? (ibid:124).

The work at The Forge did go some way, I believe, towards encouraging participants to become sensitive to the *conversational* possibilities of a horse-human relationship in a session. Many participants reflected on the ways in which they were encouraged to notice and respond to small signals of consent or refusal, in particular for being touched and stroked. Unlike many other EAPD contexts where horses are tied up to be groomed, the horses were free to reject touch and frequently did. Touch came to be defined by many participants as something that could be presumptuous and insensitive, and that should be negotiated with the horse. Some reflected on the anthropocentrism of their desires, and most moved away from an idea of "connection" as defined solely by physical contact, relatively quickly:

I think I was conscious of on occasion wanting too much from the horse. I think we talked about needing to touch, which is a bit of a human, thing (..) I think I was very conscious that actually, yeah, I'm a bit like that. Touch the puppy, touch the horse, touch the cat, whatever! Er, without a huge amount of thought about what the animal particularly wants. (Heather).

Another example of consent reflected on was Erin's selecting the horses that *"presented themselves"* to her in the field for work that day, and her habit of *offering* the halter to the horse before she led them out the session, noting signs of resistance like flinching; dropping it, and offering again until they were still, and consent to leave was presumed. Amy, an experienced horse owner, was struck by this:

I enjoyed how there was a pause between the session finishing, and her approaching the horse, and putting on the harness. And she waited for the horse, to complete, if that makes sense? She waited for the horse to go "yeah, this is complete, I am done, take me back to the herd". And I noticed her do that. And then when she was leading them, it was not normal horsemanship in the way that she does it. Like there's a real, "I'm respecting your power, and you're respecting my power, and let's do this together", rather than leading the horse, to where it needs to go.

Others reflected on how their lived, embodied relationship with *other* horses had changed as a result – of spending more time just sharing space with their herd; of knowing how to calmly respond using the "felt sense" or "grazing" practices when approached by unfamiliar horses in a field. And as argued in *Clean Communication*, the quality of the encounters did begin to change as participants moved through the six days of the two retreats. In the short clip below, one can see something approaching a "conversation" between Victor and I in embodied response to each other in my final of seven retreats. I have chosen this clip for its clarity, not because a horse following a human is the apotheosis of "connection" – indeed, I had several experiences of communication that were completely still. But I believe it does demonstrate a quality of embodied *co-listening* that The Forge's work helped me achieve (watch **here**):

Figure 16: Video, Victor and Maisie. Credit: Maisie Tomlinson

So in spite of the anthropocentrism of some of the *elaborated* interpretations of horse's activities that were discussed in Chapter 10, it was evident that, at the very least, participants were becoming more attuned and more responsive to horses' likes, dislikes and needs, supporting Birke and Thompson's sense that humans and horses can develop "conversations". It suggests that Erin's aim to encourage *listening* to the horse was largely successful.

Moral relations at the stables: herd life and human control

Erin's account of the sheeps' histories of abuse and neglect encouraged a different kind of ethical reflection in the story above: on systemic practices of domination and control, now relieved through the extensive living conditions she has provided. Likewise, with the horses, participants reported that they had become more ethically aware of normative modes of relating and whether they sufficiently respected equine agency and their need for social interaction with other horses. The level of unprompted reflection this generated in interviews was striking, especially since I did not specifically ask for ethical reflections and Erin tended not to opine extensively on animal ethics during retreats. Here, Lyla reflects on socially legitimated relations of power in normative riding culture:

The more I've learned about horses, you realise [riding's] not that kind to them really – we're doing the old bit, of.....putting our power over a horse. Rather than interacting with them. We're just saying, "Right, come along here!! Put the bridle on!!" (...) All these things I've been thinking are quite cruel. But it's our society.

When asked what they had learned about horses, almost all the ten participants talked about the evident importance of herd relationships to the horses. For many whose only contact had been through riding schools, it was the first time they had really considered its importance:

I'd never really given it a lot of thought as to what was going on, or how that horse was even relating to the other horses in the stables. It has made me think about....you know, the level of cruelty, it feels like. (Cathy).

Regardless of whether one agrees with their ethical conclusions, what I want to draw attention to here is how the herd-based work at The Forge appeared to encourage *particular* ethical reflection on the power relationships between horses and humans. Birke and Thompson express considerable unease about the further instrumentalisation of horses within therapeutic settings (2018:21). In the two dimensions of moral relationships I have given above, I suggest that, despite the anthropocentrism of some of the "personal development" work described in Part V, that this was not the whole story, and The Forge succeeded in forging conversations with horses and challenging conventional power relations to a significant extent.

When applied to emerging meta-narratives about moral relationships at the species-level, however, the picture becomes more complicated. In the opening story, Erin makes a distinction between humans as predators and horses and sheep as prey. In the following section, I explore how this dualism maps onto others, and the potential risks for ways of knowing horses in a situated equinology.

Ontological relationships at the species-level: horses as teachers

When asked about the social relevance of the work of The Forge, most participants believed that the retreat side of the work would always be niche, restricted to those

who could afford it and who were culturally attuned to its presence and possibilities. But what was striking was the *moral relationship with nature* that they felt The Forge could offer if more widely available, and the possibility of horses becoming *moral teachers,* holding a mirror to humanity and demonstrating new ways of living to lead us out of social and ecological calamity. The idea of animals as teachers for a debased human race is not new. Boria Sax (2011:24-5) describes how in many ancient creation stories the birth of humanity was compromised in comparison with the creation of animals, spoiled by a hubristic misdeed, calling down the vengeance of the gods and imbuing humanity from then-on with physical frailty, moral weakness and woe. Humans were thus destined to gaze longingly across at the perceived strength, peace and harmony of other species. At The Forge, social anxieties revolved around a perceived human separation from nature through a wave of new internet-based technologies and online social media in a *"runaway world"* (Giddens, 2002) or *"liquid modernity"* (Bauman, 2000) in which the speed of social change is overwhelming. Amy conceives of this as an experience of *"disconnection"* in which invasive global currents sweep away embodied, present moment awareness of thoughts and feelings:

There's so much disconnection happening, everywhere, through social media, through hormone therapy, disconnecting from our bodies, through social media disconnecting us from our thought processes.....I could go on. And that (bangs table for emphasis) is what we need to come back to, and build that connection, and I feel that horses particularly (...) can teach us so much, about who we are, who we're being, and how disconnected we are. They can be ...a mirror for us, to show us what's causing our disconnection.

The potential of horses to act as a kind of phenomenological and ontological bridge, reconnecting a *"disconnected"* humanity with their somatic, affective experiences is echoed by Hannah. Naturalising a working relationship with animals, she sees the work of The Forge as a progressive *"next step"* in their use-value:

I think that we've lost touch with ourselves within our environment, and I think within society, it's out of control, our sort of flooding of information, and, you know....the internet and cyber-world I think is overwhelming us, and I think they have a new purpose in a way, for us. Which is, to teach us about ourselves, and our experiences, emotionally.

The views expressed above map fairly straightforwardly onto Erin's assertion that her work with horses can be used to facilitate the kind of honourable inter-species communication between predator and prey that other animals possess. The *capacity* of horses to become teachers seemed conditional, however, on two things.

Firstly: their ability to be teachers assumed an understanding of horses as "emotional natives", as described in Chapter 10's *Cathy and Red*, with a strongly dualistic distinction made between *embodied* horses and *minded* humans. Horses were conceived as immediately expressive and therefore more emotionally healthy:

I do think horses are teachers, I think they've really got a lot to teach us about how we deal with stress, I mean the whole idea of the animals shaking off stress, you know, they don't hold it in their bodies, they will get rid of it, they'll discharge it, we don't do that, generally..... (it) will all kind of build up. (Cathy).

Secondly: their pedagogical *responsivity* depended, for some, on them being more or less liberated from regimented forms of human labour and confinement. Amy later qualifies her claim that horses can be a mirror for us by claiming that riding school horses don't have the same authority: "*But it can only be achieved if they're in their natural state"*, whilst Jacinth likewise agrees that riding school horses are too subdued, and says:

…with Erin, the horses actually have the space to be receptive (...). It makes you realise what Erin has actually achieved, by bringing these horses to their natural state, and taking them out of the demands that were made on them.

Only through their liberation, believed these participants, could come ours. Whilst tropes about a return to a "natural" state are somewhat problematic in their simplicity, in some ways, here, we can see a recognition of horses' agency as *relational* (Birke and Thompson, 2018) contingent on the ability of an ecology of practice (Grasseni, 2004) to support equine flourishing, and thus produce certain kinds of social agency and authority.

These observations often led to discussions about the harmony that the horses appeared to have in the herd as a result, able to move on and live life peacefully in a

present-moment state without the continual running commentary of an analytical mind. Again this was held up as a moral exemplar:

I thought, they suffer like we do! But they don't internalise a lot, they just deal with it (…) I just love that. (Lyla)

In this way, then, horses' ability to be "in their bodies" rather than "in their heads" was understood to be a moral virtue, because they avoid the build-up of trauma and resentful relationships with others caused by analytical, cognitive epistemologies. Being a horse, here, is to model a way of being in the world that is emotionally and physically expressive, arguably culturally feminine, and thus psychologically healthy. It is also, as described in *Cathy and Red*, explicitly linked at The Forge to a prey-animal ontology, in which horses "*are in response all the time*". Becoming prey, or prey-like, therefore, is conceived as a bridge, a "missing link" between nature and culture, human and non-human, mind and body.

Before moving onto critique this narrative, I want to make a few points clear. I do not contest the fact that horses' trophic relations as "prey-animals" helps shape their attunement and behaviour at the level of the species – as Birke and Thompson (2018:48) say, anyone riding a horse when it is spooked from behind can be in little doubt that horses tend to be highly vigilant, with a strong flight impulse (Goodwin, 1999). Nor do I wish to contest the idea that there are various ways of *human* being-in-the-world, some more ruminative or cogitative, and some more immediately physically and emotionally expressive. Thus my dispute is not with Erin's passion for embodied exploration. Furthermore, it could also be argued that the construction of animals as "teachers", observers of human activities from a distance of moral authority, is a vast improvement on animals as transparent objects of the human gaze (Berger, 2009).

However, with the accounts of participants above moving readily between dualist distinctions of mind/body, culture/nature, and human/nonhuman, I believe it is important that The Forge reins in the dualism of its body/mind horse/human distinction. If not, it risks mapping straightforwardly onto other naturalised dualisms of culture/nature, male/female and human/nonhuman. Even if the hierarchy is reversed, so that what is typically disparaged is now positively valued,

the fact that dualisms gain their identity through being negatively defined against the dominant category means that horses risk becoming *defined by* their exclusion from rationality and culture (Plumwood, 1993:32), precluding understanding of the ways in which horses are rational, have culture and are minded. More expressly acknowledging the role that reason, language and narrative plays in clients' understanding of their embodied experiences; and of in the way in which horses make decisions, process information and control their impulses would help rebalance this equation. Otherwise there is a danger that horse and human ways of being-in-the world become polarised, not plural.

It is also important to understand how the meta-narratives drawn out by the participants, which enrol horses into utopian visions of humanity's prospects, might affect the practice of equine expertise. With the popularity of equine-assisted psychotherapeutic work increasing, the intersection of equinology with personal development work seems likely to persist. As with the *"objectification pressures"* of the laboratory placing pressure on QBA's interpretivism, here The Forge finds itself in a nexus of *psychotherapeutic pressure* in which a balance between *"learning about horses"* and *"learning about yourself"* can easily tip beyond reflexivity into a project of self-realisation and quasi-spiritual redemption. In the wider field of EAPD, there is a tendency to set up mind/body, human/animal dichotomies, and then bridge these dualisms through "origin stories" about humans' lost essential nature using a powerful motif of predator versus prey. Whilst during my fieldwork this was only hinted at, it became more of a concern after I left with the rebranding of some workshops at The Forge[25] along these lines. Below I will briefly describe what this means before explaining why its emerging influence on equinology must be understood and critically questioned.

Predator and prey in "new primitivist" movements

The recent prevalence of origin stories which reference a lost "prey-like" nature of earlier humans are arguably part of what Ben Etheringon terms "The New Primitivism", an "*anti-civilizational ideology*" (2018:webpage) which looks to humans' Paleolithic past for inspiration. Sometimes described as *human rewilding*, the new

25. In order to preserve anonymity, I cannot quote from The Forge's website on this matter

primitivism includes practices such as the "paleo diet", "hermit" lifestyles, and the *"uncivilised writing"* of the *Dark Mountain Manifesto* (Kingsnorth and Hine, 2009: webpage). *"Underlying all these trends",* Etherington says, is:

the promise of a truer, more natural self -- a self that modern life has compromised....Among utopian ideas, primitivism is distinctive for its reverse teleology (..). We are to move forward into our past; or, equally, backward into our future. Primitivists thus spend a lot of time seeking out and heralding the evidence of the societies which they suppose lived (or live) in this state of grace. (Etherington, 2018:webpage).

For example, in their book *The Rediscovery of the Wild*, Peter Kahn et al argue that:

…our Paleolithic ancestors lived a life more wild than all of us do today, and that much of that wildness still exists within the architecture of our bodies and minds....we contend that for people to flourish now, much of that wildness needs to be rediscovered, re-engaged, developed and lived...we reinstate the importance of the primal self, not only in relation to a wild nature "out there", but also within. (2013:xvii).

Erin's rebranding of her work along similar lines, and her musings on original predator-prey communications in the opening story seems to mirror what is also a "new primitivist" trend in contemporary somatic psychotherapy. This draws on the notion of a pre-Neolithic human, inhabiting a "prey" mentality of heightened awareness and responsiveness in contrast to the more rational comportment of settled pastoralists. Animals are frequently enrolled as "teachers" into this ideal. For example, Erin cites celebrated somatic psychotherapist Peter Levine as one of her more general influences. Levine's (1997) book *Waking the Tiger* theorised that human trauma is a thwarted survival instinct, something that results in the build-up of suppressed emotion, and this is caused by humans' evolutionary location between predator and prey. The fight-flight instinct, he claims, was inherent to hunter-gatherers, but became thwarted by the more rational "predator" instinct of settled communities: that hesitates, analyses, and holds onto that energy. Levine posits that through observation of wild animals we can "*learn more about how not to interfere with our instincts*" (1997:86). Likewise Linda Kohanov, founder of one of the original EAPD movements, *Eponaquest,* has a chapter in her book entitled *"The Wisdom of the Prey"*. Kohanov calls on the somatic psychotherapist Don Hanlon Johnson to suggest

that the submission of women to aggressive men is due to a gendered, cultural suppression of a natural fight or flight instinct, encouraging women to become socially agreeable instead of acting on instinct:

Women are ceaselessly preyed on in civilised society because, in order to conform, they relinquish the same somatic and emotional wisdom that allows horses, deer and zebras to elude an attack in nature (...). As women, we needed to resurrect this "wisdom of the prey" for our own protection" (Kohanov, 2001:106-8).

The "prey" side of our nature, she argues, is our only hope of humanity's rescue from the rationalist "predation" of industrialisation, war and colonialization. She argues:

For change to occur, the human psyche has to accept another matrix of wisdom capable of balancing the violent nature of the predator inside. The lion must lie down beside the lamb. Yet, with the entire race teetering on the edge of extinction, it will take a stronger, more compelling symbol to gain the lion's respect (..) the horse might capture the beast's attention as an innovation of this ideal in its maturest, most elegant, most powerful, most regal manifestation. (ibid: 57).

So the brighter moral future envisaged by the participants when they talk about the horses as "teachers" echoes that of popular psychotherapeutic science and "human rewilding" social movements. This is perhaps not surprising given that many of the participants worked in therapeutic fields themselves. The *"wisdom of the prey"* as Kohanov puts it, is rendered more explicitly in these movements than at The Forge, where the connection between the horse as prey animal and the psychotherapeutic value of emotional release was implied, but not quite so explicitly drawn. But in the notion of horses as spiritual teachers, leading us towards an ideal of a "lost" human nature, The Forge has to be mindful of other interests at stake in this story. Donna Haraway has warned of the way in which *"origin stories"* (1984:109) in primatology conduct political work along the lines of gender, race and animality. They exert a powerful hold on the imagination, all the more compelling in their simplicity and nostalgia. Polarised, gendered and emotive ideas of who is categorised as predator and who prey might emerge for humans; and for horses, it may be that funding, interests, and power structures become dependent on this model of equinology, a model that it is hard to either endorse or critique given the enormous distances in

time. As Mary Midgely (1979) argued, sentimentality and brutality are two sides of the same coin of wishful thinking, and if the stories I sometimes hear about other EAPD schools are true, where horses are quietly tapped on the hocks with sticks to encourage them to approach or move away from clients, we are back into a notion of horses as servile *"bio-feedback machines"* (Notgrass and Pettinelli, 2015), justified by their "prey-animal" responsivity, with nature reified, rendered predictable and mechanistic in contrast to human culture. In this way, moral relationships in the arena, at the stables and at the species-level can never be separated.

Conclusion: the future of The Forge

In this chapter I have used Erin's musings on the sheep and the magpie as a springboard to explore the future of The Forge, its vision of the human-animal relationship, and the implications of its work for that relationship going forward. I have done so through considering three kinds of moral relationship that were envisaged at The Forge: interpersonal relations *in the arena*, cultural relations *at the stables* and relations *at the species-dimension*. I argued that The Forge successfully modelled how to recognise and respect equine consent in inter-personal relations, forging "conversations" in which genuine listening became evident, and rippling out into other equine encounters post-retreat. I claimed that as a result of their experiences participants came away with an increased awareness of the ethics of different social practices with horses, which allow for more or less posthuman sensibilities and relationships. Finally, I returned to the opening story and the question of moral relationships at the species-dimension. I argued that many of the participants viewed the horses as *teachers* of a more embodied and emotionally expressive way of life for a humanity lost in the unstable and rationalistic tides of technological fetishism, helping to reconnect us with parts of ourselves swept away in its tides. However, I warned against a tendency towards dualism which risked defining horses against humanistic ideas of human qualities; and cautioned against echoing current trends in somatic psychotherapy and other "new primitivist" movements, particularly in their narratives of an essential "prey" quality of humanity located deep in a Paleolithic past. This could exert *psychotherapeutic pressure* on equinology, becoming, to paraphrase Haraway (1984) on primatology, *"politics by other means"*.

The Forge remains a marginal practice even within a small field, unusual for its emphasis on teaching horse and herd behaviour, for the relative liberty of its horses, and for its independence from organising bodies. Increasingly asked to work in the public sector (for example, with looked-after children), Erin seems aware of the social and financial pressures on her values. Her clients, often embedded in therapeutic fields like social work or psychotherapy, sometimes end up as *brokers* like Howard (Wenger, 1998), introducing her to new projects and funding, as happened with her recent contract with the local authority and looked-after-children. She did not, she told me, want to take on so much work that the organisation became a "*riding school scenario*", with the horses overworked, stressed from exposure to clients' emotions, and working with new facilitators who did not know them as well. One way she hoped she could help was by offering her services to riding institutions, encouraging them to offer at least one compulsory session working from the ground with a horse before they were allowed to ride: *"I'm sure there would be fewer accidents"*. She felt optimistic that there was a small minority that were ready for change and it just required someone to come in and offer a new paradigm that they might not have imagined or known was possible:

I just want to open their mind up to the fact that there could be, there is another way. It doesn't have to be a massive change, or a massive shift...I mean in an ideal world every horse would be living in a herd if I had my way. I'm aware though that people aren't going to stop riding, but....if there can just be little shifts in, maybe how that person sees the horse, just take maybe a little bit more time, and.....then I'd feel a lot happier.

In a similar way to Francoise Wemelsfelder and QBA, then, Erin hopes to obtain small shifts in wide scale practice. Pushing vocally for social change seems to come less naturally to *"follow my nose"* Erin than to *"face this thing head on"* Francoise, but she has the resources to model a remarkably inspirational scenario that few others might be able to offer, and seems to trust that opportunities will come through that.

What has struck me about The Forge as I write about it is the fundamental contradiction inherent in its practice: as John Law (2004) argues, the world is in flux and our research does not, and should not, always produce stable realities. In phenomenology, our embodied intentions as they manifest in our activities are inextricably enfolded with perception and ways of knowing. Depending on its

activities, the Forge was both deeply anthropocentric *and* deeply horse-centric, with a synthesis not fully resolved in the retreats. As Birke and Thompson argue (2018:8), despite the fascination with "connection" in equestrian worlds, relationships with horses *are* fundamentally unstable, can fail, and cannot be taken for granted. They require reflexive emotional, physical and intellectual labour. But they also require an awareness of how knowledge is produced in a relational assemblage which includes historically situated ideas, such as animals as teachers or the significance of trophic relations. Critical anthropomorphism, as such, requires multiple dimensions of critical self-questioning. It seems crucial for The Forge not to lose its mission of *listening to horses*; not to allow the work with horses in the herd, which proved so expansive to participants thinking, to be lost in the *psychotherapeutic pressure* of a growing market; and to not become enrolled in a fantasy of liberation from culture and the intellect. If it can manage not to do this, then it has a real possibility of being a place where we can critically reflect on how both horses *and* humans can flourish, both together, and on their own terms.

Drawing the threads together: Conclusion to Part VI

In this Part VI, I moved onwards from the controversies of the mid-project towards considering the future of both methodologies as my fieldwork came towards a close and as my participants reflected on their experience of and hopes for each methodology. As well as considering the sociological nexus in which each site was now situated, twenty years on from those described in Part III, I wanted to explore the vision of the human-animal relationship that each site propagated, and imagine how, if the methodology was continued, that relationship might play out, both epistemologically and ethically.

In this final concluding section, I continue with the theme of an agenda for critical anthropomorphism by asking: according to my participants, how can the *future* of critical anthropomorphism can be best assured in the development of its methodology?

Align with wider epistemological movements (but choose them carefully)

It is evident that both The Forge and QBA have "brokers" as participants, people with the ability to translate between different communities to bring marginal, critically anthropomorphic practices towards the centre. At The Forge, a client base embedded in the therapeutic sector have the potential to propagate a more equine-centred behavioural methodology along with the psychotherapeutic benefits for humans. Similarly, with QBA, Francoise needs allies like Howard to broker her methodology into a new community of practice: laboratory animal welfare. In disseminating their methodologies into new areas, both Francoise and Erin must manoeuvre themselves into the surge of certain prevailing social currents on which to launch their methods anew.

These chapters suggest that both QBA and the "felt sense" methodology of The Forge might achieve wider uptake as a result of social frustration with hyper-rationalist epistemologies. This is most evident at The Forge, where participants hoped that horses could help lead humanity out of a disconnected, technocratic way of life. However, at Moor University too, despite its overwhelming commitment to quantitative science, there are at least some kernels of thought that endorsing more

intuitive epistemologies could help assessors capture what standardised indices cannot. Choosing which social movements to align the methodology with, however, is an important epistemological decision, as my discussion of "origin stories" at The Forge showed.

Account for "essential" human fallibilities as well as essential human abilities

Given that both methodologies believe that the ability to interpret nonhuman animal behaviour is to some extent innate, it is striking that in both fieldwork sites there is a sense that there are some qualities of being human which actively *inhibit* effective interpretation. Francoise is an exception here: she more consistently asserts the essential availability of an animal's subjectivity to human perception. But for Howard, humans are compromised by the species-specific tendencies of their gaze, which he suspects is drawn primarily to faces at the expense of a "whole-animal" approach. For Erin, it is inhibited by humans' excessive inhabitation "in the mind" rather than "in the body", and possibly also by the "predator" psyche that inhibits the kind of embodied communicative transparency necessary to gain an animal's trust. Both The Forge and Moor University are, in this sense, navigating a humanity caught between an innate *attunement* to other animals and an innate disconnection.

A phenomenological, relational approach to the quasi-essentialism of Howard and Erin's ontologies would, of course, recognise the inextricably corporeal and material ways in which human sensory-interpretive capacities have evolved (Ingold, 2000), quite possibly lending humans evolutionarily-acquired, physiological tendencies in interpreting the behaviour of other beings. However, the danger, as I showed in Chapter 11, is that the contemporary social or *"collective"* dimensions (Collins, 2010:123) of animal interpretation are overlooked in an analysis which focuses on innate human abilities or fallibilities. Historically persistent cultural narratives of human-animal relations, culturally and historically specific epistemologies and the dualistic nature of modern ontological thought, must simultaneously and *horizontally* be understood to play their part. Otherwise more reductive, more normatively influential, *sociobiological* explanations may prevail (Nimmo, 2010: 156), distorting understanding of human-animal relations and potentially entrenching relations of power through their naturalisation.

Determine to whom ethical and epistemological responsibility is assigned

It is fair to say that neither The Forge, nor Francoise, nor Moor University conceive of human nature as entirely fixed and unchanging. Howard believes that species expertise and the nature of one's relationship with an animal can change the physical direction of the gaze; Francoise believes in the power of QBA to make inspectors *"never look the same way at an animal again"* and Erin's work is founded on the assumption that we can all work to become more attuned and transparent to horses. However, they do seem to have different intuitions about where the responsibility for this labour is distributed. For Erin, it is primarily the responsibility of each individual to reflect upon their interpersonal and social practices (Chapter 12). Howard's instinct, however, is that individual ownership and self-transformation is not necessary, because through scientific supra-analysis – *"I know where they're looking"* – changing one's behaviour becomes unnecessary. Arguably, this comes down to a fundamental difference in the purpose of studying animals. Erin, with her horses' basic welfare already taken care of, prioritises *communicating* with the animal. Perhaps because of welfare scientists' relative lack of power to overhaul systemic animal exploitation in which animals' communications are structurally ignored, Howard first and foremost wants to mine the animal for information, and *"get at the animal's welfare state*", rather than encouraging the building of relationships between humans and mice. The distribution of responsibility, therefore, is liable to depend on different situations, objectives and resources.

Decide one's intention (because intentionality is epistemology)

Both sites draw attention to the relational conditions in which animal behaviour is produced and becomes known through emphasising the role of one's *intentions*. Erin always asks participants to articulate their intention before working with a horse, just as she asks me to notice the impact of my intentions on the sheep. Similarly, Francoise, in checking Howard's enthusiasm for new epistemological interrogations of QBA, reminds him of the importance of intention in QBA: *"you have to ask...what you are doing this for?"*. Whether or not it was a fair assumption, she worried that objectivist fascination with the epistemological process could detract from the felt experience of the animal and how its welfare can be improved. This could be best be

known, she argued through a tacit grasp of the holistic, *"surface"* level of the animal's expressivity, not through further statistical deconstruction of the findings.

Francoise and Erin's phenomenological leanings reveal themselves here. A phenomenological analysis, of course, would emphasise that intentionality is not only the kind of *conscious,* demarcated intention as described above, but is the very *condition* of consciousness. Our ongoing tasks orientate us to and enmesh us bodily with the world, always embedded in purposeful activities that produce our understanding of it (Merleau-Ponty, [1945] 2002:144). We can, and perhaps should, Erin and Francoise might say, conduct a *"phenomenological reduction"* (Husserl, [1973] 2013:432) on our intentions, bracketing them off to examine our experience of them more closely. Critical anthropomorphism, therefore, is dependent not just on the embodiment of our minds, but on the enmindment of our bodies.

This final *agenda* brings the analysis section of this thesis to a close. In the overall conclusion to the thesis which follows, I will recap on the aims and objectives of this project, discuss how I have met them and summarise some of my key findings. I will also consider the implications of these findings for a sociological practice of "multi-species ethnography". What might be learned if we want to build our own qualitative, interpretive, even *critically anthropomorphic* practice?

Conclusion to thesis

"We have acutely sensitive hands but handle the world with thick gloves and then, bored, blame it for lacking shape."

Charles Foster, Being a Beast, (2016:124)

Research Objective: Explore the methodological implications for sociology of the findings. In particular, how might a multi-species ethnography distinguish itself through Serpell's "special skills", and what kind of preparation might one undertake in order to develop a greater attention and sensitivity to nonhuman animals?

Glimpsing the interstices in a more-than-human social life

Through a structure which has allowed lively events from fieldwork to lead the analysis, this thesis has explored the sociological implications of two emerging practices of animal behaviour expertise: Qualitative Behaviour Assessment and the "felt sense" methodology of Equine Assisted Personal Development. I have shown how these relatively marginal knowledge practices have nonetheless influenced how those working with animals understand and negotiate with them; how they pose challenging epistemological questions around the nature of qualitative perception; how they import ethical frameworks and challenge established ontological categories; and how they are entangled with broader intellectual currents and popular movements. Each of these sites was chosen because, in different ways, they exemplified the practice of "critical anthropomorphism", a way of retaining an assumption of human-animal continuity which legitimates qualitative, interpretivist accounts of animal behaviour, whilst simultaneously accounting for the relevance of species-specific alterity. Critical anthropomorphism, in sociology and in human-animal studies more broadly, has been promoted as a partial solution to the epistemological problems raised by the desire to take the lived experience of nonhuman actors in social life more seriously in sociological research, and by the emergence of multi-species ethnography.

In Part I, I proposed two main justifications for the study. The first was that all modes of animal behaviour expertise are ethically and politically significant in the work that they do, facilitating authoritative accounts of animal minds, enacting different possibilities of the human-animal relationship and legitimating certain forms of treatment; and so the emergence of new methodologies which emphasise the subjectivity and agency of animals is worth investigating. Secondly, I argued that if we as human-animal studies scholars wish to develop an interpretative, *verstehen* multi-species ethnography (Irvine, 2004:69) there is methodological value in learning from the practices of animal experts who use similarly qualitative techniques, but who have placed critical checks on interpretation in an effort to avoid naïve or anthropocentric anthropomorphisms.

The thesis addressed one core research question which was:

How can multi-species ethnographies of animal experts contribute to an understanding of the "special skills" required to engage in a "critically anthropomorphic" understanding of animal subjectivity? What are the social and political contexts and implications of such knowledge-practices; and how might they furnish new epistemological and ontological theories and new methodological practices?

The question was elaborated through five key objectives which, abbreviated, were: i) to explore how critically anthropomorphic practices emerged in their historical contexts; ii) to understand through what techniques "anthropomorphism" is both cultivated and "critically" constrained; iii) to explore the ontological construction of animal subjectivities; iv) to understand the significance of the human-animal relationship envisaged in such practices and v) to explore the methodological implications for sociology of the findings.

As Part II's methodological chapter outlined, the thesis was arranged in a way which set out to answer these questions through an approach inspired by "facet methodology" (Mason, 2011): taking a chronological structure from each methodology's development through to its future; placing vignettes from fieldwork alongside each other to investigate interesting or puzzling aspects of the research objective; before "drawing the threads together" to explore the unexpected connections and disjunctures between the two field-sites.

Until this point, I have left the threads largely untied in relation to the final objective: the methodological implications of this study of critical anthropomorphism for a more-than-human sociology. In this concluding chapter I will turn my attention to this question. First, however, I will outline how I have addressed the other objectives by summarising some of the key *theoretical* contributions that each of the analytical Parts to this thesis has made. Finally, I will outline a number of areas that are ripe for further research, before bringing the thesis to a close.

Theoretical contributions

In 2010, Vinciane Despret mused about the emergence of animal welfare science, suggesting that "*something is becoming possible, and that this 'something' (..) may change the way we perceive animals in the future*". She believed that increasingly, "*the animal's perspective upon the situation is (…) at the center of the whole matter*" (2010a: webpage). Despret, however, never seriously examined this turn in any more depth.

Part III *The Background's* biographical analysis of Francoise and Erin's development of their methodologies, and the significance of these within their own communities, showed that there has indeed been something interesting happening in animal behaviour studies since the 1990s, whose significance has, until now, been somewhat overlooked. We saw, in Erin's account, a gradual rejection of instrumentalist attitudes to horse-human relationships and the emergence of new forms of human-horse interaction; and in Francoise's account, a reaction against the behaviourism which dominated much of 20th century ethology. I showed how these two critically anthropomorphic methodologies developed and thrived via a relational achievement of many different human and non-human actors and practices. Theoretically, this extended the existing work on animal behaviour expertise by highlighting the presence and significance of knowledge practices which are committed to making animal subjectivities more immediate, present and perceptible, through approaches which are phenomenological as well as zoological. In exploring how each methodology's unique critical checks on "anthropomorphic" interpretations were developed by navigating between, and borrowing from, different practices, this chapter adds to historical work which has explored the navigation of conflicting intellectual influences in the development of animal behaviour expertise (Crist, 1999; Rees 2017).

Part IV's *Techniques of Expertise* addressed the second objective by drilling down into the practical techniques of expertise comprising each methodology, whilst simultaneously outlining the sequential map of each process: the arena work followed by the herd-based work at The Forge, and Free Choice Profiling followed by Fixed Term testing in QBA. I examined in more detail what was critically anthropomorphic about each of these practices: how a free, "anthropomorphic" interpretivism was encouraged via some techniques; but then how "critical"

practices variously sought to constrain latitudinarian interpretations, and how these were negotiated with each other. Working across these facets in drawing the threads together, I contributed to the phenomenological literature on human-animal relationships by showing how the attentive "critical" practices described by phenomenologists in Chapter 1, so often lacking methodological explanation, were here actively cultivated through Erin's methods of *"getting into the body"* through sensory isolation exercises and meditative focus. Then, through examining the role of qualitative language as an "affordance" whose aim is to "make visible" animal subjectivities in QBA, I extended the influential analysis of Eileen Crist on the role of expert language in shaping ideas about animal subjectivities. I argued that it is not just language but a whole field of practices, most significantly the sufficient taking of *time,* which allows greater or lesser opportunities for what Crist calls *"episodic*", qualitative assessments of animals (Crist, 1999:73).

Existing work on the role of emotion or *"affected perspectives"* (Despret, 2013:70) in animal behaviour expertise was reinforced by emphasising the pivotal role of emotion at The Forge; but also at Moor University, where ignoring the emotions of participants resulted in a statistical outlier. However, Despret's analysis was challenged, by highlighting how even these explicitly empathetic methodological practices problematised emotion to some degree. Francoise was apparently unwilling to legitimate the role of observer *feelings* in assessing animal welfare, and The Forge emphasised that the point of identifying emotion was either to dissolve it, or to draw it reflexively into one's interpretation. To some extent, I argued, this supports the arguments that scholars like Candea (2013) have made about the productive role of detachment, showing that there may be a far more co-dependent relationship between empathy and analytic distance than is typically asserted by scholars of human-animal relationships.

In Part V, *Controversies*, I turned to the third objective, exploring how the subjectivities of the animals in question were imagined, and how species alterity was dealt with. Despite species expertise often being considered pivotal to critical anthropomorphism in the literature (Chapter 1), I problematised these theories here by showing that there was, in fact, significant ambivalence from species experts themselves about its utility. Zoological expertise was thought to bring vital insights, but also to challenge the essential availability of animal subjectivities (Francoise), to

import distorting preconceptions (Howard) and to encourage rigid textbook interpretations (Erin). To avoid this "critical" element overwhelming the "anthropomorphic" methodology, it seemed that both methodological entrepreneurs had chosen *ontological archetypes* of their animals' species-being which were somewhat open and undetermined in nature: the "prey animal" at The Forge and the species-universal, expressive quadrants of "mood" and "energy" in QBA. The theoretical implication here is that there are ways of conceiving of species, *as a "critical" practice*, which do not so much constrain but *legitimate* "anthropomorphic" interpretation, through acting as "boundary objects" (Leigh Star and Griesemer, 1989) which translate between scientific expertise and lay interpretation.

I also showed that qualitative perception is not, as is sometimes assumed in the sociological literature, a case of essentially amateur "anthropomorphism" (Serpell, 2005), nor is it only a distinctly "natural" skill, biologically gifted to us *in perpetuum* from our relational emergence with nonhuman animal others (Mithen, 1996). It is also what Gibson ([1979] 1986:254) termed an "*education of attention*" that is simultaneously social, forged relationally through more recent histories, so that its integrative skillset can flourish in some epistemic cultures or become distorted in others. But the empathetic immediacy it generates, I argued, has to be mediated with some phenomenological discipline, since some of the work at The Forge displayed anthropocentric tendencies exemplary of the dangers of over-identifying self with other that Ann Game (2001) described in Chapter 1. However, this is not necessarily about the cultivation of ignorance: there does not seem to be a direct relationship between the acknowledgment of animal alterity and the cultivation of unknowing, as Nimmo (2016) suggests. Horses were sometimes rendered mystical and otherworldly in a manner which was reabsorbed into anthropocentric narratives; mice were colonised by knowledge down to the cellular level, but were often described as frustratingly, evasively Other. I argued that knowing and not-knowing, alterity and familiarity was, therefore, likely to be a more iterative and co-dependent process than either Nimmo or Latimer (2013) describe.

Finally, in Part VI's *Futures,* I considered, in relation to the fourth objective, how the wider social relevance of the work was understood by participants, and how the socio-political implications of the human-animal relationship were envisaged in each practice. It seemed that both QBA and The Forge's methodologies were ideally

positioned to catch the mood of emerging social and intellectual movements; although I argued that this also carried risks for both fields of practice, potentially distorting the intended equilibrium of critical, disciplinary checks on a more liberally interpretivist practice. Through an analysis of Howard's plans to use eye-tracking technology with QBA, I contributed to the literature on *tacit knowledge* by extending it to theories of human-animal interactions, showing how an impoverished understanding of such knowledge, due to the "*objectifying pressures*" of conventional science, missed important *social* practices in a misguided attempt to understand intuition. Meanwhile, at The Forge, I outlined how conversely, too much "anthropomorphic" weight could be exerted through *psychotherapeutic pressures* exerted on equinology: potentially tying funding, interests and power to a particular vision of the "prey-animal" archetype. Without the time spent in the herd, or Erin's careful work on highlighting the importance of equine consent, this could risk abandoning any critical, equine-centred checks on interpretation. My discussion of the prey-predator paradigm here extends the work of Donna Haraway (1990), Amanda Rees (2007) and the feminist primatologist Thelma Rowell (1974), who have variously shown how animal behaviour studies have historically ordered and naturalised human differences through studies of animal communities. The theoretical innovation in this Part was to show how *new* origin stories, this time tied to pre-Neolithic predator-prey relations, are being extended to new contexts and species, with new implications for human-animal relations and ontologies.

By addressing these four research objectives, this thesis has made significant contributions to existing scholarship on practices of animal behaviour expertise: by variously supporting or challenging the claims of previous authors, but also by proposing new theories of knowledge. Some of the theoretical insights summarised above point towards a need for further research, and below, I will outline some areas where this study's findings could be further investigated.

Potential for future research

i) Predator-prey paradigms

The chapters which have identified the centrality of the prey-animal paradigm, both to interpretations of horse behaviour and to moral discourse about human

behaviour, suggest a pressing need for sociological research into the work that this paradigm is doing in therapeutic contexts to encourage so-called "prey-animal" instincts, conceived of as a romanticised return to a pre-Neolithic past. My research has shown that there seems to be very little critical analysis of this in any discipline, and it seems that with emerging neo-primitivism movements promoting similar origin stories, the time is ripe for a critical exploration of how both animals and humans are transforming and being transformed through these concepts.

ii) Understandings of psychological welfare in laboratory mice

The thesis has demonstrated an urgent need, especially given the intensity of their biomedical exploitation, for further examination of the way in which mouse subjectivities are conceived of in the laboratory. The analysis in Chapter 9 has shown that how their psychological welfare is understood seems to be rife with uncertainties, ambiguities and blanket assumptions about the condition of a "normal", physiologically healthy, legally sanctioned mouse. In particular, the relationship of a laboratory mouse to its wild cousins seemed to be a source of considerable equivocation when it came to deciding how a mouse's basic welfare needs were constituted. With much of the literature focused either on the objectification of laboratory rodents or, conversely, their re-animalisation through practices of *physiological* welfare assessment (Druglitø, 2014; Kirk, 2014, Greenhough and Roe, 2011; Friese, 2019), a sociological unravelling of the assumptions and ambiguities concerning *psychological* welfare would be helpful.

iii) The nature of tacit knowledge in animal welfare professionals

Finally, this research has implied that there is a significant need to examine more closely the nature of so-called *tacit knowledge* in animal welfare professionals. In the literature, there is a tendency to assume that this knowledge is qualitative, integrative and empathetic (Greenhough and Roe, 2011; Friese, 2019). Indeed, QBA was often described by Maria as harnessing the language and skills of technicians. But in Chapter 9, the default inferences that were made from physiological health to emotional health shows that tacit knowledge can be varied in its nature and draw just as much on objectivist intuitions as on qualitative ones. My three technician participants seemed, if anything, *more* wary of QBA's qualitative assessment than

senior staff, and preferred to infer from objectivist welfare indicators of physical health. This would need careful unpacking, since the significance of power relations in what technicians can say or do should not be underestimated. But it does complicate existing assumptions, and further ethnographic exploration of their working practices with mice would, I believe, be invaluable.

The evident need for further research in some areas raises the question of how, with the benefit of analytic hindsight, one might now conduct a multi-species ethnography to address such questions, following the insights of this thesis. Below, I turn to the fifth and final objective, the epistemological and methodological implications of my findings for a sociology of human-animal relations. Here, I consider what multi-species ethnography might learn from the possibilities and challenges of critical anthropomorphism that have emerged, both through my formal analyses, and through my own general experience of being in each research site.

Some methodological insights for a "critically coenomorphic" ethnography

I believe that this project has shown that, with a rigorous approach, multi-species ethnography is worth taking seriously. Attending to the active social role played by horses and mice in the co-production of knowledge, even as part of a critical analysis of the same, has certainly led to more enriching, more-than-human accounts of the field sites. But it has also shown that where participants learned critically anthropomorphic ways of understanding their animals, it led to less anthropocentric understandings of the situation, and more ethical reflection on practices of care: such as where participants reflected on the significance of the *time* taken for welfare assessment in Chapter 6, or mused on conventional power relations with horses in Chapter 12. There is cause for optimism, therefore, that despite the many evident epistemological and ethical difficulties with interpreting animal behaviour, a multi-species ethnography informed by a properly reflexive critical anthropomorphism can have a similarly expansive and re-evaluative effect on sociological understandings of our world.

However, there are, I believe, a substantial number of lessons to draw upon when considering the possibilities and limitations of critical anthropomorphism. The

reader may draw their own conclusions, but below I draw on the agendas which formed the conclusion to each Part to create a more assertive series of recommendations for a "critically anthropomorphic", *verhesten* multi-species ethnography. These are a set of practices I intend to be taking forward into future projects. However, given the anthropocentric assumptions contained in the concept of "anthropomorphism" outlined in Chapter 1, which assumes a set of a priori "human-shaped" traits which are then re-assigned to nonhuman others, I would now like to suggest a recasting of this as *critical coenomorphism,* a new concept that I coined with some assistance from Greek specialists[264]. *Coeno (seeno),* or in the Greek, *κοινός* means "shared" or "in common", and *morphos*, form. Coenomorphism would then mean the act of attributing *shared* qualities in a given context, rather than attributing human qualities per se; and critical coenomorphism the art of doing this with sufficient regard to the species-specific and individual alterities of the nonhumans concerned.

1. Be clear which kind of multi-species ethnography is intended

Given the different ways in which multi-species ethnography is conceived, and the diversity of settings in which it can be put to use, I believe that scholars should state with more clarity the extent to which their methodology can be said to be genuinely, intersubjectively ethnographic. Some contexts, I discovered, made a genuine attempt at intersubjective understandings all but impossible. As I suggested in Chapter 4 with my description of the laboratory environment, the kind of "*kinaesthetic empathy*" practiced by Kenneth Shapiro at home with his own dog (1997) is not going to be the same kind of empathy one can practice with a cage of mice when interaction is so restricted: by the ethical risk of interference with a "standardised" tool of the lab; by the socio-atmospherics of place (Mason, 2018:178); or by the unfamiliarity of the relationship. Sharing ethnographic space was still extremely valuable for an understanding of mouse-human relationships, but it was not multi-species ethnography in the intersubjective sense. To avoid distracting arguments about the perceived pretensions of any given example of multi-species ethnography, it may be worth devising clearer terminological demarcations between an ethnography with inter-subjectivist goals, however modest, and a more broadly posthumanist,

[264] With thanks to Tata Dimitratou and Professor David Langslow

relational multi-species ethnography with no such ambitions, a task I leave to future studies.

2. Understand how species-specific expertise is shaping one's interpretations

Both The Forge and Moor University drew on zoological knowledge of horses and mice at times; and clearly, appreciating the significance of a herd's typical social structure or a mouse's sensory reliance on its whiskers is important. But, as I concluded in Part V, species-specific behavioural knowledge can become overly deterministic, shaping one's empathetic imagination with an authority that sometimes over-asserts itself, especially if a certain paradigmatic ontology is particularly convenient in a given setting. The case of the horse as "prey animal", which draws on quantitative, socio-biological research into the survival advantages of animal "vigilance", but then extends its implications into very different contexts and meanings, is a case in point. If one can't go back, open up and challenge black boxes, at the very least one should have an historical awareness of each ontology's emergence and look critically at how much work they do in shaping understandings at the site.

3. Gain a fuller sense of a species-specific, qualitative, expressive range

The substantial influence that the herd-work had on participants' understandings of *what matters* to horses, and, conversely, the somewhat unexamined assumption that a "normal" stock mouse had good welfare by default has persuaded me of the importance of combining any formal species knowledge with an expansion of one's own familiarity with the qualitative, expressive range of the animals under study. Whether QBA's mood/energy typology is an appropriate way of organising this requires further analysis, although given that its four-fold breadth was already quite challenging for Moor University's participants, it might be a good place to start. In any case, ethnographers might mirror a similar idea, prefacing their ethnographic work by visiting, or at least collecting footage of the same species in multiple environments and within different human-animal relationships. For example, a street dog living a pack life in a social group of dogs might have different

behavioural responses to a single family pet, or a guard dog kept largely in isolation. The aim is not to do a tidy, scientific, mutually exclusive comparison in the manner of an ethogram. There will be complicating questions of breed tendencies, for example, and any wild/domestic comparisons should be treated with caution. Instead, the aim, as per QBA's intention with the quadrants, might be to better achieve a reflexive awareness of our own social constructions (as per Shapiro, 1997) by extending and/or disrupting our own experience of the animals under study. Only then might we be able to grasp the *relationality* of animal behaviour, contingent not just on evolutionary species-being, but on a more recent history of relations with both humans and nonhumans, and on the opportunities its environment has afforded it through its lifetime. In this way we might avoid the trap of normalising certain behaviours because they are the only ones familiar to us.

4. Incorporate methodological opportunities for the animal's agency

Multi-species ethnography usually examines human-animal relations in pre-established contexts over which the ethnographer has limited control. However, given the increased appreciation of the importance of consent which arose from the horses being free to move at The Forge (Chapter 12's *Becoming Prey*) and, conversely, given the highly restricted environment of the mice which limited the range of observable behaviours (Chapter 7's *Making Visible*), it seems that incorporating opportunities for the animal to participate on its own terms might not only be an ethical thing to do, but could yield important insights. What might have been learned, for example, by temporarily shifting one cage of mice to a bigger, more complex cage and conducting QBA on them there? What happens if in a study of dog-walking, a dog is encouraged to lead the walk? There may be social and practical difficulties to navigate, such as requesting that the walk is silent so that the dog can be fully attended to. But it could allow more opportunities to discover "what matters" to the animal in ways which allow for their alterity, and to illuminate any relationships of power that constitute the research site.

5. Find an embodied reflexivity: the animal may also be interpreting you

In Chapter 5's *Clean Communication*, I showed how The Forge taught its participants that interpreting equine behaviour meant understanding how we ourselves affect

horses through our embodied presence, and I argued that the transformation in the quality of encounters as the retreats progressed seemed largely due to participants' increasing appreciation of this. It certainly seems credible that an animal's behaviour should be at least partly contingent on aspects of our embodied presence of which we are habitually unaware: small revelations of intentions or fears transmitted through our scent, the level of tension in our bodies, or the quality of our attention. At Moor University too, there was some evidence of a shared concern with a more mindful attentiveness to mouse sensitivities (Chapter 6's *Making Visible*). Developing an embodied reflexivity which can identify, and, if necessary, address some of our more unintended communications through shifts in the *habitus* over time (Greenhough and Roe, 2014) seems an important methodological task, one that can go *some* way, at least, towards fulfilling Elise Aaltola's (2013) instruction to bracket "self-interest" in developing empathetic attention. This should only be taken so far: Chapter 10's *Cathy and Red* showed that reflexivity can tip towards narcissism, and so posthuman sensibilities must also be cultivated. But at the very least, becoming aware of tendencies like a brisk manner or over-tentative conduct is important for respectful participant engagement and for acknowledging that one's presence has an impact. Ethnographers could build on some of the limited work on embodied reflexivity here (e.g Schippper, 2012; Pagis 2009; McCormack, 2003) or possibly extend their curiosity into somatic modes of attention such as Feldenkrais or the Alexander Technique (e.g Tarr, 2008).

6. Make use of recordings

Some of the video recordings I made of human-animal interactions, for example in Chapter 5's *Clean Communication*, Chapter 6's *Making Visible*, and Chapter 12's *Becoming Prey* I found very useful: for being able to scrutinise small details of interaction more closely (cf Lorimer 2010), for eliciting the reflection of human participants on their own interactions, and also in being able to offer up my own interpretations for scrutiny by the reader (as advised by Bear et al, 2016:28). This goes some way, perhaps, to building the *"ethnographic trust"* that Madden (2014) argues is so difficult to attain in multi-species ethnography. A video recording cannot do full justice to the multi-sensory and affective nature of the encounters, and so fieldnotes remained crucial. But given that the particulars of embodied interactions are so easily missed or misremembered, making video recordings is one

way of both acquiring some reflexivity, and achieving some accountability, without relying on the kind of statistical work that QBA uses, and without interrupting sensitive encounters by questioning their interpretation in situ.

7. Develop an attentive practice

The kind of engulfing absorption of *becoming-with* described in Chapter 5's *Clean Communication* or Chapter 10's *Cathy and Red* may be enjoyable or even profound, but it was not necessary to have such intense encounters to appreciate that there are ways of being present with another human or nonhuman animal that cultivate closer attentiveness, especially where language cannot be relied upon for insights. Slowing down and cultivating a more "present-moment" state could make one more receptive and responsive, as I found with Victor in Chapter 12's *Becoming Prey*. And neglecting the significance of proper attentiveness can evidently impact on the quality of one's data, as in Chapter 8's *Observer 11 Outlier*. The sensory isolation work that Erin taught was helpful in this regard, both for developing a calmer and more attentive presence (Chapter 5), but also for employing a less habitual use of the senses - as a way of extending the imagination, even partially, into the kinds of sensory phenomena that might matter for the animals concerned. This shouldn't apply only to bucolic settings like The Forge. It was equally helpful for the sensory apprehension of the laboratory site, where the clanging of metal racks, the sharp smell of disinfectant, and the deliberate efforts at cultivating affective distance were just as epistemologically relevant.

7. Accept (and even cultivate) uncertainty

Whilst I was reasonably persuaded that the general mood of a horse or a mouse: stressed, relaxed, angry or friendly - was perceptible in horses and mice with a critically "coenomorphic" practice, ascertaining the *motivation* for certain behaviours was certainly more difficult. Affective intuitions shouldn't be dismissed, but knowing whether Red was experiencing grief in Chapter 10's *Cathy and Red* was impossible for anyone to know for certain. Given Francoise's argument that subjectivity is *constituted* by its ultimate unknowability (Chapter 6), I believe we should take more confident ownership of uncertainty as a methodological *tool*, not as a failing. Of course, sometimes there is much at stake, and uncertainty may have

serious consequences for the welfare of an animal. Nor do we wish to fall into the trap of thinking that, as Vicki Hearne puts it, animals are *"like lovers and gold, more precious when uninterpretable*" (1994:167), ignoring the significance of what seems mundane or self-evident. But given that the deliberate cultivation of uncertainty could help foster qualitative intuitions, as in Chapter 7's *Victor and the Oak Tree*, it is possible that uncertainty has a contingent relationship with the kind of intuitive *certainties* that both Aaltola (2013) and Shapiro (1997) characterise as empathetic insights.

In charting this course for a *critical coenomorphism* in human-animal studies, it is my hope that it will contribute to a growing sociological conversation on multi-species methods; but also that it will encourage an active engagement with practice, even if this requires slower, more patient work than with verbal human participants.

Conclusion: Cultivating a socio-zoological imagination

John Berger's essay *Opening a Gate* concerns a series of outdoor photographs he owns by the Finnish photographer Pentti Sammallahti. Each is a panorama, each contains a dog, and each has been taken in a special light:

...the light in which figures hunt – for animals, forgotten names, a path leading home (…). A light in which there is no permanence, a light of nothing longer than a glimpse. (Berger, [2001] 2009: 9).

He writes that in these photographs, he gains an unsettling sense of glimpsing another order of visibility, as if between two frames of a cinema reel. He finds in those *"interstices"* other ways of knowing and seeing, ways that intersect with ours, but which are also entirely alien to and indifferent to ours.

The human-animal encounters in each facet-chapter have shown the labour needed to cultivate the light in just such a way as to catch a glimpse of other ways of knowing and being: a focus that must be neither too direct nor too diffuse, neither too confident nor too uncertain, neither too detached nor too self-absorbed. Critical anthropomorphism or critical *coenomorphism*, at its best, involves the kind of careful, modest attention to nonhuman others that we have so often failed to pay, and

increasingly to our own cost. At the time of writing we are living through a disruptive and dangerous zoonotic pandemic in Covid-19, and scientists are warning that animal exploitation and anthropogenic activities continue to facilitate zoonotic disease transmission (Johnson et al, 2020). As a direct response to this pandemic we are carrying out mass culls in factory farms by inhumanely shutting off ventilation systems (Kevany, 2020), relying on animal experimentation in the search for a vaccine (Medical Research Council, 2020), and polluting marine habitats with disposable personal protective equipment (Kassam, 2020). It has never felt more important to respect that our world is shared with countless nonhuman animals with vastly different ways of experiencing and valuing it, ways that we might partially share but also never fully understand; and to recognise that our activities have lived consequences for both ourselves and for these nonhuman others.

It was a similar sense of urgency that drove Francoise and Erin to develop their methodologies in the 1990s, but there are differences between then and now which give some cause for optimism. There is now a greater acceptance of the richness of nonhuman animal subjectivities, less deference to scientism, and more intellectual resources with which to critically question our human-animal relationships. And, as we saw in Part VI, there are social and intellectual movements which could broker qualitative, subjectivist animal behaviour practices into new areas of social life. So there is a chink of an opportunity to assert the value of a properly reflexive, *critically coenomorphic* approach to multi-species encounters, and to carry its insights through into laws, policies, infrastructures and new social practices. But we have to be careful that its methodologies are not neutralised into something more familiar, palatable or profitable. We always have to stay vigilant to knowledge that reduces animals' social and psychological complexity to physical health, and their value to their responsivity to our needs. Critical coenomorphism, therefore, needs means of ensuring its epistemological integrity. But, as this thesis has shown, it also has to be rigorous and treat qualitative perception as a craft that has to be honed and constantly, reflexively interrogated.

The specialist world of animal behaviour expertise can seem a little arcane, but that is exactly why it needs sociological inquiry, and one capable of listening to more-than-human stories using a properly reflexive, patient and attentive approach. Les

Back argues in *The Art of Listening* that in a world of spectacular narratives and loud, competing voices, the sociologist's role is to cultivate an artfulness that is capable of "*listening for the background and the half muted*", and that "*reads against the grain*" of conventional wisdom and institutionalised power structures (2008:8-9). This involves, I would argue, not just a *"sociological imagination"* (Wright Mills, 2000) to make the connections between personal encounters and wider public issues, but a *socio-zoological imagination* that is methodologically capable of extending this imagination across species, and recognising the more-than-human intersubjectivity and co-dependence of social life.

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Appendices

Appendix 1: Structure of the three-day beginners' and advanced retreats

BEGINNERS RETREAT

DAY 1: THEME: "INNER CONNECTION"

AM:

- INTRO AND DISCUSSION – WHY ARE HORSES RELEVANT FOR THIS WORK?
- BODY SCAN WORK AND IDENTIFICATION OF SOMATIC SENSATIONS ASSOCIATED WITH "INNER CONNECTION", "OUTER CONNECTION" AND "DISCONNECTION"

PM

- EACH PERSON WORKS INDIVIDUALLY WITH A HORSE IN THE ARENA, WATCHED BY FACILITATOR AND FELLOW PARTICIPANTS, FOCUSING ON 'INNER CONNECTION' OR AN INTENTION OF OUR CHOICE
- GIVEN COLOUR PENCILS AND A LARGE SHEET OF PAPER WITH A CIRCLE IN WHICH WE CAN DRAW OR SKETCH OUT OUR EXPERIENCES OF THE DAY

DAY 2: THEME: "OUTER CONNECTION"

AM:

- SHARING AND DISCUSSION OF MANDALAS
- EXERCISES IN SENSORY ISOLATION AND ONE-POINTED ATTENTION – HEARING, SMELL, VISION ETC
- TAKING THIS WORK OUT TO THE FIELDS
- "BOUNDARY EXERCISE" IN PAIRS TO EXPLORE PERSONAL BOUNDARIES.

PM:

- INDIVIDUAL SESSIONS WITH A HORSE AS PER DAY 1, BUT FOCUSED ON 'EXTERNAL CONNECTION' AND USE OF THE SENSES, OR AN INTENTION OF OUR CHOICE

DAY 3: EXPLORING "50/50" INTERNAL/EXTERNAL STATE IN THE HERD

AM:

- SHARING AND DISCUSSION OF MANDALAS

- REST OF DAY OUT IN THE FIELDS WITH THE WHOLE HERD, EXPLORING HERD STRUCTURE, HORSE BEHAVIOUR, AND A "50-50" ATTENTIONAL STATE BETWEEN INTERNAL AND EXTERNAL CONNECTION

ADVANCED RETREAT

DAY 1: THEME: "PRESSURE AND RELEASE"

AM:

- INTRO AND DISCUSSION – WHY ARE HORSES RELEVANT FOR THIS WORK, EXPERIENCES IN PREVIOUS RETREATS
- TIME SPENT IN THE FIELDS WITH THE HERD, SIMILAR TO LAST DAY OF BEGINNER'S

PM

- OBSERVING "PRESSURE AND RELEASE" IN THE WAY THAT THE HERD MOVE EACH OTHER AROUND
- INTERACTING WITH THE HERD AND NOTICING PRESSURE AND RELEASE BETWEEN HORSES AND HUMANS
- FREE RELAXED TIME WITH HORSES IN HERD

DAY 2: THEME: "FINDING NEUTRAL"

AM:

- GROUP DISCUSSION IN BARN
- ARENA WORK – FINDING "INNER HUM"
- "FINDING NEUTRAL", WORKING ALONE AND THEN IN PAIRS WITH EYE CONTACT

PM:

- INDIVIDUAL SESSIONS WITH A HORSE "FINDING NEUTRAL" – 10 MINS IN "NEUTRAL" WITHOUT INTERACTING WITH HORSE, THEN FINDING A BALANCE OF INNER/OUTER CONNECTION, THEN INTERACTING HOW WE PLEASED.

DAY 3: BRINGING IT TOGETHER IN THE ARENA: NEUTRAL, PRESSURE AND RELEASE, AND INTENTION

AM:

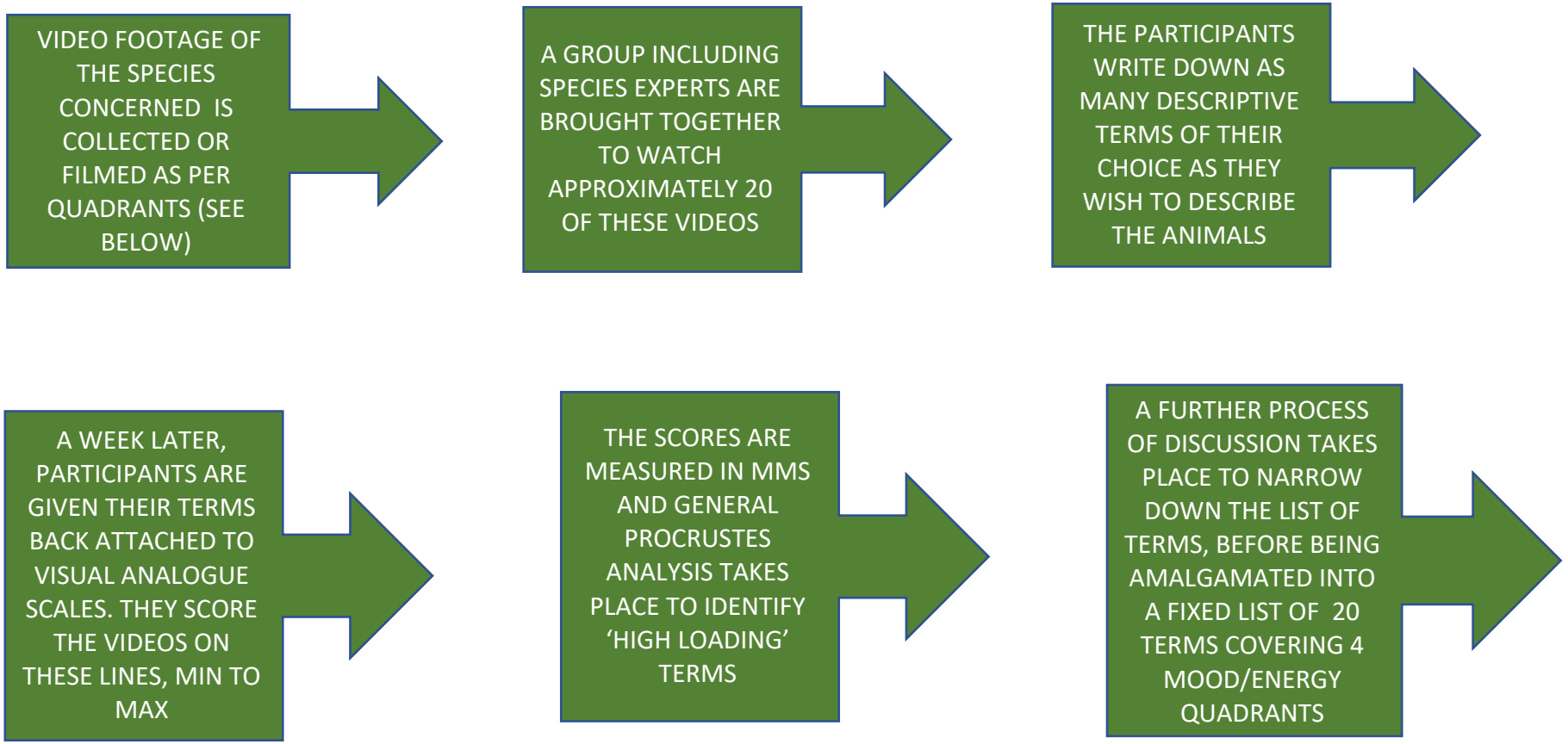
- GROUP DISCUSSION IN BARN
- WORKING IN A GROUP IN THE ARENA, PLAYFULLY USING MOVEMENT, FIST-BUMPS, SEPARATION AND CONNECTION WITH EACH OTHER, WORKING WITH INTENTION AND INSTINCT

PM:

- INDIVIDUAL WORK WITH HORSES IN THE ARENA, USING "NEUTRAL" AND BECOMING SENSITIVE TO PRESSURE AND RELEASE, AS WELL AS INTENTION

Appendix 2: QBA development process for a new species

PHASE 1: FREE CHOICE PROFILING



PHASE 2: FIXED TERM TESTING