Investigating the Other: Considerations on multi-species research

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# Introduction

The authors of this chapter have been working together for around three years investigating human relations with other species. While we both work within a sociological template, we write from very different perspectives. One of us has been involved with animal rights/liberation for over three decades and approaches the study of human-animal relations politically, critiquing those embedded structures that (in her analysis) lead to myriad institutionalised animal abuses. The other has focussed on management and organisational studies, and is more concerned with the lived experiences of identity, relations and structures in social – and particularly working – life with animals (Hamilton, 2013). We have devoted our joint attention to the processes, experiences and social worlds of work where humans and animals come together (Hamilton and Taylor, 2012). We have used ethnographic techniques to investigate communities of front-line animal workers such as veterinary surgeons and employees in animal shelters. We have also extended our research into less well-known areas such as slaughterhouses (Hamilton and Taylor, 2013; Taylor and Hamilton, 2014). In doing this, we have also developed a heterogenous theoretical outlook, informed by a range of useful theories such as ANT (Callon, 1986; Hamilton and Taylor, 2013; Latour, 2005), post-humanist perspectives (Harraway, 2003), and critical management studies (Burrell, 1997; Clegg et al., 2005).

Despite our ideological differences we have found our working relationship to be a productive, useful and above all *interesting* one. Perhaps this is because, however we come at our research conceptually, we are both interested in the ‘*how’s’* of the inclusion of other animals in social life: *how* do people interact with other species; *how* are species differences and similarities made known; *how* do other animals fit into daily life; *how* does power operate in and through species difference, and perhaps most importantly, *how* on earth do we begin to investigate these issues? In other words we are pre-occupied by methodological questions and these form the basis for the current chapter.

This chapter investigates the troubling, often vexatious but always interesting, methodological issues that we have come across in the context of our interest in human-animal research. We begin with a brief overview of the literature in the field of post-humanism as it pertains to methodological insights in human-animal studies before turning more closely to research methodology. We summarise and explore some of the differences between qualitative and quantitative methods and investigate the potential hindrances to multi-disciplinary research in the field of human-animal relationships. We then make some (tentative) suggestions as to how this might be thought through and approached and offer a brief example to illustrate this. We then turn to a more in-depth analysis of the possibilities of the emerging method of Multi Species Ethnography (or MSE) and draw upon that debate to conclude with a number of suggestions for further analysis and speculation.

The promise of post-humanism: Documenting human-animal relationships

Studies of inanimate, technological artefacts have flourished within recent literature, particularly within the emerging discipline of post-humanism. Yet despite this growing interest in ‘others’, the realities of our lived entanglements with different species have yet to be adequately documented in academic accounts even within the growing sub-field of human-animal studies. This is largely because until very recently, animals have been excluded from sociological ways of seeing culture; an ‘affected ignorance’ towards animals as ‘others’ (Haraway, 2003). And where this has been challenged, very few of the studies involve consideration of the methodological difficulties involved in trying to make sense of our lives with other species (for a notable exception see Birke and Hockenhull, 2012).

Indeed, when animals do crop up in the literature, they are often portrayed as passive *commodities*, a narrow view that neglects the implications of the ways in which animals play active roles in social processes, as workers (Hamilton and Taylor, 2013; Porcher and Schmitt, 2010) or – at worst – as resources (Cudworth, 2011). Yet we have noted that humans and animals often de-construct and ‘mess up’ species distinctions in situ (Alger and Alger, 2003; Taylor, 2010), a fascinating blurring of supposedly clear boundaries between species which is deserving of far more attention. The fact that such a concept has received so little academic attention is linked to and predicated on the moral humanism that is sociology’s intellectual legacy and often, still, its default setting. Troubling these anthropocentric underpinnings at a theoretical level has been occurring (with differing degrees of success) for the last couple of decades but this hasn’t yet been tracked by methodological innovation.

There is a degree of dissatisfaction with the limits of contemporary human-animal research, however. Consider, for example, Cary Wolfe’s admonishment that, “we must take yet another step, another post, and realize that the nature of thought itself must change if it is to be post-humanist ... when we talk about post-humanism we are not just talking about a thematic of the decentring of the human in relation to either evolutionary, ecological, or technological coordinates ... we are also talking about *how* thinking confronts that thematic, what thought has to become to face those thematic” (2010, Xvi, in Anderson, 2014). Just as Wolfe calls for the nature of thought itself to be scrutinised, Anderson (2014) reminds us that our human ‘tool-kit’; that is, the very language that we use, leaves us relegated, “within the bounds of humanist discourse” and thus underpins and reinforces the humanism that we seek to trouble. There are no clear solutions here but there are, at least, a number of thinkers now addressing these profound epistemological and linguistic complications (for example, Haraway, 2003).

While the rise of post-humanist thinking has done much to provoke and challenge received wisdom on our implicit status as (human) thinkers and writers, what is often missing is a practical consideration of what this might mean for the methods we use to produce knowledge and, by extension, the ways in which we present research findings. With few exceptions, the inroads being made into multi-species research remain theoretical and abstract, even within what might arguably be considered the most practical disciplines of animal and veterinary science. What is needed, then, is a way to lay out new templates for the research, documentation and understanding of human-animal relationships. Our thesis here is that the most pragmatic means of doing so is to investigate analytic and representational ‘meeting points’ between academic disciplines that might have an interest in human-animal relations; that is, between the social and natural sciences. This has the potential to prompt greater attention to be paid to the strategic methods by which we gain and present ‘knowledge’.

This sounds simple on paper. It has often been claimed that multi-disciplinary teams might profitably bring their own knowledges, experiences and methods to bear on particular issues. But, as we shall go on to discuss, there is a fundamental (and some would say intractable) problematic to navigate before such a strategy might take shape in real world form. Here we refer to the fact that the production of knowledge is inextricably bound up with the interplay of power in and through societies and, in turn, that this is manifest through the choices we make about how to study multi-species relations. For instance, the choices that we make about writing and representing those relations or - it might be more accurate to say - about the choices we make to overlook or ‘edit out’ particular actors, events, mistakes, or even entire species from our studies (Latour and Woolgar, 1988). It is this, an unwillingness to recognise and confront the overt ideological and political aspects of all research that presents perhaps the single biggest blockage to inter-disciplinary collaboration. The next section of the chapter excavates this particular issue by turning to methodological concerns in more detail.

# Powerful methods: Political methods

Our own research of inter-species relations draws upon a constructivist standpoint; summed up by the idea that research methods not only describe but ‘enact’ the world they purport to study. It is a cornerstone of our shared philosophy that methods help to both create and *re*-create the social world, that they are produced by and productive of that world. The various barriers one has to negotiate throughout the entire research process (including the writing up or selection of results) are indicative of the power games that suffuse the research process. Our research methods and our research questions have effects: they make differences and boundaries, they enact realities, and they help to bring into being what they also discover. They shape the direction of the findings and, often, determine how those findings will be edited and presented to the broader world. The power of methodological choices to create, enact and embody reality applies just as much to those working in human-animal studies fields as it does without. As Law et al. (2011) remind us when discussing the double social life of methods:

... social realities are being constituted by social research methods way below the radar, and quite independently of what we think we are doing when we undertake social research. ‘Definitions of the situation’ prevail – and are enacted – even when we don’t make them explicit. But if this is right then it becomes important to excavate the versions of the social embedded in our methods, to bring them into the light, and to debate them. Do we actually want the kind of collectivities implied by ethnographies, by surveys, by focus groups, or by collations of transactional data? Do we even know what they are? And what kind of subjectivities and collectivities are they propagating? As you’ll see, we are no longer dealing only with methodological questions. We’re also trading in politics, in questions about the kinds of social worlds and subjectivities we want to help to make more real – to realise – in and through our methods (Law, Ruppert and Savage, 2011, p. 12)

In considering how our ‘definitions of the situation’ might play out in practical, methodological terms, for example, it is often supposed by researchers that carrying out large-scale quantitative data collection mitigates the effect of a variety of potential biases. Such methods often seek to generate big data to shed light on ‘real life’ problems, for example, investigating the health and welfare of whole populations of animals (see footnote 1; Whay and Main, 2009). Within the veterinary industry, for example, there has been a turn towards ‘evidence-based’ medicine which seeks to draw a firm link between day-to-day work with animals and the underlying scientific research ‘knowledge’ base produced by university faculty (Cockroft and Holmes, 2013). The evidence-based approach has become increasing accepted as the veterinary industry norm because, it is argued, that with the ‘right knowledge’ even non-experts like farm workers might feasibly make decisions for individual animals based upon ‘good science’. This is precisely what Law et al. (2011) refer to as making ‘real’ in and through methods, but how are such realities crafted and made powerful? We can begin to answer to this question by looking again at research methods.

Many quantitative methodologists draw upon mathematical estimates of the risks and benefits of particular actions, derived from research conducted on large scale population samples (rather than individual cases). Such research is often ‘validated’ by a range of mathematical evaluation criteria such as computer-assisted sensitivity testing, statistics and frequency counts. The positivist science traditions that inform such approaches rest upon a core assumption that the real world can be discovered tested and measured; that reality can be presented via mathematically informed methods that decode that reality from sizeable and ‘valid’ samples of data. This is where the politics of research and, indeed, the politics of ‘making real’ become acute (Law et al., 2011). Following Law, however, our thesis is that apparently value-free and rigorous methods are never as simple and objective as we are led to believe.

All methods, including statistics, are subject to professional and methodological decisions regarding what to collect and how; how to manage data problems and how to analyse, redact, edit and present the findings in ways that will make them usable, interesting and – above all - powerful. The selection of which methods and/or results to prioritise and how to determine them, is always a political as well as a technical issue. The uses and/or generation of big data is also an exercise in the performance of multiple realities. In the quest for generalizable findings, quantitative methods often rely upon an editing process which seeks to disregard outlying results, exceptional cases or other ‘hard to measure’ factors such as human motivation and unpredictability (Latour and Woolgar, 1988; Law, 2009). Thus, it is a mistake to adopt an uncritical acceptance to any findings – no matter how ‘scientific’ they might appear. For example, even the biggest of datasets may tell us little more about human-animal relations that what one species (humans) thinks about another.

Qualitative research methods, in contrast to quantitative ones, prioritise investigation of the ‘quality’ rather than the ‘quantity’ of data. Proponents of the qualitative tradition privilege a rather different array of methodological tools including semiotics, discourse analysis, survey research, focus groups and interviews, ethnomethodology and ethnography (to name but a few). All these practises draw upon long histories with their own distinctive literatures and – of course – they are tied to a wide range of theoretical approaches from the positivist and humanistic to post-human, post-modern and constructivist sensibilities. As Nelson et al. (1992) argue, qualitative research embraces a range of forms and methods and can crosscut a number of disciplines, including the natural and medical sciences. With its interest in “processes and meanings”, however, qualitative research does not rely upon experimental examination in terms of “quantity, amount, intensity, or frequency” and instead turns its attention to questions that “stress *how* social experience is created and given meaning” (Denzin and Lincoln, 2003: 13). There is usually a core appreciation from the outset – albeit superficial in some cases - of the tangled and interwoven politics of method, epistemology and ontology.

Even though our own research to date has relied heavily upon the qualitative approach, we are aware of a number of shortcomings which limit its usefulness for exploring human-animal interaction. The tendency towards small-scale datasets in qualitative research carries its own set of problems, for instance. There are questions of access and sample size, persuasiveness, and – as we have already acknowledged - small datasets become even smaller when we exclude certain species on the basis of their biological differences. Savage and Burrows (2007) have gone as far as to argue that there is a ‘crisis of empirical sociology’ stemming from the realisation that other sectors (particularly private enterprises like veterinary practices) have access to more information, which can be used to generate greater impacts upon everyday working practises. The argument goes that qualitative researchers should respond to this ‘crisis’ by re-imagining their methods and, indeed, their “worlds” of research which is a position echoed by a number of scholars (for example, Law and Urry, 2004: 390).

Yet, as we have already suggested, the virtual boundary between quantitative and qualitative approaches, often tracked by disciplinary differences between social and natural sciences, goes far beyond questions of scale, validity or impact. There are, very often, major differences in epistemological and ontological sensibility; the profound philosophical tension between accepting and challenging that truth and knowledge are the same. This undermines the benefits of truly inter-disciplinary research. In drawing attention to some of the potential blockages to inter-disciplinarity, we are not seeking to point out that one methodological approach is superior to another nor are we aiming to reignite old debates regarding qualitative versus quantitative methods. Instead we are seeking to highlight that we have to attend much more rigorously to the “ontological politics” of methods, be they socially or naturally scientific, qualitative or quantitative, because these politics (or at least a lack of acknowledgment of them) are perhaps the biggest hindrance to cross-fertilisation between disciplines and paradigms (Law, Ruppert and Savage, 2011). As Law (2008) explains in his discussion of the results of the Eurobarometer investigation into animal welfare, “we need an archaeological reading if we are to start to articulate the realities they [methods] imply. Such an archaeology is relational, always incomplete, always capable of articulating new versions of performativity” (p. 12). The incompleteness, the politics and the frustrated possibilities of research are deserving of far more ‘archaeological’ scrutiny than they have been afforded to date. And, when we include other species into this mix of already knotty issues, we find that matters become even more problematic – precisely how are we to include nonhumans in such a way that *their* reality is represented, never mind performed, by method?

# Can multi-disciplinary research work in practice?

Lowe et al (2013) argue that effective inter-disciplinarity depends upon, “overcoming basic assumptions that have structured past interactions: particularly, the casting of social science in an end-of-pipe role in relation to scientific and technological developments”. This is best summed up in the words of the UK Commission on the Social Sciences (2003: 29):

[The role of] social sciences as a back-end fix to the problems arising from new scientific developments … can be parodied by ‘we have invented this, now find a market for it’ or ‘we have invented this but it has a few unfortunate side effects. How do we get people to accept it?’

There are certainly examples of such an approach in recent animal science. Several projects have attempted to draw upon the literatures and techniques of management, marketing and communication to make evidence-based research more powerful ‘on the ground’ (see, for example, Atkinson, 2010; Horseman, Huxley, Bell, Mason and Whay, 2013; Kristensen and Enevoldsen, 2008). Such studies often seek to ‘tag on’ the apparent benefits of ‘soft science,’ for example, to encourage vets and animal owners to adopt the recommendations suggested by research findings, a style of working that echoes contemporary policy discourses which stress the ‘mantra’ that the analysis and resolution of current problems (like animal disease or welfare) calls for the “active engagement of a wide range of sciences” (for a fuller discussion and critique, see Lowe, Phillipson, Wilkinson, 2013). As to how this might be achieved, or even discussed, however, there is little guidance or practical help for academics of any discipline. We reject the notion that qualitative methods and data should be utilised simply as the ‘back end fix’ or as the ‘whip hand’ of the scientist, which prompts us to consider different approaches and methods; ways of working that would bring researchers closer together. In the next section, we offer a brief ‘real world’ example to sketch out how this might work in practice.

An example: The case of bovine lameness

Cattle lameness is one of the most significant welfare problems in contemporary dairy farming. Veterinary surgeons usually define lameness as “any abnormality which causes a cow to change the way that she walks” (DairyCo, 2014). It can be caused by a range of foot and leg conditions (for example bruising, sores and cuts), themselves caused by disease, management or environmental factors. A number of studies in the veterinary sciences have pointed to a significant relationship between lameness in dairy cattle and human management practises on the farm. To simplify and summarise just one aspect of this research work, it has been argued that cattle herds, if allowed to walk freely (that is, without being herded, rushed or driven) will suffer fewer cases of lameness (Whay and Main, 2013). A number of action plans have been produced in recent years that suggest practical ways for farmers and their staff to make use of findings like these (for example, Bell et al., 2009). The question that has yet to be answered by research teams in this area, however, is how to encourage front-line workers to take action plans and research findings seriously in carrying out their own everyday practises (Whay and Main, 2013) and how to effect meaningful change in the lives of the animals afflicted by lameness.

Whilst further studies are still needed to better understand some aspects of cattle lameness, a significant body of knowledge is already available that could and should be implemented at a farm level. Previous work has developed a risk assessment approach that promoted the development of farm specific action plans based on farm specific risk factors (Bell and others 2009). However, an important finding from this work was that even though the advice on how to reduce lameness was valid, many farmers did not implement it when it was provided in a traditional advisory style. Better methods for promoting uptake of existing knowledge are, therefore, needed to promote reductions in lameness (Whay and Main, 2013: 240)

In such studies, the burning issue can be summed up in the following terms; if the facts show that certain practises lead to lameness, why do farmers and their operatives persist with ‘old ways’ of managing their animals? The puzzle is not easily answered but it is a starting point of our argument that it cannot be tackled with positivist, quantitative methods alone. Imagine, for example, that research into bovine lameness took a more complex view from the start; avoiding the question of ‘how to make the scientific facts stick’ and instead treating knowledge itself as a co-created process – never resolved or fixed – but rather impacted and embedded within a whole range of unpredictable and vague social, cultural, economic, and above all political factors. In short, the question becomes deeply epistemological, ‘*how* and *why* does knowledge become powerful?’ Rather than ‘*what* do farmers know and how can we change this?’

Excavating this epistemological debate would help bring about a radical shift in focus; one that would require consideration of knowledge not as a ‘product’ requiring discovery, communication and ‘uptake’ but rather an artefact of a highly political nature (from the very start of the research process) (Lam et al. 2008; Lowe, 2009; Penny et al., 2009). This is a far more tricky matter altogether, straying outside the purview of traditional science methods into interactional spaces, voids and grey areas between scientific practice, knowledge and belief – the domain more usually associated with the critical social sciences. Yet the benefits of taking this step would offer a much more rounded view of the social life of the farmyard (or any other area of investigation). If such research involved qualitative techniques such as ethnography from the outset, we think that it would be possible to understand more about the ways that farmers feel about ‘knowledge’, about farmers’ responses to advice and the interactions between animals and humans on the farm.

A similar approach has already been used successfully by Emery (2014) in longitudinal ethnographic fieldwork with farmers in the North York Moors (UK). In his investigation of the relationship between environmental policy and on-farm practice, Emery’s research pointed out that there are cultural rather than purely utilitarian economic values associated with work on the farm. Emery showed how the over-riding ethic of ‘hard work’ in the farming community had the potential to bring individuals into conflict with government policy or the (evidence-based) advice given to them by experts. Emery’s work echoes a number of other qualitative studies of farming work within labour and migration studies, cultural geography and anthropology (e.g. Ravetz, 2001; Gray, 1998; Penrose, 1993; Wallman, 1979) which have pointed overwhelmingly to the finding that “the task of meeting obligations, securing identity, status and structure, are as fundamental to livelihood as bread and shelter” (Wallman, 1979, p. 7). The bulk of this literature suggests that work is far more than a simple exchange between wage and effort (Baldamus, 1967), or in the case of bovine lameness, between ‘finding the facts’ and ‘putting them into practice’. Work is also a human ‘identity investment’ resting upon processes through which complex cultural and ideological values are developed, enacted and made powerful. A farm should be considered not simply as a place where animals are ‘managed’, then, but as a site of value and meaning-making or perhaps as “an evolving testimony to the life’s work of those who have left their mark on [it]” (Ingold, 1984, p. 116). Considering and applying just a fraction of this wealth of critical, qualitative research, to the initial research design has the potential to offer far more insight into the reasons why farmers resist action plans and ‘scientific facts’.

# Communicating across research disciplines

So far we have argued that research methods are political as well as analytical and that multi-disciplinary approaches to human-animal entanglements might be of benefit. In making this suggestion, and while drawing attention to the limited recognition of human politics of knowledge, we think that interdisciplinary research drawing upon a range of the work – resting upon strong communication between differing disciplines - could bring together a range of paradigms and perspectives that would turn ‘findings’ into far more subtle and multi-faceted accounts. The benefits of doing so could be significant. As Lowe et al (2013: 207) argue “For the scientist or technologist this may mean improved strategic awareness of public concerns and policy issues relating to their research, improved sensitivity to cultural and social differences between different social groups, and more effective communication with policy-makers, practitioners and the wider public.”

Importantly, we also think that developing relations and communication strategies between disciplines might help us to adopt new ways of thinking about our relationships with nonhumans; and specifically, ways that do not perpetuate perceptions of power as uni-directional (Hamilton and Taylor, 2013). We are aware that most research into human-animal relations privileges the point of view of the human and that constructionist accounts fall victim to this when considering how it is that *humans* construct *animals* in particular ways and setting*s.* We are also aware that our discussion above outlines some of the benefits of multi-disciplinary work when considering human-animal relations, does not necessarily circumvent this. For us, then, the purpose of thinking and re-thinking methods is twofold: one as outlined above, to consider how it is we might better understand animal lives through multi-disciplinary teamwork, and two, how we might literally include animals in this research. While we are cognisant of the huge barriers to this rather noble, and possibly idealistic, sentiment, given that we believe methods enact the social world as much as they investigate it, then the exclusion of animals from the research process hinges upon important social issues of power, agency and representation.

In seeking to tackle this, we are supported by a number of qualitative scholars – particularly those working in the post-humanist or ANT templates – who have already argued that social and physical changes in the world are and need to be, paralleled by changes in the methods of social inquiry (for example, Law and Urry, 2004). For us to speak more confidently about human-animal relationships, organisations and societies and to effect lasting impact in ‘real world’ situations, such as on the farm, we feel that we now require adapted methods or – at the very least – new ways of considering our existing techniques and strategies of ‘doing research’ to make further inroads into this worthwhile project. In the next section, we develop this contention to consider what might happen if such methodological work (which incorporated truly inter-disciplinary research) also considered the perspective of the animal, as much as is practicable, for instance if social scientists were able to work with natural scientists on *multi-species ethnographies.*

# Multi-species ethnography

Multi-species ethnography (MSE) is a qualitative research method with a small but concerted following, primarily in anthropology. Proponents of the multi-species approach not only question what researchers mean by society and culture (Abu-Lughod 1991; Gupta and Ferguson, 1992), but they also interrogate assumed species variances as an assumed base-line for research; that is, “for articulating biological difference and similarity” (Kirksey and Helmreich 2010). In doing so, MSE seeks to foreground a number of philosophical dilemmas and questions. The very notion of MSE is a troublesome one for “multi species ethnographers are studying contact zones where lines separating nature from culture have broken down, where encounters between Homo sapiens and other beings generate mutual ecologies and coproduced niches” (Kirksey and Helmreich, p.546).

Drawing on various post-humanist debates, MSE practitioners refuse simplistic binaries such as nature and culture, human and animal, social and natural and instead point out that entanglements, “hybrids” to use Haraway’s terminology (1991), are the basis of our reality, not pure distinctions. One idea following from this is that agency can be attributed to nonhuman actors (which includes but is not limited to other species) that have normally formed part of the ‘background’ of traditional social science research, for example, technological artefacts. The agency and importance of such ‘others’ be they insects, fungi, plants or animals is taken as a starting point and, thus, has a powerful bearing upon the data collected and the manner in which it is reported. It is also acknowledged that such forms of agency may or may not extend into forms of communication (like speech) which have been the traditional mainstay of social scientific research data. Taking this as a cornerstone of the research process, then, those interested in MSE use photography, visual and audio data recordings and even art to convey the complexity of the human-animal engagement.

Avoiding over-reliance upon traditionally humanist modes of enquiry such as interview, a richer portrayal of daily life is achieved; one which does not rely solely upon human discourse. Imagine, then, if such novel approaches to data collection were underpinned by a strategic research design based upon the carefully collected opinions and discussions of those within the social and natural sciences. Would, for example, the continuing problem of bovine lameness be better attacked by using MSE – even as one minor aspect of the overall research design - to attend to the minutiae of interactions and exchanges between farmers and cattle? Could a more rounded picture of daily life on the farm add depth to existing quantitative information concerning husbandry, housing and other physical factors? What might attempts to look at lameness from the perspective of the cow (through using video data gathered from the cow’s literal perspective in the barn, the field or the yard for example) tell us beyond ‘management techniques’? Would researchers find out more about the impact of ‘scientific facts’ upon daily life? We think so. And while we have already acknowledged some of the difficulties in combining quantitative and qualitative methods in this way, the mixing of natural and social science approaches to the study of animals is a necessary component of any MSE as Lestel (2006) points out:

the split between human and animal societies, supposed to belong to two separate and irreducible worlds. In this view, human societies are societies held together by meaning, based on reason (or madness), symbols and taboos, laws and their transgression. Animal societies, on the other hand, are supposed to be associations of cause and effect formed directly under the influence of natural selection. The repeated attempts to think of either one in isolation from the other have in addition left human scientists with unpleasant memories and have rightly fuelled the strong reticence they may feel about a unitary vision of human and animal sociabilities (2006, p. 147-148).

For those working within MSE frameworks, ethnographic methods are key. As Lestel points out “the profound renewal of ethology itself” (2006, p.148) spearheaded by the pioneering work of Jane Goodall is based on a transformation of ethology into ethnology; it became accepted and understood that the societies of animals studied were far more complex than expected and that an ethnographic approach was crucial to their understanding (p.149).

Kirksey and Helmreich (2010) similarly point to the importance of ethnography in opening up new ways of seeing the world: “Creatures previously appearing on the margins of anthropology—as part of the landscape, as food for humans, as symbols—have been pressed into the foreground in recent ethnographies. Animals, plants, fungi, and microbes once confined in anthropological accounts to the realm of zoe or “bare life”—that which is killable—have started to appear alongside humans in the realm of bios, with legibly biographical and political lives” (p. 545). With its emphasis upon the animal part of the interaction, the veterinary sciences are particularly well placed to add value to such research. Taking MSE out of its anthropological context – and mixing its disciplinary footings - will help us to ask some very difficult questions about our intellectual heritage as well as about the methods we use to study the social world. For example, if sociology or organisation studies could recognise and challenge their own speciesist underpinnings (and this is important not just for the study of other animals but because it forces an engagement with intersectional approaches which see oppressions as interconnected) - a whole new world awaits. This new world, one of entanglements – with other species, with other disciplines and with other methods – is worth venturing into precisely because the terrain is so very difficult to navigate.

There’s an excitement here, you can’t help but be swept along by it; how interesting it is to read about how bees are co-constitutive of urbanised city life (Moore and Kosut, 2013), or of how chimpanzees have a culture that has similarities (and differences) to our own (Read, 2012), or that animals might somehow participate in and object to the ways we study them (Alger and Alger, 2003). But this excitement often covers an important point. As attractive as “’Becomings’—new kinds of relations emerging from non-hierarchical alliances, symbiotic attachments, and the mingling of creative agents” are in the development of multi species ethnography (Kirksey and Helmreich, 2010, p. 546) one is struck by a certain amount of hubris in these philosophical imaginings. We may live lives entangled with other species but in most of these entanglements there is a clear power disparity seen, not least, in the very fact that it is *we* who study *them*. It is our choice of research agenda, and methods, which make them intelligible to us in certain ways, which make them matter (or not). It is here that critical, qualitative disciplines can lead the way – drawing upon a long history of attention paid to the workings of power, including that which is manifest throughout the research process.

One way in which power manifests itself in the research process is through the very framing of the subject/object to be studied as acceptable or unacceptable. For years the social sciences considered animals as periphery - if at all - and while the last two decades of human-animal studies has gone some way toward changing this perception, animals are still firmly “at the margins” (Taylor and Twine, 2014) precisely because they straddle (human) disciplinary engagement in a way that is proving difficult to navigate. Yet the sheer growth of human-animal studies as a field is testament to the power of intellectual curiosity about other species. One of the challenges in moving forward, though, is working out how to continue to study ‘humanimal’ (Taylor and Signal, 2011) relations without attempting to draw prescriptive lines around what MSE may and may not be, for this stands against the very creativity and curiosity at the heart of MSE. It may also be counterproductive, for one thing we have learnt from recent post-humanist critiques of the rational, Enlightenment ideal is that our intellectual legacy circumscribes what we even consider worth knowing (and for social scientists for many years this has not included animals), never mind what we might actually investigate in the “naturalcultural borderlands” (Kirksey and Helmreich, 2010, p. 548).

And while this enthusiasm to attend to “naturecultures” (Haraway, 2003) should be, to our mind, celebrated and kindled, there is still a discordant note. For all that “multispecies ethnography involves writing culture in the anthropocene, attending to the remaking of anthropos as well as its companion and stranger species on planet Earth” (Kirksey and Helmreich, 2010, p. 549), there is still a sense of human aloofness; that *we* write *their* culture. Perhaps a leftover legacy from traditional attempts to be ‘objective’ in one’s research, to a degree we can’t get away from this – after all, we are human and we are the ones doing the writing - but MSE needs to be attendant to the sense of privilege implied by “writing culture” and other notions. Of course, this opens up a number of issues – how do we avoid such a top down approach where *we* write *their* culture precisely because it is entangled with ours? How do we avoid the “residual humanism” (Lulka, 2009) in our methods, even if our theories are post-humanist? How do we avoid the traditional “speaking for” other animals (Arluke and Sanders, 1996) that pervades most attempts to understand humanimal entanglements? How do we conceive of a culture that is co-produced, or the outcome of entanglements that do not necessarily privilege the human point of view? How do we include animals in the process of narrating these entanglements? What methods might allow animals (and the environment) to express agency?

In keeping with the idea of troubling boundaries and with the post-humanist thrust of much of the work in MSE to date, perhaps we also need to consider techno-scientific innovations and further blur the boundaries between natural, technological and social scientific world views. That such techno-scientific innovations (e.g. using head mounted cameras to study the world of other animals) blur boundaries is not accidental. What we are ultimately suggesting here is that our whole approach, perhaps even our foundational epistemologies, needs a shake up. We need methods that challenge our beliefs about the neat binaries between culture, nature and technology precisely because we are investigating phenomena that itself troubles existing neat schema between what constitutes nature and what constitutes culture. Moreover, to do this within multi-disciplinary teams further disrupts entrenched divides. Using methods that are in keeping with these disruptions then makes sense. While MSE is in its infancy we believe it has boundless potential and possibilities and we ‘watch this space’ avidly.

# Final discussion

We would like to conclude this chapter by opening out a few further considerations as food for thought. We have argued that we need a degree of theoretical and methodological heterodoxy if we are to be pragmatic in our investigations of human-animal relations, and we have pointed out that this may mean softening some epistemological/paradigmatic allegiances in the name of pragmatism. We think it would be feasible, for example, that work within multi-disciplinary groups could be planned through a central overlapping phase of the research, followed by a phase of more specialist considerations such as MSE. Of course, navigating the ethical, political, epistemological and methodological terrain will prove difficult but – as we have already argued – this is likely to benefit all precisely *because* it is difficult.

The difficulty comes, we think, from having one’s own allegiances and boundaries challenged and we are not suggesting that one ‘side’ is better at this than the other; rather, we are acknowledging that we all come to research as creatures with belief systems that we hold dear. Of course, we realise that we are advocating that people from different sides of the fence ‘get together’ and work through the issues openly and we acknowledge that this is difficult both as an intellectual exercise and in its ‘real world consequences’ (e.g. in getting grants, publishing papers and so on). But we consider that the passion that often goes with intellectual curiosity will go a long way to offset all but the most intractable here.

There are a number of considerations that arise from such seemingly practical suggestions, however; knotty issues and dilemmas which require significantly more analysis that we have been able to offer here. For example, if we follow the argument that methods are performative, that they enact the social world as much as they tell us about it, then it isn’t the case that qualitative methods are simply better because they tell us more about the world and less about the politics of the research (or the research funder), or that quantitative methods are better because they are value free. Instead, we have to confront the problematic that all methods are political; all methods bring the world into being and make it known. To use the terminology of Law et al (2011), all methods are linked to advocacy – they come into being because they have advocates behind them:

Typically we think of (a) representations and findings, (b) the realities that relate to these and (we’re saying) are of them, and (c) their advocates and institutional contexts as being quite separate. But if we really want to understand the social life of method and its force then we need to break this separatist habit. We will need to understand that methods inhabit and help to reproduce a complex ecology of representations, realities and advocacies, arrangements and circuits. ....... The implication is that there’s a kind of triple lock at work here. And this, if it’s right, makes it very, very, difficult to know differently, to shape new realities, or to imagine different ‘methods assemblages’ or modes of knowing. For all of these have to be shifted together. .... But, here’s the bottom line, until we can find ways of rethinking knowledges, realities and methods together in the same breath, we won’t have the tools that we need to understand the work being done by our methods. Neither will we be able to imagine a social that is radically different (p. 13-14)

Acknowledging this takes us in interesting directions. If we choose, then, to advocate on behalf of animals through human-animal studies, or advocate that we include species in our studies of organisations and work practises then we also have to advocate on behalf of certain methods, or at least advocate that we give time to understanding the role methods play in bringing these ‘realities’ to light. We have suggested that MSE might be one such method; a means of incorporating human and animal ‘actors’ in our field research. If methods come into being because they have a purpose and because they have advocates, then we human-animal scholars might do well to think not only about what our method choices omit (animal agency for instance) but also what they might include. In other words, we can use our power to advocate methods that include other beings, that give them ‘voices’, allow them to be heard and above all politicise their life (and death) experiences. Perhaps in the sharing of such values, the natural and social sciences might complement each other more readily than might be supposed, not least because – as we have suggested in the foregoing analysis - there is often an underlying interest in promoting the welfare and health of animals.

While it has become de rigueur in social science to acknowledge one’s own intellectual/ideological biases (particularly in those aspects of social science that address the disempowered or otherwise ostracized) we think that there is more work to do in acknowledging and working through our methodological biases. We end this chapter, then, by advocating that researchers of all stripes become attuned to the idea that methods create reality as much as they study it and that this is acknowledged – along with its consequences – in our research. While this may make multi-disciplinary research in some ways more difficult, it also has the potential to make other – previously deeply entrenched – points of divergence more easily reconciled. If we move away from discussions of whose methodological approach is better, and why, to one where we accept *all* approaches are implicated in performing reality, we might actually find we stand closer than we thought.

Footnote 1

The 'Bristol Cats' study (2013) was run by vets, behaviourists and epidemiologists at the University of Bristol. The research was designed to improve knowledge of common diseases and behaviour problems of cats, for example (but not exclusively), unwanted elimination (ie urinating), obesity and hyperthyroidism. It was hoped that findings from the study would be used by veterinary practitioners, cat breeders, owners and the cat community to improve the health and welfare of cats. Approximately 2200 kittens were registered with the study between May 2010 and December 2013 and the research was questionnaire based. Cat owners were asked to provide information on the living standards of their pets and that dataset was subsequently analysed to produce broad findings to shed light on the causes of common behaviour patterns and diseases of cats. Using the knowledge of human respondents to shed light on what extent certain characteristics (e.g. aggression towards people) or conditions (e.g. obesity) were connected with the cat’s management (e.g. diet, lifestyle) and other factors (e.g. breed), it was hoped that the results from this study would be used to help improve the health and welfare of cats in the future, as a whole population.

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