

DISCOURSES OF ANTHROPOMORPHISM

CLAIRE MOLLOY

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The following Figures have been omitted on request of the University –

Fig. 1	pg. 152
Fig. 2	pg. 153
Fig. 3	pg. 204
Fig. 4	pg. 206
Fig. 5	pg. 212
Fig. 6-8	pg. 284
Fig. 9-10	pg. 308
Fig. 11	pg. 309
Fig. 12-13	pg. 310
Fig. 14-19	pg. 313

ABSTRACT

This study presents an historical investigation of the practices which humanise nonhuman animals. Using discourse analysis I demonstrate how anthropomorphic practices have continued to pervade cultural production from the nineteenth to the twenty-first century. I argue that critiques and appropriations of anthropomorphism resonate through and regulate our everyday encounters with nonhuman animals and the construction of their representations. I propose that anthropomorphic practices are intrinsically linked to the production of knowledge about nonhuman animals and that 'difference' between human and nonhuman animals has been central to the organisation of meaning thereby reproducing the anthropomorphised nonhuman animal as a crucial agent of cultural politics. This investigation is therefore necessarily an interdisciplinary study of a range of anthropomorphic practices and their criticisms, the discourses that construct nonhuman animals within science, philosophy, and popular culture, and the relationships between knowledge production and cultural practices that reveal key tensions and syntheses between popular culture and discourses of science.

The uniqueness of this project is partially located in its status as the first critical history of anthropomorphism. Relocating anthropomorphism from the periphery to the centre of debates about nonhuman animals, this investigation offers to the field of cultural studies a crucial mapping of the discursive conditions that produce, sustain, appropriate and regulate practices that humanise nonhuman animals. This mapping makes apparent significant relationships between anthropomorphic practices, scientific discourses and cultural production and offers important analyses of key historical and contemporary constructions of wild, domestic, and technological nonhuman animals. Furthermore, the discussion identifies important conventions specific to nonhuman animal representation and suggests how these conventions are intrinsically bound to particular discourses and power/ knowledge configurations.

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CONTENTS

	List of Illustrations	v
I	The discourses of anthropomorphism	1
II	Human and Animal: The Same, Yet Different	53
III	Ideology and nineteenth century anthropomorphism	104
IV	Emotion and the nonhuman animal	168
V	Looking: nonhuman animal subjectivity and natural history documentaries	220
VI	Speaking of nonhuman animals	273
	Conclusion	318
	Appendix	
1	Shot-by-shot of the dog-catcher sequence from <u>Lassie Come Home</u> (1943)	326
2	Shot-by-shot of wolverine/rabbit chase sequence from <u>White Wilderness</u> (1958)	328
	Bibliography	330

ILLUSTRATIONS

Fig. 1	'Zulu' in <u>The Strand Magazine</u> , 1896, Vol. XI, p.542.	152
Fig. 2	Riviere, Briton (1869) <u>Fidelity</u> in the permanent collection at the Lady Lever Art Gallery.	153
Fig. 3	Landseer, Edwin (1837) <u>The Old Shepherd's Chief Mourner</u> in the permanent collection at the Victoria and Albert Museum.	204
Fig. 4	Earl, Maud (1910) <u>Caesar</u> in the permanent collection at the UK Kennel Club.	206
Fig. 5	'Squeak' in <u>The Sun</u> , 19 th March 2002, p.24.	212
Fig. 6	Poster for <u>Cujo</u> (1983)	284
Fig. 7	'Snarling Dog' in <u>MCN</u> 18 th July, 2001, p.1.	284
Fig. 8	Still taken from <u>The Simpsons</u> (1992) episode, 'Dog of Death'.	284
Fig. 9	'Elephant' in <u>National Geographic</u> , November 2000, p. 95.	308
Fig. 10	'Orphan gorilla' in <u>National Geographic</u> , February 2000, p. 84.	308
Fig. 11	'Ibex' in <u>National Geographic</u> , July 2003, pp.38-39.	309
Fig. 12	'Gorilla' in <u>National Geographic</u> , February 2000, front cover.	310
Fig. 13	'Caged cheetah' in <u>National Geographic</u> , December 1999, pp. 16-17.	310
Fig. 14	'Mother and Baby' in <u>National Geographic</u> , April 2003, front cover.	312
Fig. 15	'Cheetahs' in <u>National Geographic</u> , December 1999, front cover.	312
Fig. 16	'Humpback whales' in <u>National Geographic</u> , July 1999, p. 110.	312
Fig. 17	'Polar bears' in <u>National Geographic</u> , February 2004, pp. 44-45.	313
Fig. 18	'Fifi' in <u>National Geographic</u> , April 2003, pp. 76-77.	313
Fig. 19	'Orangutan' in <u>National Geographic</u> , October 2003, pp. 76-77.	313

Chapter One

The Discourses of Anthropomorphism

More than a century after Charles Darwin was criticised for his anthropomorphic descriptions of the natural world, why do debates over the legitimacy of anthropomorphic practice still continue? Academics within the scientific community have 'blamed' popular culture for the prevalence of anthropomorphism, yet there has been no sustained response to these criticisms from scholars of popular culture. Dominant discourses have therefore argued that anthropomorphism is an innate form of 'primitive' animism and anthropomorphic practices have little place outside of the imagined worlds of popular cultural fictions and children's stories (see for example: Fisher, 1991, pp.107-108; Kennedy, 1992, p.159; Guthrie, 1993, p.122). The same discourses assert that only *non-anthropomorphic* scientific narratives should be regarded as the authorised truths about nonhuman animal life and that anthropomorphism within popular culture has little, if any, credibility or worth (see for example, Griffin in Bekoff & Jamieson (eds) (1990) p.xiii).

However, anthropomorphism continues to pervade cultural practices such as pet-keeping and non-fiction texts such as natural history documentaries. This would suggest that, despite criticisms to the contrary, anthropomorphic practices are a crucial aspect of our cultural interactions with nonhuman animals. Contrary to current influential theories that construct anthropomorphism as primitive or innate, I contend that anthropomorphism is a social construction. Through my investigation of anthropomorphism I argue that when humans attribute nonhuman animals with emotion, morality, language, or cognitive processes they threaten a closely guarded ideological boundary that marks out difference between 'human' and 'animal'. This ideological boundary is tested by anthropomorphic practices which, in turn, give rise to tensions between discourses of science and popular culture. My discussion therefore examines the cultural and ideological significance of those practices that humanise

nonhuman animals and in doing so I provide the first historiography of anthropomorphism.

The term anthropomorphism is derived from the Greek words *anthrōpos* (human) and *morphē* (form). Until the latter half of the nineteenth century, this term referred to the practices of attributing deities with humanlike characteristics or bodily form, but in the first decades of the twentieth century, anthropomorphism came to be regarded, in a pejorative sense, as the attribution of uniquely human characteristics to nonhuman animals. As my discussion reveals, dominant systems of knowledge production have aligned anthropomorphic practice with 'bad science', a lack of rational objectivity, and misplaced sentiment. These humanising practices have become associated with certain aspects of popular culture such as Disney films and children's narrative fictions whilst other discourses such as animal rights, behavioural sciences, and natural history, have had an ambivalent relationship with anthropomorphism. Within discourses of science a division has recently emerged wherein anthropomorphic practices are either refuted as "a systematic categorical mistake" (Spada in Mitchell, Thompson & Miles (eds) 1997, p.38), "an obvious major error" (Kennedy, 1992, p.159) and "a form of intellectual laziness" (Davis in Mitchell, Thompson & Miles (eds) 1997, p.336), or supported as "a plausible theoretical approach" (Rollin, 2000, p.113) being able "to convey a true impression of what a wild animal is like" (Lorenz, [1952] 1982, p. xxxiv). However, support for anthropomorphic practice within scientific communities is sparse and claims for the validity of anthropomorphism remain controversial. What is crucial, nonetheless, is that across a discursive spectrum, whether refuted or embraced, anthropomorphism and anthropomorphic practices have been closely woven through our everyday encounters with nonhuman animals and their representations.

Methodologically informed by the work of Michel Foucault, I employ a "theory of discursive practice" (Foucault, [1966] 1997, p.xiv) to expose the "surfaces of emergence", "authorities of delimitation" and "grids of specification" that condition the

existence of anthropomorphism (Foucault, [1969] 2002, pp.45-47). Therefore, my critical examination of anthropomorphism resists making qualitative judgments about humanising practices, and instead identifies relevant discursive shifts that construct anthropomorphic practice and the contexts of its critiques. Central to this discussion is an analysis of discourses that establish difference between humans and nonhuman animals and the concepts that emerge as uniquely human.

Using discourse analysis I establish how emotion, subjectivity, language and cognition have been constructed within science and philosophy as specifically human attributes that, when ascribed to nonhuman animals, constitute anthropomorphic practice (chapter two). The methodological approach of this thesis, indebted as it is to a Foucauldian perspective, illuminates the relationship between knowledge and power which is central to my study of anthropomorphism. Deconstruction of nineteenth and early twentieth century cultural texts reveal that anthropomorphic practices have been appropriated to both maintain and subvert dominant power structures (chapter three). Through my chosen case studies of emotionality I argue that the construction of the nonhuman animal as an emotional being has been regulated to serve the interests of state, scientific, and commercial discourses. The popularization of emotionality in nonhuman animals and the cultural sites where the emotional nonhuman animal is found are considered, particularly in relation to pet-keeping practices (chapter four). With a specific focus on natural history documentaries I also demonstrate how film making practices have been shaped by discourses of anthropomorphism and argue that the point of view shot has been central to the construction of nonhuman animal subjectivity within popular culture. Incorporating a theoretical framework after Laura Mulvey (1975), the cultural politics of difference between human and nonhuman animals is examined in relation to systems of looking and nonhuman animal subjectivity within natural history documentaries and nature films (chapter five). Through my consideration of 'talking' nonhuman animals I then investigate new appropriations of anthropomorphism. I argue that nonhuman animals have, more recently, emerged as

sites of risk and that anthropomorphized technological nonhuman animals now offer a safe sanitized version of animality. My investigation of contemporary discourses of animality is theoretically informed by Ulrich Beck's (1992) discourse of risk and the concept of the abject developed by Kristeva (1982) and here I assert that an important shift has reconfigured domestic nonhuman animals as 'dangerous' and wild nonhuman animals as 'victims' (chapter six). As the term 'nonhuman animal' cannot possibly hope to describe the diversity of human engagement with animality, nonhuman animals are subdivided into the important socially constructed categories of; pets (chapter three and four), wild nonhuman animals (chapter five), and technological animality (chapter six) in relation to the key concepts of emotion, subjectivity, and language and cognition, respectively.

The initial motivation for this study began whilst undertaking research on body theory for my MA thesis and reading critiques of Gilles Deleuze's concepts of 'becoming', 'affect' and 'percept' that have attracted, what Zourabichvili terms, the "reproach of anthropomorphism" (Zourabichvili, 1996, p.191). Mindful of the pervasive nature of anthropomorphism within contemporary popular culture, the preliminary impetus for research was to examine how anthropomorphism had become naturalised as a pejorative term. As research progressed, it became apparent that the negative connotations ascribed to anthropomorphic practice emerge from the constructed ideological distinctions between humans and other animals. I therefore use the term 'nonhuman animal', after Singer (1975), throughout my study to assert a non-speciesist distinction between the human animal and the nonhuman animal, with the term animal being used, outside of quotations, to denote the collective category encompassing human and nonhuman animals.

The development of the study of nonhuman animals.

There is little doubt that recent intellectual efforts within cultural and social theory and criticism have shifted toward a newfound interest in nonhuman animals. Since the

1990s the question of 'the animal' has given rise to a range of texts that cut across the issues of animal rights (Tester, 1991; Kean, 1998), environmentalism (Wolch & Emel (eds), 1998), histories of human-nonhuman animal interactions (Thomas, 1984; Franklin, 1999; Ritvo, 1987; Kete, 1994; Fudge, 2002; Salisbury, 1994; Haraway 2003), ontology (Fuss, 1996; Wolfe, 2003); representation, and symbolism (Baker, 2000; Baker, 2001; Lippit, 2000; Burt, 2002). One reason for the current academic concern with nonhuman animals can be attributed, in no small part, to the re-evaluation of modernist anthropocentrism that has dominated twentieth century thought. As Jennifer Wolch has recently commented:

Agreement about the human-animal divide has recently collapsed. Critiques of post-enlightenment science, greater understanding of animal thinking and capabilities, and studies of human biology and behaviour emphasizing human-animal similarities have all rendered claims about human uniqueness deeply suspect. [...] Long-held beliefs in the human as social subject and the animal as biological object have thus been destabilized.

(Wolch in Wolch & Emel (eds), 1998: 121)

It is precisely this intellectual challenge to the privilege afforded to the human and humanness that has paved the way for the nonhuman animal to be recognised as a meaningful and significant subject of academic interest. Alongside Wolch, I am not alone in suggesting that it is only now, in what could be termed the post-modern era, when the modernist anthropocentric notion of the human is under threat that the nonhuman animal has become a credible subject for investigation. I am also in complete agreement with Cary Wolfe when she points out that discussions of the nonhuman animal and animality have taken place within contemporary cultural theory but that they have been minimal, disparate and episodically spread across a wide range of texts (Wolfe in Wolfe (ed) 2003, p.ix-xi). It is only very recently then that the 'question of the animal' has received focused and directed attention from academics leading Adrian Franklin to note that, "The field of human-animal relations is fast becoming one of the hot areas of debate in the social sciences [...]" (Franklin, 1999: 1). To demonstrate Franklin's point, one only need look at the twelve texts published by

Reaktion Books between 2003 and 2005, under the series title, 'Animal'. Each book presents a social and cultural history of a specific nonhuman animal and the series is indicative of the current level of scholarly interest in nonhuman animals. Akin to my study, the 'Animal' series amongst others now contributes to the present demand for recognition of the importance of historical accounts of human/nonhuman animal relationships. Without doubt, the nonhuman animal now rightfully occupies a prominent position within contemporary academic investigations. To situate my study within the current literature it is therefore important that I map out the development of late twentieth century academic interest in the nonhuman animal and locate my work specifically in relation to the unique contribution that it makes to current scholarly activity.

Prior to the recent growth in interest, nonhuman animals were conflated with conceptualizations of nature in culture/nature binary oppositions that had their intellectual roots in the anthropological studies of Claude Levi-Strauss (1966), Edmund Leach (1964) and Mary Douglas (1966). Levi-Strauss was chiefly concerned with the totemic use of nonhuman animals within cultures whilst Leach's (1964) key work 'Anthropological Aspects of Language: Animal Categories and Verbal Abuse' focused on the use of nonhuman animal metaphors within abusive language. Mary Douglas similarly focused on the ritual and symbolic use of nonhuman animals most notably within Purity and Danger (1966) where she examined the associations between taboo and the consumption of nonhuman animals as food. Importantly, the work of Douglas, Levi-Strauss and Leach was primarily concerned with 'difference' between human and nonhuman animals, a point that was further expanded by Pierre Bourdieu in his analysis of 'The Berber House' (1971), and by S. J. Tambiah (1969) in 'Animals are good to think and good to prohibit' and also R. Bulmer (1967) in 'Why the Cassowary is not a Bird? A problem of zoological taxonomy among the Karam of the New Guinea Highlands'. Anthropology gave much emphasis to the social-symbolic significance of

nonhuman animals within human linguistic and classificatory systems where differences between human and nonhuman animals provided crucial organisational boundaries within social structures and practices. What was important about these anthropological studies was that they demonstrated that nonhuman animals could provide a vital route to better understanding human cultures. The work of Leach, Levi-Strauss and Douglas in this area became highly influential although, as I shall discuss, the 'cultural universality' of such approaches was revised through later social-historical studies of human/nonhuman animal relationships during the early 1980s and 1990s.

Whilst hugely important in terms of its prescient engagement in the early 1980s with the subject of nonhuman animals, in addition to its undeniable scholarly rigor, Keith Thomas' (1984) Man and The Natural World: Changing Attitudes in England 1500-1800 also succumbed to the nature/nonhuman animal conflation that had been present within the work of Leach and Levi-Strauss. Thomas' work came to be highly regarded as a milestone in the development of academic interest in human/nonhuman animal relationships and still stands as a key social history of human interactions with the natural world. However, more recent works, such as Contested Natures by Phil Macnaghten and John Urry (1998) unpicked the nature/nonhuman animal fusion and demonstrated that discourses of nature have been constructed apart from discourses of nonhuman animals. Following a trend that developed in the wake of the impact of environmental discourses on academic thinking from the 1970s onward, the decoupling of nonhuman animals from the aegis of 'nature' allowed scholars to focus on the specificities of nonhuman animals to reveal complex networks of social and cultural relationships that had previously been ignored. This marked a clear shift from the anthropological work of the 1960s and 1970s that centralised the social-symbolic human use of nonhuman animals to a newfound engagement with the nonhuman animal as a subject in its own right. The emergence of environmental and animal rights discourses, without doubt, prompted the negotiation of a new set of questions about

nonhuman animals that intersected with important emergent moral and ethical issues. The significance of the nonhuman animal within cultural texts and practices such as pet-keeping, food production and consumption, had been discussed within anthropology however the question of animal rights changed the focus of academic discussion.

Animal rights issues became preeminent in the late 1970s within moral and political philosophy following the publication of Animal Liberation by Peter Singer in 1975 and Richard Ryder's (1975) work on speciesism. In the 1980s and 1990s animal rights began to be considered more fully as a set of social practices within texts such as Keith Tester's (1992) Animals and Society: The Humanity of Animal Rights which is widely recognised as the first comprehensive study of the sociology of animal rights. Similarly, Hilda Kean's (1998) Animal Rights: Political and Social Change in Britain since 1800 investigated the social importance of nonhuman animals as constructed within the discourses of animal rights from 1800 to the present day as have other studies including those by Harriet Ritvo (1987), Kathlene Kete (1994) and Adrian Franklin (1999). What has been especially important about these studies of animal rights practices is that they make apparent the important role that nonhuman animals play within human social life. Focused through the lens of animal rights each text has highlighted, in its own way, the extent to which nonhuman animals are central to the broader construction of human moral and ethical discourses.

Although both Tester and Kean's studies focus on changing human attitudes toward nonhuman animals it is significant to my study that neither examine, in any detail, the subject of anthropomorphism and as such both emphasise the need for a comprehensive account of anthropomorphic practice that is provided here. By not examining anthropomorphism both Tester and Kean miss the opportunity to discuss a set of practices that were pivotal to the construction of the discourse of animal rights in

the late nineteenth century. However, what I consider important about extant sociologies and histories of animal rights is that they have illuminated the fact that nonhuman animals continue to be part of our moral and ethical reflections on what it is to be human, particularly in relation to concepts of humanity, compassion, and exploitation. In short, the morality of animal rights has been and continues to be closely bound to our understanding of ourselves as 'humane humans'. Glen Elder, Jennifer Wolch and Jody Emel (2002) bring these ideas into sharp focus in their cross-cultural analysis of the human treatment of nonhuman animals when they demonstrate how 'animal practices' are ideologically bound to the creation of racial stereotypes and notions of the 'savage'. Elder, Wolch and Emel have shown how immigrants can be dehumanized when their 'animal practices' are relocated to another culture. In other words, practices that are considered to be legitimate within one culture are recast as cruel and inhumane elsewhere. What I have found most useful in the work of Tester, Kean, Elder, Wolch and Emel and others is neatly summarised in the latter authors' essay 'La Pratique Sauvage: Race, Place, and the Human-Animal Divide' where they state that, "Norms of legitimate animal practice are neither consistent nor universal" (Elder, Wolch & Emel, in Wolch & Emel (eds) 2002, p.432). Not only does this statement demonstrate that current academic thinking about nonhuman animal practices has substantially shifted from the 'universality' of earlier anthropological investigations, it also makes explicit the direction that contemporary studies of nonhuman animals are now taking. The majority of current scholarly work that investigates human/nonhuman animal relationships is firmly rooted in the notion that nonhuman animal discourses are arbitrary and flexible and require nuanced investigations that situate practices within the specificities of time and place.

The historical and cultural contexts of human/nonhuman animal relationships have been emphasized within the more recent histories of nonhuman animal practices. Hilda Kean's (1998) Animal Rights: Political and Social Change in Britain since 1800 is one

of the ever growing numbers of historical studies of human/nonhuman animal relationships, many of which concentrate on western European nineteenth century society and culture. With some notable exceptions such as Joyce E. Salisbury's (1994; 1997) studies of nonhuman animals in the Middle Ages, historical accounts of nonhuman animals during the 1800s have been well documented by social historians such as James Turner (1980), Harriet Ritvo (1987 & 1996), Kathleen Kete (1994) and Jennifer Ham (1997). Historical studies such as these have contributed to the important body of work that has identified the 1800s as a key historical moment in the development of modern cultural practices which centralized the nonhuman animal, most notably pet-keeping and zoo-going. Ritvo and Kete particularly draw attention to the important shift in the status of the nonhuman animal and the emergence of the crucial social construction of the nonhuman animal as 'pet'. Turner meanwhile examines the relationship between discourses of pain and compassion toward nonhuman animals whilst Ham explores the construction of the nonhuman animal spectacle and zoo-going. Yet, despite explicit recognition of the infantilisation (Kete, 1994), sentimentalisation (Turner 1980) and metaphoric humanisation (Ritvo 1987; Ham 1997) of nonhuman animals, none of these authors engage with the specificities of anthropomorphic practices and this again underscores the requirement for a sustained examination of anthropomorphism such as this to augment existing studies of nonhuman animal histories and further debates about human/nonhuman animal relationships. In this sense, my work is closely aligned with these existing historical studies yet has the specific intention of augmenting the investigations of other authors in this area. It is clear from my survey of the existing historical literature that the subject of anthropomorphism is one of key areas as yet undeveloped in such works.

It is surprising that anthropomorphism has received so little attention given the range and diversity of interests in human/nonhuman animal relationships that have been demonstrated in recent edited collections. Work outside the humanities, particularly in

ethology, behaviourism, and ecology, has already done much to break down the stranglehold ideology of human/nonhuman difference, and the effect of this is only now beginning to spill over into the humanities disciplines. Collections such as Zoontologies (Wolfe (ed), 2003), Animal Acts: Configuring the Human in Western History (Ham & Senior (eds), 1997), and Human, All Too Human (Fuss (ed), 1996) demonstrate a newfound engagement with the importance of the nonhuman animal in defining what it is to be human. However, such texts have only begun to scrape at the surface of issues around human/nonhuman animal identities, ontologies and ideologies. I agree with Ursula K. Heise (2003) when she notes that over the last two decades cultural theory and criticism has submersed itself so fully in questions of human/technological similitude and difference that the question of human/nonhuman animal difference has been almost entirely overlooked, even when it has been quite obviously central to questions of the cyborg. As Heise has pointed out, "robotic or electronic animals have been discussed very little in studies of cyborgs, even though they, too, appear with some frequency in recent literature and culture, sometimes in combination with genetically altered animals" (Heise in Wolfe (ed) 2003, p.59). In the following chapter I explain why the non-human animal has been ignored in favour of the 'man-machine' cyborg construction. However, collections such as those mentioned here are also now beginning to tease out and explore the crucial questions relating to human/nonhuman animal difference and similitude.

Whilst being linked through a common theme of inquiry into the nature of human/nonhuman animal difference and similitude, anthropomorphism in Animal Acts: Configuring the Human in Western History (Ham & Senior (eds), 1997) has been grossly underrepresented. The twelve essays in Animal Acts (Ham & Senior (eds), 1997) centralise the question of how the human is understood in relation to nonhuman animals and in the introduction the editors claim that one aim of the book is to "define [...] zones of humanity within the animal" (Ham & Senior, 1997, p.2). Despite engaging

and similitude, it is disappointing that only three of the essays mention anthropomorphism with just one of the twelve entering into a short discussion of anthropomorphic practice. Although maintaining implicit opposition towards anthropomorphism, Davis Clark's discussion of anthropomorphism does raise an important issue. Clark asserts in his essay on Emmanuel Levinas' descriptions of the dog "Bobby" written during Levinas' captivity in a German concentration camp that, "the sentimental humanization of animals and the brutal animalization of humans are two sides of the same assimilating gesture" (Clark in Ham & Senior (eds), 1997, p.168). Claims such as Clark's point to the ideological importance of anthropomorphic practices and so underscore the immediate need for the present study to contribute to and give historical context to broader debates about the distribution and regulation of power through acts that humanise nonhuman animals. Thus, whilst Animal Acts makes a minimal contribution to the debates around anthropomorphic practices, Clark's essay highlights the need for anthropomorphism to be considered as crucial to the intellectual agenda of human/nonhuman animal relations.

The scope of essays within edited collections does often preclude the opportunity for sustained discussion. An example of this is Marjorie Garber's discussion of the anthropomorphisation of dogs in 'Heavy Petting' (Garber in Fuss (ed) 1996). The limitations of wordage notwithstanding however, Garber's claim that, "the renewed, even obsessive, popularity of anthropomorphism in science and popular culture is a sign of a desperate nostalgia for humanism" (Garber in Fuss (ed) 1996, p.33) reveals itself to be a thinly disguised attack on contemporary literary critics rather than a close examination of anthropomorphic practice. Tellingly Garber writes, "To say you love dogs is like saying you love literature. But of these two sentiments, the second has become the more taboo" (Garber in Fuss (ed) 1996, p. 33).

Garber's essay does nonetheless demonstrate that anthropomorphism is a significant and overlooked aspect of contemporary cultural production; a point that is emphasised in the edited collection Thinking with Animals: New Perspectives on Anthropomorphism (Daston & Mitman (eds) 2005) which was published as this project was nearing completion. Referring to anthropomorphism as "the irresistible taboo" Lorraine Daston and Gregg Mitman, in their introduction to the volume, provide an extensive list of examples of anthropomorphic practices within science and popular culture. Although directed toward the interests of historians of science, the collection focuses on the variety of uses of anthropomorphism within different cultures and across cultural production. In their brief overview of the controversial status of anthropomorphism within twentieth century science, Daston and Mitman write, "[...] not only in astronomy and physics but even in zoology, post-Darwinian anthropomorphism became almost synonymous with anecdote and sloth and opposed to scientific rigor and care" (Daston & Mitman, 2005, p.3). What is groundbreaking about the collection is that it attempts to draw together the discourses of science and popular culture in its focus across a range of anthropomorphic practices. Although too disparate in its scope, the volume edited by science historians Lorraine Daston and Gregg Mitman, begins to bridge the gap between science and popular culture that I feel is central to discussion of anthropomorphism. However, the fragmentary form of an edited collection of essays means that it is unable to map the necessary discursive linkages between science and popular culture. Such linkages are pivotal to understanding the power/knowledge relationships that regulate and condition anthropomorphic practices. It is therefore my view that this study draws together these discourses in a more cogent way and gives greater context to the issues discussed within the volume.

Other collections such as Wolch & Emel's (1998) Animal Geographies: Place, Politics and Identity in the Nature-Culture Borderlands take the limitations of depth and breadth imposed by the essay style of presentation to offer a collection that is concerned with setting out an agenda to question the nature of human-animal relations. In one sense,

my study of anthropomorphism can be understood as a partial response to the provocative question posed by Wolch and Emel when they write:

Is it possible to construct a democratic, non-racist, non-sexist politics that embraces an animated and embodied nature? Surely there must be spaces in which both animals and humans have authority, but they are neither in the dictatorial fascism of some forms of deep ecology or sociobiology, nor in the smug authoritarianism of anthropocentric humanism. *Our political project is the creation of many forms of shared space.*

(Wolch & Emel, 1998, p. xii)

My study addresses Wolch & Emel's call for a sustained engagement with the politics of shared human/nonhuman animal spaces wherein I consider anthropomorphism to be a contested practice that directly challenges the anthropocentricity of humanism. I feel that Wolch and Emel's work is particularly important as it is representative of the new engagement with nonhuman animals that has emerged within human and cultural geography. Indicative of the change in direction from earlier anthropological enquiries, academics such as Jennifer Wolch and Jody Emel consider the 'animal question' as "an intellectual responsibility as well as an ethical duty" (Wolch in Wolch & Emel, 1998, p. xi). Such intellectual responsibility informs my own study and is based on recognition of the centrality of nonhuman animals within human social and cultural life; a view that has similarly informed much of the recent writing in the field of human/nonhuman animal relations over the last two decades. I, like Wolch and Emel, consider the 'animal question' to be intrinsically bound to the future of human social structures and to crucial debates about the environment, urbanization, and animal rights.

I also find myself agreeing wholeheartedly with Cary Wolfe's sentiments when she writes that, "the humanities are [...] now struggling to catch up with a radical revaluation of the status of nonhuman animals that has taken place in society at large" (Wolfe, 2003: p. xi). Whilst contemporary cultural studies appears to have, somewhat, exhausted its focus on human/technological configurations and relationships, human/nonhuman animal relationships have only recently begun to be seriously

considered. In this sense, my work can be seen as a continuation of recent studies that have repositioned the nonhuman animal within the specificities of particular cultural arrangements yet have moved away from the nature/nonhuman animal amalgamation favoured within anthropology. As I have demonstrated here, there has been a recent growth in academic interest in nonhuman animals, yet there is still much to be done. In light of the increasing responsibility and derision that some within the scientific community have assigned to popular culture for giving anthropomorphism visibility and credibility it is, in my view, imperative that cultural studies scholars now actively respond to such criticisms. My study is part of this response.

Investigating anthropomorphism: Methodology and Review

Whilst I have shown here how the growth of academic writing on nonhuman animals has, without doubt, shifted in focus since the 1960s, and I have located the place of my own work within the extant field of enquiry, it is also vital that I pinpoint here the shortcomings of some of the existing material in more detail. The purpose of this is to demonstrate where my work makes a unique contribution to the study of nonhuman animals through its sustained focus on anthropomorphic practices. What follows is a critique of the work of other authors that makes apparent two interconnected issues which in my view constantly re-emerge throughout the field of enquiry. The first is a disregard for the cultural and historical location of anthropomorphic practices which I instead argue are discursively reconfigured and renegotiated at different historical moments. The second criticism I have of the existing literature on human/nonhuman animal relationships, which I have already touched upon, is that anthropomorphism continues to be ignored or treated with disdain whilst it is my contention that the discursive construction of anthropomorphic practices is absolutely central to such relationships. By drawing attention to the recurrent problems within the existing literature I also demonstrate how my methodology, informed by the work of Michel

Foucault, has allowed me to address these shortcomings to produce a much needed critical history of anthropomorphic practices.

Structuralist Responses

Anthropomorphic practices are part of the social and cultural processes of making meaning. What is especially important about anthropomorphism is that it brings to the fore the ideological significance of difference between human and nonhuman animals. Structuralist anthropology after Claude Levi-Strauss (1966) has suggested that humans perceive the exterior world socially and categorise 'nature', through language, into separate parts. As nonhuman animals are part of human social life and part of 'nature' they present a problem within classificatory systems; they are 'like humans' but at the same time, different. According to Levi-Strauss (1966, p. 204), the practice of naming nonhuman animals is one of the ways in which humans make sense of the classificatory dilemma of human/nonhuman animal similitude and difference. Levi-Strauss suggests that nonhuman animals which have a metaphorical relationship to human society (that is, they can be perceived as having a different yet parallel society) are given human names. Nonhuman animals that are an extension of human social life have a metonymical relationship to human society and are disqualified from having human names. He argues that,

Birds are given human Christian names in accordance with the species to which they belong more easily than are other zoological classes, because they can be permitted to resemble men for the very reason that they are so different.

(Levi-Strauss, 1966, p. 204)

Dogs, he suggests, retain a metonymical relationship to human social life and, due to their social similitude, they cannot be given human names "without causing uneasiness or even mild offence" (Levi-Strauss, 1966, p. 204). Thus, within the structuralist model, anthropomorphism emerges within language where humans attempt to classify and

categorise nature according to their own societal schemas. Metaphoric nonhuman animals are humanised when attributed with a human name whilst metonymical nonhuman animals are already 'like humans' and therefore are denied human names. What is made apparent within Levi-Strauss' model is that whilst nonhuman animals are inevitably humanised, naming practices are used to defend the boundary of difference between human and nonhuman animals.

Levi-Strauss' argument is however flawed as he does not take any account of important cultural differences in the practices of naming nonhuman animals. In short, Anglo-American naming practices differ substantially from the practices described by Levi-Strauss, and two recent surveys undertaken by the American Animal Hospital Association (1999) and Churchill Pet Insurance (2005) provide evidence that supports this. According to Levi-Strauss the metonymical dog is humanised through incorporation into the social life of humans and not through the naming process however the 1999 Pet Owners Survey (AAHA, 1999) and the Churchill Insurance Dog Owners Survey (reported in 'Survey says' Dog World, 9th June 2005) both reveal that the five most popular names for both male and female dogs are 'human' names. As one commentary has opined, "Owners' humanisation of pets starts when they first bring them home and give them a name. Brits are moving away from choosing traditional names like Rover and Tiddles and are now calling their pets the latest trendy baby names" (Our Dogs, 24th January 2003, p. 4).

Levi-Strauss' model cannot account, for example, for the current dominant cultural practice of giving dogs human names. According to Levi-Strauss, such practices blur the boundary between human and canine to such an extent that they should cause unease or offence (1966, p. 204), evidently however this is not the case and the findings of the 1999 and 2005 surveys would suggest that far from maintaining human/canine difference, current anthropomorphic practices blur the distinction still

further. Both 1999 and 2005 surveys have shown that companion nonhuman animals are both ascribed with 'human' names *and* treated as either an equal family member (55% of respondents in the 2005 survey) or equivalent to a child (84% of respondents in the 1999 survey). Moreover, human social patterns are transposed onto companion nonhuman animals with a majority of respondents confirming that they celebrated a pet's birthday, bought them Christmas and birthday presents and had shared mealtimes and bedtimes. Given that Levi-Strauss was writing some forty-three years prior to the 1999 study it is apparent that his model is neither able to provide an adequate explanation of contemporary anthropomorphic practices nor is it able to properly account for cultural differences in naming practices. Here, I intend to address the shortcomings of Levi-Strauss' work by providing an historical study that is fully able to take account of the changing knowledge conditions and discourses that construct anthropomorphic practices.

In his historical study of animal rights Keith Tester (1992) also identifies problems with Levi-Strauss' account but attempts to develop his ideas of the metaphorical and metonymical nonhuman animal. Appropriating Levi-Strauss' model, Tester is concerned with how difference between humans and nonhuman animals is subverted or maintained within discourses of animal rights. Tester argues that human/nonhuman animal distinctions are a consequence of classificatory systems that recognise nonhuman animals as objects of knowledge and, fundamentally for his analysis, as non-moral objects. Animal rights, he proposes, provide humans with a social strategy through which they can express moral concern for nonhuman animals that are metonymical to society. Nonhuman animals that are metonymical and thus similar to humans are maintained to be different through their status as non-moral beings. In Tester's analysis, extending moral concern toward nonhuman animals, rather than naming, becomes the social process through which difference is maintained. He concludes that we humans are more likely to anthropomorphise mammals, as we

consider them to be metonymical human beings. Mammals are 'like us' and morality becomes the social instrument through which humans can assert difference. For Tester, anthropomorphism intersects with attitudes toward 'animal rights' and leads him to surmise that only those nonhuman animals that are easy to anthropomorphise are accorded animal rights (Tester, 1992, p. 16). He is therefore not surprised that mammals are more likely to be privileged with 'rights' and argues,

Animal rights contains a gradation of relevance which seems to dissolve amongst sea creatures, and it is no coincidence that sea creatures are the beings which are perceptually and geographically furthest from the human. Mammals are the animals which are most frequently metonymical to society, and with which humans are most closely consubstantial. The human/animal distinction is most likely to blur with mammals, and so they are the ones we must take most pains to distinguish ourselves from.

(Tester, 1992, p. 44)

Tester's comments regarding "sea creatures" are problematic when one considers the emphasis given to dolphins and whales within dominant anthropomorphic discourses. Although such 'sea creatures' are mammals, according to Tester's argument, they should not figure so prominently in moralized discourses of rights. However, John S. Kennedy has noted in his critique of anthropomorphism that dolphins especially have been anthropomorphised within science and popular culture (Kennedy, 1992, p.40). According to Tester's sociological analysis of attitudes towards animal rights, anthropomorphism is marginalised as merely a dimension of the social classification of nonhuman animals as metonymical humans. Due to the narrow focus of his analysis, Tester misjudges the importance of anthropomorphism as a cultural practice. Within his brief consideration, he proposes only that anthropomorphism is problematic in that it limits the scope of rights afforded to nonhuman animals which are less 'easy to anthropomorphise'. The logic of Tester's argument leads us to conclude only that humans extend a greater degree of moral concern to those nonhuman animals that are easily anthropomorphised; and whilst I regard this as a problematic over-generalisation on Tester's part, it is also clear that his argument cannot account for anthropomorphic practice outside of the narrow focus of animal rights.

Beyond the discourse of animal rights, nonhuman animals, insects and even plant life are regularly anthropomorphised within nature films and natural history narratives and documentaries. Such anthropomorphised representations cannot be explained by Tester's analysis. In addition, the crucial point that Tester overlooks, and that I identify, is that, historically, anthropomorphism has set limits on the discourse of animal rights precisely because of its pejorative status. Leading proponents of animal rights in the 1970s clearly distanced themselves from anthropomorphic statements on the grounds that "The portrayal of those who protest against cruelty to animals as sentimental, emotional "animal-lovers" has had the effect of excluding the entire issue of our treatment of nonhumans from serious political and moral discussion" (Singer, [1975] 1995, p. xi). Singer's comments indicate that avoidance of anthropomorphic practices has quite clearly regulated how nonhuman animals can be talked about and who is able to talk about them. By positioning anthropomorphism as a discursively regulated practice, I am able to move the debates about anthropomorphism forward and suggest how the politics of nonhuman animal representation can be better understood. Therefore, whilst Tester and Levi-Strauss' analysis are useful in that they identify difference between human and nonhuman animals as central to the construction of anthropomorphism, my discussion now opens up a new debate about anthropomorphic practices that has been entirely overlooked by these writers.

Typologies

Anthropomorphism is a very specific type of practice that is broadly denounced within the natural sciences, exploited in popular television programmes and films, and cautiously avoided in animal rights discourses. Given the ambiguous nature of anthropomorphism some scholars have attempted to distinguish between different types of anthropomorphism, and in some cases produce formal taxonomic classifications. In The Social Creation Of Nature (1992), Neil Evernden distinguishes

between 'physical' anthropomorphism (the attribution of a human form, emotion or sensation) and 'cultural' anthropomorphism (the attribution of a human explanation to something) (Evernden, 1992, p. 53). Alternatively, Robert W. Mitchell (1997) argues in Anthropomorphism, Anecdotes, and Animals that there are three types of anthropomorphism: global, inaccurate and subjective. According to Mitchell, the three 'types' correspond respectively to, the expectation that things are like humans (global), erroneous depictions of nonhuman animals as having uniquely human characteristics (inaccurate), and mental state attributions (subjective) (Mitchell in Mitchell, Thompson & Miles (eds) 1997, pp. 407-408). By way of a yet another typology, John Andrew Fisher (1991) argues for two categories of anthropomorphism: interpretative anthropomorphism (where the inference from nonhuman animal behaviour is offered as an explanation) and imaginative anthropomorphism (the cultural production of imaginary or fictional nonhuman animals that are similar to humans). In his article 'Disambiguating Anthropomorphism', Fisher suggests that interpretative anthropomorphism can be further divided into categorical and situational types where categorical anthropomorphism is always a mistake and situational anthropomorphism is a misinterpretation that under other circumstances could be correct. What is clear from the typologies produced by Evernden, Mitchell and Fisher is, as I propose, that anthropomorphism is socially and culturally pervasive; what is far less convincing however is the ability of such typologies to adequately account for the different ways in which anthropomorphism has been used, understood and appropriated throughout history.

Typologies are, by their very nature, fixed at the moment of their production and bound by the systems of knowledge within which they are produced. Therefore, Evernden, Mitchell and Fisher's typologies are historically situated and suggest particular value judgements authorised by a system of knowledge production (for example, anthropomorphism is right or wrong within a particular discipline or context at a certain historical moment). What is equally problematic is the practice of isolating different

types of anthropomorphism through their typological classification thereby denying any possibility that the types may connect with one another. The isolating function of typologies is most clearly illustrated in Fisher's listing wherein anthropomorphic categories rely on a distinction between 'real' nonhuman animals within science and 'fictional' nonhuman animals within culture. Where, one might ask, would the nonhuman animals of natural history programmes be located in Fisher's taxonomy?

This study addresses the shortcomings of extant typologies of anthropomorphism in that I identify anthropomorphism as a practice that is discursively defined within specific historical contexts of knowledge production. Michel Foucault's critical approach to history has therefore had particular significance for this investigation as it offers periodisation as a way of thinking about the past and the present and understanding the intellectual characterisation of a particular period. From this methodological position I argue that anthropomorphism emerges as a specific set of practices that are conditioned by knowledge production and regulated by dominant discourses within a particular historical period thereby supporting my claim that anthropomorphism is discursively constructed. Using what can be described as a Foucauldian approach to discourse analysis within this study, I demonstrate how practices, objects of study, and forms of knowledge are connected through discursive formations such that within an historical period the dominant forms of knowledge production will give rise to anthropomorphism as an object of discourse(s).

The way in which something becomes an object of discourse is usefully described by Michel Foucault in The Archaeology of Knowledge as 'the formation of objects' (Foucault, [1969] 2002: 44-54). In their formation, objects of discourse emerge and are named, analysed, and designated within particular registers. For reasons that I expand upon later, anthropomorphism only becomes designated as a set of practices that humanise nonhuman animals at the end of the nineteenth century. However, the construction of difference between human and nonhuman animals, upon which

anthropomorphism is predicated, emerges within earlier discourses. Therefore, to establish historical links between discourses of difference and the eventual construction and regulation of anthropomorphic practice within the nineteenth and twentieth centuries my critical history examines salient discourses emanating from the seventeenth and eighteenth century.

Innate anthropomorphism

My historical investigation differs substantially from Stewart Guthrie's (1993) study of anthropomorphism, Faces In The Clouds: A New Theory of Religion. Guthrie's text has been, until now, the only sustained study of anthropomorphism to be undertaken in the last ninety years since the publication of Olive A. Wheeler's PhD thesis, Anthropomorphism and Science, in 1916¹. Guthrie is one of the foremost proponents of an innate theory of anthropomorphism. He argues that an inbuilt perceptual mechanism, acting as a form of human protection and hardwired to a 'fight or flight' response, is responsible for anthropomorphism (Guthrie, 1993). Drawing on cognitive science to underpin his hypothesis of anthropomorphism as an outcome of human perception, Guthrie argues that evidence to support his claims also exists in psychoanalysis, branches of psychology, and ethnography. Moreover, he argues, the perceptual process must be considered universal since anthropomorphism can be found across all cultures.

In the perceptual model of anthropomorphism, levels of perception function at an innate lower level and a higher, partly learned, level; the former responds to motion, thickness, length and colour, the latter to objects. Guthrie notes however, that humans are 'even more' responsive to other humans and will tend toward an interpretation of phenomena as 'humanlike'. In this hierarchical schema of perception and response the 'human' becomes dominant. He proposes that the perceptual process interprets cues at the higher level because this allows greater access to information; the lower the level

of interpretation, the less information is accessed. Within this process anthropomorphism functions as a universal human perceptual strategy at the higher level of interpretation because, he claims, "people are uniquely organized" (Guthrie, 1993, p. 103).

That Guthrie regards humans as 'uniquely organized' re-states an ideological boundary between humans and nonhuman animals. Anthropomorphism according to Guthrie is not just the attribution of uniquely human characteristics to nonhuman others, anthropomorphism is itself a unique human practice that separates humans from other species. However, a recent argument presented by feminist Carol J Adams (2004) in The Pornography of Meat would suggest that Guthrie's account of an innate form of universal anthropomorphism requires immediate re-evaluation. The theory of innate anthropomorphism argues that all humans, by virtue of a common perceptual process will interpret nonhuman others as humanlike. However, Carol J Adams argues that popular culture and cultural practices have demonstrated that both humans and nonhuman animals are more often interpreted as consumable 'things' (Adams, 2004). Far from understanding others as humanlike, Adams proposes that women and nonhuman animals are constructed within popular culture as 'things' leading her to ask, "And so the question that comes to mind is just how does *someone* become *something*? How *does* someone come to be viewed as an object, a product, as consumable?" (Adams, 2004, p.13).

Adams argues that a dominant patriarchal culture privileges a fragmented view of others whereby women and nonhuman animals are reproduced as consumable 'parts' and are never viewed holistically as humanlike (Adams, 2004, pp. 172-173). Adams argument highlights an important issue raised by Guthrie's theory of innate anthropomorphism which begs the question that if humans see others within the world as humanlike then doesn't the human exploitation of nonhuman animals reveal a

grossly inhumane version of humanity? In short, if humans view nonhuman animals as humanlike then the mass slaughter and exploitation of nonhuman animals for food and other ancillary products would suggest that human sympathies for humanlike others can be all too readily set aside for commercial gain. Adams proposes that this ambiguous relationship that humans have with nonhuman animals arises from the dominance of discourses that have privileged rationality above sympathy and she explains,

Rationality became associated with being male and human and white. Linked with women, people of color, animals and nature, feelings became suspect. One reason "sympathy" has faced a difficult time being recognized as an ethical position is its association with the body and with women.

(Adams, 2004, p.40)

The chief problem with the theory of an innate form of anthropomorphism governed by perceptual processes is that it regards all humans in essentialised reductive biological terms. Whilst I do not wholly subscribe to Carol J Adams' argument, what I feel is especially relevant about Adams' study to my own work is that it demonstrates that the human interpretation of nonhuman animals is governed by something other than innate perceptual processes. What Adams' argument makes clear is that sympathy, and by extension anthropomorphism, are discursively constructed. Within this study I develop this position further to demonstrate that anthropomorphism is not governed by perceptual functions but instead regulated by dominant discourses.

Science 'Fact' and Popular 'Fiction'

There is little doubt however that Guthrie's volume provides comprehensive exemplification of anthropomorphism across cultures yet the underlying hypothesis of the universal nature of anthropomorphism as a perceptual strategy is problematic for a second reason. Guthrie disregards cultural differences and treats historical examples of anthropomorphism with the same definition as his contemporary exemplification. As a consequence he provides 'evidence' of a fixed unchanging type of anthropomorphism

from ancient Greece to the present day showing little appreciation for the contexts within which it arises. Whilst the 'universal anthropomorphism' approach is a departure from the typologies of Evernden, Mitchell and Fisher, Guthrie's account nonetheless remains problematic because of its overly general view of what constitutes anthropomorphism. Guthrie's comprehensive series of case studies confirm for him the universality of anthropomorphism throughout science, philosophy, art and religion and, moreover, lead him to openly succumb to the negative view of anthropomorphism as 'bad' for science. He claims,

However, most philosophers and scientists, and I, agree [...] with Bacon that at least egregious anthropomorphism can in principle be largely eliminated and that doing so improves our understanding of the world.

(Guthrie, 1993, p. 176)

Guthrie argues that anthropomorphism is innate but that it is possible, and sometimes necessary to suppress it for the good of science. He therefore also proposes that,

While scientists try to suppress it, creative writers and visual artists develop and use it. Anthropomorphism permeates the arts for the same reason it does other thought and action: we strive for meaning by scanning and shaping the world with meaningful forms, and of these the human form is pre-eminent.

(Guthrie, 1993, p. 122)

Popular culture and science become polar opposites in Guthrie's assessment. Popular culture, Guthrie argues, uses anthropomorphism in ways "calculated to exploit some tendency in its audience" (Guthrie, 1993, p. 122). Non-anthropomorphised science is thereby offered, by Guthrie, as a truthful explanation about the world by virtue of a rational suppression of innate perception whilst culture uses anthropomorphism to produce meaningful representations of the world but these will always be humanised, subjective, and 'un-scientific'.

Certainly, Guthrie is not alone in his alignment of anthropomorphism with popular cultural fictions. Andrew Fisher (1991) similarly suggests that anthropomorphic

practices are part of our 'imaginative capacities'. On the subject of anthropomorphism within popular culture, cognitive ethologist Fisher writes,

Our general capacity to understand such anthropomorphic representations makes suspect the way we understand real animal behaviour. [...] Just as we can easily imagine a Bambi on screen as a preadolescent human child, so when we see a real deer there probably is a certain amount of imagination going on in how we relate to and understand the deer. It seems likely that imaginative representations play an important role in how we understand animals commonsensically. Surely these imaginative capacities are often misused; and just as surely they do not provide the sort of foundation we hope to have for scientific explanation.

(Fisher, 1991: p.107-108)

Such views underlie a dominant conception of the naturalized polarization between popular culture and science as distinctively fictional and factual narrative productions that have, I feel, been cogently challenged within Donna Haraway's feminist critiques of western science when she argues,

Scientific practice may be considered a kind of story-telling practice- a rule-governed, constrained, historically changing craft of narrating the history of nature. Scientific practice and scientific theories produce and are embedded in particular kinds of stories. Any specific statement about the world depends intimately upon language, upon metaphor [...]. Scientific practice is above all a story-telling practice in the sense of historically specific practices of interpretation and testimony.

(Haraway, 1989, p. 4)

Haraway's analysis of scientific narratives presents a resilient argument against the naturalized opposition of science and popular culture into the neatly compartmentalized factual and fictional categories favoured by Guthrie and Fisher. In Primate Visions, Haraway has argued that "*Both* science and popular culture are intricately woven of fact and fiction" (Haraway, 1989, p. 3). Haraway's analyses of the 'fictions of science' argue that there are historically specific fields of human relations and established rules of practice that have afforded sciences (particularly the natural sciences) the monolithic status of truth. Scientific narratives, argues Haraway, are only one set of fictions, in a multitude of stories about the natural world. What has given scientific storytelling its authority and status, she claimed, has been its alignment with particular notions of 'fact'.

Although similarly derived from human experience, Western conceptions of fact and fiction have been opposed. Fact is established, closed, something that has happened, a thing asserted to have actually occurred; fiction, whilst rooted in the 'truth' of human experience, is open ended, subject to interpretation, a malleable and transformational version of the world. Accordingly, creating a 'real' understanding of the world relies upon accumulating the facts about it, those "original, irreducible nodes" that are discovered through human action (Haraway, 1989, p. 3). By way of contrast, a fiction offers the fluidity of constant invention, opportunities for reconfiguration and renegotiation of life. However, fiction, Haraway has contended, "is inescapably implicated in a dialectic of the true (natural) and the counterfeit (artifactual)" (Haraway, 1989, p. 4). For Haraway, scientific accounts of the natural world are only the *authorised* stories and legitimated narrative interpretations in circulation at particular historical moments, leading her to conclude that sciences are "those potent fictions" (Haraway, 1989, p. 5).

I have found Haraway's analyses of scientific and popular narratives to be particularly salient to my study in that they offer a lucid and well-argued alternative to Guthrie and others' polarization of science and popular culture that ultimately end in value judgments being leveled at the appropriateness of anthropomorphic practice, its consequences for the 'good' of science, and an implied trivialization of popular culture. I therefore reject Guthrie's proposal that anthropomorphism is an innate and universal form of primitive animism linked, as Fisher suggests, to the imagination and ultimately to the production of narrative fictions which have been detrimental to the objectivity of 'science'. In my view there is a need to re-evaluate the notion of anthropomorphism as innate. I maintain instead that anthropomorphic practices are part of the social and cultural process of making meanings about nonhuman animals, and these particular practices are discursively constructed and regulated from the nineteenth century

onward. Contrary to Guthrie, my analysis of anthropomorphic practices therefore builds upon and further validates Haraway's argument as I demonstrate here that the distinctions between science and popular cultural narratives are constructed within historically specific discourses that have legitimated the truth-status of science and denied the validity of anthropomorphism.

Haraway reveals the constructed nature of a contemporary schism between science and popular culture and my research and analysis further confirms this position. I demonstrate in Chapter Three that popularised science at the end of the nineteenth century bound together the 'popular' and the 'scientific' within cultural forms and practices. Turn of the century naturalist studies offered richly textured narrative accounts of nonhuman animals suffused with agency. Such studies shared meaning between human and nonhuman animal lifeworlds. The popularity of nonhuman animal narratives of this sort is incontestable and is evident in the naturalist accounts of insects, mammals, and birds that occupied the pages of the most successful monthly mass-market magazine of the time, The Strand, which I analyse in Chapter Three. These stories of nonhuman animal life were categorised as 'factual articles' and thus laid claim to the status of scientific studies. However, at the end of the nineteenth and beginning of the twentieth century narratives of nonhuman animal life and the natural world were reorganised through new channels of fact and fiction and anthropomorphic narratives were relocated to spheres of popular culture as opposed to science. The attribution of agency and intention to nonhuman animals was reconfigured as the unfortunate consequence of popularising science in the nineteenth century. At the beginning of the twentieth century the disciplines of zoology, comparative psychology and animal behaviourism necessarily exorcised the evil spirit of anthropomorphism and claimed institutional acceptability and intellectual distance from their predecessor, 'naturalist studies'. This shift had consequences for later twentieth century cultural

production, particularly within natural history documentaries, which as I discuss in Chapter Four were constrained by the need to avoid anthropomorphic references.

In his attempts to uncover a universal explanation for anthropomorphism Guthrie however necessarily ignores changing historical contexts, cultural distinctions and definitions; anthropomorphism, for Guthrie, is a consistent unchanging perception of the world as humanlike, in any context. Contrarily, I argue that anthropomorphism emerges in particular historical and cultural contexts as a discursive object. Unlike Guthrie, I do not accept that anthropomorphism is 'the same as' personification, analogy, metaphor or the pathetic fallacy. Each of the foregoing terms emerges as an object of discursive conditions in its own right with specific authorities of delimitation and grids of specification. Only anthropomorphism has been constructed as a set of contentious practices that relate specifically to the attribution of 'unique' human characteristics to nonhuman animals within discourses of both science and popular culture. My approach does not dispute that there may be common discursive threads between, for example personification and anthropomorphism, but clearly they arise within differing discursive contexts and are outside the scope of this investigation.

Discourses and power

My tracing of discursive linkages constitutes what Foucault refers to as a mapping of surfaces of emergence. Foucault suggests that to map the first *surfaces of emergence* it is appropriate to consider *where* objects of discourse arise. He argues,

These surfaces of emergence are not the same for different societies, at different periods, and in different forms of discourse. [...] In these fields of initial differentiation, in the distances, the discontinuities, and the thresholds that appear within it, [...] discourse finds a way of limiting its domain, of defining what it is talking about, of giving it the status of an object- and therefore making it manifest, nameable and describable.

(Foucault, [1969] 2002, pp. 45-46)

The scope of this study therefore engages specifically with the construction of anthropomorphism within Anglo-American discourses with particular emphasis on humanising practices within Britain. The initial focus of the investigation specifically addresses the linkages and points of divergence between continental rationalism and British empiricism that are salient to the construction of difference between human and nonhuman animals. Rationalism and empiricism are considered within this study as “discourse[s] of legitimation” (Lyotard, [1979] 1992, p. xxiii). These discourses are the philosophies or metadiscourses to which science refers to legitimate its truth-status as described by Jean François Lyotard when he writes, “[science...] is obliged to legitimate the rules of its own game. It then produces a discourse of legitimation with respect to its own status, a discourse called philosophy” (Lyotard, [1979] 1992, p. xxiii). As my study explains, empiricism and rationalism held polarised philosophical positions in relation to the understanding of nonhuman animals and therefore scientific disciplines, practices and knowledge production were similarly divergent dependent upon the specific discourse of legitimation. Thus, I use discourse analysis as the primary method of investigation to deconstruct texts and demonstrate how discourses legitimate difference between human and nonhuman animals and either validate or contest particular anthropomorphic practices.

In some senses the aims of this project echo those of other studies such as Donna Haraway’s (1989) Primate Visions. However, the focus of this study shows a clear divergence from Haraway’s analysis as, although we are both concerned with the distribution of power and the ideological implications of difference, Haraway’s work is primarily focussed upon pursuing a feminist politics and understanding how nonhuman animals function as metaphors within patriarchy. My analysis is concerned with locating the power relationships between human and nonhuman animals. Therefore, whilst I mention the discursive links between the construction of nonhuman animals and the oppression of specific social groups, for example through the animalisation of race, ethnicity, gender, and class, I do not pursue a sustained investigation of these

relationships. In this sense, the object of study is the humanisation of nonhuman animals and not the animalisation of humans, although I do recognise the discursive connections between the two sets of practices and discuss these links where appropriate to the central argument. What is central to this discussion is where human practices are regulated or constrained by the construction of anthropomorphism. Therefore, it is important to my argument to demonstrate how humans regulate their practices within the spheres of science (chapter two and three) and cultural production (chapter four) according to the discursive constructions of anthropomorphism. In this way, I establish that anthropomorphism is linked to social regulation in that the construction of anthropomorphism as an object of discourse regulates the production of certain cultural representations of nonhuman animals. Moreover, I am able to demonstrate that, contrary to Guthrie's polarisation, popular culture and science are discursively intertwined and it is the production of representations of nonhuman animals that gives rise to tensions between discourses of science and popular culture.

Foucault's model for the formation of objects also requires that the *authorities of delimitation* can be described. These authorities are regarded by Foucault to be the socially authorised institutions that are responsible for delimiting, designating, naming and establishing a thing as an object (Foucault, [1969] 2002, p. 46). As I establish through discourse analysis that anthropomorphism becomes a contested and regulated set of practices within the biological and behavioural sciences at the beginning of the twentieth century, the main authority of delimitation that I identify is the scientific establishment. Here I use the term 'establishment' to refer to science as a highly organised set of disciplines which had, by the early decades of the twentieth century, become recognised within western society as an authoritative source of truth.

The status of scientific knowledge production within the early twentieth century, in part, characterises the period in history that I refer to as modern in accord with my reading of

Lyotard's periodisation (Lyotard [1979] 1992). Significantly, it is the modern period that centralises humanism; a term that is widely associated with Enlightenment and modernity. I am in agreement with Peter Atterton and Matthew Calarco who suggest that, "The mistreatment of animals could perhaps be viewed as a necessary consequence of a humanism that has always sought to elevate the human at the expense of animals" (Atterton & Calarco (eds) 2004, p. xvi). Atterton and Calarco's comments emphasise that rational human progress within modernity relied on the exploitation of nonhuman animal others. Vivisection, mass production of food and clothing, the development of medicines and vaccines were each dependent upon the scientific and commercial use of nonhuman animals. It is absolutely crucial to recognize therefore that during the late nineteenth and early twentieth century animal rights lost public support and, most importantly, at the same time anthropomorphism was rejected as overly-sentimental, trivial and without worth within so-called 'serious discourses' of science, art, and philosophy. After Foucault, Lyotard, Atterton and Calarco, I consider the modern period to be characterised by the authority of scientific knowledge production and humanism within a mutually informing discursive formation that has been, in part, predicated upon differentiating humanness from animality to privilege human progress. I propose therefore that the consequence of maintaining difference between human and nonhuman animals has been to deny the validity of humanising practices and thereby render anthropomorphism a casualty of the politics of human/nonhuman animal difference within modernity.

Difference between human and nonhuman animals is classified within science, through what Foucault refers to, as the *grids of specification* (Foucault, [1969] 2002, p.46). These grids are the classificatory or taxonomic systems within which an object may be "divided, contrasted, related, regrouped, classified, and derived from one another as objects of [...] discourse" (Foucault, [1969] 2002, p. 46). From my analysis of dominant discourses I therefore identify the key concepts of emotion, subjectivity, language and cognition, through which difference is authorised and humanness and animality are

classified. These concepts then become contested when applied to nonhuman animals as they are discursively positioned as distinctly human and consequently regulate the limits and appropriate contexts for anthropomorphic practices within science and popular culture. Adopting this methodological route allows my discussion to avoid making value judgements about anthropomorphic practice and instead demonstrate how such judgements emerge.

Archaeology and Genealogy

In my discussion I undertake an interrogation of the surfaces of emergence, authorities of delimitation and grids of specification of anthropomorphism using a form of discourse analysis that is described as 'archaeology'. Archaeology, according to Foucault ([1966]1997, p. xi), reveals a system of rules:

It is these rules of formation, which are never formulated in their own right, but are to be found only in widely differing theories, concepts, and objects of study, that I have tried to reveal, by isolating, as their specific locus, a level that I have called, somewhat arbitrarily perhaps, archaeological.

Archaeology in this sense provides a methodological tool that allows analysis to take account of the discourses of a period that would otherwise appear disparate or disconnected. Thus, archaeology is the tool by which the (dis)connections between the discourses of science, popular culture, and anthropomorphism are made apparent within my study. However, archaeology alone does not allow the analysis of discourses and the formation of objects to be considered as power/knowledge relationships. Whilst archaeology determines the conditions and limits of the discourse, it does not account for the power relationships of discourses. This requires recognition of a further methodological tool: genealogy.

Archaeology and genealogy are methodologically harmonious. Although Foucault, at one time, openly rejected archaeology in favour of genealogy the two methods are appropriated here and I consider them to be complementary.² In 'Two Lectures'

Foucault (1980, p. 85) does recognise the value of archaeology *and* genealogy when he states that

[...] archaeology would be the appropriate methodology of this analysis of local discursivities, and "genealogy" would be the tactics whereby, on the basis of the descriptions of these local discursivities, the subjected knowledges which were thus released would come into play.

Although Foucault writes about archaeology with remarkable clarity, his explanations of genealogy are less satisfying. I would argue that genealogy should not be considered as a 'method' (in the same way that archaeology is thought to be a method). Instead genealogy becomes an extension of the analysis produced through archaeology. In other words, whilst archaeology is used to analyse and describe discursive conditions and the formation of objects, it is genealogy that links truth with power. Therefore it is possible to use archaeology to understand how knowledge acquires the status of truth and it is genealogy that allows truth to be considered as a set of relations that function as a system of power.

Foucault developed the idea of 'power-knowledge' relationships from his readings of Friedrich Nietzsche's work. He was particularly interested in pursuing the notion of the will-to-knowledge, a re-working of Nietzsche's will-to-power. However, Dean (1994) argues that Foucault did not appropriate Nietzsche's ideas as part of a methodological model. Rather, Foucault's interest in Nietzsche's work was "a kind of incitement that would force the conceptualisation of the relation of historiography to its present outside the rarefied positivism of archaeology" (Dean, 1994, p.19). Dean argues that Foucault's 'use' of Nietzsche's ideas is limited to an influence on his existing methodological model through his recognition of the critical perspective Nietzsche adopted in relation to the will-to-knowledge. The analysis of power-knowledge relationships identified by Foucault does not constitute a significant change in his methodology rather it should be seen as introducing a critical reassessment of archaeology. Similarly, Simons (1995) argues that "He [Foucault] describes his readings of Nietzsche in the early 1950s as a

point of rupture or revelation, which enabled him to escape a personal and intellectual rut” (Simons, 1995, p. 18).

The problems of genealogy as a method notwithstanding, its importance to this project lies in my aim to produce not only an understanding of the construction of the discourses of anthropomorphism but also to produce a critique of the relationships between discourses, truth and regulation. Genealogy recognises that there is a relationship between truth, power and knowledge *and* that it is historically situated; therefore, forms of knowledge that make the world understandable are implicated in relations of power. In my analysis of anthropomorphism, ‘science’ is considered a pre-eminent form of knowledge production within modernity and is regarded here as a fundamental constituent in power-knowledge relations that regulate anthropomorphic practice. Foucault has similarly argued that “power relations and scientific discourse mutually constitute one another” (Simons, 1995, p.27). Appropriating genealogy to augment archaeology then allows me to explore the relationships between scientific knowledge and the discursive construction of anthropomorphism, and how that construction then engages with the regulation of cultural practices.

Foucault offers an account of the ways in which normativity is an outcome of fields of knowledge and how individuals understand and regulate themselves accordingly. This, according to Foucault, “forms subjectivity in a particular culture” (Foucault, [1984] 1992, p.4). He claims in the introduction to The Use of Pleasure: The History of Sexuality Volume 2 that there are three constitutive axes in the process of self-regulation:

(1) the formation of sciences (savoirs) that refer to it, (2) the systems of power that regulate its practice, (3) the forms within which individuals are able, are obliged, to recognise themselves as subjects [...]

(Foucault, [1984] 1992, p. 4)

This model directs our attention to the particular emphasis Foucault places on the sciences as a major regulatory force. However, in the later chapters of this thesis I argue that science assumes a different relationship to the construction of anthropomorphism from the mid-twentieth century onward and here I am particularly concerned with emphasising the important challenges to modern humanist science that emerge in the latter half of the century.

I suggest that the formal challenges to the authority of humanist science emerge from environmentalist, animal rights and anti-humanist philosophy discourses under the rubric of a late twentieth century re-evaluation of modernity (Chapter Two). What I find particularly important about such discourses is that they begin to question the relationship between humans and the natural world and more crucially, the legitimacy of uniquely human characteristics. In short, the humanist discourses of modernity prescribed emotion, subjectivity, language and cognition as specifically human attributes, and defined anthropomorphic practice as the erroneous ascription of those characteristics to nonhuman animals: late twentieth century discourses challenged these ideas in a postmodern re-evaluation of the nonhuman animal.

Risk and reflexive modernity

My mapping of the discursive linkages that lead to a re-evaluation of anthropomorphism within the late twentieth century differs substantially from current studies within sociology. These studies claim that a resurgence of interest in anthropomorphism stems from a postmodern restructuring of social relationships that has caused humans to seek security in anthropomorphised nonhuman animals (Garber, 1996 and Franklin, 1999). I argue instead that the latter half of the twentieth century has been characterised by two polarised positions in relation to nonhuman animals. In the first place there has been a re-evaluation of the nonhuman animal wherein previous notions of human/nonhuman animal difference have been contested within science and popular culture. This shift has led to the, albeit controversial, claims

that posit a new validity for anthropomorphic practices within science. I argue that the second position that has been taken with regard to nonhuman animals has been to construct them as 'abject' and risks to the health and welfare of humans. I contend that it is this discourse of the abject nonhuman animal that has prompted a renewed interest in anthropomorphised nonhuman animals within popular culture. Here I argue that anthropomorphised nonhuman animals, and especially technological forms of animality, provide cultural safety zones where humans can engage with safe sanitised nonhuman animal forms. It is my contention that the humanisation of animality within popular culture in the latter part of the twentieth century makes nonhuman animals safe by orienting them toward humanness. Anthropomorphism, in this way becomes a cultural strategy of risk avoidance.

Whilst there has been a steady stream of texts from sociology and cultural studies since the late 1980s that have dealt with human/nonhuman animal relationships, there has been a noticeable absence of critical investigations of anthropomorphic discursive practice. Where anthropomorphism is mentioned critics have tended to marginalise it as a cultural by-product of sentimentalised human/nonhuman animal relationships (Franklin, 1999; Tester, 1992; Kete, 1994; Ritvo, 1987). I claim instead that anthropomorphised nonhuman animals have lately emerged as a secure enclave where human/nonhuman animal relationships can be safely experienced. I propose that the shift in social conditions that occurs during the latter half of the twentieth century can be more satisfactorily accounted for through Beck's notion of risk society that emerges within 'reflexive modernity' (Beck et al., 1994). In keeping with the Foucauldian notion that history cannot be segmented into neat 'chunks', each with its own characteristic 'spirit', reflexive modernity offers a way of thinking about the changing conditions of the twentieth century without proposing that they signal an absolute departure from 'modernity'. Reflexive modernity is simultaneously continuous and discontinuous with modernity. Whilst it is specifically related to the emergence of a risk society, reflexive modernity can be comfortably aligned with what has been

described as the postmodern re-evaluation of science that I discuss in earlier chapters and offers a more satisfactory way of understanding conditions of change. Contrary to other studies within the area, I therefore develop my argument that nonhuman animals have been constructed as risks to human health and welfare by appropriating Ulrich Beck's (1992) concept of the risk society and the notion of the abject after Julia Kristeva (1982).

Text and Practice

In this thesis I use a set of case study materials within each chapter and in some cases I choose to focus on individual texts.³ However, in The Archaeology of Knowledge ([1969] 2002) Foucault argues that an archaeological analysis of discourses should not be concerned with individual texts. Foucault posits that a text is not the unified and coherent sum of the statements of an author; it cannot possibly take account of a multiplicity of other statements that may have been made outside the text, or before or after a particular text is produced. Moreover, one author cannot possibly represent the discourse as discourses are not confined to one group of statements made by one person. Accordingly he offers a four-point outline detailing how archaeology differs from the history of ideas. In this sketch, Foucault raises objections to the interpretation of discourses as things that can be read-into or analysed for some other meaning. He also dismisses the notion that any privilege should be afforded to the author or text claiming that '[t]he authority of the creative subject, as the *raison d'être* of an *oeuvre* and the principle of its unity, is quite alien to [archaeology]' (Foucault, [1969] 2002, p.156). In later work, however, Foucault revises his approach and in The Use of Pleasure: The History of Sexuality Volume Two he states that,

[t]he domain I will be analysing is made up of texts written for the purpose of offering rules, opinions, and advice on how to behave as one should: "practical" texts, which are themselves objects of a "practice" in that they were designed to be read, learned, reflected upon, and tested out, and they were intended to constitute the eventual framework of everyday conduct.

(Foucault, [1984]1992, pp.12-13).⁴

That Foucault elects to study 'prescriptive texts' should not obscure the general significance of his statement in relation to method; texts are objects of practice. In this study I have elected to include a range of materials both prescriptive and non-prescriptive, which constitute the 'domain'. In the spirit of Foucault's definition, prescriptive and non-prescriptive texts are regarded here as social practices.

In my selection of materials and taking into account Foucault's implied definition of the 'text' as practice, the choice of materials included here is entirely in accord with my central methodology. I contend then, that it is quite appropriate within the context of my chosen methodology to include 'readings' of texts, both prescriptive and non-prescriptive, that emanate from fields that can be broadly be described as science and popular culture. In her study of the gendered body Balsamo states "What I read are not simply textual or media representations of the gendered body, but specifically social practices of 'making the body gendered'" (Balsamo, 1995a, p.218).⁵ Similar to Balsamo, I regard the individual texts in this study as social practices of making the nonhuman animal 'human'.

The domain: Individual texts

Selecting appropriate material to constitute a domain for analysis within an interdisciplinary study such as this is fraught with difficulties. My chosen methodology implied certain constraints with regard to historical periods, cultural specificity, and so forth yet even with such limits the scope for analysis was extremely broad when one considers the prevalence of anthropomorphic practice within science and popular culture. Secondary literature from sociology and cultural studies proved useful in that it established that a sustained study of anthropomorphism was indeed both necessary and timely with the subject being so sparsely represented within the recent glut of cultural and sociological studies of the nonhuman animal. By way of comparison, the subject of anthropomorphism was however discussed at greater length within recent

comparative psychology, ethology and animal behaviour literature, and central to these debates has been the issue of the nonhuman animal mind. It emerged from this secondary literature that the attribution of mind to nonhuman animals was heavily contested as anthropomorphic practice and I therefore focussed one area of my research on texts that have been absolutely fundamental to the establishment of dominant discourses of nonhuman animal mind from the eighteenth to the twenty-first century.

Primary texts drawn from the disciplines of science and philosophy which establish dominant discourses that differentiate, or establish continuity, between human and nonhuman animals with regard to mind partially constituted the domain for this analysis, and I therefore give specific attention to the texts; 'Discourse on the Method' (Descartes, [1673] 1997), An Essay Concerning Human Understanding (Locke, [1690] 1990), The Expression of the Emotions In Man and Animals (Darwin, [1872] 1998), An Introduction to Comparative Psychology (Morgan, 1903) and the essay 'What is it like to be a bat?' (Nagel, 1974).

'Discourse on the Method' and An Essay Concerning Human Understanding were foundational texts which established the methods of enquiry within rationalism and empiricism respectively. As I discuss in the following chapter, empiricism and rationalism dominated the production of knowledge about how humans differ from nonhuman animals from the seventeenth century and therefore analysis of these texts by Descartes and Locke was important to this study. Darwin's The Expression of the Emotions In Man and Animals was the first text to establish an emotional evolutionary continuum between human and nonhuman animals, whilst An Introduction to Comparative Psychology was the first major English language text on the subject of comparative psychology and the primary argument against the evolutionary continuum asserted within The Expression of the Emotions in Man and Animals. In Chapters Two and Three I examine how Darwin and Morgan's texts held polarized views on

human/nonhuman animal similitude and difference to the extent that, as Eliot Sober (2005, p.87) also notes, Morgan was “reacting against” Darwin’s ideas on mental continuity. In the following chapter I offer a detailed explanation of why Morgan’s text was an especially important critique of Darwin’s work in relation to anthropomorphic practice, as well being established as a new theory of the nonhuman animal mind, known as Morgan’s Canon.

Charles Darwin’s work was crucial to the construction of anthropomorphism as it established a mental continuum between humans and nonhuman animals that was later contested as anthropomorphic, predominantly within the discipline of psychology, at the beginning of the twentieth century. Mental continuity was linked through Darwin’s work to a continuum between humans and nonhuman animals that further included morality, language and emotion. Therefore The Descent of Man and Origin of Species and their critiques are also included within the domain and form a pivotal part of my analysis in Chapters Two and Three. Also important was the relationship between the soul and the mind which, as my analysis of ‘Discourse on the Method’ establishes in chapter two, had become intrinsically bound together by the seventeenth century and I therefore trace this connection through the writing of Thomas Aquinas and Descartes.

In addition to texts that were formative in the production of discourses of nonhuman animal mind, I also examine discourses that make connections between human and nonhuman animals and either implicitly or explicitly contest dominant critiques of anthropomorphism. I have therefore also elected to examine Silent Spring (Carson, [1963] 1991) and Animal Liberation (Singer, [1975] 1990) and reference to both texts is threaded through my discussion in chapters two and five. Rachael Carson’s Silent Spring was the foundational text that established the twentieth century conceptualisation of the ‘environment’. Carson’s text was crucial in re-establishing links between the human and nonhuman animal and emerged as the foundational text of the evolutionary movement. Singer’s Animal Liberation is equally important and is widely

recognized as the text that shaped the late twentieth century discourse of animal rights and established a renewed moral connection between human and nonhuman animals. In addition to these texts I have used Thomas Nagel's essay 'What is it like to be a bat?' to frame my analysis of late twentieth century natural history documentaries and I discuss the impact of Nagel's work on the late twentieth century reconfiguration of the nonhuman animal in chapter two. Nagel's essay was highly influential in its demands for a radical re-evaluation of the philosophy of science in the late twentieth century and was fundamental in determining the re-appraisal of anthropomorphic practice within discourses of ethology, zoology and animal behaviour. In short, each of the texts that I examine here can be considered as crucial to the establishment of discourses of anthropomorphism, as critiques of anthropomorphic practices or as part of the mid-twentieth century re-appraisal of anthropomorphic practices.

The domain: popular culture

Anthropomorphism is commonly thought to sit comfortably only within the realms of children's fictions. As I argue here that anthropomorphism remains prevalent across a spectrum of cultural texts and practices, the case study materials that I have elected to use in this study are those that are, or have been, contentious precisely because they are not children's stories or practices. There is therefore an emphasis within this study on pet-keeping, pet care and management texts and the commercial advertising of pet products; popularised science narratives and naturalist studies; natural history documentaries and film making practices; food production; animal rights; and technological animality. I maintain that it is crucial that anthropomorphism is investigated through these cultural sites for two reasons: firstly these are the cultural sites where anthropomorphic practices are so readily disputed. Secondly, the current literature within sociology and cultural studies does not adequately address anthropomorphism in relation to these texts and practices.

Pet-keeping has only recently been given serious academic attention however the cultural importance of these practices can be hinted at when one considers that the combined dog and cat population of the UK is currently estimated at around 15 million. This number accounts for approximately 6.8 million dogs and 8 million cats with an associated sales market for pet food and pet care products valued at £2,357 million in 2004.⁶ With an average spend per dog and cat being £981.31 and £474.70 respectively per year, recent market analysis of trends within the pet care and food sector have noted that the increased expenditure by owners is directly linked to an increased 'humanisation' of pets and particularly cats and dogs (Euromonitor, March 2005, executive summary). It is therefore vital to note that whilst market trend analysis has now recognised the importance of anthropomorphic practices within pet-keeping, scholars within cultural studies have not, until now, provided any sustained critique of the relationship between pet-keeping and the humanisation of nonhuman animals.

I develop my discussion of the relationship between anthropomorphism and pet-keeping practices across chapters three and four. Mindful of the cultural significance of the dog within pet-keeping practices and the emphasis given to the canine by Charles Darwin throughout his work, this study makes extensive use of popular canine management and pet keeping guides, newspapers and periodicals. Material was sourced from the UK Kennel Club library, which holds the largest collection of canine related literature in the world, and the archives of the two leading UK canine newspapers, Our Dogs and Dog World. In addition to print based materials I also made use of audiovisual texts including sixteen hours of videotape recordings from the archives of the canine charity Pro-Dogs. These recordings included UK regional and national television news coverage and factual programming from 1990 to 1991 relating to The Dangerous Dogs Act. I utilise this case study material across chapters and there is therefore a common thread of discussion relating to dogs and pet-keeping practices which is woven throughout this study.

For my analysis of canine management and pet keeping practices I made use of the Sherley's and Spratt's guides held in the UK Kennel Club library and supplemented by personal collections. The Sherley's Dog Book was, throughout the first half of the twentieth century, the most popular pet-keeping text available selling annually in excess of 50,000 copies and updated and expanded annually or bi-annually. Notably, the Sherley's Dog Book functioned as both an instructive text for advice on most aspects of dog care and health management and as a marketing tool for the Sherley's range of pet products. In this sense, the Sherley's Dog Books are an immensely important set of cultural documents that incorporate the prescriptive discourse of canine management with extensive detail of the cultural products used in the everyday care of dogs. Similarly, although used less for this study, the Sherley's Cat Book provided another useful source of primary material.

The second key area of investigation undertaken for this study centres around popularised science. I maintain that such texts occupy a liminal position between science and popular culture and are therefore some of the most hotly contested sites where anthropomorphism emerges. In this study I therefore trace a critical history, across chapters, of the relationship between anthropomorphism and popularised science from Charles Darwin to twentieth century natural history documentary films to examine the linkages and tensions between popular culture and science. There should be no doubt as to the importance of such investigations as natural history documentary programmes have been heavily criticised by the scientific community for their anthropomorphic portrayal of nonhuman animals.

Considered by many animal behaviourists as erroneous depictions of nonhuman animal life and behaviour my examination of popularised 'factual' nonhuman animal narratives examines, across a series of chapters, how discourses of anthropomorphism have regulated naturalist and natural history film making practices. It is also salient to note that, despite criticisms from the scientific community, a recent survey of television

viewers undertaken by Ofcom showed that nature and wildlife programmes are currently perceived to be more accurate than current affairs, news, documentaries, dramatised reconstructions and consumer advice programmes. The Communications Market 2004- Television: The Public's View Survey Results showed that 40% of respondents felt that nature and wildlife film were "always accurate" and 51% felt that such programmes were accurate "most of the time" (Ofcom, August 2004, p.13). News programmes were ranked second in the survey with only 24% of respondents perceiving them to be "always accurate". Such figures indicate that there is currently greater perceived accuracy in natural history and wildlife programmes than any other factual programming on television. It is fair to deduce from such information that the majority of contemporary UK television audiences accept anthropomorphic depictions of nonhuman animals as accurate and therefore it is my view that a critical history of the relationship between anthropomorphism and natural history is both timely and necessary.

To undertake this area of investigation I visited art galleries including The Lady Lever Art Gallery, The Walker, The National Art Library and the Kennel Club Art Gallery to view paintings by Briton Riviere who provided illustrations for Charles Darwin's work on emotion as well as viewing work by other nineteenth and twentieth century popular artists whose work was mass reproduced as engravings, illustrations or prints that humanised nonhuman animals. I also made extensive use of the Strand Magazine and was able to examine the published output of the magazine from 1893 to 1906. I found that narratives of nonhuman animal life that referenced scientific discourses frequently populated these popular cultural texts at the close of the nineteenth and the beginning of the twentieth century. The popularisation of science therefore found an important place within the pages of periodicals such as The Strand Magazine whose readership was predominantly middle class families. Through my analysis of The Strand Magazine articles I was able to establish that such mass-market cultural artefacts provided a

discursive leakage between discourses of 'science' and the 'everyday' by popularising science for educated sections of a society sensitive to class distinctions.

The broader cultural importance of The Strand Magazine has been noted by other scholars, who have claimed that,

[t]he middle classes of England never cast a clearer image of themselves in print than they did in The Strand Magazine. Confirming their preference for mental as well as physical comfort, for more than half a century it faithfully mirrored their tastes, prejudices and intellectual limitations. From them it drew a large and loyal readership that was the envy of the publishing world.

(Pound, 1966, p.7)

The success of The Strand Magazine was unprecedented, with the first edition of the magazine having a circulation figure of more than seven times that of the Times newspaper and, by the beginning of the twentieth century an estimated monthly readership of around two million.⁷ Although latterly more widely recognised for the short fiction of writers such as Sir Arthur Conan Doyle, the broad range of factual articles in The Strand Magazine included many scientific and factual accounts of nonhuman animals. The popularity of The Strand Magazine therefore establishes its importance as a vehicle for the mass market popularisation of science through the magazines ability to reach a wider audience than academic science texts.

In addition to the texts detailed above, contextual newspaper articles were acquired from the archives of The Sun newspaper and the British Library Newspaper Archives and the online archive of The Gentleman's Magazine. I also made use of Henry Mayhew's ([1861] 1950) London Labour and the London Poor. Mayhew's accounts of the life and work of working classes in London was the largest-scale survey of its kind undertaken in the nineteenth century from 1849 to 1852 and was initially sponsored and published as weekly articles by the Morning Chronicle newspaper. What is most notable about Mayhew's account is that it is derived from interviews with working class people of the mid-nineteenth century and therefore is established as a unique record of

an otherwise undocumented oral history. These accounts were particularly important to my discussion of pet-keeping practices in the nineteenth century that I develop in chapter three.

For further popular culture case study materials from the period of 1940-1943 I used war-time editions of the Picture Post magazine. The Picture Post was the most popular weekly magazine of the war-time period in Britain with a weekly circulation in excess of one and a half million from 1938 until 1949 and therefore this provided me with case study materials that were comparable in terms of popularity, circulation and readership with that of The Strand Magazine from the earlier historical period. Both the articles and advertisements in the Picture Post formed an important aspect of my discussion of the commercial use of anthropomorphism in pet product advertising and the construction of pets as food during war-time. Other important sources for research were the Public Records Office for wartime records on domestic rabbit production, the Broadcasters Audience Research Board (BARB) for late twentieth century television viewing figures and the online Commons Hansard for transcripts of Parliamentary debates.

For my analysis of natural history documentaries I used one hundred and six films and television programmes. The majority of these films and programmes were produced by the BBC Natural History Unit with additional texts from Oxford Scientific Films, Disney Studios and Anglia Television. My chief criterion for selection of the films and programmes used for this study was that they should be those with the highest viewing figures in the year of their first broadcast thus ensuring that the texts under scrutiny were those which had attracted the largest audience based upon viewing figures from the Broadcasters Audience Research Board (BARB) where available. These texts form the focus of chapter five where I examine the relationship between subjectivity and the point of view shot in natural history documentaries. I also examine how these texts have been sites of tension between science and popular culture and how film-making

practices have been regulated by discourses that construct anthropomorphism as unscientific.

For my examination of contemporary anthropomorphic constructions, in the final chapter of this study, I provide an analysis of images from the National Geographic magazine published between 1998 and 2004 to argue that there are a key set of identifiable visual cues within the images which are used to humanise 'wild' nonhuman animals and to facilitate their construction as 'victims at risk' within conservation discourses. The National Geographic has a global circulation in excess of nine million and is published in English and twenty-seven local language editions. Within the US the magazine has a circulation in excess of six million where it is the fifth most popular general editorial magazine and the most popular natural history magazine.⁸ What is significant about National Geographic is that the magazine is part of a larger set of media interests which include books, television channels, maps, and other print and audio visual publications. The National Geographic magazine is therefore used here as representative of the ideological stance of the National Geographic Society in relation to conservation and endangerment discourses that are also circulated throughout its other media channels.

As I discuss later, anthropomorphism within popular culture is still regarded with disdain, and many criticisms of anthropomorphic texts and practices still seem to echo older elitist views of mass culture. My selection of materials for this study has maintained a strong focus on popular cultural texts and practices which are or have been trivialised or criticised for their appropriation of anthropomorphism. I maintain that such trivialisation only serves to obscure their cultural importance and to perpetuate the pejorative status of anthropomorphism, which both sustains such texts and practices and simultaneously regulates their cultural credibility. It is therefore important to note that with only a minority of exceptions, the emphasis within this study is on culturally perceived 'factual' texts and everyday practices rather than children's fictional

nonhuman animal narratives where anthropomorphism is more comfortably accommodated. It is precisely because anthropomorphism has been commonly regarded as childish, primitive or indicative of low intellect that my case study materials are concerned with the 'realities' of everyday engagement with nonhuman animals and their 'factual' representations.

Endnotes

¹ Robert W. Mitchell has written a history of anthropomorphism titled Anthropomorphizing Animals: A History. However the manuscript has yet to be published and at the time of writing there are still no publication details available for the text.

² For a discussion of Foucault's rejection of genealogy see: Visker, 1995, p.30.

³ It should be noted that I also refer to theoretical texts in the thesis for elucidation of particular points. This is entirely in keeping with Foucauldian methods and he notes in The Use Of Pleasure that theoretical texts are used for clarification (Foucault, [1984] 1992, p. 12).

⁴ Importantly, this statement is preceded by an explanation that he will use archaeology and genealogy to analyse a 'history of truth' signalling a departure from his earlier exclusive support for archaeology.

⁵ Balsamo also notes that, "The act of reading as 'making a discourse' apparent is meant to suggest an active practice of perception that has been determined in specific ways" (Balsamo, 1995a, p.218). Balsamo's claims concerning 'reading', as an active practice, partially address one problem of discursive analysis; the implication that the 'historian' is writing from a vantage point outside of discourse, or is able to assume an a-discursive position. I agree with Balsamo here and recognise however that the act of 'reading a text' is always discursively conditioned. Therefore by adopting a Foucauldian perspective I do not seek to imply that either I, or the thesis, can ever be outside of discursive regulation.

⁶ Sources: Combelles, 2004 at

http://www.euromonitor.com/articles.aspx?folder=UK_cats_get_the_cream&industryfolder=Articles [accessed 18.09.05]

Also: Euromonitor (2005) 'Pet Food and Pet Care Products in the United Kingdom: Executive Summary', March 2005, at

http://www.euromonitor.com/reportsummary.aspx?folder=Pet_Food_and_Pet_Care_Products_in_the_United_Kingdom&industryfolder=Pet_food_and_pet_care_products [accessed 10.08.05].

Also: 'Local Environmental Quality: Dogs' at www.defra.gov.uk/environmental/localenv/dogs/foul.htm [accessed 18.09.05].

⁷ Source: Willis, C. 'Crime, Class and Gender in the 1890s *Strand Magazine*' at <http://www.chriswillis.freemove.co.uk/strand.htm> [accessed 19.07.02].

⁸ Sources: National Geographic website at <http://www.nationalgeographic.com/index.html> [accessed 10.10.05]; trivia-library.com website at <http://www.trivia-library.com/b/history-of-national-geographic-magazine-part-2.htm> [accessed 10.10.05]; MDS Top Circulation: magazines, MDS website at <http://www.mdsconnect.com/topcirculation.htm> [accessed 10.10.05]; Baird, D. (2002) 'Overall Circ decline accelerates' in Circulation Management, 1st November 2002.

Chapter Two

Human and Animal: The Same, Yet Different

Anthropomorphism, as a cultural practice, is dependent upon the notion that humans are in some respects absolutely different from any other animals. Language, morality, emotion, consciousness, reason, and possession of a soul have, at various historical moments, been naturalised as characteristics that are uniquely attributable to humans, and such differences have maintained the ideological boundary between humans and nonhuman animals. These boundaries have then become central to the definition of anthropomorphic practices where nonhuman animals are ascribed with attributes reserved solely for humans. But how are the differences between humans and nonhuman animals defined and which authorities are responsible for their definition? This chapter examines the construction of difference and identifies how such differences become naturalised. Here I also locate the crucial discourses that contest the legitimacy of difference between human and nonhuman animals and I identify the critiques that render such challenges 'anthropomorphic'.

Current theories of anthropomorphism argue that the humanisation of nonhuman animals is innate and a relic of primitive animism (Kennedy 1992; Guthrie 1993; Guthrie 1997). I argue however that these theories ignore the ideological implications of anthropomorphic practices and the construction of difference upon which such practices are predicated. Displacing ideological concerns has led contemporary commentators to examine anthropomorphism in terms of methodological accuracy. However, such approaches question only the causal effects of humanising practices in relation to contemporaneous scientific accuracy. In these cases anthropomorphism is constructed as problematic in that it obscures the objective study of nonhuman animals and delivers erroneous data. Animal behaviourist John S. Kennedy (1992) adopts this position in The New Anthropomorphism when he writes in the introduction, "The heart of this book [...] consists of nineteen essays on ideas which appear to be erroneous

and can be traced back to unwitting anthropomorphism" (Kennedy, 1992, p.6-7). Kennedy argues later in the text that anthropomorphism demonstrates a lack of objectivity and describes anthropomorphic practices as "sloppy thinking" (Kennedy, 1992, p.15).

Contrary to the innate perspective I contend that anthropomorphism is a social construction that emerges as a defined practice in the early twentieth century. I propose however that anthropomorphism arises within prevailing discourses from the continuing dominance of crucial concepts of difference between human and nonhuman animals that emerge prior to the twentieth century. In this chapter I map the emergence of these discourses that construct difference between human and nonhuman animals. Because my focus within this chapter is specifically on the knowledge conditions that produce constructions of difference and similitude between human and nonhuman animals that I argue are central to establishing anthropomorphism as a discursive object, my mapping is purposely confined to discourses of theology, philosophy and science. This chapter is therefore concerned particularly with mapping an archaeology of knowledge conditions that examines the connections between discourses that produce anthropomorphism as an object of knowledge. In accord with Foucault's model of archaeology, theories, concepts and discursive objects should be 'isolated' to reveal the system of epistemological 'rules' that govern power-knowledge relationships which are then understood through genealogy (Foucault, [1966] 1997, p. xi). Therefore, in later chapters, I analyse the social and cultural dimensions of these knowledge conditions to examine power-knowledge relationships.

Here I am not concerned with the social or cultural effects of knowledge but with the knowledge conditions that construct concepts of difference between human and nonhuman animals. It is the construction of these concepts of difference that produce anthropomorphism as a discursive object. In this chapter therefore I examine how Cartesian discourse established discontinuity between humans and nonhuman others,

and explain how this differed from the construction of difference between human and nonhuman animals within Christian theology. Examination of texts written by John Locke, George Berkeley and David Hume reveals how British empiricism challenged the discourse of discontinuity favoured by Descartes to establish a less radical set of distinctions between human and nonhuman animals. By the mid nineteenth century however the emergence of the Darwinian discourse of evolution prescribed a new mental and emotional continuity between human and nonhuman animals. The emergence of this discourse of human/nonhuman animal similitude reorganised the boundaries between human and nonhuman animals and from this shift emerged a reappraisal of anthropomorphic practice. Driven by critiques of Darwin's methods of investigation, anthropomorphism acquired a pejorative status that was solidified by discourses of logical positivism in the early twentieth century.

In the latter part of this chapter I discuss how, under the rubric of humanism, discourses of behaviourism, positivism and cybernetics re-wrote human/nonhuman animal distinctions that relied on a reassertion of difference. Through examination of key texts I move on to explain how the burgeoning environmental discourse and a reappraisal of animal rights within moral philosophy set against a postmodern evaluation of science in the mid-twentieth century began to dislodge the authority of previous discourses of difference. I then conclude this chapter by mapping the shift which led to a re-evaluation of both anthropomorphism and the construction of the nonhuman animal in the late twentieth century. This chapter therefore provides the framework of knowledge conditions which produce the crucial concepts of difference; emotion, subjectivity, and language, that structure the following chapters.

Difference

Many writers have argued that criticism of anthropomorphism has a long history that dates back to the claims of Xenophanes in the sixth century BC. Naturalist George

Page (1999), anthropologist Stewart Guthrie (1993) and comparative psychologist Cenami Spada (1997) each cite Xenophanes' critique of the practices of attributing the deities with human form as the first denunciation of anthropomorphism. In Fragments (circa 590 BC), Xenophanes argued that different races of people each conceived of gods in their own likeness. To emphasize the fallaciousness of physical anthropomorphism he claimed that if nonhuman animals could draw, "horses would draw the forms of the gods like horses, and cattle like cattle, and they would make their bodies such as they had themselves" (Xenophanes circa 590 BC in Emlyn-Jones, Hardwick & Purkis (eds), 1992, p.101). According to Xenophanes the ascription of human bodily form to the deities was erroneous and could only serve to degrade the gods by bringing them from a state of perfection to the level of the imperfect human form. Whilst Page, Guthrie and Spada are correct in their identification of Xenophanes' critique as the earliest known reference to what can be termed theological anthropomorphism it was not until the early twentieth century that 'anthropomorphism' was used to describe the attribution of human qualities to nonhuman animals.¹ Central to this definition were the critiques that contested the attribution of mind, morality, emotion and language to nonhuman animals within Darwin's evolutionary continuity thesis.

Xenophanes' critique does, however, correspond with the later discursive construction of anthropomorphism in that it draws attention to the conditions necessary for anthropomorphism to be considered, what has been termed a 'categorical error' (see for example Spada, 1997, p. 39). In short, Xenophanes' critique was concerned with maintaining the ontological difference between humans and gods that physical anthropomorphism threatened to undermine. In this sense anthropomorphism in any form, theological or otherwise, can only emerge where difference between one entity and another is established. The 'error' of anthropomorphism therefore occurs when a particular characteristic, or characteristics, that belong to one conceptual category are mistakenly attributed to another. In the case of twentieth century anthropomorphic

practice the categories of 'human' and 'animal' emerged as the dominant constructions through which anthropomorphism was understood. Thus, the common linkage between sixth century BC and twentieth century anthropomorphism is the discursive construction of difference. What I emphasise within this chapter is how the concepts of difference between human and nonhuman animals have been constructed, challenged and critiqued over time.

Christian theology and the brute creation

The dominant twentieth century western construction of difference between humans and nonhuman animals has its epistemological roots in the seventeenth century philosophy of René Descartes. Until the publication of Descartes' Discourse on Method however, the prevailing view of the order of the universe was informed by the Great Chain of Being. Arthur Lovejoy (1964) explains in his definitive account of the Great Chain of Being that the doctrine synthesised the ideas of Plato with Aristotle's *Scala Natura* or 'scale of nature' and was developed and disseminated by St. Augustine in the fifth century, and later by Thomas Aquinas during the thirteenth century (Lovejoy, 1964, p.5).

The Great Chain of Being ordered the universe in a hierarchical fashion from inorganic matter at the bottom of the chain to God at the top. Humans had divinely ordained power over nonhuman animals by virtue of their intellectual status and similarity to the likeness of God, and therefore occupied a position beneath only God and the angels within the Great Chain of Being. Within the discourse of the Great Chain of Being the concept of 'the soul' was intrinsically connected to intellect leading Aquinas to state that humans were intellectual creatures ruled by God whilst all other creatures were created for the benefit of humans. Aquinas wrote, "Accordingly, the divine providence makes provision for the intellectual creature for its own sake, but for other creatures for the sake of the intellectual creatures" (Aquinas, [1945 translation] in Clarke and Linzey (eds) 1990, p.8). In his writing 'Of the Mastership Belonging to Man in the State of

Innocence' Aquinas justified the divine and natural rights of humans to dominion over nonhuman animals by reference to the Great Chain of Being. He argued that the order of nature progressed from the imperfect to the perfect and contended,

[T]hus the imperfect are for the use of the perfect; as the plants make use of the earth for their nourishment, and animals make use of plants, and man makes use of both plants and animals. Therefore it is in keeping with the order of nature, that man should be master over animals.

(Aquinas, [1922 translation] in Clarke & Linzey (eds), 1990, p.61)

Theologians stated that the Bible confirmed the divinely ordained right to human domination over nonhuman animals and cited examples such as those found in the Old Testament when, after the flood, God says to Noah,

And the fear of you and the dread of you shall be upon every beast of the earth, and upon every fowl of the air, upon the earth, and upon all the fishes of the sea; into your hand are they delivered. Every moving thing that liveth shall be meat for you; even as the green herb have I given you all things.

(Genesis, ix: 2-3)

However, seventeenth century comparative anatomy problematised the naturalised distinction between human and nonhuman animal when it was discovered that human bodies and brains did not differ significantly from those of chimpanzees. Failed attempts by anatomists Franz Joseph Gall and Samuel Thomas Soemmerring in the eighteenth century to locate the human soul within the brain or the cerebral spinal fluid also shed doubt on the absolute difference between human and nonhuman animals. In reply to these discoveries, a discourse of social evolution underpinned by Christian accounts of the Fall argued that chimpanzees, 'savages' and the great apes provided confirmation that humans could revert back to being 'beastly' or 'brutish'. Morality, physical cleanliness and civility were centralised as separating the human from the 'brute creation' underwritten by a distinction between 'animal' instinct and human intellect. Bodily functions and lust were thus discursively linked to animality within religious discourses, and as Keith Thomas remarks, "It was no accident that the symbol of the Anti-Christ was the Beast, or that the Devil was regularly portrayed as a mixture of man and animal" (Thomas, 1984, pp. 36-37). Despite comparative anatomists'

failure to locate the soul, theological discourse maintained that the immortal soul separated human from nonhuman animal and that beasts were absolutely denied access to an afterlife. Until the seventeenth century it was widely accepted that nonhuman animals had a soul, but only the human soul was immortal. The nonhuman animal soul died with the material body. In this way, the soul was intrinsically bound to conscience and the uniquely human attribute of religious instinct (Thomas, 1984, p.32).

Whilst the Great Chain of Being clearly discriminated between humans and nonhuman animals on the basis of intellect/soul, rationality and likeness to God, the hierarchical ordering of inorganic and organic entities was nevertheless perceived as a continuum. As with Aristotle's claims that 'man is naturally a political animal', Aquinas similarly stated that humans were 'intellectual creatures'. The Great Chain of Being did not define a clear discontinuity between humans and nonhuman animals, but rather it specified a continuum wherein humans were 'creatures' and part of a fixed natural order that proceeded in series and without breaks. Aquinas made it clear that 'Man' occupied a position within the Great Chain of Being that connected 'him' to all other aspects of the hierarchy when he wrote,

[...] man in a certain sense contains all things; and so according as he is master of what is within himself, in the same way he can have mastership over other things. Now we may consider four things in man: his reason, which makes him like to the angels; his sensitive powers, whereby he is like the animals; his natural forces, which liken him to the plants; and the body itself, wherein he is like to inanimate things.

(Aquinas, [1922 translation] in Clarke & Linzey (eds), 1990: 63)

In his eighteenth century scientific taxonomy of nature, Carl Linnaeus also echoed the linkage between human and nonhuman animals by grouping them within the same taxa: human beings were classified as *Homo sapiens* and chimpanzees, *Homo troglodytes*. Linnaean taxonomy did construct a racial hierarchy composed of the *Homo sapien* subcategories, *Americanus*, *Asiaticus*, *Africanus*, and *Europeanus* that clearly privileged Europeans. However, it was nonetheless evident that both the Great Chain of Being and Linnaean taxonomy were predicated upon the model of a

human/nonhuman animal continuum where difference was one of degree rather than absolute.

Cartesian discontinuity

The crucial difference between Descartes' and Aquinas' positions was that the Cartesian view held there to be a marked discontinuity between humans and nonhuman animals. As Robert Young has similarly argued,

The concept of the animal soul did not give rise to any serious problems until the seventeenth century when Cartesian dualism brought out distinctions which had been latent in the dominant Aristotelian tradition [...] to attribute minds to animals would threaten traditional religious beliefs, since the psychological concept of mind was conflated with the theological concept of soul.

(Young in Edwards (ed), 1967, p. 122)

In Discourse on Method, Descartes challenged the doctrine of the Great Chain of Being by arguing that humans did not differ by degrees from 'other animals', humans were instead radically different to nonhuman animals. Descartes denounced the organic continuum between humans and nonhuman animals and replaced it instead with the model of the machine.

The crux of the Cartesian argument lay in the establishment of the duality of mind and body. Descartes argued that the bodies of humans and nonhuman animals were merely machines, and in this sense there was no difference between automata, moving machines, the human or the nonhuman animal body. Whilst he conceded that corporeal bodies were intricate in their design, Descartes nonetheless argued the body was of little importance when it came to conceiving of the difference between humans, nonhuman animals or automata. It was instead the mind that was privileged as the locus of difference and Descartes argued that this provided the two fundamental confirmations of the absolute difference between 'men' and 'brutes'. Firstly, Descartes argued, only humans were able to use language to convey thoughts and secondly only humans possessed reason. Thus, nonhuman animals, despite their physiological

similarities to humans, were unable to “use words or other signs so arranged in such a manner as is competent to us” nor “act from knowledge, but solely from the disposition of their organs” (Descartes [1637] 1997, p. 102). The Cartesian rejection of the human/nonhuman animal continuum was most clearly expressed when Descartes wrote,

And this proves not only that the brutes have less reason than man, but that they have none at all: for we see that very little is required to enable a person to speak; and since a certain inequality of capacity is observable among animals of the same species, as well as among men, and since some are more capable of being instructed than others, it is incredible that the most perfect ape or parrot of its species, should not in this be equal to the most stupid infant of its kind, or at least one of the crack-brained, unless the souls of brutes were of a nature wholly different from ours.

(Descartes [1637] 1997, p.102)

What is clear from Descartes' argument is that reason and language could not be attributed by degrees to nonhuman animals within the natural order that had been supposed by the Great Chain of Being. Rather, the difference between humans and 'animals' was absolute and the discontinuity was therefore unbridgeable. Humans were endowed with a mind and therefore, unlike 'brutes', possessed consciousness, reason, morality and language. For Descartes the mind was inseparable from the soul, and in Discourse on Method, he referred to the possession of a “reasonable soul” as that which defines “a real man” (Descartes [1637] 1997, p.130). In his denunciation of the idea that nonhuman animals could possibly possess a soul, Descartes argued that the difference between human and 'animal' was so great that it was ridiculous to assume that after death “we have nothing to hope for or fear, more than flies and ants” (Descartes [1637] 1997, p.132). According to the Cartesian view, only humans had access to immortality after death; accordingly Descartes argued that humans should not experience any guilt about killing nonhuman animals as they had neither mind nor soul (Descartes [1637] 1997, p.133). In this sense the conflation of mind and soul that Descartes proposed dismissed any moral questions concerning the killing of nonhuman animals. Moreover the mechanistic model that framed the organic body was designed to oppose the significance of bodily sensation, and therefore by implication, the

Cartesian position dismissed arguments for the comparable experience of pain between human and nonhuman animals.

The Soul

Cartesian thinking about nonhuman animals opposed Christian theology with regard to what constituted a soul and exemplified a clear distinction between the discourses of scientific-philosophical thought and theology. Whilst Descartes conflated the mind with the soul and therefore determined that nonhuman animals could not possess a soul, Christian theology after Aristotle and Aquinas suggested that nonhuman animals had a type of soul but that it was part of the body of the nonhuman animal and therefore perished when the body died. Within theological discourse the soul differentiated between human and nonhuman animals to the extent that the human soul did not die with the physical body and was therefore immortal whilst the Cartesian view held that the soul was intrinsically linked to reason and therefore was attributable only to humans. However, despite the theological distinction between human and nonhuman animal souls, Christian doctrine remained explicitly anthropocentric and nonhuman animals were considered to have been created by God to be used by humans.

Whilst the theological distinctions between humans and nonhuman animals did not deny the existence of an 'animal soul' it was the possession of an immortal soul that distinguished 'man' from 'brute'. Biblical references cited by Aquinas provided unequivocal proof that the distinction between human and 'brute' was divinely ordained, and accordingly he wrote:

Hereby it is refuted the error of those who said it is sinful for a man to kill brute animals; for by the divine providence they are intended for man's use according to the order of nature. Hence it is not wrong for man to make use of them either by killing or in any other way whatever. For this reason the Lord said to Noah (Genesis ix: 3): 'As the green herbs I have delivered all flesh to you'.

(Aquinas, [1945 translation] in Clarke & Linzey (eds), 1990, p.12)

Aquinas' connection between the nonhuman animal and 'flesh' illustrated the theological division between the bodiliness of the nonhuman animal and immortal

rational soul of the human. Such differences were transposed onto moral discourses and regulation that suggested that the impulses, particularly sexual activities, were part of 'animal nature' and therefore humans could express their humanness and connection to God, by restraining their 'animality'. As social historian Keith Thomas has noted:

[M]ost people were taught to regard their bodily impulses as 'animal' ones, needing to be subdued. The alternative would be 'beastly' or 'brutish'. Lust, in particular, was synonymous with the animal condition, for the sexual connotations of such terms as 'brute', 'bestial' and 'beastly' were much stronger than they are today.

(Thomas, 1984, p. 38)

The ability to regulate one's actions and not submit to bodily desires not only distinguished the 'properly human' from the 'animal'; within theological discourse it also legitimated the practices of slavery. Within Aquinas' writing on the subject of divinely ordained 'difference', he argued that those "[...] devoid of the life of reason whereby to set themselves in motion; they are moved, as it were by another, by a kind of natural impulse, a sign of which is that they are naturally enslaved and accommodated to the uses of others" (Aquinas, [1918 translation] in Clarke & Linzey (eds) 1990, p.103). Thus, the nonhuman animal emerged within Christian doctrine as a social regulatory force that functioned to define human actions within moralised codes of behaviour. Moreover the difference between 'man' and 'animal' that was constructed and naturalised within theology had implications for the treatment of nonhuman animals *and* humans who were considered to be 'brutish' or 'bestial'.

Whilst it is outside of the scope of this investigation to examine the relationship between human slavery and other forms of oppression and the concept of the 'brute animal', it is salient to note that such relationships draw attention to the ideological implications of the construction of difference between human and nonhuman animals. The material implications of such differences are however fully examined by Keith Thomas who notes that,

[...] this abiding urge to distinguish the human from the animal also had important consequences for relations between men. For, if the essence of humanity was defined as consisting in some specific quality, then it followed that any man who did not display that quality was subhuman, semi-animal.

(Thomas, 1984, p. 41)

What is important for this study is that both theological and Cartesian discourses constructed the soul as a divinely ordained, and therefore naturalised, concept of difference between human and nonhuman animals. Although the discourses diverged in terms of the definition of the soul, with the Cartesian perspective conflating the soul with the mind and the theological discourse arguing that only humans could possess an immortal soul, the soul was nonetheless denied to nonhuman animals. In this way, conceived of as either a radical break between human and nonhuman animal (Descartes) or a point of reference on the scale of nature (Aquinas), the concept of the soul prescribed limits to the discursive construction of both humanness and animality.

The senses

Descartes' philosophy was heavily influenced by the methods employed within mathematics and physics. In Part Four of Discourse on Method Descartes famously developed his argument for the method of seeking truth, beginning with the proposition that, "I think, therefore I am" (Descartes, [1637] 1997, p.92). Descartes' objective was to dismiss the role of the senses in the pursuit of truth by establishing reason as the only method by which 'the truth' could be established (Descartes, [1637] 1997, p.91). Whilst the Cartesian method of philosophical enquiry was intended to obviate the role of the senses in favour of logic and reason the implications for nonhuman animals were significant.

Cartesian dualism privileged the mind over the senses on the principle, Descartes argued, that, "our senses sometimes deceive us" (Descartes [1637] 1997: 91). The argument against the senses was then logically developed and underpinned Descartes' assertion within Part Five of Discourse On Method that it is not possible to rely on the

senses to distinguish between automata, humans or nonhuman animals. Using his mechanistic model, Descartes asserted that the external appearance of a visible body, organic or otherwise, could not be relied upon to ascertain the true nature of an entity. Descartes then utilised his first proposition, 'I think, therefore I am' to underpin his argument for the negation of the organic in favour of the mechanic. In other words, the corporeal appearance presented to the senses could not be relied upon, therefore all bodies by virtue of their similarity could be reduced to the model of the machine, as any further attribution of intellect, rationality, mind or soul could not be deduced via the senses but only through logical reasoning. Descartes then argued in Part Five that only humans possessed reason and the capacity for language despite physiological similarities with nonhuman animals, therefore without evidence of a mind and within the Cartesian dualistic framework, nonhuman animals were reduced to 'bodily machines'.

To further elaborate upon his assertion of unassailable discontinuity between humans and nonhuman animals, Descartes clarified his position in a series of responses to his critics. In one of his replies to the criticism that he had not provided sufficient evidence to prove that animals do not possess a soul, Descartes explained that a difference existed between involuntary responses, or as he termed it 'animal spirits', and reason. His critic argued that nonhuman animals must possess a mind because sheep run away from wolves however, Descartes asserted, both humans and nonhuman animals have involuntary reactions to particular stimuli. Accordingly he described how an unexpected action, such as falling, causes a human to put out a hand to protect the brain and so "drives the animal spirits into the nerves in the manner necessary for this motion, and for producing it without the mind's desiring it, and as though it were the working of a machine" (Descartes, [1637] 1997, p.203). In the same way, Descartes suggested, the sheep does not reason that it must flee from the wolf. Rather, he argued, the actions of the sheep are a consequence of its 'animal spirits' and not cognitive reasoning (Descartes [1637] 1997, p.204).

Importantly, Descartes concluded that humans were inclined to erroneously interpret the actions of nonhuman animals on the basis of their similarity to human actions and therefore mistakenly attribute nonhuman animals with a mind. The logic of Descartes' reasoning thus became self-validating: He asserted that the 'brute' absolutely does not have a mind, on the basis that it has no capacity for reason or language; he further argued that the human senses could not be trusted, therefore what is perceived to be nonhuman animal reason could not be proved as the senses may be lying, thereby leaving only a return to the first statement arrived at by logical reasoning; that is, 'brutes' have no mind.

As compelling as Descartes' argument appeared to be there was however resistance to his ideas concerning the discontinuity between human and nonhuman animals. To some extent the challenge to Descartes' work can be related to a divergence between Anglo-American philosophy and Continental philosophy that emerged during the eighteenth century. This difference within western thought can be summarised as a consequence of the development of Continental rationalism and British empiricism. Within the development of the empiricist tradition John Locke mounted an influential attack on Cartesian rationalism by denying that logical reasoning alone could reveal truth. On the contrary, Locke argued, knowledge could only be derived from experience and that logical concepts were meaningless unless they could be supported by empirical, in other words, sensory information. Thus, at the root of the epistemological divergence between rationalism and empiricism was the extent to which the senses could reveal truth. According to the Cartesian Continental perspective ideas were an innate part of the mind, whilst the Lockean approach to knowledge was to ascertain information through the senses then reflect upon that information to draw conclusion as to the true nature of things. This divergence of opinion with regard to philosophical-scientific method during the eighteenth century had a correlate divergence of understanding with regard to nonhuman animals.

Empiricism and continuity

John Locke subscribed to the model of the Great Chain of Being that Descartes so radically opposed. In An Essay Concerning Human Understanding ([1690]1990), Locke argued,

In all the visible corporeal world we see no chasms or gaps [...] there are some brutes that seem to have as much reason and knowledge as some that are called men; and the animal and vegetable kingdoms are so nearly joined, that if you will take the lowest of one and the highest of the other there will scarce be perceived any great difference between them.

(Locke [1690] 1990, p.235)

Whilst Locke defended the principle of the Great Chain of Being and, as the forgoing quote evidences, was similarly defending a thesis of continuity between the various forms of organic life, he nonetheless made a distinction between human and 'brute' on the basis of language. Here though, Locke differed substantially from Descartes position, and in Book II of An Essay Concerning Human Understanding Locke made it quite clear that he was opposing the Cartesian model of mechanism arguing that, "if they [brutes] have any ideas at all, and are not bare machines (as some would have them) we cannot deny them to have some reason" (Locke [1690] 1990, p.75). What was important for Locke to establish within the human/nonhuman animal continuum was the point at which humans were distinct from 'brutes'. In this sense Locke, similar to other proponents of the Great Chain of Being such as Aristotle and Aquinas, considered humans to be animals but distinguished from 'brutes' under the rubric of "animal rationale" (Locke [1690] 1990, p. 238). In Elements of Natural Philosophy Locke ([1720] 1824) contended that "Men and brute, divide all the animals of this our globe" (Locke, [1720] 1824, p.431), and he argued,

The understanding of man does so surpass that of brutes, that some are of the opinion brutes are mere machines, without any manner of perception at all. But letting this opinion alone, as ill-grounded, we will proceed to the consideration of human understanding [...]

(Locke, [1720] 1824, p.439)

However, it is in An Essay Concerning Human Understanding that Locke expanded on his argument to offer a fuller explanation of the point of distinction between humans and 'brutes'.

According to Locke, sensory experiences were fixed as ideas within the memory. Speech was then used to signify these internal ideas; in other words, concepts are named. As the mind's capacity for naming ideas is finite, Locke proposed that the mind abstracted ideas to then create generalisations: "ideas taken from particular beings become representatives of all of the same kind; and their names, general names, applicable to whatever exists conformable to such abstract ideas" (Locke [1690] 1990, p.74). Locke then proposed that the "perfect distinction betwixt man and brutes" was at the point of the abstraction of ideas (Locke [1690] 1990, p.75).

The divergence between Locke and Descartes' distinctions between human and nonhuman animals was therefore immense. On the face of it, both clearly delineated between humans and 'brutes' on the basis of the lack of capacity for language, however Descartes' argument for difference was absolute and he dismissed sensation to argue instead that language was intrinsically linked to the rational mind and reason. For Locke however, reason and sensation were shared across the human/nonhuman animal continuum. Sensory information was similarly assimilated into ideas by humans and nonhuman animals alike; it was only at the point where the process of abstraction led to the formation of verbal signs (language) that, for Locke, the human differed from the 'brute'. Furthermore, the model of the Great Chain of Being that framed Lockean philosophy necessarily implied a continuum between humans and 'brutes' within which it was acknowledged by Locke that both humans and brutes shared the nomenclature, 'animal'.

John Locke was by no means the only thinker within the empiricist tradition that opposed the Cartesian discourse. In 'A Treatise Concerning the Principles of Human Knowledge', George Berkeley ([1710] 1990) wrote in response to Locke,

I readily agree with this learned author, that the faculties of brutes can by no means attain to abstraction. But then if this be made the distinguishing property of that sort of animals, I fear a great many of those that would pass for men must be reckoned into their number.

(Berkeley [1710] in Clarke & Linzey (eds) 1990, p.26)

However, it was David Hume who dealt the most decisive blow to Cartesian discontinuity when he stated,

Next to the ridicule of denying an evident truth, is that of taking much pains to defend it; and no truth appears to me more evident, than that beasts are endow'd with thought and reason as well as men. The arguments in this case are so obvious, that they never escape the most stupid and ignorant.

(Hume, [1739] in Clarke & Linzey (eds) 1990, p.27)

Hume's position attempted to synthesise naturalism and scepticism by arguing that humans and nonhuman animals form beliefs based on experience and inference. Hume contended that where there was no rational basis for a belief, the belief was not therefore irrational, but rather that there was a natural psychological disposition in both human and nonhuman animals to infer belief from experience. Hume pointed out that the philosophies of thought and mind may account for the philosophers' own "genius and understanding", but probably exceeded not only "the capacity of mere animals, but even of children and the common people of our own species" (Hume, [1739] in Clarke & Linzey (eds) 1990, p.27). Rather, Hume contended the process of reasoning from experience was no different for humans than it was for nonhuman animals, and moreover, he stated that proof of his hypothesis could be simply derived from the observation of the actions of nonhuman animals.

Contrary to Descartes dismissal of observed bodily actions, Hume's continuity hypothesis was based upon his observations of similitude in human and nonhuman animal behaviour. The Cartesian view proposed that all observed bodily action was reducible to the model of the mechanistic and to consider otherwise was to erroneously

trust the senses which ultimately will deceive the observer. Hume argued from the opposing position claiming,

'Tis from the resemblance of the external actions of animals to those we ourselves perform, that we judge their internal likewise to resemble ours; the same principle of reasoning, carry'd one step farther, will make us conclude that since our internal actions resemble each other, the causes from which they are deriv'd must also be resembling.

(Hume, [1739] in Clarke & Linzey (eds) 1990, p.27)

Hume's argument based on observations of nonhuman animals was linked to a dominant discourse of nonhuman animal sagacity that emerged in the mid-eighteenth century and continued into the early twentieth century. Anecdotal evidence testified to the powers of reason that were widely attributed to dogs and horses thereby complicating the boundary between human intellect and nonhuman animal instinct. Hume claimed that similitude in observable bodily action in animals could be accounted for by the attribution of reason to both humans and nonhuman animals. In addition to the attribution of mind to nonhuman animals, Hume went further to argue that the causes that induced bodily action were similarly shared with humans. In this case, the causes that he referred to were those of pain, pleasure and self-preservation (Hume [1739] in Clarke & Linzey (eds) 1990, p.26). Here, Hume claimed that it was possible to observe nonhuman animal behaviour and then extrapolate from comparable human experience. Moreover, he argued, nonhuman animals not only experienced pain and pleasure, they formed judgements about particular situations based on their prior experiences. In this sense, nonhuman animals could, through the need for self-preservation, make rational decisions to avoid pain.

Hume's contention ran contrary to Descartes' claim that bodily actions were analogous with the automated responses of a machine. To these ends Descartes wrote,

For we can easily understand a machine's being constituted so that it can utter words, and even emit some responses to action on it of a corporeal kind, which brings about a change in its organs; for instance, if it is touched in a particular part it may ask what we wish to

say to it; if in another part it may exclaim that it is being hurt, and so on.

(Descartes [1637] 1997, p.107)

The Cartesian perspective underpinned by the privilege afforded to the rational mind over the bodily senses necessarily denied that the human observation of nonhuman animal actions could be correctly interpreted as pain or pleasure. Descartes' bifurcation between human and nonhuman animals likewise disputed the possibility of comparable processes of rational thought or experience. The empiricists supported an opposing methodology that gave credence to the senses and experience and was framed the model of the continuum of the Great Chain of Being. Thus, Locke, Berkeley and Hume's attribution of mind, rational thought and the experience of pain to nonhuman animals were more easily assimilated into the empiricist tradition.

Pain and nonhuman animal feelings

The material consequences of the divergence of thinking between Continental and Anglo-American philosophy for nonhuman animals have been readily described in recent studies of nonhuman animal vivisection practices (for example see: Shankur in Savage-Rumbaugh, Shankur & Talbot, 1998; Kean, 1998; Turner, 1980; Kete, 1994; Desmond, 1989). However, I want to draw attention to this particular relationship as it provides exemplification of my contention that knowledge conditions regulate and legitimate practices. It therefore serves here to summarise the outcomes of Cartesian rationalism and British empiricism in relation to nonhuman animal experimentation.

Those who adopted the Cartesian model felt justified in their experimentation on live nonhuman animals and argued that the cries of the experimental subjects were not cries of pain but merely automated responses. Cartesians derided those who felt sympathy for experimental nonhuman subjects as the discontinuity between humans and nonhuman animals constructed nonhuman animal consciousness and emotion as erroneous. Whilst live experimentation did take place within Britain, the practice was criticised by the humanitarian concerns of eighteenth century moralist discourses. Pain

and suffering were centralised within moralist discourses and combined with the dominant empiricist perspective in Britain, live nonhuman animal experimentation was subject to close critical scrutiny. Many English scientists refused to use mammals as live experimental subjects whilst continental vivisectionists were vilified in British newspapers for their experiments on live dogs (Kean, 1998, pp. 96-98). Whilst there was a divergence of both thought and practice, both the empiricist and rationalist traditions agreed on one point of difference between human and nonhuman animals: Descartes, Locke, Hume and Berkeley each claimed that nonhuman animals did not possess language. For Cartesians this point of discontinuity was linked to the treatment of nonhuman animals; 'brutes' had no language and therefore no mind/soul and so were treated as 'machines'. In the case of Locke, Berkeley and Hume, language was indicative of higher mental states, and whilst these were not attributable to nonhuman animals, it was still agreed that nonhuman animals had some degree of rational thought and the capacity to feel pain.

The Darwinian model of continuity

In relation to the construction of anthropomorphism, the most important shift in thinking about nonhuman animals came with Charles Darwin's evolutionary hypothesis in the nineteenth century. What was most significant about Darwin's work was the reconfiguration of the human/nonhuman animal continuum. Whilst variations of mental continuity had been established by the model of the Great Chain of Being and further validated by the empiricist tradition, Darwin's model of biological continuity erased the distinctions between 'man' and 'brute' at level of both mind/soul and body. In this sense the intervention of God in the construction of difference between human and nonhuman animal was displaced by Nature as an active force that instrumented change to organic life; and the fixity of organic life within the Great Chain of Being was overturned in favour of evolution by gradual modification. Thus, 'natural selection' opposed the agency of God and evolutionary descent blurred the boundary between human and nonhuman animal. Whilst empiricists such as Locke and Hume had maintained that

there was a mental continuum between human and nonhuman animals that terminated at the point of language and complex thought processes, Darwin was willing to admit a more generous attribution of biological and therefore mental kinship between human and nonhuman animals.

Human/nonhuman animal continuity was the very foundation of evolutionary theory and across Darwin's three major works, The Origin of Species (1859), The Descent of Man (1871), and The Expression of the Emotions in Man and Animals (1872) nonhuman animals were attributed with thought, consciousness, emotion, morality, intent and language (gesture communication and intercommunication). The rejection of breaks or discontinuities in the theory of modified descent reorganised the nonhuman animal body across a plane of similitude with humans on the basis of descent from a common progenitor. In Origin, Darwin offered a graphical representation of similitude in the form of a branching chart that expressed graduated change and variation. The context of this representation was less than precise as it offered a map of an unnamed animal across a plane of undefined time without beginning or end and having no final states of materiality. In his explanation of the chart, Darwin said,

Let A to L represent the species of a genus large in its own country [...] The intervals between the horizontal lines in the diagram, may represent each a thousand generations; but it would have been better if each had represented ten thousand generations [...] In our diagram the line of succession is broken at regular intervals by small numbered letters marking the successive forms which have become sufficiently distinct to be recorded as varieties. But these breaks are imaginary, and might have been inserted anywhere [...]

(Darwin, [1859] 1985, pp. 159-163)

According to Darwin's evolutionary model, even the process of extinction was not seen as a break or discontinuity, but rather as a continual re-working of bodily change. An extinct nonhuman animal was connected to existing bodily forms through the links of graduated continuity as a necessary element of the widening range of modified material bodies. Whilst Darwin did not explicitly apply the model of modified descent to humans in Origin, in his autobiography, he later noted,

As soon as I had become, in the year 1837 or 1838, convinced that species were mutable productions, I could not avoid the belief that man must come under the same law. [...] Although in the 'Origin of Species' the derivation of any particular species is never discussed, yet I thought it best, in order that no honourable man should accuse me of concealing my views, to add that by the work "light would be thrown on the origin of man and his history."

(Darwin, [1892] 2001, p.77)

Thus, whilst Darwin did not make the human/nonhuman animal biological continuum explicit within Origin, a shared biological and mental inheritance was nonetheless clearly implied. The Great Chain of Being model was based on the biblical proposition that God had created each fixed category of organic life: Darwin's evolutionary model proposed instead that Nature had created the multitudinous versions of living organisms. This evolutionary assertion was a major point of contention as the Great Chain of Being model organised organic life into fixed conceptual categories wherein God was attributed with intellect and agency whilst nature was a mindless force operating under God's control.

The biological continuum expounded by evolutionary theory emphasised a radical break with empiricists such as John Locke in that Darwin argued that characteristics were innate. Locke contended that the mind was a blank slate or *tabula rasa* and opposed any argument for innate characteristics; Darwin, however, contended for example that certain expressions of emotion appeared to be common to different animals leading him to conclude that emotions were to a large extent inherent. Significantly, Darwin argued, "certain states of mind, are the direct result of the constitution of the nervous system, and have been from the first independent of the will, and to a large extent, of habit" (Darwin, [1859] 1985, p. 69). Thus, whilst Darwin attributed internal emotional states to nonhuman animals, for example joy, sadness, terror and so on, he nonetheless concluded that the outward display of these emotions, that is observable behaviour and physiological change, was not controlled by the mind but was a biologically inherited involuntary response to external stimuli. In this sense, Darwin's hypotheses in Expression did not deal with the subjective experience of the

nonhuman animal, but rather concentrated on the inference of mental state ascription by observation of externalised behaviours.

There is a tension, however, between Darwin's *hypotheses* and the *anecdotes* that supported his hypotheses. I remark on this tension here in anticipation of a later shift at the beginning of the twentieth century when anecdotal narratives of nonhuman animal life were rejected within positivism as subjective and therefore 'un-scientific'. As Mitchell, Thompson, and Miles contend in their review of twentieth century methodology within comparative psychology, "the use of anecdotes to interpret animal psychology is commonly viewed as part of any anthropomorphic method" (Mitchell, Thompson and Miles, 1997, p.7). It is thus within Darwin's anecdotal evidence that his discussion of nonhuman animal subjective experience was apparent, and where the attribution of intent and consciousness was necessarily implied. A case in point is Darwin's anecdote concerning a walk with his dog in which he claims,

Not far from my house a path branches off to the right, leading to the hot-house, which I used often to visit for a few moments to look at my experimental plants. This was always a great disappointment to the dog, as he did not know whether I should continue my walk; and the instantaneous and complete change of expression which came over him, as soon as my body swerved in the least toward the path [...] was laughable. His look of dejection was known to every member of the family, and was called his hot-house face.

(Darwin, [1859] 1985, p. 62)

In the case of the anecdote cited above there is a relationship between the dog realising that the walk may end and his emotional response to that 'knowing'. I agree with Elizabeth Knoll's suggestion that Darwin's anecdotes made his theories "surprisingly appealing [...]" and "intuitively plausible and almost attractive to any gentleman whose dog lies at his feet by the fire" (Knoll, 1997, pp. 14-15). However, it is also important to note that the anecdotes that Darwin offered were, by the early twentieth century considered to be erroneous. Bernard Rollin explains that, "individual instances of behaviour in context- commonly called anecdotes- [were] unacceptable because they [were] too often subject to overinterpretation and anthropomorphism" (Rollin, 1997, p. 126). Two things strike me as particularly important here: Firstly that

Darwin's anecdotal evidence was quite clearly a crucial part of his methodology, that when later vilified by the discourses of positivism, became established as un-scientific method or 'anthropomorphic practice'. Secondly, scientific anecdotes are ambiguous practices that sit between subjective interpretation, that becomes characteristic of the fictional narrative in the twentieth century, and the verification of hypotheses that, as I shall discuss, became demanded by positivism in the twentieth century.

Darwin's evolutionary continuity hypothesis legitimated his interpretative practices in that similitude between human and nonhuman animal validated the extrapolation and application of human experience, emotion, and subjectivity to nonhuman animals. It is important to note therefore that the interpretative practices that Darwin employed to support his hypotheses become contested as anthropomorphic practices in the twentieth century. As I have already demonstrated here, the observation of human/nonhuman animal similitude was already clearly established as valid within empiricist discourses and this underpinned a dominant discourse of nonhuman animal sagacity that was evident from the mid-eighteenth century onward. What I want to emphasise here however, is that anthropomorphism emerges as an object of discourse through the rejection of observational methods and anecdotal evidence at the end of the nineteenth century. It is at this point that anthropomorphism comes to be regarded as the attribution of uniquely human characteristics to nonhuman animals which by the early twentieth century acquires a pejorative status. It is therefore through the critiques of observational practices and anecdotal evidence that anthropomorphism is identified, named and defined as erroneous. And whilst the end of the nineteenth century marks a clear point in history where anthropomorphism is regarded in a pejorative sense it is nonetheless evident that earlier theological, Cartesian and empiricist discourses are crucial to this definition as they prescribed and proscribed the conceptual categories which are considered to be 'uniquely human'.

The chapters that follow examine the ideological implications of this shift but it is salient to note for example that even in the late twentieth century, natural history documentary film makers were still making explicit claims that they were actively avoiding the overly subjective interpretations of nonhuman animal life that had been made by Darwin more than a century before (see my discussion of natural history documentary in chapter five). What is important here is that there is a key relationship between scientific method, or interpretative practices, and the discourse of human/nonhuman animal continuity subscribed to within evolutionary biology that is critiqued as anthropomorphic.

Critiques of anthropomorphic practice

Many of Darwin's critics rejected his claims that nature assumed the active role in evolutionary change. The term 'natural selection' was perceived as problematic as it implied the agency of nature as a higher power. Darwin had claimed that variation under domestication was merely an impoverished human emulation of natural selection and opponents of evolution such as Bishop Samuel Wilberforce argued as follows:

Assuming that man as the selector can do much in a limited time, Mr Darwin argues that Nature, a more powerful, a more continuous power, working over vastly extended ranges of time, can do more. But why should Nature, so uniform and persistent in all her operations, tend in this instance to change? Why should she become a selector of varieties?

(Wilberforce cited in Young, 1985, p.99)

The argument mobilised by resistors such as Wilberforce was that nature could not be attributed with the agency and power that could only be held by the Christian God. In a disparaging letter to Darwin in 1859, Adam Sedgwick stated,

As to your grand principle- *natural selection*- what is it but a secondary consequence of supposed, or known, primary facts. [...] For you do not deny causation. I call (in the abstract) causation the will of God: & I can prove that he acts for the good of His creatures. [...] You write of "natural selection" as if it were done consciously by the selecting agent.

(Sedgwick [1859] in Darwin & Burkhardt & Smith (eds), 1991, pp. 396-397)

Even early supporters of evolutionary theories, such as J. D. Hooker and Alfred R. Wallace, found the idea of natural selection problematic. Hooker suggested to Darwin, "You certainly make a hobby of Nat. Selection & probably ride it too hard" (Hooker [1859] in Darwin & Burkhardt & Smith, 1991, p.437). In letters to Darwin in 1866, Wallace advised that the term natural selection was confusing due to the "self-acting and necessary effects of Natural Selection" (Wallace, 1886 cited in Young, 1985, p.99). Wallace commented that Darwin's opponents considered his 'weak point' to be as follows:

[T]hat you do not see that "thought and direction are essential to the action of Natural Selection". The same objection has been made a score of times by your chief opponents, and I have heard it as often stated myself in conversation. Now I think this arises almost entirely from your choice of the term "Natural Selection" and so constantly comparing it in its effects to Man's Selection, and also your so frequently personifying nature as "selecting", as "preferring", as "seeking only the good of the species," etc., etc. To the few this is as clear as daylight, and beautifully suggestive, but to many it is evidently a stumbling-block.

(Wallace [1886] cited in Young, 1985, p.100)

In other correspondence with Darwin, one critic wrote:

A closer definition, seems to me to be required, of the phrase "natural selection"; the governing principle of the work. From different passages in the volume, it might be variously interpreted, as a necessity, as an accident, as an instinct, as an *intellectual volition*. [...] would it not be well to alter some of the phrases which create ambiguity, such as "picking out with unerring skill" "working for the good of each being" "natural selection having taken advantage of" "for the sake of eliminating &c &c.

(Holland [1859] in Darwin & Burkhardt & Smith (eds) 1991, pp. 418-419, emphasis in original)

The major locus of resistance from critics such as Holland, Sedgwick, Wilberforce and Wallace was directed at the investment of power in nature rather than in humans or God as Darwin's claims shifted power from humans and God, to nature.² Thus, the humanisation of nature was perceived as being inherently problematic. I contend therefore that what is significant here is not simply that God was displaced from nature, but more importantly that the practice of humanising was so closely aligned with the attribution of power. In this sense, I am arguing that the very practice of humanising

was constructed as dangerous as it attributed 'human-like' agency and intellect, and therefore power, to something other than the institutionally authorised agents of the nineteenth century: in other words, 'Man' and God. For my own argument the redistribution of power through humanisation is fundamentally important as I demonstrate in later chapters that the attribution of human characteristics to nonhuman animals attracts moral and legislative concerns about 'rights', welfare and treatment. Therefore I draw attention to this arrangement of power within the nineteenth century context of Darwin's critiques as it retains its resonance into the twentieth and twenty-first centuries. I assert therefore that what was at stake for the critics was that Darwin's work resulted in power being perceived as held by that which was 'humanised' and similar criticisms were thus levelled at the attribution of 'human' faculties to nonhuman animals.

Sedgwick argued that the human/nonhuman animal continuum proposed by Darwin in Origin made a man a "son of a monkey" and that such ideas would "brutalize" humanity and "sink the human race into a lower grade of degradation than any into which it has fallen since its written records tell us of its history" (Sedgwick [1859] in Darwin & Burkhardt & Smith (eds) 1991, p.397). Sedgwick remarked, "Passages in your book, like that to which I have alluded (& there are others almost as bad) greatly shocked my moral sense" (Sedgwick [1859] in Darwin & Burkhardt & Smith (eds) 1991, p.397). Despite such criticisms Darwin wrote in 1859 "I fear all reviews of my present book [Origin], will be unfavourable; but I now feel confident my views will ultimately prevail" (Darwin [1859] in Darwin & Burkhardt & Smith (eds) 1991, p.411). In Descent Darwin openly attributed nonhuman animals with morality when he stated, "Besides love and sympathy, animals exhibit other qualities connected with the social instincts, which in us would be called moral; and I agree with Agassiz that dogs possess something very like a conscience" (Darwin, [1874] 1981, p.78). Alfred Russel Wallace, whilst a supporter of evolutionary theory, found issue with Darwin's suggestion of moral continuity between human and nonhuman animals and argued that as a scientific work,

Descent, lacked satisfactory evidence. In an attempt to separate the issue of moral continuity from the idea of natural selection, Wallace argued:

The point to which I wish specially to call attention is, that to prove continuity and the progressive development of the intellectual and moral faculties from animals to man, is not the same as proving that these faculties have been developed by natural selection; and this last is what Mr. Darwin has hardly attempted, although to support his theory it was absolutely essential to do so.

(Wallace [1889] in Coley & Hall (eds), 1980, p.462)

According to biologist and natural historian St George Jackson Mivart, morality in brutes could not possibly be sanctioned. Mivart was one of Darwin's harshest critics and utterly opposed the concepts of natural selection and descent by gradual modification, but Mivart's chief argument centred on the question of morality in the nonhuman animal. As Sedgwick's criticisms had suggested, for nonhuman animals to occupy the moral plane that was divinely ordained for 'man' meant that Darwin had reduced humans to the level of beasts. Mivart published Genesis of Species just months before the publication of Descent and pre-empted the claims that Darwin would make for nonhuman animal morality when he stated,

[...] some Darwinians assert that germs of morality exist in brutes and we have seen that Mr. Darwin himself speculates on the subject as regards the highest apes. It may be safely affirmed, however, that there is no trace in brutes of any actions simulating morality [...]

(Mivart [1871] in Coley & Hall (eds), 1980, p.300)

'Proof' of difference within twentieth century science

The question of morality in nonhuman animals that occupied Mivart and his contemporaries was indicative of the close ties between science and theology that had been underpinned by the dominance of the Great Chain of Being. However, the discourse of evolutionary biology liberated nature from the agency of God and in this sense began to align the natural sciences with physics and chemistry. This shift was further augmented by the rise of positivism within the first quarter of the twentieth century when theology and metaphysics were epistemologically split from science, and thus the question of moral nonhuman animals was effectively dismissed from scientific discourse. Bernard Rollins summarises this split within twentieth century science and

theology when he argues that, "science [wa]s [...] believed to be value free, and thus [could] allegedly make no moral claims since moral judgements are unverifiable" (Rollin in Mitchell et al. 1997, p.126).

Whilst morality had proved to be a major point of opposition to the Darwinian discourse of human/nonhuman animal continuity, the emergence and consolidation of science disciplines within the twentieth century established a strengthened discontinuity argument. The Darwinian human/nonhuman animal continuum was divested of its authority in favour of the reductionist strategies postulated by positivism, behaviourism and cybernetics. As I discuss later, on one level disciplines such as psychology and cybernetics claimed to erase the distinction between human and nonhuman animals however, the dominance of anthropocentrism within twentieth century humanist science reconfigured the radical divergence between human and nature that had been in place prior to Darwin's continuity thesis. It is important therefore to point out how the consolidation of humanism and twentieth century science marked a shift away from Darwinian continuity. Moreover, this point was critical to the discursive construction of anthropomorphism as it is within the discourses of twentieth century science that the attribution of mentality, emotion and language to nonhuman animals was classified as erroneous 'anthropomorphism' without reference to theology or morality.

The emergent methods of scientific enquiry in the transition from the nineteenth to the twentieth century began to dislodge the authority of the human/nonhuman animal continuum and the legitimacy ascribed to mental and emotional continuity. A series of well-publicised scientific studies at the beginning of the twentieth century confirmed the erroneous nature of mental state ascription to nonhuman animals.³ In 1907, psychologist Oskar Pfungst published his study Das Pferd des Herrn Von Osten (Der Kluge Hans). Ein Beitrag zur experimentellen Tier-und Menschen-Psychologie, (The Horse of Mr Von Osten (Clever Hans) : A Contribution to Experimental Animal and Human Psychology) (Pfungst, [1907] 1998). In his study Pfungst refuted claims by

Prussian aristocrat Wilhelm Von Osten that his horse, Clever Hans, could perform mental arithmetic. Pfungst showed that the horse was in fact responding to subtle visual cues from the trainer rather than doing the calculations. Four years prior to Pfugst's publication, in 1903, the Russian physiologist Ivan Pavlov presented his study, 'The Experimental Psychology and Psychopathology of Animals', at a medical conference in Madrid, on the 'conditioned reflex' in dogs (Pavlov, 1963). Pavlov's study challenged Darwin's theory of innate modes of expression when he showed that the salivation response in a dog could be stimulated by external means and therefore was a learned response. Pavlov's study challenged the notion that observed behaviour in dogs was a consequence of canine reasoning. He argued instead that behaviour such as salivation could be stimulated by the external environment. In 1911 American comparative psychologist Edward Thorndike published Animal Intelligence. In his text, Thorndike refuted all claims that nonhuman animals possessed reason and claimed that in the extant literature, "most of the books do not give us a psychology, but rather a *eulogy* of animals. They have all been about animal *intelligence*, never about animal *stupidity*" (Thorndike, 1911, p.22). Thorndike argued that rather than observe nonhuman animals in the environment, it was necessary to construct laboratory experiments to test hypotheses about intelligence. To these ends Thorndike constructed a series of experiments on cats and dogs and argued that,

The great support of those who do claim for animals the ability to infer has been their wonderful performances which resemble our own. These could not, they claim, have happened by accident. No animal could learn to open a latched gate by accident. The whole substance of the argument vanishes if, as a matter of fact, animals do learn those things, by accident. *They certainly do.*

(Thorndike, 1911, pp. 61-62)

In Animal Intelligence, Thorndike claimed that the experiments that he devised put the nonhuman animals into situations where, if they had any mental faculty such as reason or judgement, they would have used it. However, he concluded, the experimental subjects only showed evidence of learned responses, often generated from accidental actions.

Reductionism and logical positivism as regulatory discourses

Thorndike and Pavlov's studies were influential in the rise of behaviourism within psychology and in 1913, the founder of the behaviourist school J. B. Watson wrote, "The time seems to have come when psychology must discard all reference to consciousness; when it need no longer delude itself into thinking that it is making mental states the object of observation" (Watson [1913] p.161 at <http://psychclassics.yorku.ca/Watson/views.htm>). Watson voiced his concern that psychology could not attain the status of a science until introspection, consciousness, mental states, and mind, were expelled from the discipline. Watson thus demanded that the only way forward for psychology was through the objective study of behaviour without recourse to internal states of mind or analogy through introspection. In his article 'Psychology As The Behaviorist Views It' Watson (1913) denied the possibility of mental continuity between human and nonhuman animals on the basis that mental states were in themselves not an object of study. In this sense, Watson wished to establish a continuity of scientific enquiry for both human and nonhuman animal behaviour and he argued that, "The behaviorist, in his efforts to get a unitary scheme of animal response, recognizes no dividing line between man and brute. The behavior of man, with all of its refinement and complexity, forms only a part of the behaviorist's total scheme of investigation" (Watson, [1913] p.158 at <http://psychclassics.yorku.ca/Watson/views.htm>).

Watson's claims were indicative of a new wave of reductionism that stretched from the influence of the behaviourist school within psychology to the philosophy and methodology of logical positivism within science.⁴ As psychology refuted the study of consciousness, internal states and introspection, so the shift toward logical positivism, promoted by the Vienna Circle, attempted to rid science of the unverifiable claims of metaphysics and theology. Underpinned by Wittgenstein's (1921) Tractatus logico-philosophicus logical positivism subscribed to the idea that the language of science could be purified of extraneous linguistic frivolities if it was reduced to propositions that

could be determined through empirical data as either true or false (Wittgenstein [1921] 2001).⁵ This shift formalised the rejection of anecdotal evidence that had been the basis of Darwin's arguments in Origin, Descent and Expression and demanded that what was said or written about nonhuman animals was purged of all subjective interpretation. This logocentricism suggested that reality could be accessed via language and it was therefore through language that the categorical error could be made. In this sense, the attribution of particular characteristics from one category could be mistakenly applied, through language, to another category: a notion that, as I discuss in chapter five, still informed the writing of voice-overs in natural history documentaries in the 1970s.

In Tractatus Wittgenstein argued, "It will therefore only be in language that the limit can be drawn, and what lies on the other side of the limit will simply be nonsense" (Wittgenstein, [1921] 2001, p.1). Behaviourism and logical positivism opposed what were considered to be the methodological and linguistic excesses of nineteenth century naturalist studies. In this sense, the reductionism of positivism and behaviourism necessarily disputed any attribution of internal states to nonhuman animals on the grounds that they were unverifiable and, in their most radical form, both movements argued that it was not even possible to propose the question of nonhuman animal consciousness, emotion or mind. Thus, during the first quarter of the twentieth century there was a major shift in the scientific discourses of nonhuman animals. In this sense, the regulation of discourse that was imposed by behaviourism and positivism explicitly stated not only what could and what could not be talked about with regard to nonhuman animals but also what questions could be asked. During the first half of the twentieth century it was scientifically 'unacceptable' to talk about nonhuman animals as possessing language, morality, consciousness or emotion as the regulative force of positivism and behaviourism prohibited such forms of discourse and the interpretative practices that supported it.

Behaviourism

Psychologist George Herbert Mead opposed Darwin's methods of investigation stating that Darwin had been unable "to separate in the earlier experiences certain facts and certain attitudes of mind" (Mead, 1917, p.203). Mead argued that 'truth' could be only discerned through "the analysis of the fact-structure of reality". He contended,

[...]in the first place that the scientist undertakes to form such an hypothesis that all the data of observation will find their place in the objective world, and in the second place to bring them into such a structure that future experience will lead to anticipated results.

(Mead, 1917, p.202)

Mead thus proposed that a hypothesis had to be subject to experimental verification and could only be formed from that which could actually be observed in the world; this necessarily disputed that any hypothesis about 'mind' could be made as consciousness was unobservable and any hypothesis would be unverifiable. Darwin's study of 'emotion' was therefore displaced by the study of observable 'behaviour'.

Highly influential in the rejection of interpretative methods, psychologist C. L. Morgan argued that Darwin's emotional and mental continuum was inferred from Darwin's own subjective state of mind. Morgan contended that, "the difficulty is due to the fact, that the only mind with which we can claim any first-hand acquaintance is the civilised mind, that of which we are conscious within ourselves" (Morgan, 1903, p.42). Morgan argued that any inference of state of mind from the subjective standpoint of the observer had to be questioned. He stated,

It will thus be seen that in studying other minds through their objective manifestations, it is primarily essential that we should have, so far as is possible, a thorough and accurate acquaintance with the only mind we can study at first-hand and directly, namely our own. Without this, anything like scientific interpretation is manifestly impossible. All rational human beings have, however, some acquaintance with the workings of their own consciousness. And many of those who are not professed psychologists have, through unusual powers of introspection and keen insight, reached conclusions which are just

and true, though they are apt to be somewhat lacking in balance. Psychologists make, or should make, no claim to any monopoly of knowledge in the subject they study; their province is mainly to systematise that knowledge. They bear to the acute and accurate observer the relation of the trained biologist to the amateur naturalist. And just as the amateur naturalist is apt to regard the scientific biologist with some suspicion, as one who is over-subtle, and relies too much on the delicate methods of the laboratory and the dissecting-table - so is the plain man of shrewd insight apt to regard the psychologist also with some suspicion, as one who is over-subtle in his distinctions, too introspective, and not sufficiently objective in his study of mind.

(Morgan, 1903, p.44)

As the above quote demonstrates, C.L. Morgan subscribed to the anthropocentric character of humanist science when he contended that the study of 'other' minds should be dismissed in favour of the scientific examination of the human mind. And, in opposition to the methodologies that Darwin utilised, Morgan made apparent the distinction between the professional scientist and the 'amateur naturalist' and the different methods of knowledge production accorded to each: i.e. the study of objective manifestations, the use of laboratory methods and dissection, introspection versus objective study, and the overall endeavour of the professional scientist, to systematise knowledge.

Morgan's influential argument rendered problematic the popularisation of science where naturalists' accounts of nonhuman animal life utilised the practices that Morgan deemed to be opposed to 'professional science'. Contemporaneous with Morgan's argument and methodologically indebted to Darwin, naturalist accounts of nonhuman animal activity, in their own habitats, were popularised within mass produced periodicals such as The Strand Magazine. As Morgan's argument made clear, the discourse of comparative psychology was differentiated from that of the naturalist by recourse to a distinction between amateur and professional practices. At the heart of

this distinction were interpretative practices which crucially led Morgan to conclude that, "In no case is an animal activity to be interpreted in terms of higher psychological processes" (Morgan, 1903, p.59). This principle of parsimony was referred to as Morgan's Canon and, akin to Ockam's razor, it stated that all nonhuman animal activity should be interpreted at the most basic, objective and verifiable level. In other words, rather than attribute mental states to a nonhuman animal, scientists should explain nonhuman animal activity in behavioural terms and without recourse to subjective interpretation. Morgan's contemporary, George Herbert Mead, likewise argued against subjective interpretation and claimed it was only suitable for poets and artists; it was instead truth and facts that occupied the positivist scientists (Mead, [1907] 1964, pp. 73-81).

Cybernetics

Whilst psychology formalised its rejection of inferred mental state ascription to nonhuman animals at the beginning of the twentieth century, the anthropomorphisation of inanimate objects became used to theorise a new discourse of communication and control in humans and machines. The discourse of cybernetics emerged in the first half of the twentieth century and reinforced the view of the body as a machine; a conceptual model that had been favoured within Cartesian discourse. In a study of aircraft servomechanisms it was noted that automatic range finders could use data from previous trajectories to predict new trajectories. These new trajectories could, however, be interfered with to cause the range finder to oscillate uncontrollably. It was suggested that these observations of machine behaviour emulated human behaviour in that the machine used past experiences to predict future behaviour and that this behaviour could be interrupted by interventions that were akin to a 'disease' in the system. What was especially important about the discourse of cybernetics was that it anthropomorphised the machine but *not* the nonhuman animal. Whereas Darwin's continuity thesis had connected the human to the nonhuman animal through a shared

biological inheritance, the discourse of cybernetics reconnected the human to the machine via a shared system of communication and control mechanisms.

The significance of this human/machine conjunction cannot be overstated. The nonhuman animal was effectively erased from discourses of cybernetics, and later for that matter from cultural studies, as the 'machine' emerged as the key symbolic reference point for understanding 'humanness'. Cybernetics appeared to propose a new understanding of the body that eroded the distinctions between human, machine *and* nonhuman animal, however what actually emerged was a discourse that privileged only the human/machine configuration.

Unlike Descartes' assertion that only 'animals' were machines, cybernetics proposed that all bodies could be reduced to the model of the machine. However, whilst the Cartesian discourse made a clear distinction between the human, the machine and the 'animal', the discourse of cybernetics used the human body as the key signifier for the concept of 'animal'. Therefore, although the cybernetic system was proposed as common to both machine and animal, the human was used consistently as the chief referent, thereby rendering the nonhuman animal redundant within the discourse. In short, the nonhuman animal was not represented within the discourse of cybernetics and consequently the human/machine conjunction, or cyborg, emerged as the pre-eminent discursive object.

Proposed by Norbert Wiener in his 1948 book Cybernetics: or Control and Communication in the Animal and Machine and popularised by his book The Human Use of Human Beings (1950) two years later, cybernetics was conceived of as a control and communication system (Featherstone & Burrows (eds), 1995, p.8). Within the cybernetics discourse, the human mind and the human body were analogous with machines; reduced to the fundamental mechanism of 'feedback', the biological and the machinic operated in parallel through control and communication systems.

Significantly, however, the discourse of cybernetics operated at another reductive level as indicated in Weiner's 1948 publication:

[...] Dr. Rosenbluth and myself had already become aware of the essential unity of the set of problems centering about communication, control, and statistical mechanics, whether in the machine or in living tissue... After much consideration, we have come to the conclusion that all the existing terminology has too heavy a bias to one side or another to serve the future development of the field as well as it should... We have decided to call the entire field of control and communication theory, whether in the machine or in the animal, by the name Cybernetics [...]

(Weiner, [1948] 1965, p.19)

The biological organism was referred to as 'animal' by Weiner and cybernetics seemed to collapse the separation between human and nonhuman animal. In addition, the emergent cybernetics discourse appeared to erase difference between the human and the nonhuman animal. The reductive model of communication and feedback within cybernetics did expunge difference and in turn suggested the possibility of hybridity between the biological and the technological. In 1960, Manfred E. Clynes and Nathan S. Kline articulated this possibility and introduced the term 'cyborg' otherwise regarded as "self regulating *man-machine systems*" (Clynes & Kline, [1960], cited in Featherstone & Burrows (eds) 1995 p.12, my emphasis). Although especially concerned with the problematic human body being unsuitable for space travel, Clynes summarised the extraordinary potential of the cyborg in a 1965 publication where he claimed that the incorporation of man-made (sic) technologies into the human biological organism was a new stage of participatory evolution from which the cyborg would emerge as "a new and [...] better being" (Clynes in Halacy, 1965, p.7).

As the title of the book that popularised accounts of the cyborg, Cyborg: Evolution of the Superman (Halacy, 1965) indicated, the biological/technological boundary erased the nonhuman animal altogether and the cyborg discourse was anthropocentrically conceptualised as a blurring of the boundary between human and machine. Therefore despite the possibility that difference between human and nonhuman animals would be erased within the cybernetics discourse, what actually emerged was a gendered

'human-machine' conjunction. In the discourse of cybernetics 'man' became the main referent for all biological life and I argue that this was entirely consistent with the anthropocentrism of twentieth century western humanism.

Humanism and western science

As this discussion of positivism, behaviourism and cybernetics shows, reductionist strategies of modern science appeared to propose a new form of continuity between human and nonhuman animals. Human and nonhuman animals could methodologically be conceived of within the same reductionist frameworks. Without recourse to issues such as mind, consciousness, or emotion and with the conflation of 'animal' and machine beneath the rubric of cybernetics, previous distinctions between human and nonhuman animal were eroded. However, whilst on one level behaviourism and cybernetics proposed the collapse of certain conceptual boundaries between humans and nonhuman animals the project of modern science was ultimately underwritten by humanism. In this sense, knowledge production was foremost for the benefit of human life and welfare and the primacy afforded to humanness and universal truths defined a modern conception of the human relationship to both the natural world and nonhuman animals. From this configuration it is unsurprising that the 'man-machine' became the ultimate symbol of human progress in the twentieth century.

Empiricism and rationalism formed the epistemological foundations of modern humanism and by the early twentieth century the rise of positivism helped to cement the concepts of universal truth and knowledge, scientific rationality and human progress as central to the modern humanist paradigm. The anthropocentric values of humanism defined a discontinuity between humans and the natural world that, at its locus, celebrated the human control and domination of nature. Over the course of three centuries' development of humanism, nonhuman animals had, conceptually at least, hovered on the boundary between human and nature within the discourses of empiricism and evolutionary biology. However the dominance of anthropocentrism

within western humanism reallocated nonhuman animals to the sphere of nature and, as such, the human-centred interests of scientific discourses served only to consolidate the authority of an anthropocentric world-view.

The exploitation of nonhuman animals was absolutely critical to twentieth century science, industry, commerce, society and culture under the rubric of humanism. From intensive farming practices which emerged from the discursive formation of the state and science to the rise of the pharmaceutical industries which used nonhuman animals as experimental objects, the nonhuman animal was crucial to human progress. As a result, the expulsion of anthropomorphic practices from scientific discourses reconfigured the nonhuman animal as an object of science and obscured questions of animal welfare or animal rights.

As I discuss in the following chapters, the nineteenth century discourse of animal rights was clearly aligned with discourses of evolutionary continuity and popular cultural representations of humanised nonhuman animals. However, with the relocation of anthropomorphic practices to the spheres of popular culture where it was summarily redefined as 'primitive', 'childish' and 'unscientific' at the beginning of the twentieth century, the popular and intellectual support for animal rights diminished. The anthropocentric views of the scientific establishment and, crucially, their rejection of anthropomorphic practices were therefore fundamental to the wider exploitation of nonhuman animals. In short, non-anthropomorphic constructions of nonhuman animals, which effectively rendered them as 'objects', were economically beneficial.

What I want to establish here is that there is a key linkage between the way in which nonhuman animals are constructed as objects within scientific discourse and the social and cultural consequences of that construction. In addition, where anthropomorphism was rejected by science and subsumed into popular culture, the points at which science and 'the popular' met, for example in the natural history documentary, became

sites of contest between the popular anthropomorphic representation and the objective scientific construction of the nonhuman animal; a point that I develop over the following chapters. The dominance of the non-anthropomorphic view of science in the twentieth century was absolutely vital to the emergence of these tensions between discourses of science and popular culture, and it is therefore important to recognise that science acquired its authority in the early twentieth century through its discursive alliances with the state.

The rise of science and its attendant methodologies as a dominant form of knowledge production was ultimately considered beneficial for modern Western society and the authority of science was publicly and politically acknowledged by 1945 as scientific knowledge had become central to wartime industrial and military success. Science, as a rule governed institution composed of professional specialists (scientists) with its own set of knowledge and (non-anthropomorphic) practices, was thus clearly identifiable as an authority of delimitation by the early decades of the twentieth century. In terms of naturalising the dominance of 'the West', science was taken to be indicative of the progressive, rational, objective systems of humanist thought, and modern epistemologies offered ontological security for the properly 'human'. Thus, by the 1940s Western science had created its own conditions of hegemony and, buoyed by a dominant global position, science was considered by governments to be fundamental to the rebuilding of the postwar Western economy.⁶

Behaviourism and the influence of positivism enjoyed a dominant position throughout the first half of the twentieth century and the effects of two world wars further consolidated the anthropocentrism of modern humanism. In the re-establishment of postwar western economies the scientific control of nature was essential to human welfare, particularly in the areas of food production, health, and housing. Intensive farming, the production of medicines, and new building methods were considered to be indicative of the progress of human endeavour underwritten by twentieth century

scientific knowledge. In farming for example, the chemical control of nature was highly successful in eradicating the unwanted aspects of the natural world; pesticides, fungicides, herbicides, and anthelmintics⁷ were the panaceas of modern intensive farming production. The incorporation of chemical control into farming practices was dutifully reinforced, advocated, and often demanded by government policies and campaigns that were designed to support the postwar economic restructuring of the West.

In short, control of nonhuman animals and the natural world was considered crucial to human welfare and progress. However, in the second half of the twentieth century concerns over the use of chemical controls threatened to erode public faith in scientific endeavour. This led to a reassessment of the relationship between humans and nature. Within this reassessment of nature, the concept of the nonhuman animal was also fundamentally re-evaluated and it is therefore important to outline the terms of this re-evaluation.

Environmentalism

Whilst the possibility of food shortages had been eradicated from the West by the 1950s, a series of questions about the safety of chemical controls in farming production began to emerge in the 1960s. In the UK, concerns about an unprecedented number of dead wild birds being found across the country forced a meeting of a special committee of the House of Commons in 1961 to investigate reports of pesticide poisonings (Carson, [1962] 1991, pp.117-118). In the US, the publication of Silent Spring in 1962 raised concerns that the overuse of chemical controls, particularly dichloro-diphenyl-trichloro-ethane (DDT), was already producing profoundly negative effects in nature, humans, and nonhuman animals.⁸ Rachael Carson anticipated later concerns when she questioned the motivating principles behind chemical control:

Future historians may well be amazed by our distorted sense of proportion. How could intelligent beings seek to control a few unwanted species by a method that contaminated the entire

environment and brought the threat of disease and death even to their own kind? Yet this is precisely what we have done...We are told that the enormous and expanding use of pesticides is necessary to maintain farm production. Yet is our real problem not one of *over-production*?

(Carson, [1962] 1991, pp.25-26, emphasis in original)

Central to Carson's account of the hazards of modern chemical usage was the concept of 'the environment'. In Silent Spring, Carson inevitably reconnected humans to nature and nonhuman animals. She argued that the dangers of chemical toxins were not localised geographically or within particular species; rather, all living beings were intrinsically connected to 'the environment', particularly through mechanisms such as the waterways and the food chain (Carson, [1962] 1991, p.169). Carson recounted the results of studies that claimed that DDT residues of between 5.3 and 7.4 parts per million were commonly found in the American population between 1954 and 1956.⁹ Taken in through the consumption of food, there was no escape from the build-up of DDT residue in the human body: meat, fish, fruit and vegetables all harboured levels of the chemical. There was no doubt, in Carson's view, that the environment was being chemically poisoned by the collaborative efforts of science, state and industry; poisoning was thus a consequence of modern 'civilisation'.

To find a diet free from DDT and related chemicals, it seems one must go to a remote and primitive land, still lacking in the amenities of civilisation [...] Such a land appears to exist, at least marginally, on the far Arctic shores of Alaska- although even there one may see the approaching shadow [...] When some of the Eskimos themselves were checked [...] small residues of DDT were found [...] The reason for this was clear [...] For their brief stay in civilisation the Eskimos were rewarded with a taint of poison.

(Carson, [1962] 1991, p.163)

As Carson's comments suggested, there was no escape from the combined effects of Western science, industry, and state; environmental poisoning did, however, emphasise the interconnectivity of all living beings. To these ends, the environmental effects of Western farming practices that were dependent on chemical control and advocated by the state could not be locally contained.

Carson argued that important interrelationships and interdependencies were, at best misunderstood, at worst ignored. The connection between humans and the natural world could only be appreciated through an understanding of two ecologies: the ecology of the environment and the ecology of the body. Although connected, the two ecologies differed in one significant way. Environmental ecology, or “the web of life- or death” could be seen, witnessed, and transcribed; the ecology of the body was an “unseen world” where, she claimed, “minute causes produce mighty effects; the effect, moreover, is often unrelated to the cause, appearing in a part of the body remote from the area where the original injury was sustained” (Carson, [1962] 1991, p.169). The human body, far from being resilient and under the protection of modern science, was vulnerable and constantly exposed to risks that were not immediately perceived. The risks to humans were, paradoxically, products of scientific, industrial, and ultimately human, ‘progress’ and the environmental discourse, implicitly at least, challenged the claims of cybernetics that science could engineer an invulnerable ‘superman’.

The nascent discourse of environmentalism began to erode the distinctions between humans, nonhuman animals and nature. At the first United Nations Conference on the Human Environment in Stockholm in June 1972 the declaration signed by member nations included the following commitment that demonstrated both the renewed linkage between human and nature, but also the notion that humans could ‘work with’ nature.

A point has been reached in history when we must shape our actions throughout the world with a more prudent care for their environmental consequences. Through ignorance or indifference we can do massive and irreversible harm to the earthly environment on which our life and well being depend. Conversely, through fuller knowledge and wiser action, we can achieve for ourselves and our posterity a better life in an environment more in keeping with human needs and hopes. There are broad vistas for the enhancement of environmental quality and the creation of a good life. What is needed is an enthusiastic but calm state of mind and intense but orderly work. For the purpose of attaining freedom in the world of nature, man must use knowledge to build, *in collaboration with nature*, a better environment.

(Declaration of the United Nations Conference on the Human Environment, June 1972: paragraph 6, at <http://www.casi.org.nz/statements/dechen.html>, my emphasis)

The previously established grids of specification, which defined humans as separate from nature and nonhuman animals, did not allow for interconnection; however, the discourse of the environment de-stabilised the authority of such distinctions and, instead, offered up the interconnectivity and interdependence of discursive webs rather than the rigidity of delimited grids. Within these webs, human, nonhuman animal, and nature were enmeshed and interlinked through a dizzying myriad of discourses including ecology, biology, chemistry and medicine. Whilst the professionalisation and consequent specialisation in the sciences had developed into discrete discourses, the discourse of environment remade connections between these, apparently separate, disciplines. Thus, Carson implied that, through the linkages between discourses of specialised science, interconnectivity between human and nature could be better understood. She expressed this sentiment by drawing on discourses of ecology and medicine to illustrate how the two seemingly disparate disciplines found commonality through connections with the discourse of environment (Carson, [1962] 1991, p.169).¹⁰ However, despite Carson's claims, the organisation of scientific knowledge and practice prevented the immediate establishment of such linkages.

The environmental 'problem' inevitably exposed a 'problem' with science, which was conceptualised as a monolithic discourse that could provide 'truth' about the world. Science was purported to be a universal discourse, a totalising metanarrative, however the different disciplines were fragmented. As geneticist David Suzuki has pointed out,

The essence of scientific method is that we focus on a part of nature, attempt to bring it into the laboratory or under the microscope and control factors impinging on it and emanating from it. In this way we gain knowledge about that isolated bit of nature.

(Suzuki, 1995, p.9)

The impact of scientific knowledge, practices and progress on the environment gained public attention, yet for some commentators, the ecological crisis was also rooted in the anthropocentricity of earlier Christian doctrine. In an influential 1967 article for Science magazine, historian Lynn White argued, "By destroying pagan animism, Christianity

made it possible to exploit nature in a mood of indifference to the feelings of natural objects" (White, 1967, p.1203)¹¹. White argued that pagan animism which attributed every part of nature with humanlike qualities had been displaced by the 'cult of saints' which elevated humanness and human form above the natural world. In this way, White argued, Christian dogma had contributed to the ecological crisis. Whilst science and technology had become the 'new religion' of the twentieth century, the anthropocentricity of contemporary attitudes toward the natural world were derived from Christianity. What was particularly important about White's claims was that whilst the environmental discourse had led to a questioning of the dominance of humanism within science, it had also precipitated a re-evaluation of animism and the attribution of human qualities to nonhuman entities. Thus, by the mid-twentieth century there was a demonstrable shift in thinking about the relationship between humans and the natural world signalled by crucial critiques of humanism and anthropocentrism from the nascent environmental discourse.

Postmodern re-evaluation

As science had matured, so the disciplines of science multiplied and specialisation had led to fragmentation. One outcome of this organisation of scientific knowledge and practice was that conflicting 'truths' were produced within different scientific disciplines. The fragmentation of the sciences thus produced only partial, incomplete answers that were unable to satisfy a public need for absolute and definitive statements. Objections to notions of absolute truth, teleological views of history, and totalising theories that began to circulate in the latter half of the twentieth began to suggest that a destabilisation of belief in the linear progress of 'science' was underway.¹²

Attempts to theorise late twentieth century changes have proposed that totalising theories were characteristic of rational humanist thought that advanced the belief in a universal human history, linear progress and absolute truth. It has therefore been argued within poststructuralist thought that the late twentieth century was characterised

be a rejection of large-scale theoretical assumptions. Assumptions that were considered universal in their application and promulgated by the utopian possibilities of rationalisation and standardisation conditioned modernist systems of production, and central to modernist knowledge was the monolithic discourse of Western science. As many writers have noted, the rejection of modern science as a teleological and universal metanarrative is broadly acknowledged in the late twentieth century as characteristic of 'postmodernity'. Postmodernity signalled a rejection of anthropocentrism and humanism within western thought. The philosophical undertakings of Michel Foucault, Gilles Deleuze and Felix Guattari, and Jacques Derrida were consistent with the anti-humanist paradigm of postmodernity. It is important to note therefore that it is under the conditions of postmodernity that the late twentieth century re-evaluation of non-human animals takes place.

Opposition to modern science opened the door to two new modes of thinking in relation to non-human animals. In the first place the effects of human progress on nature were re-evaluated in moral terms and this gave renewed vigour to issues of nonhuman animal rights and welfare that had lain dormant since the end of the nineteenth century. Secondly, the rejection of the concept of universal knowledge opposed the reductionist discourses that had dominated science, and consequently gave rise to new questions about non-human animal consciousness, language, and emotion. Evidence of the changing conceptualisation of nonhuman animals that I mention above can be neatly summarised with reference to two important texts that were published in the 1970s: Peter Singer's book Animal Liberation ([1975] 1995) and Thomas Nagel's article 'What is it like to be a bat?' (1974). I develop my discussion around these two texts in later chapters therefore here I will only draw attention to the extent to which they problematised the limits of the nonhuman animal.

Singer's Animal Liberation was a landmark text and has been referred to, by many commentators, as the "bible of the animal liberation movement" (Singer, [1975] 1995,

p. xvi). In Animal Liberation Singer called for a radical re-evaluation of the position of nonhuman animals within society. His overarching argument was based upon moral reason rather than on, what he referred to as, 'emotion'. In aiming to put distance between twentieth century discourses of animal rights and those of the nineteenth century, Singer argued,

The portrayal of those who protest against cruelty to animals as sentimental, emotional "animal-lovers" has had the effect of excluding the entire issue of our treatment of nonhumans from serious political and moral discussion. [...] Nowhere in this book, however, do I appeal to the reader's emotions where they cannot be supported by reason.

(Singer, [1975] 1995, p. xi)

The new discourse of nonhuman animal rights still reflected the legacy of a half century of humanism, positivism, and behaviourism in its positioning. Whilst there was a call for a renewed moral discourse on nonhuman animals, Singer was also clearly claiming a defence against the criticisms of nineteenth century anthropomorphism. As such, Animal Liberation based its rational approach to rights on the basis of the success of other liberation movements and argued that in the wake of gay rights, women's rights and the Black Liberation movement, the oppression of nonhuman animals was a further realm of abject discrimination that needed to be addressed. In naming the human prejudice against nonhuman animals 'speciesism', Singer appropriated the discursive resonances of other discriminatory practices that, he proposed, were identical in their outcomes to those of the speciesist. In this sense, Singer argued that,

Racists violate the principle of equality by giving greater weight to the interests of members of their race [...] sexists violate the principle of equality by favoring the interests of their own sex. Similarly speciesists allow the interests of members of their own species to override the greater interests of members of other species. The pattern is identical in each case.

(Singer [1975] 1990, p.9)

The late twentieth century moral discourse of nonhuman animal rights re-established the nonhuman animal as a sentient entity capable of emotion that had suffered under the oppressive regimes of scientific investigation and intensive farming practices. Singer's text was thus at the vanguard of the late twentieth century animal rights movement and crucial to the re-evaluation of the concept of the nonhuman animal.

Concurrent with Singer's writing of Animal Liberation, a second important text was published by Thomas Nagel entitled 'What is it like to be a bat?'. In his article for The Philosophical Review Nagel (1974) challenged the dominant view within science concerning the subjective lives of nonhuman animals. Nagel argued that the reductionism of twentieth century science had mistakenly dismissed asking questions about consciousness in nonhuman animals. In his 1974 article, Nagel argued,

Consciousness is a widespread phenomenon. It occurs at many levels of animal life, though we cannot be sure of its presence in the simpler organisms, and it is very difficult to say in general what provides evidence of it. (Some extremists have been prepared to deny it even of mammals other than man.)

(Nagel, 1974, p. 435)

Nagel opposed the dominant reductionism of behaviourism and argued instead that whilst it was difficult to determine what the subjective experience of nonhuman animals was 'like', this was fundamentally a problem of human interpretative strategies. In other words, it was the inability or resistance of humans to thinking outside of the human-centred experience that was the real stumbling block for any consideration of nonhuman animal subjectivity. This opposed the methodological undertakings of behaviourism. According to Nagel's argument it was inappropriate to attempt to explain nonhuman animal experience by extrapolation from human experience. As the nonhuman animals mind and body are composed of different structures to that of the human body, the sensory and therefore subjective experience of nonhuman animals would likewise be different. Crucially, that difference however, did not mean that there was no such thing as nonhuman animal subjectivity. Rather, argued Nagel, the difference in experience merely meant that extant human frameworks of analysis, and even humans themselves, were not equipped to understand or explain nonhuman animal subjectivity. In the conclusion to his argument Nagel asked for a radical shift in scientific methodology when he argued,

At present we are completely unequipped to think about the subjective character of experience without relying on the imagination-without taking up the point of view of the experiential subject. This should be regarded as a challenge to form new concepts and devise a new method- an objective phenomenology not dependant on

empathy or the imagination. Though presumably it would not capture everything, its goal would be to describe, at least in part, the subjective character of experiences in a form comprehensible to beings incapable of having those experiences.

(Nagel, 1974, p.348)

Nagel's article was crucial to the re-opening of debates on nonhuman animal subjectivity and consciousness and emerging, historically, at the same time as Singer's argument for nonhuman animal rights, both Animal Liberation and 'What is it like to be a bat?' signalled a shift in thinking about nonhuman animals. The immediate difference between the debates of the late twentieth and nineteenth centuries was the extent to which humans and nonhuman animals were discursively configured as 'different'. In this sense, whilst both Nagel and Singer argued for a re-evaluation of those characteristics that had been considered 'human'- consciousness and emotion- neither subscribed to a nineteenth century continuity thesis. Rather both Singer and Nagel argued that nonhuman animals were different but that the difference should not be conceptualised as barring nonhuman animals from any attribution of emotion and consciousness. In this sense, the late twentieth century discourses on nonhuman animals were indicative of a shift from the humanism of modernity to the relativism of postmodernity.

Conclusion

The critical re-evaluation of nineteenth century interpretative practices within the human and natural sciences that took place in the early twentieth century was the crucial shift that cemented the definition of anthropomorphic practices as the mistaken attribution of human characteristics to nonhuman animals. I am arguing here therefore that the discourse of anthropomorphism emerges from the epistemological negotiation of difference between human and nonhuman animals and at the locus of the twentieth century definition of anthropomorphism is an array of characteristics that have been constructed as solely attributable to humans. Emotion, morality, language, consciousness, the soul, and subjectivity have become central to discourses that regulate what can legitimately be ascribed to, or said about, nonhuman animals. The

nonhuman animal is therefore not a fixed category and has at its extremes been conceptualised as 'a machine' and an emotional moral, thinking, being.

The knowledge conditions that characterise any particular historical era also produce the material conditions of existence and in this sense, what becomes crucial here is that the treatment of nonhuman animals is directly linked to human knowledge production. Thus, discourses of nonhuman animal rights and welfare were dismissed as relics of nineteenth century anthropomorphism and sentimentality in the first half of the twentieth century, only to be re-evaluated in the challenge to humanism and reductionism that took place in the latter half of the century. Not only did this shift have consequences for the material conditions of nonhuman animal existence, it also discursively reconfigured human practices and identity. In this sense, as Peter Singer states in the revised edition of Animal Liberation,

People concerned about animals don't offer me ham sandwiches anymore. In Animal Liberation groups, the activists are now all vegetarian; but even in the more conservative animal welfare movements, there is some awareness of the issue of eating animals. Those who do so are apologetic about it and ready to provide alternatives when preparing meals for others. A new consciousness exists about the need to extend sympathies for dogs and cats to pigs, chickens and even laboratory rats.

(Singer, 1995: xvi)

What is crucial to point out here is not only that the discursive construction of difference has impacted on the lived experiences of human and nonhuman animals, but that the renegotiation of anthropomorphic practices has played a key role in the changing conditions. In this sense anthropomorphism is a political practice that has been central to the ways in which humans think about and treat nonhuman animals. The concepts of emotion, language, consciousness and morality have, over the last three centuries, been at the locus of discursive constructions of nonhuman animals and anthropomorphism. Thus, where nonhuman animals have been located in relation to these 'attributes' has reciprocally defined their status, treatment, and the context of anthropomorphic practices that I discuss in the following chapters.

Endnotes

¹ For accounts of and debates on theological anthropomorphism see; Benavides, 1995; Goldberg & Raynor, 1989; Kracher, 2000; Luckmann, 1967; Preus, 1995 & 1998; Segal, 1995; Barrett & Keil, 1996, & Yonan, 1995.

² Darwin's refusal to accept that God played any part in the creation of species is expressed in a response to Asa Gray on the subject of natural selection being opposed to Creationism. Darwin wrote, "As you truly remark, if one admits a certain amount of creation there is no obvious reason why not admit many acts.- But I rest on the fact that the theory of Natural selection explains many classes of facts, which, as far as we can see, repeated acts of Creation do not explain" (Darwin [1859] in Darwin & Burkhardt & Smith (eds), 1991, p.446).

³ For fuller accounts of these studies see Page, 1999 and Stamp Dawkins, 1999.

⁴ I use the term reductionism in a descriptive and not pejorative sense here.

⁵ As such, logical positivism was intellectually indebted to empiricism.

⁶ Claude Alvares (1995) argues that, "the culture products of the West, including its science, are able to claim compelling primacy and universal validity only because of their... congenital relationship with the political throne of global power" (Alvares, 1995, p. 67).

⁷ Chemicals used in the control of (livestock) parasites.

⁸ Silent Spring (1963) stayed on the bestseller list for 31 weeks and sold 500,000 copies (source: Macnaghten & Urry, 1998: 45).

⁹ See: Carson, [1962] 1991, p. 162-163.

¹⁰ Here, Rachael Carson refers to the two ecologies- nature and the human body- and cites a recent summary of medical research to illustrate that molecular change at a single point "may reverberate throughout the entire system" (Carson, 1963: 169).

¹¹ Lynn White article 'The Historical Roots of Our Ecological Crisis' is copiously referenced throughout much contemporary literature on ecology and the environment.

¹² See for example: Kuhn, 1962; Lyotard, 1979.

Chapter Three

Ideology and nineteenth century anthropomorphism

As I have detailed in the previous two chapters, within twentieth century retrospective critiques, anthropomorphic practices have been considered a relic of nineteenth century sentimentality and misplaced subjective interpretation. However I have proposed that this characterisation of anthropomorphism denies the important ideological function of such practices. I have already suggested therefore that the twentieth century critiques of anthropomorphic practice emerge as a new 'regime of truth' which subsequently obscures the significance of practices of humanisation within the nineteenth century. The objective of this chapter is therefore to re-evaluate the ideological dimension of nineteenth century anthropomorphism across science and popular culture to illuminate the crucial role that these practices played in both the maintenance and subversion of the social order. Here I consider the importance of anthropomorphised nonhuman animals to the construction of a discourse of animal rights and how this was intrinsically connected to the Darwinian continuity discourse. I also examine how the humanisation of nonhuman animals became naturalised within discourses of gender, class, race and morality wherein nonhuman animals functioned as key signifiers of social stratification.

In tracing the discursive linkages between science and popular culture, the domain that I analyse and the argument that I present in this chapter differ significantly from Harriet Ritvo's (1987) influential study, The Animal Estate: The English and Other Creatures in the Victorian Age.¹ Ritvo examines social interactions between human and nonhuman animals to argue that mammals functioned to reinforce dominant hierarchies. She maintains that nonhuman animals offered important metaphors that validated a Victorian rhetoric of domination and oppression within moral and social hierarchies and the discourse of British imperialism but argues that, "[...] art and literature have provided only occasional corroborative examples; the large literature of animal fable

and fantasy, which has little connection to real creatures, none at all" (Ritvo, 1987, p.4). I contest Ritvo's position here and argue, to the contrary, that there is a very real and significant connection between the construction of the nonhuman animal within discourses of popular culture and the circulation of power within nineteenth century society. It is therefore my contention that anthropomorphic practices within science and popular culture were absolutely crucial to the ideological potency of the nonhuman animal such that it is specifically the *humanised* nonhuman animal that provided the most compelling metaphor for Victorian society.

Ritvo also argues that, "Darwin's theory of evolution did not prescribe any real break in the system of traditional metaphors underlying descriptive natural history" (Ritvo, 1987, pp. 39-41). I dispute this second claim made by Ritvo on the grounds of the main premise of this thesis, specifically that knowledge conditions shift and produce corresponding changes in the conceptualisations of nonhuman animals; a mapping of which I presented in the previous chapter. My analysis of the ideological function of anthropomorphised nonhuman animals within this chapter therefore has two important objectives; firstly to contest Ritvo's denial of the link between popular culture and the role of nonhuman animals in the maintenance of social order; and secondly to argue that the same constructions of the nonhuman animal which validated the social hierarchy also threatened to disrupt the extant social order precisely because they had gained legitimacy through the discourses of both science and popular culture. In accord with the historical schema that I presented in the preceding chapter, and contrary to Ritvo's assertions, I centralise the popularisation of Charles Darwin's work as pivotal to the discursive formation under discussion and my examination of this takes place in the first part of this chapter.

My research and subsequent argument in this chapter were initially motivated by a suggestion made by Richard Ryder, who briefly speculated that,

The words 'anthropomorphism' and 'sentimentality', both widely used in twentieth century Britain to disparage those who treated nonhuman animals in ways considered to be only appropriate to humans, were unheard in this context until after Darwin's day. Is it too fanciful to suggest that they were the animal exploiter's defences against the logical implications of Darwinism?

(Ryder, 1989, p.164)

In building on Ryder's suggestion, I am interested in producing a re-evaluation of anthropomorphism in terms of its potential as a disruptive social practice. In short I am concerned here with unpacking what Ryder regards as, 'the logical implications of Darwinism', and within this chapter I examine why a discourse of animal rights challenged the social order toward the end of the nineteenth century. As I proposed in the preceding chapter, the discourse of animal rights and the attendant humanisation of nonhuman animals within popular culture were incompatible with humanist strategies of the early twentieth century. Here, I locate my argument within the specific social and cultural arrangements of the nineteenth century to provide a critical evaluation of the ideological implications of humanising nonhuman animals that takes into account the discursive fusions between discourses of science and popular culture that Ritvo and others have overlooked.

Science fact and popular fiction

Anthropomorphism as an authorised, or contested, practice of interpretation has, in part, relied on the conditions of knowledge production that have prescribed distinctions between science 'fact' and popular 'fiction'. At the end of the nineteenth century a change in the conditions of knowledge production occurred through the professionalisation and specialisation of the sciences. As psychologist C. L. Morgan pointed out in 1903, one distinction between the professional scientist and the amateur naturalist was that professionalism in the sciences was based upon the need to "systematise knowledge" (Morgan, 1903, p.44). With the introduction of civic universities and specialised university departments, scientific knowledge was 'carved up' into disciplines and each knowledge area developed specific methods of enquiry

(scientific practices), specialised practitioners (professional scientists) and modes of knowledge dissemination (specialist publications and journals). The first decades of the twentieth century thus bore witness to a reconfiguration of 'fact' and 'fiction', as 'science' and 'popular' discourses developed within new epistemological conditions as the natural sciences became institutionalised.²

The human/nonhuman animal continuum that had been proposed by Darwin in The Origin Of Species (1859), The Descent Of Man (1871) and The Expression of the Emotions in Man and Animals (1872) was reconfigured through these channels of 'fact' and 'fiction' as 'bad science'. With the division between human and nonhuman animal at the level of emotional and mental continuity re-established through Morgan's Canon and the development of psychology as a specialist discipline, the attribution of 'human' characteristics to nonhuman animals was constructed as erroneous. More specifically however, I propose that the criticisms of Darwin's work took four main themes: A rejection of his interpretative practices which were felt to be overly subjective and later described pejoratively as anthropomorphic; a critique of his authorial style that utilized popular discourse and attributed nature with agency; his appropriation of anecdotes as scientific evidence; and opposition to the 'vulgar' popularisation of his ideas. Apart from the antagonism leveled at the popularity of his work, each of the three aforementioned critiques constructed and prescribed the limits of erroneous science in the twentieth century, and more importantly, were established as the defining features of anthropomorphic practice. Darwin's practices of interpretation, style of discourse, and selection of evidence were, as I have discussed in chapter two, deemed inappropriate within the discourses of modern positivism and these responses to Darwin's work set the tone of broader criticisms of anthropomorphism.

However, Charles Darwin's work was highly influential in establishing popular nineteenth century conceptualisations of nonhuman animals and this was due to its being intentionally situated between science and popular culture. What is

fundamentally important about Darwin's style of discourse was that it was accessible to academics, naturalists, *and* a wider middle-class audience and was therefore ideally positioned to transform popular understanding of nonhuman animals. As I shall discuss later, a middle-class discursive construction of nonhuman animals, particularly dogs, was imposed upon working class practices and therefore an important power-knowledge relationship existed between Darwin's humanised discourse of nonhuman animals and its social distribution and appropriation. Crucially, Darwin had recognised the potential for popularising Origin by adopting a style of discourse that could be understood by those outside the academic community; a point that is made apparent by examination of Darwin's personal correspondence.

Central to Darwin's style of discourse was his use of anecdotal evidence to support his theories. As I have already noted in chapter two, the relationship between anecdotal evidence and Darwin's humanisation of nature and nonhuman animals was intrinsic to his overall thesis of evolutionary continuity between human and nonhuman animals. Darwin used his own anecdotal evidence and that supplied by naturalists and geologists within his own social strata yet he also drew on the anecdotes of working-class people. Writing to T.H. Huxley in November 1859, Darwin remarked, "I have found it very important associating with fanciers and breeders.- For instance I sat one evening in a gin-palace in the Borough amongst a set of Pigeon-fanciers [...]" (Darwin [1859] in Darwin & Burkhardt & Smith (eds), 1991, p.404). Controversially, Darwin noted that agricultural and horticultural journals and 'fanciers and breeders' offered a more reliable and useful set of sources on the subject of breeding than the authorised scientific works of the time. However, he claimed "*The difficulty is to know what to trust*" (Darwin [1859] in Darwin & Burkhardt & Smith (eds), 1991, p.404, emphasis in original). Yet, it was quite apparent that he understood the popular appeal of anecdotal discourse when he wrote in April 1859 to Mr J. D. Hooker,

You will think it presumptuous, but I think my book will be popular to a certain extent, enough to ensure [against] heavy loss amongst scientific and semi-scientific men: why I think so is because I have

found in conversation so great and surprising interest amongst such men and some [non]-scientific men on subject; and all my chapters are not *nearly* so dry and dull as that which you have read on Geographical Distribution.

(Darwin [1859] in Darwin & Burkhardt & Smith (eds), 1991, p.276, emphasis in original)

With this claim, Darwin implied a distinction between scientific discourses and 'everyday' discourse and clearly indicated that he recognised the popular appeal of his own writing style. This approach, he intimated, would assure a wide readership of his controversial hypothesis of evolution by natural selection. In correspondence with his publisher Darwin remarked, "The book *ought* to be popular with a large body of scientific and semi-scientific readers" (Darwin [1859] in Darwin & Burkhardt and Smith (eds) 1991, p.274, emphasis in original). Others agreed with Darwin and following the publication of Origin T. H. Huxley wrote, "Nothing I think can be better than the tone of the book- it impresses those who know nothing about the subject" (Huxley [1859] in Darwin & Burkhardt & Smith (eds), 1991, p.390).

However, his writing style and use of anecdotal evidence alone cannot account for the impact of Darwin's work on the wider popular construction of nonhuman animals. It is clear that Darwin's work exploited a key set of social and cultural arrangements that were already in place. Most notably, the pursuit of naturalist studies had become an important middle-class leisure activity by the mid-nineteenth century and Darwin's work was ideally positioned to appeal to this section of society. In addition to this, as I have already mentioned in the previous chapter, a discourse of nonhuman animal sagacity had been in circulation since the mid-eighteenth century and combined with the growth of pet-keeping as a dominant cultural practice by the mid-nineteenth century, the observations and anecdotes about dogs that populated Darwin's work were immediately appealing to audiences. Also emerging from the eighteenth century, moralist and empiricist discourses had already considered how the experience of pain was shared across a human/nonhuman animal continuum. Jeremy Bentham wrote of nonhuman animals in 1789, "The question is not, Can they reason? nor, Can they talk?

but, Can they suffer?" (Bentham, [1789] in Clarke & Linzey (eds) 1990, p.136) and, as I have already mentioned in the preceding chapter, John Locke had proposed that nonhuman animals made rational decisions to avoid pain. Already established within the cultural capital of the nineteenth century middle-classes these discourses and practices provided a fertile ground for Darwin's discourse of human/nonhuman animal continuity. Certainly each of these factors was imperative for the popularisation and naturalization of humanised nonhuman animals across science and popular culture and it was this social and cultural configuration that was exploited by Darwin's writing style and continuity thesis.

Popular science

Origin was a scientific best seller. The complete first edition of 1250 copies sold out on the first day of sale as did the second edition of three thousand copies and sixteen thousand copies had been sold by 1876 (Darwin 1859 in Darwin & Burkhardt and Smith (eds), 1991, p. 414; Young, 1985, p.4). In addition to numerous translations, the British printings of Origin sold over twenty seven thousand copies by 1882 and forty-seven thousand copies had been sold by 1895 (Mayr, 1991, p.7). The popular appeal of scientific works during the nineteenth century was certainly not limited to Darwin's work however, and the language of many scientific texts was easily within the intellectual grasp of a moderately educated readership. Yet, the popularity of Origin far exceeded that of other authors' work, such as Sir Charles Lyell whose The Principles of Geology (1830) "went through editions of 2000 copies each at a relatively leisurely rate" (Young, 1985, p.4). What is important about this comparison between Lyell and Darwin is that it demonstrates that Darwin's work was more attuned to the cultural and social conditions than Lyell's. As I have already suggested, this popular success was reliant upon his use of 'everyday' observations of pets and anecdotal evidence with which his audience could readily identify.

Darwin described Origin as, “the chief work of my life. It was from the first highly successful” (Darwin, [1881] 2001, p.69). As his correspondence establishes, Darwin understood that the popularisation of science demanded a discursive strategy whereby scientific knowledge was filtered through a non-technical language and the appeal of his work both at home and abroad led Darwin to comment in 1876,

My books have sold largely in England, have been translated into many languages, and passed through several editions in foreign countries. I have heard it said that the success of a work abroad is the best test of its enduring value. I doubt whether this is at all trustworthy; but judged by this standard my name ought to last for a few years.

(Darwin, [1887] 2001, p.86)

The popularity of Origin was undoubtedly reliant on the appropriation of 'everyday' discourse and anecdotal evidence; however a shift toward a culture of image consumption, enabled by technological advances in image mass reproduction, demanded that illustrations and photographs be integrated into popular mass-market cultural forms during the late nineteenth century.

Darwin had insisted in 1859 that Origin should have a two page folding diagram included as an insert, which he described to his publisher as “*indispensable*” (Darwin [1859] in Darwin & Burkhardt and Smith (eds) 1991, p.300). In letters to T H Huxley, Darwin expressed an interest in the incorporation of illustrations in future publications and in Variation (1868) he included forty-three accompanying images (Darwin [1859] in Darwin & Burkhardt and Smith (eds) (1991) pp. 434-435). To further assure the popularity of his work, in 1872, Darwin’s The Expression of the Emotions in Man and Animals became one of the first scientific texts to include photographic illustrations. Darwin’s pioneering use of photographic evidence in Expression was important in that it set new standards for the illustration of scientific texts and exploited the popular market for photographic image reproduction. Darwin noted in his autobiography, “my book [Expression] sold largely; 5267 copies having been disposed of on the day of publication” (Darwin, [1887] 2001, p.78). Even Darwin himself however expressed some surprise when minor works such as his “little book”, The Formation of Vegetable

Mould, through the Action of Worms (1881) sold 8500 copies (Darwin, [1881] 2001, p.82-83).

Attracting a large number of “fairly uncritical general readers” (Bowlby, 1990, p.350), the readership of Darwin’s work went beyond orthodox theologians, philosophers, and scientists. With the success of Darwin’s Origin capturing a popular imagination, many scholars were determined to play down the revolutionary or novel aspect of the work. In 1868, G. H. Lewes proposed that Darwin’s hypothesis merely expressed the existing thoughts of many of his contemporaries (Lewes [1868] in Bowlby 1990, p.353). He proceeded to argue that Darwin’s success had little to do with a great scientific discovery and more to do with tapping into, and articulating, existing ‘conceptions of the world’. What comments such as Lewes establish is that whilst Darwin was indeed articulating an evolutionary hypothesis that was already in circulation within intellectual circles, what the academic community objected to was Darwin’s *popularisation* of the discourse.

A collection of opinions published in 1885 referenced the popular appeal of Darwin’s work in its title Opinions of Men of Light & Leading and of the Times Newspaper, &c., on The Darwin Craze (Morris [1885] reproduced in Bowlby, 1990, p.361). The selection of opinions proclaimed the ‘Darwin Craze’ to be ‘A Gospel of Dirt’ and reproduced a particularly damning quote from Les Mondes:

Darwin [has been] been refused membership, as a correspondent with the French Academy of Sciences, on the grounds of the unscientific character of his books [...] The Science of those of his books which have made his chief title to fame, the “Origin of Species” and still more the “Descent of Man”, is not science but a mass of assertions and absolutely gratuitous hypotheses, often evidently fallacious.

(Morris, [1885] reproduced in Bowlby, 1990, p.361)

Many of the objections to theories of evolutionary continuity more tellingly criticised the popularity of the work, making reference to the ‘Craze’ and the fame of the author. Darwin referred to such critics as his “many *bitter* opponents” (Darwin [1859] in Darwin

& Burkhardt & Smith, 1991, p.446). However, Darwin was not unaware of the recognition his book would receive. Not shrinking from estimating the significant impact his ideas would have on the scientific community Darwin, in prophetic style, claimed at the end of Origin that when the hypothesis was accepted “there will be a considerable revolution in natural history” (Darwin, [1859] 1985, p.455). What is clear from the criticisms of Darwin’s fame however is that the influence of his work extended far beyond the discipline of natural history and into popular culture.

The intentional strategies for popularising his work combined with the best-seller status of the texts, the multiple translations and reprints, and the authors’ popularity, ensured that the Darwinian discourse eventually invaded the popular culture of the nineteenth century. Nineteenth century naturalists’ accounts that appeared in mass-market periodicals often cited Darwin as influential to their work thereby promulgating the Darwinian discourse further. For example, in his introduction to a collection of natural history articles that appeared in popular periodicals of the nineteenth century, John J. Ward wrote,

I scarcely need say that, nowadays, any writer on scientific subjects must be more or less dependent upon the researches of others. His own study and observation are imposed upon the garnered knowledge of the time, and therefore, should any readers discover (as they sometimes do) that the labours of Darwin [...] and similar standard authorities have incidentally served me in good stead, I hope this frank acknowledgement of my indebtedness will avoid undeserved censure.

(Ward, 1907, p. vi)³

Despite the rejection of Darwinian anthropomorphism within discourses of experimental and comparative psychology at the end of the nineteenth century, many naturalists such as T.C. Bridges and John J. Ward continued to publish accounts of humanised nonhuman animals within popular periodicals. Whilst William Wundt argued in 1892 that descriptions of animals were “due to the imagination of the observer” (Wundt, [1892], pp. 358-366 cited in Ryder, 1989, p.163) and the methodological rule that later became known as Morgan’s Canon directly refuted the practice of anthropomorphism,

many popular naturalist accounts persisted in their appropriation of Darwin's practices of interpretation, anecdotal evidence, and popular style of discourse. Representative of this set of practices, T.C. Bridges wrote in his article 'The Games of Animals' in 1906,

Nature scientists hold very different opinions from their predecessors. A previous article in *The Strand* has clearly demonstrated that many creatures possess a distinct sense of humour. That the wild things should play games, enjoy them thoroughly, and to a certain extent understand what they are about is a far smaller tax on the imagination.

(Bridges, 1906, p.207)

Contrary to T.C. Bridges' popularised account, C. Lloyd Morgan argued that claims could not be made for mental states in nonhuman animals. Set beside the intellectual backlash against Darwin's evolutionary continuity thesis and mass popularity, the attribution of mental states to nonhuman animals was, within the discourse of behaviourism, realigned with primitive forms of animism and opposed to intellectual respectability. Thus, there was a discernable rift between the anthropomorphic practices of popular science and the non-anthropomorphic practices of 'serious' science that had its roots in the nineteenth century and emerged fully in the early twentieth century. Positivist science, as I have discussed in chapter two, became the authorised mode of discourse for interpreting nonhuman animal activity and established a new 'regime of truth' in the twentieth century.

Paramount in the criticisms of psychologists such as C.L. Morgan and George Herbert Mead was the concern that nineteenth century naturalists and biologists had produced overtly anthropomorphic interpretations of nonhuman animal behaviours. Thus, in 1903, Morgan's *Canon* redefined the methodological systems of enquiry into nonhuman animal activity when C.L. Morgan stated that "In no case is an animal activity to be interpreted in terms of higher psychological processes" (Morgan, 1903, p. 59). Morgan's *Canon* opposed the attribution of mental states to nonhuman animals and called for the subjective interpretation of activity to be overturned in favour of the objective, but reductionist, discourse of behaviourism. Early twentieth century

opposition to the subjective interpretation of nonhuman animals was critical to the construction of anthropomorphic practice and the chief intellectual casualty in the shift toward behaviourism, positivism, and reductionism, was the work of Charles Darwin. The erroneous status of Darwinian interpretations of nonhuman animals and nature was popularly confirmed in 1909 when the Chambers Dictionary carried the following entry for 'biology':

The substitution of Darwin for Paley as the chief interpreter of the order of nature is currently regarded as the displacement of an anthropomorphic view by a purely scientific one: a little reflection, however, will show that what has actually happened has been merely the replacement of the anthropomorphism of the eighteenth century by that of the nineteenth.

(Seward, [1909] 2001, p.49)

The above dictionary entry clearly demonstrated the twentieth century shift toward retrospectively defining anthropomorphism and Darwinian interpretation as 'unscientific'. Thus, nineteenth century anthropomorphism was viewed with contempt across twentieth century scientific disciplines, and this scientific derision marked out new tensions between science and popular culture.

Anthropomorphism and social disruption

Twentieth century discourses retrospectively claimed that anthropomorphism had been endemic across art, science, and popular culture during the nineteenth century. In the light of new positivist discourses, anthropomorphic practice was considered to belong solely within the sphere of popular cultural narratives by the early twentieth century. In this sense, positivism functioned as a regulatory discourse that excluded anthropomorphic statements and celebrated the establishment of a new style of objective discourse within the natural and human sciences, which were considered to be liberated from the subjective excesses of the nineteenth century. Within positivism, testable hypotheses formed the basis of a new distinction between true and false statements and set the methodological grounding for twentieth century science. Anthropomorphism was therefore firmly established in the category of the false and unverifiable statement. The positivist delineation between true and false statements

was easily translated into the opposition between 'science fact' and 'cultural fiction' and whilst both science and popular culture produced narratives about the natural world, scientific narratives acquired legitimacy and authority through their alignment with factual truth.

Anthropomorphism became a shameful practice for adults and to be avoided at all costs by the early twentieth century. A brief glance at recent twentieth century literature across disciplines makes apparent the discomfort felt by various authors when faced with writing about nineteenth century anthropomorphic practices. In John Bowlby's influential biography of Charles Darwin, Expression was given scant attention as the author claimed, "In scientific circles the book has had a chequered career" (Bowlby, 1990, p.403); in James Turner's important study of the relationship between animals and Victorian attitudes toward pain Turner, with reference to Darwin, regards the legacy of late nineteenth century anthropomorphism within natural history as "detritus" that still remains "a staple of the prepubescent reader's diet" (Turner, 1980, p.65); and referring to Edwin Landseer's "humanoid animals" art historian William Vaughan comments that, "We may now find it hard to believe such work was taken seriously" (Vaughan, 1999, p.173). Yet, the 'anthropomorphic' work of both Landseer and Darwin was taken seriously, a point that brings Paul Eckman to ask, in the Introduction to the Third Edition of Darwin's Expression, "The puzzle is how a bestselling book, by a world-famous author became virtually forgotten for ninety years" (Eckman 1998 in Darwin, [1872] 1998, p. xxxix). In his speculation on the reasons for the hundred year lack of recognition for Expression Eckman points out that "Darwin was guilty of the sin of anthropomorphism" and in later pages suggests that,

If we grant that animals feel terror about impending pain, and distress and sadness [...] if they not only feel these emotions but are aware of these feelings it may become difficult to justify experiments on animals, caging them in zoos, using at least some of the present slaughter methods, and for some to decide whether animals should be eaten.

(Eckman 1998 in Darwin, [1872] 1998, p.xxxiv-xxxi)

Although Eckman speculates on the reasons for Expression being rejected by the scientific establishment, what is at issue here is that anthropomorphism clearly functioned as a potentially disruptive practice enmeshed with the politics of nonhuman animal rights and welfare. As I have already proposed, the logical implications of Darwin's anthropomorphism were inconsistent with the exploitation of nonhuman animals that was fundamental to the progress of science and industry in the early twentieth century. That Darwin's Expression was consigned to the wastelands of 'bad science' by emergent forms of knowledge production in the nineteenth century is neither conspiracy theory nor idle speculation: Expression was anthropomorphism, and anthropomorphism was politically, economically and scientifically 'dangerous' in that it potentially complicated prevailing practices that relied upon difference between human and nonhuman animals. Expression was therefore a hostage to the power-knowledge relationships that discursively rendered anthropomorphism an erroneous practice.

The ramifications of the evolutionary theory of continuity between humans and nonhuman animals were most powerfully expressed in Charles Darwin's own notebooks:

Animals- whom we have made our slaves we do not like to consider our equals.- Do not slave-holders wish to make the black man other kind?- Animals with affection, imitation, fear of death, pain, sorrow for the dead- respect... The soul by consent of all is superadded, animals not got it, not look forward, if we choose to let conjecture run wild, then animals our fellow brethren in pain, disease death & suffering & famine; our slaves in the most laborious work, our companions in our amusements, they may partake, from our origin in one common ancestor we may be all netted together.

(Darwin in Garner (ed), 1996, p.21)

As Darwin implied in his notebooks, to propose continuity between human and nonhuman animals logically led to the question of nonhuman animal rights. Suggesting that nonhuman animals shared the emotional life experienced by humans also meant that they felt pain, fear, and anguish. Continuity proposed degrees of consciousness, intelligence, and moral reason: all attributes that afforded superiority, status and rights to humans. It is therefore absolutely crucial to note here that during the nineteenth

century, 'rights' were first granted to nonhuman animals under the Martin's Act in 1822, slaves under the 1833 Emancipation Act, children under the Factory Act 1833 and Factory Act 1844 and eventually women under the 1857 Divorce Act and the 1870 Married Women's Property Act, although it was not until 1928 that the Representation of the People Act gave women over the age of 21 the right to vote. However, whilst rights afforded to human groups were supported and strengthened into the twentieth century, the discourse of animal rights that had preceded all other legislative interventions in the nineteenth century was excluded from any political agenda from the beginning of the twentieth century until the 1970s.

I agree with Paul Eckman's speculative suggestion therefore that the Darwinian discourse, predicated upon the validity of anthropomorphic interpretations of nonhuman animals threatened human progress in the early twentieth century in that it challenged the morality of nonhuman animal exploitation. In short, evolutionary descent from a common progenitor gave the human/nonhuman animal continuum a discursive 'truth' through the authoritative knowledge claims of evolutionary biology and this was invested within the discourse of animal rights. Incompatible with the humanist ideology of the twentieth century, the discursive formation of animal rights, anthropomorphism and Darwin's continuity thesis were necessarily excluded from 'serious' science and political agendas. In the following section of this chapter therefore, I examine how the 'truth' of the human/nonhuman animal continuum had massive implications for the practices of vivisection, and how this gained public attention in the years following Darwin's publication of Origin, Descent and Expression.

Darwinian discourse and anti-vivisection

In 1822 newspaper reports of experiments on live puppies performed by François Magendie in France had caused public outrage in Britain. In its founding statement of 1824 the SPCA (Society for the Prevention of Cruelty to Animals) opposed vivisection in response to Magendie's work stating "Providence cannot intend that the secrets of

Nature should be discovered by means of cruelty" (SPCA, 1824 cited in Desmond, 1989, p.189). By the late 1830s nonhuman animal welfare groups, particularly the SPCA, had become fashionable with the middle and upper classes and vivisection had become a popular issue for welfare campaigners and supporters. Despite calls for legislative intervention to curb vivisection having strong support from the SPCA, the Animals' Friend Society, the Association for Promoting Rational Humanity Towards the Animal Creation, and the Ladies' Association for the More Effectual Suppression of Cruelty to Animals, the public debate on regulative legislation pertaining to vivisection practices did not occur until 1876. In November 1875, Darwin was called to give evidence before the Royal Commission on Vivisection where, asked about cruelty toward nonhuman animals he stated, "It deserves detestation and abhorrence" (Darwin, [1887] 2001, p.167). In the introduction to Charles Darwin's letters and correspondence on the subject of vivisection, Francis Darwin wrote,

Something has already been said of my father's strong feeling with regard to suffering both in man and beast. It was indeed one of the strongest feelings in his nature, and was exemplified in matters small and great, in his sympathy with the educational miseries of dancing dogs, or in his horror at the sufferings of slaves.

(Darwin, [1887] 2001, p.570)

Expression and Descent made truth-claims under the auspices of science about the emotional lives of nonhuman animals that correlated with Darwin's own feelings about suffering, pain, and terror in the nonhuman animal.⁴ It is also significant that Darwin repeatedly drew parallels between the suffering of slaves and of nonhuman animals; a comparison which could be criticised as racist within a contemporary context but nonetheless indicated a continuity of emotion and oppression between human and nonhuman animals that was evident throughout Darwin's work.

Concerns about vivisection practices in Britain gained continued support and attention and in 1870, the year before the publication of Descent, a committee from the Liverpool Meeting of the British Association started to compile a report of recommendations governing experimentation on live nonhuman animals. In 1875 the first Bill designed to

regulate physiological research was introduced by Lord Hartismere. However, the subject of vivisection had reached outside the scientific community and into the public arena and following the introduction of the 1876 Act to amend the Law relating to Cruelty to Animals, Nature magazine reported,

[...] the evidence on the strength of which legislation was recommended went beyond the facts, the Report went beyond the evidence, the Recommendations beyond the Report; and the Bill can hardly be said to have gone beyond the Recommendations; but rather to have contradicted them.

(Nature, [1876], p. 248 cited in Darwin, [1887] 2001, p.543)

Francis Darwin wrote in 1887 that those responsible for the recommendations were “yielding to the unreasonable clamour of the public” (Darwin, [1887] 2001, p.543). One of the central reasons that public opinion was swayed toward an anti-vivisection sentiment was due to the reports of dogs and cats being used for live experimentation. Dogs, particularly, became a key signifier within the anti-vivisection discourse after Magendie’s 1822 experiments on the spinal nerves of puppies had fuelled opposition toward vivisection practices. In an opening address at the SPCA annual meeting in 1837, the Earl of Carnarvon equated vivisectionists who “mutilated living animals” with “street-urchin dog skimmers” (Desmond, 1989, p.189). The anti-vivisection movement was propelled into a strengthened position and garnered wider public support when, in 1874, the RSPCA prosecuted the French physiologist, Eugène Magnan, for an experimental vivisection involving a dog which was induced into an epileptic fit. The case received much publicity and, although the prosecution eventually failed, there was “widespread sympathy for the critics of vivisection” (Ritvo, 1987, p.159).

By the late nineteenth century public meetings were described in the press as “crowded” and having “large attendance”, and public resistance to vivisection was seen to have crossed class boundaries (Coleridge in Weekly Dispatch, 6th June 1886, p.9; Daily News, 31st May 1900, p.7; Daily News, 23rd May 1900, p.2). However, Harriet Ritvo argues that the 1876 legislation was a failure for the antivivisection movement. She writes,

At first it seemed that the antivivisectionists' attempts to mobilize public opinion might succeed [... however] By the early twentieth century antivivisection had become a fringe movement, appealing to an assortment of feminists, labour activists, vegetarians, spiritualists, and others who did not fit into the established order of society.

(Ritvo, 1987, p.162)

What strikes me as the most important question here is, why did the antivivisection movement lose widespread public support in such a short period of time? Ritvo suggests that there were two determining factors for the shift in public sentiment which can be traced to the "extreme and rigid positions" adopted by antivivisectionists and "proofs of the medical benefits of research on living animals [with] the discovery of the diphtheria antitoxin in 1894" (Ritvo, 1987, p.162). Ritvo argues that antivivisectionism thus became incompatible with the more popular humanitarian concerns of Victorian society. I suggest however that what Ritvo overlooks is that antivivisectionism was one of the 'logical implications of Darwinism' that drew discursive authority from the popular cultural representations of humanised nonhuman animals. Moreover, I support Richard Ryder's speculation that the pejorative charge of anthropomorphism and sentimentality against those who supported the antivivisection movement was part of strategy of containment to proscribe the potential social disruption implicit within anthropomorphic practices.

What was immediately under threat was the authority of science and the practices and legitimacy of scientists. The strategy that emerged to combat this threat was the dismantling of the discourse of the human/nonhuman animal continuum, in other words Darwin's anthropomorphism, underwritten by the critiques of anthropomorphism that emerged from the project of humanism that I discussed in chapter two. Newspaper reports made this strategy apparent asking, "Is not the mental suffering of an innocent man in such a case far greater than the slight physical suffering of the animal experimented upon" (Weekly Dispatch, 30th May, 1886, p.1) and as one writer remarked,

The history of physiological research teaches us that almost all the great discoveries relating to the origin and manifestation of animal life

are owing to experiments on the living subject. Humanity is one of the noblest attributes of an intelligent being. But when we consider that pain is minimised in order that the maximum amount of good may result therefrom, we argue that vivisection is beneficial. Brief pain in the individual confers happiness to the whole species [...]. If this subject is examined calmly and dispassionately, there is but one conclusion- viz., vivisection is needful if we would enlarge our scientific knowledge.

(Maxwell, 1886, p.9)

The distinction between human and nonhuman animals was recast as the cost of human versus nonhuman animal life. The calls for a 'calm and dispassionate' view of the pro-vivisection argument began to suggest that a re-evaluation of the discursive construction of nonhuman animals had begun to displace emotional similitude and sentiment in favour of the accumulation and progress of objective scientific knowledge. Whereas Darwin and later George Ramones argued that subjective mental and emotional states could be extrapolated from and applied to nonhuman animals, the pro-vivisection argument overturned this emotional and mental continuum in favour of a discourse that alerted the public to the difference between human and nonhuman animals.

To alleviate concerns, the public were reassured by the 1876 legislation that Government inspectors policed vivisection practices and that the experimental subjects were anaesthetised and therefore felt little or no pain. The 1876 Cruelty to Animals Act became the first piece of legislation to regulate vivisection practices in the UK through the introduction of a licensing and inspection system. However, it was noted by Stephen Coleridge, in his capacity as Secretary of the National Anti-Vivisection Society, that, "No one knows what actually takes place in laboratories, and it is part of our contention that until a Government inspector is present at every vivisection we can never know what sufferings are inflicted on the animals" (Coleridge, 1900, p.7). What is apparent is that a discursive and material distance was imposed by the 1876 Act between the public and the vivisectionists: emotion and sentiment were constructed as opposed to human progress and scientific advancement whilst live experiments were

conducted out of public view. Human and nonhuman animal difference was promoted in opposition to the Darwinian evolutionary continuum and, as science became institutionally professionalised the scientist was constructed as 'different' to the layperson. As one writer noted, "vivisection [...] ought to be in the hands of bone-fide professors of irreproachable character, whose objects are noble, whose principles are high, and who have approved by past deeds their devotion to the cause of humanity" (Weekly Dispatch, 6th June 1886, p.9).

It is important to recognise that anti-vivisection sentiments, and significantly pet-keeping, spanned all classes in the late nineteenth century. Combined with the vogue for nonhuman animal narratives, public feeling toward experimentation on dogs and cats was conditioned by discourses that promoted the humanised nonhuman animal as a cultural dominant. What is important here, I contend, is that a discursive formation emerged that linked the popularisation of Darwin's human/nonhuman animal continuum in Origin, Descent and Expression, the popularity of the nonhuman animal narrative, and public feeling toward vivisection practices. In this sense, Darwin's human/nonhuman animal continuum was popularised and became discursively intertwined with popular nonhuman animal narratives that, in turn bolstered public opinion toward an anti-vivisection sentiment. One newspaper report of a public anti-vivisection meeting noted, "A working man among the audience said that no man should allow his dog to suffer what he shrank from himself" (Daily News, 23rd May 1900, p.2). In this sense the biological and mental parallels between humans and canines that were so strongly championed by Darwin in his work were also emphasised within popular culture and had saturated public thinking about dogs.

With public 'clamour' about vivisection strong enough to elicit legislative change in the form of the 1876 Act, the human/nonhuman animal continuum was making itself felt as a socially disruptive force throughout the last quarter of the nineteenth century. Compassion toward nonhuman animals and the humanisation of dogs were, as I shall

discuss, signifiers of upper class taste and practice, however the same discourses simultaneously threatened not only the practices of science but also of the nobility. In this way, the practice of anthropomorphism presented a threat to the stability of dominant power-knowledge relationships.

Evidence of the threat to 'noble' leisure practices can be located within Darwin's correspondence where it is apparent that whilst he had added his voice to the debate on vivisection in 1875, he held even stronger views about hunting. Referring to politicians in the House of Commons he stated, "the gentlemen of England are humane, as long as their sports are not considered, which entailed a hundred or thousand-fold more suffering than the experiments of physiologists" (Darwin, [1887] 2001, p.545). Darwin argued that the upper class practices of hunting were crueller than those of the vivisectionists. At the height of his popularity when he made his statements against the nobility's hunting practices, Darwin's opposition presented a major threat.

Darwin's opposition to hunting was underpinned by his own theory of continuity between human and nonhuman animals. For Darwin the pain and terror experienced by hunted nonhuman animals had its parallel in the experiences of human slaves and the insane. Darwin made these comparisons apparent within his personal notebooks and in The Expression of the Emotions in Man and Animals, and consequently he openly questioned the morality of the upper classes who engaged in the inhumane sports of hunting. With popular support for his ideas about human/nonhuman biological and intellectual similitude being crucial to anti-vivisection sentiments this support could have easily been extended to strengthen feeling against hunting. It is therefore significant to note that Darwin voiced such concerns about 'noble' leisure practices as this compounded the threat posed by the human/nonhuman animal continuum and extended it beyond science and scientists to the upper echelons of Victorian society.

Cruel practices and social hierarchy

Darwin's statement indicated a paradox in nineteenth century attitudes toward nonhuman animals where so-called 'cruel practices' were conditioned by social status. The dichotomy in human attitudes toward nonhuman animals had begun to emerge in the late eighteenth century as hunting and racing were consolidated as 'noble' leisure practices for the privileged classes, whilst bull-baiting, dog-fighting, and cock-fighting became the morally reprehensible pursuits of the working classes. Whilst earlier resistance to 'noble sports' had had little impact, the popularity of Darwin, combined with the late nineteenth century practices of humanising nonhuman animals posed more of a threat to the social status quo.

Earlier eighteenth century critics of the aristocracy had compared hunting with the practices of savages and cannibals. An increased human sensitivity toward pain and terror in the body was extended to nonhuman animals during the 1700s as a letter entitled 'Hunters compared to Canibals' (*sic*), in the Gentleman's Magazine in 1736, testified. Following an account of a deer hunt the author, signing himself 'Censorinus' (1736) wrote:

When I got home, I began to consider, the nature of the diversion I had partaken of. A poor animal is in the most cowardly manner, *overpower'd* by numbers, *run down* and *kill'd*, and for what purpose? The sportsmen, do not eat venison! Is the poor animal's *Fright, Flight*, and *Death* then, the pleasure they take all this fatigue for? Surely this can be no *manly* diversion [...] But the general cry is against me, and I shall be laughed at, was I to say, that *Killing* can never be *justified* by any other *Reason* than *supplying our natural call, Hunger*. *Killing* can never be *Pleasure* to a *Human Breast*, since seeing anything *suffer*, gives us a *Part* in the *Sensation*.

(The Gentleman's Magazine, Volume 6, January 1736, p.10
emphasis in original)

Whilst the sentiments of Censorinus did not constitute a dominant discourse, human empathy for the sensation of pain or terror in nonhuman animals was, however, discernible in the early eighteenth century with influential figures such as Alexander Pope and John Locke voicing their opposition.⁵ As I noted in the previous chapter, a dominant empiricist discourse had challenged the Cartesian discourse in the

eighteenth century by arguing that nonhuman animals made rational decisions to avoid pain. In addition the moralised discourse of utilitarianism promoted by Jeremy Bentham advocated a nascent discourse of animal rights based upon the ability of nonhuman animals to suffer. What differentiated these eighteenth century discourses from the nineteenth century animal rights discourse was the extent of popular public support for the rights of nonhuman animals.

By the end of the nineteenth century public feeling against vivisection practices underpinned by dominant discourses that humanised nonhuman animals presented a threat to 'noble' leisure practices and scientific autonomy. In the light of public opinion and with the 1876 Act imposing legislation that was considered by many scientists to be overly draconian the concerns of the aristocracy and the scientific establishment were not without basis. Concerns about the effects of 'animal rights' on the progress of science were being voiced with the discourse of scientific progress being underpinned by a new moral question that asked whether the life of an experimental subject such as a rabbit was worth that of a man (Weekly Dispatch, 30th May 1886, p.1). In addition, the strengthened position of science as an authoritative discourse combined with the criticisms of Darwin's interpretative practices and anecdotal evidence and the relocation of anthropomorphic practices to the sphere of popular culture were conflated to present both a shift in the production of knowledge about nonhuman animals and the simultaneous challenge to the legitimacy of anthropomorphism. In this sense at the end of the nineteenth century the liberal humanist paradigm was confronting the disruptive potential that was implicit in the progressive humanisation of nonhuman animals. In short, the anthropomorphisation of nonhuman animals was crucial to public support for the anti-vivisection movement and opposition to hunting. Underpinned by Darwin's popularised human/nonhuman animal continuum the anthropomorphised nonhuman animal emerged as a socially disruptive force.

Maintenance of the social order

There is however a paradox within nineteenth century anthropomorphism. On the one hand, Darwin's anthropomorphisation of nonhuman animals engaged with moral questions about nonhuman animal rights and welfare, whilst on the other hand, the humanisation of nonhuman animals simultaneously offered potent ideological metaphors for social conduct and organisation. Here I want to expand upon my discussion of the ideological implications of anthropomorphic practices by examining the construction of nonhuman animal within discourses of science and popular culture and how the representations of humanised nonhuman animals were naturalised to enforce systems of oppression.

What is important about this relationship is that not only did science and popular culture become mutually reinforcing discourses wherein the nonhuman animal was established as a key metaphor for social order and the maintenance of social hierarchies, but also that it is precisely this relationship that underpinned the disruptive potential of anthropomorphising nonhuman animals. This section of the chapter therefore strengthens my preceding discussion about the ideological importance of anthropomorphism within the nineteenth century and simultaneously challenges Ritvo's assertions that popular culture offers no corroborative exemplification of the discursive maintenance of an extant social order. In presenting this discussion and exemplification I unpack the paradox of anthropomorphism to emphasise its discursive multivalency that was appropriated within the nineteenth century as both socially disruptive to the progress of humanist science and enforcing of key systems of social oppression.

Class and gender within nineteenth century Britain functioned as the foremost indicators of human identity within a highly stratified society. Within this context of social stratification, nonhuman animals played a significant role both as ideological exemplars that reinforced dominant social hierarchies and discourses, and as symbolic objects of class status. To enable the ideological positioning of nonhuman animals,

human characteristics and discourses of social conduct and division were attributed to nonhuman animals. In this sense, the humanisation of nonhuman animals was embedded within the mechanisms of nineteenth century social regulation and control and therefore involved in the social distribution of power. Treating nonhuman animals, particularly dogs, as humans became established as part of normalised practice during the nineteenth century. For instance, it was reported in Punch in 1851 that treating a Newfoundland puppy as a child “is a novel idea” whilst a later Strand article (1896) considered it *de rigueur* to treat a dog as if it were a human baby (Punch, 29th March 1851 reproduced in News of the World, 30th March 1851, p.1 & FitzGerald, 1896, p.550).

However, the practice of infantilising dogs, as reported in Punch and The Strand, was not an insignificant fashionable trend for the middle and upper classes. Rather the practice of infantilisation was part of a larger set of practices wherein the relationship of humans to nonhuman animals was indicative of class orientation. Underpinned by the discourses of humanitarianism and moral reform, the extent to which humans showed compassion and care toward nonhuman animals was constructed as symptomatic of class refinement, intellect, and moral standing. As such, anthropomorphic practices and particularly those involving domestic pets were central to social organisation and regulation. This point is particularly important in light of my previous point about legislative reform and the attribution of rights to nonhuman animals. As other commentators have noted, and as I will explain here, the Martin's Act of 1822 and subsequent legislative reform that favoured nonhuman animals was chiefly concerned with the moral and social control of the working classes. What I want to emphasise here however, is that using the welfare of nonhuman animals as a strategic form of class regulation eventually transformed into a discourse of animal rights that subsequently threatened the social order in the ways I have already described above.

Moral coding of nonhuman animal practices

Within a discourse of moral reform that had begun in the eighteenth century, cruel practices were connected to the working classes at the start of the nineteenth century. As I have detailed above however, by the last quarter of the nineteenth century Darwin connected cruelty to the upper class practices of hunting and the publicly supported anti-vivisection movement constructed scientific experimentation as cruel, thereby subverting the discourse of class control that had gained support in the early nineteenth century. In the first decade of the 1800s, organisations such as the Society for the Suppression of Vice had opined that cruelty, drinking and immoral behaviour were connected, and that working-class animal sports such as bear baiting would bring “great numbers of idle and disorderly persons, promoting drunkenness and quarrelling, and tending to public danger and disturbance” (‘An Address to the Public from the Society for the Suppression of Vice, Part the Second’ 1803, pp. 87-91 cited in Li, 2000, at <http://www.psyeta.org/sa/sa8.3/chien.shtml>). The response to concerns about working class behaviour and practices was the introduction of legislation to regulate behaviour deemed unfit for modern social living and to make human-nonhuman animal relationships morally accountable within law. Thus, during the first decades of the nineteenth century legislation, which included the Martin’s Act of 1822, was introduced to prohibit a range of working-class leisure practices including bull baiting, cock fighting, and dog fighting.⁶

Whilst the sincerity of many of those actively involved in ‘animal protection’ was not to be doubted, the wider bourgeois concern for the welfare of nonhuman animals was, however, informed by an agenda of self-interest.⁷ As the growth of urbanisation brought various layers of a hierarchically structured social order in closer proximity, concerns over the regulation of working-class behaviour grew.⁸ Spurred by reports suggesting that cruel behaviour toward nonhuman animals could, and would inevitably, become violence against humans the regulation of social conduct was institutionally prioritised. In ‘Some Thought Concerning Education’ [1693/1801], John Locke wrote,

[...] if they incline to any such cruelty, they should be taught the contrary usage; for the custom of tormenting and killing beasts will, by degrees, harden their minds even toward men; and they who delight in the suffering and destruction of inferior creatures, will not be apt to be very compassionate or benign to those of their own kind.

(Locke [1693/1801] in Clarke & Linzey (eds) 1990, p. 119)

The moral coding of human treatment toward nonhuman animals reinforced dominant discourses of national difference as well as class difference. French vivisection practices received massive criticism from the British anti-vivisection movement with reports of dogs that begged for their lives, or licked the hand of the vivisectionists as they were being mutilated finding their way into the popular press (Kete, 1994, p.13). In The Descent of Man, Darwin commented on the wide circulation of such accounts saying, "and *every one* has heard of the dog suffering under vivisection, who licked the hand of the operator" (Darwin, [1871] 1981, p.40, my emphasis). In other correspondence to The British Medical Journal, which was later re-printed in The Times and Nature, he also noted, "I fear that in some parts of Europe little regard is paid to the sufferings of animals" (Darwin 1881 in British Medical Journal, 1, 1881, p. 660 at <http://pages.britishlibrary.net/charles.darwin4/bmj.html>).

As I noted in the previous chapter, the treatment of nonhuman animals was linked to the dominance of discourses of empiricism in Britain, which supported the notion that nonhuman animals experienced pain in ways similar to humans, and the continental Cartesian discourse which stated that nonhuman animals were analogous with machines, and therefore performed only involuntary responses to experimental procedures. In a letter to the Editor of The Times in 1881, Darwin wrote that the French physiologist, Magendie, "[...] became notorious some half century ago for his cruel experiments on living animals" (Darwin, [1881] in The Times at <http://pages.britishlibrary.net/charles.darwin4/times.html>). The French proclivity for cruelty toward nonhuman animals thus became enmeshed into popular accounts of human behaviour toward nonhuman animals. In an 1896 article 'Animals on Trial', the author gave accounts of French Medieval trials of nonhuman animals and noted, "the

horror and cruelty of the judgments" (Avenell, 1896, p.668). Such accusations conformed to the dominant discourse that the French were generally cruel to nonhuman animals. An article in the News of the World reporting that "a foreigner" had thrown a dog from a bridge stated "Having only arrived in England that morning he was not aware that the English law differed from the French in this matter" (News of the World, 17th August 1856, p.7). To emphasise the difference between British and French treatment of nonhuman animals News of the World carried a report of "Cruelty to a cat by a French Nobleman" in which it was stated that Arthur Padovani De Guise had deliberately encouraged his Newfoundland dog to kill a cat (News of The World, 23rd November 1856, p. 7). Not even class status overcame the French penchant for 'animal cruelty' and in this sense the treatment of nonhuman animals reinforced dominant views of cultural difference and moral standing. Whereas at a local level the measure of social class was aligned with human compassion extended toward dogs, the treatment of nonhuman animals also demarcated between national merits and vices at an international level.

Human/nonhuman animal relationships were therefore coded by an index of appropriate behaviour bounded by notions of cruelty and moral responsibility. In towns, city planners reconfigured available leisure spaces and along with the creation of police forces, new forms of institutional control were placed on growing urban environments. Limiting and policing the spaces available for 'cruel practices' materially imposed a redesigned order of acceptable working-class behaviour.⁹ Within these changes, institutional reforms proposed alternative spaces and practices modelled on those of the social elite: municipal parks echoed the design of private parks and formal spaces; whilst recreational spaces such as zoos alluded to models of private nonhuman animal collections and menageries.¹⁰

Pet-keeping, dogs and class

Pet-keeping was derived from the practices of the aristocracy and became popular amongst the wealthy classes in that it outwardly confirmed wealth and social status. A pet, or 'fancy dog' as they were commonly referred to, was a nonhuman animal that was kept without any regard for its function or utility. In his comprehensive accounts of nineteenth century dog-selling, Henry Mayhew wrote,

A dog recommended by its beauty, or any peculiarity, so that it be suitable for a pet-dog, is a "fancy" animal [...] the first-mentioned use of the word "fancy" [is not] at all strained or original, for it is lexicographically defined as "an opinion bred by the imagination than the reason, inclination, liking, caprice, humour, whim, frolick, idle scheme, vagary".

(Mayhew, [1851] 1950, p.49)

Owning nonhuman animals, just for the sake of having them, was a practice that connected the middle-classes to the nobility and, as Mayhew noted, by 1851 more than half of the dogs sold by street-sellers were spaniels, the breed favoured by Charles II. On the definition of pets Mayhew wrote, "[they are] animals which do not serve for food, and which therefore the law holds to have no intrinsic value, as dogs of all sorts, and other creatures kept for whim and pleasure" (Mayhew, [1851] 1950, p.49). This early definition of a pet is important in that it makes apparent a clear distinction between nonhuman animals that are constructed as 'food' and those that are socially prohibited for consumption. As I discuss in the following chapter, state intervention during war-time reconfigured the social categorisation of certain pets in such a way that they became home produced 'food'. Therefore it is important to signpost at this point the nineteenth century construction of the pet as 'not edible'.

Within the nineteenth century category of 'pet', the dog was established as an important signifier of fashion, wealth and prosperity. The vogue for particular breeds of dog became such that dog-selling, particularly in London, was established as a highly lucrative business. As Mayhew noted:

I need not dwell on the general fondness of the English for dogs [...] small spaniels and lap-dogs, or as they are sometimes called, "carriage-dogs", by their being the companions of ladies inside their carriages. These animals first became fashionable by the fondness of Charles II for them. [...] The fashion has long continued, and still continues; and it was on this fashionable fondness for a toy, and on the regard of many others for the noble and affectionate qualities of the dog, that a traffic was established in London, which became so extensive and so lucrative, that the legislature interfered, in 1844, for the purposes of checking it.

(Mayhew, [1851]1950, p.48)

In the urban environment dogs became an emblem of affluence and, as Mayhew's account of the growth of popularity of fancy dogs indicated, even those of moderate means could own a dog and aspire to a connection with the upper classes. However, ownership of a dog did not automatically entitle a person to assimilation with the wealthy, and standards of beauty and breeding were applied to the canine body thereby creating an aestheticised canine hierarchy. Thus, each type or breed of dog carried a different social meaning and Mayhew points out, in his accounts of dog-sellers and purchasers, that terriers and the bull-breeds were associated with working class men whilst toy dogs were considered to be upper class 'women's dogs'.

In British Dogs, a history of the establishment of different canine breed types in Britain, written by the Chairman of the Kennel Club in 1945, A. Croxton-Smith notes that the mid-nineteenth century marked a "new era in dogs" (Croxton-Smith, 1945, p.45). In 1859 the first dog show was held in Newcastle-on-Tyne and Croxton-Smith writes,

[...] not only did it lead to the improvement of the outward appearance of dogs, but it brought about the segregation of the breeds, the discovery of new ones, and in the course of time it induced the public at large to pay more attention to the management and care of their domestic pets.

(Croxton-Smith, 1945, p.45)

Croxton-Smith's comments highlight two important points; firstly that the canine body was subject to formalised aesthetic standards and secondly, that there was a demonstrable shift in the way in which people thought about and treated their pets. These two points were interlinked but, as I explained in the previous chapter and as I

expand upon later, also contingent upon the narratives of canine fidelity and sagacity that saturated popular culture. It is also important to emphasise that the popular commercialisation of pet practices can be located within the nineteenth century and, as I expand upon in the following chapter, anthropomorphism was absolutely central to the commercial discourse of 'pet care'.

In 1873 the aestheticised canine body was institutionally authorised with the founding of the Kennel Club; an organization that was established to regulate and legislate on all matters of canine exhibition. The dog show provided a cultural space where the canine aesthetic could be judged according to prescribed 'ideals' that were contained in a 'breed standard'. The breed standard was a written guide that specified how each breed should look and detailed each breeds' unique characteristics. However, as the breeding and exhibition of pedigreed show dogs were upper class practices the Kennel Club breed standards imposed dominant ideologies of beauty onto the canine body.

Although the pet dog did not have any particular utilitarian function, they became classified and defined according to a system of rank and social status through the taxonomy of 'breed' and the historicity of 'pedigree'. Dogs emerged as a discursive echo of the dominant human social hierarchies within the 1800s and the system of rank afforded to the canine world legitimated its analogue within human society. The urban working-class breeds were those associated with dog-fighting, rat-killing and bull baiting; usually pit dogs, bull-breed, or terrier types and, at the lowest end of the canine social spectrum, the 'cross', 'mongrel' or 'cur'.¹¹ Dog breeds were mapped across a social grid of specification; a toy breed such as the King Charles Spaniel belonged in "its customary luxuriousness of a drawing-room in Belgravia" whilst "a bull-dog with a prodigious head [...] strongly suggests pugilism and Whitechapel" (The Strand Magazine, [1891] in Cotterell, 1974, p.80). The link between the King Charles Spaniel and the upper classes was derived from the breed's royal association whilst the

relationship between pugilism, dog fighting, and alcohol that emerged during the first part of the nineteenth century was based upon the fact that many retired or failed pugilists opened public houses in which pit-fighting took place.¹² Therefore despite legislation in 1835 that prohibited dog fighting on the basis that it would encourage working class violence and drunkenness, the association between the bulldog and working class aggression was still in evidence more than fifty years later. What was apparent within discourses of dog breeds was that canines were considered to have acquired the characteristics of the class with which they were associated. In this sense, the humanisation of the dog was structured through a class system and the boundary between the human and the canine was inevitably blurred.

Pedigree, purity and breeding

The dog offered a potent metaphor for nineteenth century discourses of social stratification, particularly the mongrel or 'crossbreed'. Social hierarchies and discourses of purity and hybridity were mechanisms of a biopolitics in Victorian Britain and the canine body emerged as an experimental space upon which human anxieties could be explored and played out.¹³ Concerns about the maintenance of purity and the dangers of interbreeding had been exacerbated by diarists' and travel writers' accounts of their experiences with 'non-Europeans' and particularly with the inhabitants of the African interior. Non-Europeans were considered 'less than human' and separated from the white male European, by their lack of moral reason. As I outlined in chapter two, according to the influential categorisation of Carl Linnaeus in Systema Naturae, the distinctions between the races of men were as clear as the distinction between species. Interbreeding would thus indicate not only a loss of purity but also a blurring of the boundary between the properly and improperly human. Moreover, the maintenance of purity was further naturalised by claims that discrimination could be observed to occur in Nature and that proof of the virtue of purity could be discerned in the 'natural' body's reproductive capacity. The progeny of 'abnormal' couplings was termed 'hybrid' or 'mongrel'; and it was suggested that the sterility of these bodies was proof of

nature's abhorrence of impurity.¹⁴ Concerns about purity and hybridity were conditioned by dominant discourses of population control and social anxieties about the consequences of an unregulated society. Thus, confirmation of purity within the social order was corroborated by the described order of nature in which hybrids and mongrels were articulated as unnatural exemplars of the effects of unregulated conduct.¹⁵

The well-bred pedigreed dog was a valuable emblem of high social status whilst the 'mongrel', 'cur' or 'cross' was vilified and considered worthless. In the case of the canine, there was a clear alignment of the mongrel and cross-breed with 'antisocial' conduct and insanity which was perpetuated through newspaper reports of 'mad dog' attacks by mongrel dogs (The Weekly Dispatch, 18th April 1886, p.16; News of The World, 18th November 1900, p.6). The mad 'half-breed' dog also appeared in popular fictions such as 'Throttler', the "half- bred bull-dog" in Emily Bronte's (1847) Wuthering Heights (Bronte, [1847] 1995, p. 135), and the hellhound in Arthur Conan Doyle's (1891/1902) Hound of the Baskervilles that was described as "not a pure bloodhound and it was not a pure mastiff; but it appeared to be a combination of the two - gaunt, savage, and as large as a small lioness" (Doyle, [1902] 1965, p.166). In addition, the discursive link between cross-breeding and insanity was further compounded by Darwin's argument, in Descent, that for humans *and* dogs, "it is too certain that insanity and deteriorated mental powers likewise run in families" (Darwin [1871] 1981, p. 111).

Alongside the mongrel or crossbreed the fighting dog also operated as a particularly useful metaphor for human conduct. In the tavern pits a single dog fight could last over an hour, and often attracted up to 300 spectators if the dogs involved were particularly notorious.¹⁶ Significantly, a working class construction of canine beauty was established through the sporting practices of dog fighting as demonstrated by the following account of a bulldog:

Sleeping on an old hall-chair lay an enormous white bull-dog, "a great beauty" [...] with a head as round and smooth as a clenched boxing glove, and seemingly too large for the body. Its forehead protruded in

such a manner significant of water on the brain, and almost overhung the short nose, through which the animal breathed heavily. When this dog, which was the admiration of all the beholders, rose up, its legs were as bowed as a tailor's, leaving a peculiar pear shaped opening between them, which [...] was one of its points of beauty. It was a white dog, with a sore look, from its being peculiarly pink round the eyes, nose and indeed at all edges of its body.

(Mayhew, [1861-62] 1965, p.176)

As Mayhew's account of the bulldog shows, the working class construction of canine beauty was at odds with that of the middle-class view. The working class construction of the bulldog was one that valued all the external physical characteristics of a 'good fighter' including battle scars from previous encounters. Viewed through the aesthetic ideals of middle class discourses, the cultural construction of the working class bulldog was as an ugly, violent, and unhealthy canine. Moreover, this representation became popularly established and the dog was considered to be an echo of the moral and social status of its owner. Thus, the white fighting dog with red/pink eyes in Mayhew's account of the bulldog closely echoed the description of Bull's-eye in Charles Dickens' Oliver Twist.

At his feet sat a white-coated, red-eyed dog; who occupied himself, alternately, in winking at his master with both eyes at the same time; and in licking a large, fresh cut on one side of his mouth, which appeared to be the result of some recent conflict.

(Dickens, [1838] 1970, p.103)

In Oliver Twist, Bull's-eye is owned by the evil Sikes and functioned within Dickens' novel as the animalised reflection of his owner's character; a point that Dickens made quite clear by the following words,

Dogs are not generally apt to revenge injuries inflicted upon them by their masters; *but Mr. Sikes's dog, having faults of temper in common with his owner*, and labouring, perhaps at this moment, under a powerful sense of injury, made no more ado but at once fixed his teeth in one of the half-boots.

(Dickens, [1838] 1970, p.103, my emphasis)

Despite Ritvo's assertion that there is no evidence of an ideological corroboration between popular culture and 'real animals', both Dickens' and Mayhew's nineteenth century accounts of bulldogs show evidence to the contrary. Both dogs are found in taverns and combined with the pugilistic characterisation of the breed, both accounts

resonate with the associations of idleness, drunkenness and violence that were voiced by the Society for the Suppression of Vice. In this way, the humanisation of the bulldog and the dehumanisation of certain groups within the working classes were discursively bound together. Moreover, at a time when discourses of beauty and the sublime dominated cultural attitudes, the 'ugliness' of the bulldog marked out a distinction between upper class and working class tastes. The dominant middle-class view of the bulldog was therefore discursively aligned with the dominant construction of the working classes and thus, as one commentator argued, the bulldog was a breed "of uninviting aspect" (Morrison, [1895] in Cotterell (ed), 1975, p.91).

Gender and the insect world

The use of nonhuman animals as ideological exemplars was not limited to dogs in the nineteenth century. Other creatures provided important metaphors for a correctly ordered society. Problematically Ritvo, as with many other academics in this subject area, limited her study to mammals and therefore overlooked the important ideological significance of insects. Thus, whilst breeds of dog were mapped across, and legitimated, the human social spectrum, my examination of popular naturalist accounts has shown that the insect world also provided another dominant ideological model of social stratification. Here, I am particularly interested in how these popularised narratives dealt with the legitimisation of social organisation, the Protestant work ethic, slavery, and female emancipation, each of which were important nineteenth century concerns.

I contend that insects were humanised to provide ideological exemplars that confirmed dominant modes of social organisation. In relation to issues of social control, Max Weber (1958) has argued that the relationship between Protestantism and the development of Western capitalism was dominated by a discursive construction of the work ethic (Weber, 1958, p.175). During the nineteenth century the Protestant work ethic was central to the social control of the labour force in that it promoted an ascetic

lifestyle, hard work, and adherence to strict social codes of behaviour to gain access to heaven. Such ideologically bound practices were central to economic advancement under capitalism. My research on popular insect narratives that appeared in mass market periodicals shows that this ideology was legitimated in the world of the ant, colonies of which were studied and found to operate under the idealised social conditions that the Protestant work ethic promoted.

Influenced heavily by Darwin's anthropomorphic discourse, late nineteenth century naturalists' studies of insect life offered exemplars for a correctly ordered society where ants, flies, and spiders occupied a rich world of subjective experience. Ant colonies were studied and found to be civilized and highly productive due to their methods of social organization, commitment to work, and the stratification of their societies. Moreover, as the influential entomologist Rev. W. Farren White (1895) noted in Ants and Their Ways, biblical references to the ant explicitly stated that the insect was wise, with a strong work ethic and offered a good model for humans to follow (Proverbs 6:6 and Proverbs 30:25-27).

Pointing out that the study of ants was endorsed by God, Rev. W. Farren White detailed the stratification of British ant society in a series of publications between 1880 and 1885. White noted that British ant colonies consisted of a Queen, a royal family, strong males, self-sacrificing females, and loyal workers (White, 1895, pp. 111-118). Referring to ants as "the little people, but exceeding wise" White attributed the ant with "manners and customs" that included agriculture, an economy, funerals, language, education, cleanliness, social bonding activities, philanthropy, slavery and architecture, and showed evidence of the ants' prowess as a military strategist, farmer, and 'cattle-breeder' (White, 1895, p.111). Thus, the characteristics of human society found their parallels in the insect world and the successful organisation of ant life legitimated its human analogue.

The ant colony was unfailingly loyal to its Queen and rigid in its observation of correct conduct and social position. The work ethic of the ant was based upon the principle of working for the good of the whole society and White's observations of ant conduct showed that each individual ant actively enjoyed its labour. Female ants were happy to sacrifice themselves for their children or male ants, whilst compassion for those less fortunate enabled the ant colony to live in peace. Writing on the ants' happy existence, White notes:

I have noticed how happily the members of the same community seem to live together. Harmony reigns everywhere supreme. The little people ever help each other when in need or difficulty. When one is hungry, another feeds it. When one is sickly, another ministers unto it.
(White, 1895, p.139)

Within the ant colony, the relationship between happiness and self-sacrifice, particularly in the female, legitimated the ascetic lifestyle promoted by the Protestant work ethic and the familial responsibilities imposed upon women within nineteenth century society. In Anderson and Zinsser's study of nineteenth century women's roles they state, 'Mothers sacrificed for their children in a variety of ways- eating less, working harder, making do- and believed that such sacrifices justified their own existence' (Anderson & Zinsser, 1988: 241). In his 1895 account of a female ant White remarks,

They commence the business of their unselfish lives by doing all the work [...] and, in order to live for others more effectually, they strip themselves of their wings, and so cut off all inducement to sport gaily in the sun-bathed air, to the neglect of their [...] offspring.
(White, 1895, p. 112)

The ant was attributed with the idealised qualities of the 'good female' and the 'hard worker'. The same characterization of the ant, as that proposed by naturalist White, was found in fictional narratives such as 'The Ant Mountain', a story for children published in The Strand Magazine in 1896. In 'The Ant Mountain' the ants tell the beautiful maiden, "We know you well, Viorica, and have marvelled at your industry, which closely resembles our own, a thing we very rarely find among mortals" (Strand Magazine, 1896, p. 716). Viorica, a name uncannily similar to the reigning monarch,

leaves the human world to live with the ants as their queen. The motif of the Protestant work ethic similarly informs the narrative and the author writes, "In the ants' little kingdom everything was perfectly arranged. Each ant strove to do more work than the others, and to be the one who should best please the industrious queen" and in the story the ants claim, "You may tread us under your feet as punishment: we are ready to die for the welfare of the community. The honour of our beloved queen must be preserved at all cost." (Strand Magazine, 1896, pp. 717-720) Thus, the discourses of loyalty, community welfare, sacrifice and industry resonated through both the fictional and the naturalist's narrative of the ant.

In Grant Allen's account of the Hessian fly in the Strand Magazine, the insect has a rather different ideological function to that of the ant. The Hessian fly was, as Allen declared, "an enemy" and a "foreign invader" (Allen, 1898, p.97). As the enemy of the British farmer the Hessian fly was attributed with the characteristics of the surreptitious invader. Allen gendered the fly throughout the article stating that, "she is a fairy-like creature for all her wickedness" (Allen, 1898, p.98). Gendered in this way, the Hessian fly was cast as a "clever opponent" of the British farmer. However, Allen was explicit in his portrayal of the fly as a political agent when he notes that the fly favoured the English barley used specifically for beer and whisky and he wrote,

The teetotaler may perhaps reflect with complacency that the fly is merely playing the game of the United Kingdom Temperance Alliance. His joy, however, is fallacious, for, on the other hand if we don't raise enough barley at home to brew our ale, we don't on that account refrain from malt liquors: we buy it elsewhere; so that, in the eyes of the impartial political economist at least, the Hessian fly in Britain must be regarded as an unmitigated national misfortune.

(Allen, 1898, p.99)

The gendering of the fly as the enemy was further politicised within Allen's article as he likened the evil female fly emerging from its 'pupa-skin' to the 'modern woman' stating, "A long pull, and a strong pull, and she has got- what the modern woman so ardently craves- complete emancipation! The third pair of legs are out at last; she has all the world before her to wander over and lay eggs in" (Allen, 1898, p.103). There can be

little doubt that Allen's article, written in 1898, was concerned with the implications of female emancipation wrought by the emergence of the National Union of Women's Suffrage Societies in the previous year. The demonization of the emancipated woman was ascribed to the Hessian fly and given authority by the scientific context of the discourse. This strategy can be understood as an attempt to attenuate the broader concerns about social disruption caused by female emancipation that were endemic at the time. As Anderson and Zinsser (1988) state, following the formation of the National Union of Women's Suffrage in 1897 both middle-class and working class women came together to strengthen the emphasis on women's rights to vote (Anderson & Zinsser, 1988, p.362). The humanisation of the Hessian fly functioned to legitimate opposition toward women's suffrage and to authorise the demonisation of women in light of their growing social power. What is crucial here is that Allen's article was included in the Strand Magazine; the most popular periodical of the time. Therefore the significance of such ideological constructions of insects, and nonhuman animals in general, cannot be overlooked. Gendered ideological exemplars such as the Hessian fly in the Strand were circulated to a mass audience in excess of one million.

In a later article, 'Underground Passages and Trap-Doors', Allen gendered the trap-door spider and again made reference to the evil characteristics of the emancipated female. In a lengthy, and rather horrific description of the fate of the affectionate male spider he noted, "[he is] kept by her side" until the female tired of him then, "she does not appeal to Sir Francis Jeune for a divorce but summarily settles the question by devouring him off-hand" (Allen, 1898, p.747). The writer concluded his article with the following comment,

Spiderland resembles the Paradise of the New Women: the fair sex have things there all their own way. If the lady likes the look of her admirer, she accepts him on the spot; if she doesn't, she eats him without further parley. "It is a beautiful arrangement for the good of the race," a fat spider-bride remarked to me one day. "You marry him- or you eat him. Either way, you utilize him."

(Allen, 1898, p.747)

The trap-door spider, like the Hessian fly, was humanised and gendered in such a way as to draw attention to the perils faced by men as women gained more economic power through legislative change. In this case, the narrative of the gendered spiders clearly referenced three important changes to legislation; the liberalisation of the Divorce Act in 1857 and changes to legislation in 1878 and 1882 which gave women control over their earnings and rights over their property respectively. Another naturalist writing in 1896 about the female Green Grasshopper echoed these concerns saying,

All said, the marriage customs are dreadful [...] here it is the female of the pair that stands for strength and intelligence and also for cruelty and tyranny which appear to be their inevitable consequence.

And about the female Languedocian Scorpion and her mate:

[... they] are joined in a sort of kiss; after which the union is established, the male is transfixed with a mortal sting and the terrible spouse crunches and gobbles him up with gusto.

And similarly the female Praying Mantis was described as follows:

[...] the horrible Mantis religiosa or Praying Mantis, does better still: she eats her husbands (for the insatiable creature sometimes consumes seven or eight in succession), while they strain her passionately to their hearts.

(Maeterlinck, [1896] 1912, pp. xxvi-xxix)

The consumption and utilization of the male within the trap-door spider, green grasshopper, scorpion, and mantis narratives were thus a clear reference to the economic power that was legislatively afforded to women in the latter half of the nineteenth century. A similar concern about the rights of black people and an attendant Imperialist ideology also populated natural history narratives with some naturalists claiming that it was both right and inevitable that black ants should be slaves within the ant kingdom. As one naturalist asked about the enforced slavery of black ants, "Is this not strikingly like native troops and English officers? The black require the lead of the white?" (Rothney, [1879] in White 1895, p.188). Emphasising the weaknesses of black ants, another naturalist noted, that when black ants "rushed to attack their invaders" they were "quickly overcome, and carried off to the nest of the victors". The same writer stated that in order to maintain an ordered society, "[black ants], which are born in the

nest, become slaves from birth" (White, 1895, p. 184). Writing in 1804, naturalist M.P Huber referred to the black slave ants as "negroes" of the ant community and later in 1878, entomologist Frederick Smith noted, "In the nests I found plenty of slaves [...] all being black and smaller" (Huber [1804] & Smith [1878] cited in White, 1895, p.183). Noted to be smaller, less intelligent and black, slave ants were considered across the descriptions of ant communities to provide a valuable ordering to societies as long as they maintained their oppressed state. Descriptions of how 'masters' dealt with recalcitrant slaves to maintain the social status quo appeared in the insect narratives and the writer would tellingly describe slave based ant societies as 'colonies' drawing noticeable parallels with the late nineteenth century European colonisation of the African interior.

I want to use the examples above to make an important distinction between the different ideological appropriations of anthropomorphism at this point. As I have already noted, Darwin referred to nonhuman animals in his notebooks as 'slaves' and as I have detailed here, other nineteenth century naturalists attributed the black ant with the human social classification of 'slave'. I have argued throughout this chapter that anthropomorphism was used in the nineteenth century to both maintain and subvert the social order and here I would clarify this point of my argument further. Both Darwin and his contemporaries appropriated a discourse of race to situate the humanness of nonhuman others. However, Darwin's discourse of nonhuman 'animal slaves' was used to oppose the oppression and exploitation of nonhuman animals and, in doing so, to subvert the existing speciesist distribution of power which excluded the rights of nonhuman animals. In comparison, the discourse of 'ant slaves' in other naturalists' accounts was appropriated to legitimate and naturalise the oppression of humans and therefore maintain the unequal social distribution of power that privileged white male Europeans. Both discourses were therefore involved in different power-knowledge configurations that similarly utilised a discourse of humanised nonhuman animals.

Social Darwinism

It is important to note that the use of human/nonhuman animal similitude to justify social oppression was therefore different, but not wholly disconnected from, the discourse of Social Darwinism. Social Darwinism utilised the model of natural selection to underpin the notion of a 'survival of the fittest', postulated prior to Darwin's (1859) publication of Origin, by Herbert Spencer in 1851 in Social Statics, or the conditions essential to Happiness specified, and the first of them Developed. The chief distinction I want to make here between Social Darwinism and the anthropomorphised human/nonhuman animal continuum is this: within Social Darwinism the model of evolutionary descent via the mechanism of natural selection was used as a legitimating analogy for social oppression. What I have detailed here is how the anthropomorphised nonhuman animal underpinned by the model of a human/nonhuman animal continuum was appropriated to validate social hierarchies. The two models, whilst clearly connected are however, in detail, rather different. One utilises the agency of 'nature', made explicit within the term 'natural selection', and transposes it onto society to suggest that there is an internal social force that, if allowed to function, will inevitably lead to a stronger and better society: in other words, the attribution of a self-governing agency to nature and society. The survival of the fittest model is therefore dependent upon an analogous relationship between society and nature. However, in the case of the human/nonhuman animal continuum, this attributes human characteristics to nonhuman animals to provide an analogous relationship between the nonhuman animal and the human and therefore between nonhuman animal societies and human society.

As I stated in my introduction, I wished to avoid the 1960s anthropological tendency to conflate nature with the nonhuman animal and to recognise the significance of the nonhuman animal in its own right. Therefore it is not within the scope of this project to examine the relationship between the Darwinian discourse of nature as a self-acting force and the appropriation of this model for social regulation. So, whilst I readily admit

there are clear connections to be made between the two, my focus is necessarily on the ideological implications of a human/nonhuman animal continuum. It is therefore the anthropomorphisation of the nonhuman animal and not nature that concerns me here. However, what the connections between Social Darwinism, the human/nonhuman animal continuum and social stratification show is that, as I have established, the influence of Darwin's work on nineteenth century power-knowledge configurations was significant and also that there is a clear link between models produced within scientific knowledge (for example, the Cartesian model of the machine or the model of a natural selection) that produces social effects. Therefore there is, without doubt, an ideological dimension to the production of scientific knowledge in that it has important consequences for the material conditions of social and cultural life. A further example of this relationship was evident within the late nineteenth century discourse of telegony within nonhuman animals that regulated human, particularly female, sexual conduct.

Purity

A discourse of purity implicit within the theory of telegony was informed by issues of race and the material effects of colonisation that brought 'exotic' nonhuman animals, such as zebra, to Europe. The discourse of purity utilised the nonhuman animal as a metaphor to secure the naturalised oppression of women and to regulate female sexual conduct. A theory of 'telegony' was first proposed by Lord Morton in 1821 in a report for the Royal Society and was tested in 1899 by Professor Ewart's experiments with zebra hybrids which were widely reported in the popular press (The Daily News 26th April 1900). Telegony, in the case of nonhuman animal breeding, was concerned with the influence that the first sire would have on the future progeny of a dam by different sires. As reported in The Daily News the doctrine of telegony supposed that, "it is a matter of the highest importance that in the first instance [...] the dam should be crossed by a sire of unblemished character" (The Daily News, 26th April 1900, p.9). The discourse of telegony was applied to nonhuman animals but resonated with ideologically gendered implications. It was suggested that the first breeding of a female would affect any future

progeny, irrespective of the subsequent sire. The discourse of telegony in nonhuman animals expressed wider concerns about the purity of the female body; in this sense the pure female, as a reproductive entity, which could be forever compromised by an inappropriate alliance.¹⁷

Sexual freedom was linked to economic and political freedom for women and the concerns about the disruption to male power within nineteenth century society were applied to the nonhuman animal body. The discourse of telegony utilised the nonhuman animal body to express wider concerns about women's rights and ideologically referenced the possible devastating outcomes if a woman should decide to have sex outside of her class, race, or marriage. Popular fascination for the results of hybrid experimentation drew large crowds to venues such as the Zoological Gardens, Regents Park to see the 'hybrid bovine animals' and the Dublin Zoological Gardens to see 'Zebra Hybrids' (The Daily News, 24th April 1886, p. 3; The Daily News 26th April 1900, p. 9).¹⁸ The message was clear, if a woman had 'inappropriate sex' and attempted to conceal it, the evidence would show up in any child she conceived in a later alliance. The discourse of telegony therefore emphasised the potency of the male and also that the female body 'retained' the evidence of the first sexual encounter.¹⁹

Whilst the ant colony offered a model of the ideal society and the ant was characterized appropriately within factual and fictional narratives as loyal, hardworking and compassionate, the ideological gendering of the fly and spider cast the individual insects in the role of the evil enemy of men and society. As in the case of the bull-dog, nineteenth century anthropomorphism was not confined to the attribution of 'good' characteristics to nonhumans. On the contrary, the ideological positioning of the animal or insect was discursively conditioned by the maintenance of social hierarchies and gendered divisions. In this sense the humanisation of nonhumans within popular culture went beyond the range of concerns expressed within scientific and theological discourses about the attribution of consciousness, language, morality and emotion.

Within popular factual and fictional narratives of nonhuman life the attribution of a wider range of 'human' qualities encompassed the breadth of social characteristics that threatened the stability of a carefully stratified nineteenth century society. Reproductive unpredictability and interspecies breeding utilised the nonhuman animal body as an experimental site wherein laws of nature, fertility, and hybridism could be formulated to control and discipline the unruly nonhuman animal body and arrest broader social anxieties about the erosion of purity in humans.

Humans and nonhuman animals were similarly conditioned by dominant discourses of purity and class hierarchy as the nineteenth century conditions of social stratification evinced a belief that 'universal' constants such as the mongrel, the crossbreed, and the hybrid, could be applied throughout society. With nonhuman animals such as dogs being brought into the domestic sphere and re-classified as pets, dominant discourses were applied to canines as to humans across the urban social sphere. However, nonhuman animal bodies existed as experimental spaces where the social anxieties about purity and hybridity could be explored within the public sphere through science and within popular culture through canine breeding practices and popular fictions. Darwin's claims for descent from a common progenitor gave legitimacy to discourses that controlled and regulated purity across a human/nonhuman animal continuum. Darwin was clear that his concept of common descent applied equally to human and nonhuman animals, and the terms 'mongrel' and 'crossbreed' were similarly generally applied in popular discourse without regard for any other classification of 'human' or 'animal'.

Darwin's ideas of common descent, and the human/nonhuman animal continuum, became firmly embedded in the popular imagination and in the social mechanisms of control and stratification. After the mid-nineteenth century nonhuman animals and particularly canines were conditioned by the same discourses as humans and, in turn, this set of conditions propagated the possibility for the humanisation of nonhuman

animals to be treated seriously. Thus, as I have demonstrated here, the conditions within which anthropomorphism flourished were those of social control and stratification and anthropomorphic practice was propagated through the mechanisms of a nineteenth century biopolitics and was embedded in the circulation of power within nineteenth century British society. In this sense, I contend that science and popular culture interwove in the dominant fictions of purity and hybridity to discursively maintain a stratified society.

The human/canine continuum: from narrative to practice

Of all the ideological constructions of anthropomorphic nonhuman animals in the nineteenth century, the dog offered the most persuasive metaphor for human conduct, if not humanity itself. In part, its popular ideological appropriation can be linked to the fact that the dog was the most popular pet of the late nineteenth century. But, it is also the case that of all the nonhuman animals that Darwin discussed, the dog proved to be his most common reference point. What is most important about the anthropomorphisation of the dog is that this emerges as one the key contingencies to the public support for antivivisectionism in the nineteenth century. The anthropomorphised dog was endemic across science, art, and popular culture, to the extent that it became a cultural dominant and part of a regime of truth about canines. The humanisation of the dog was absolutely crucial to the public support that the antivivisection movement acquired in that it became popularly circulated that live dogs were being used for experimentation purposes. However, it is clear from my discussion of the demonized constructions of the bull-dog, the half-breed and mongrel, that the dog was established as a site of multiple meanings. I want to extend my analysis of the anthropomorphised dog here to draw attention to the range of discursive dimensions and social meanings that the canine offered. What I am particularly concerned with in this part of the chapter is to trace linkages between science and popular culture that supported key cultural myths of the sagacity and fidelity of the dog, which I have

already mentioned were pivotal to the public support for the anti-vivisection movement, and to identify the crucial signifiers that reciprocally validated such meanings.

The anthropomorphisation of dogs was not confined within factual and fictional narratives but was also evident in other cultural practices. In London, the fashion for dog ownership by the late nineteenth century produced a thriving economy for 'all things canine'. The prices for pedigree dogs ranged up to £1,200, with a well-bred St. Bernard puppy costing £250 and a fashionably marked Spaniel of 'show quality' around £150 (See: 'At The Animals Hospital' The Strand Magazine, [1893] in Cotterell, 1974, p.33 and Illustrated London News, 1851 cited in Jackson, 1991, p.38). The breeding and sale of dogs was largely unrestricted and dog traders were seen on the streets of London attired in large overcoats, the pockets of which would be stuffed with puppies for sale.²⁰ The chief trading area for dogs was Leadenhall Market where tradesmen would tie a dozen or so dogs to a bench or chain them in rows along the sidestreets. The other means by which people could purchase a dog was from a breeder, rather than a dealer; a process which was felt to be more appropriate for the discerning buyer who wanted to be assured of the pedigree of their canine companion. For the wealthiest dog owners of the late nineteenth century, canine fashion went beyond the purchase of 'breed' and 'pedigree'. In New Bond Street, the 'Dog's Toilet Club' allowed its patrons exclusive rights to facilities which included a daily bath for dogs, canine dentistry, canine attire brought from Paris, and specialist dog clipping. In this sense, the practices of pet-keeping, for the upper classes at least, attempted to echo human social norms and dogs were dressed in the latest fashions, bathed daily and attended to their toilet in much the same way as their human owners.

This process of humanisation, however, was intended to symbolise the wealth and status of the owner. Particularly fashionable for nineteenth century poodles, pet clipping involved shaving a picture or emblem of the owners' choice into the dogs' coat and a Mr W. R Brown of Regent Street was thought to be the most skilled clipper of the

time. The body of the dog, valued for its relation to an aesthetic ideal imposed by the status of 'breed', was further aestheticised by the practice of shaving signifiers of the owners' class and status into the coats. In an account of Mr. W. R Brown's work published in The Strand Magazine, the writer tells how, on the day of the Derby horse race, Mr Brown shaved a horse into the coat of his own poodle. When the winner of the race was announced, Mr. Brown quickly added the name and then found the owner of the winning horse and sold his poodle to him for £100. In another case, Mr. Brown clipped the family crest belonging to a Mrs Beer of Chesterfield Gardens into the coat of 'Zulu' the poodle (see; fig 1). The crest was the image of "a pelican feeding its nest of young ones with blood from its own breast" as appeared in the 1493 bestiary Les Dictz Des Oiseaux et Des Bestes (Fitzgerald, 1896, p. 541-542).

The bodies of the 'clipped dogs' demonstrated the cultural currency that images of nonhuman animals held as renegotiated signifiers. In the eighteenth century, the popularity of horse racing with the upper classes had started a trend in nonhuman animal portraiture with famous race winners being 'immortalised' in oils; the image of the Derby winner that Mr. Brown clipped into the poodle carried on the tradition for race winners to be reproduced as images, however canvas was replaced with the canine body.²¹ The image of the pelican, that had first appeared in a fifteenth century bestiary as a didactic moral exemplar, had been culturally renegotiated to signify wealth, status and breeding as a family crest, and was then shorn into the coat of the poodle; the canine itself already a social mirror of its human owner.²²

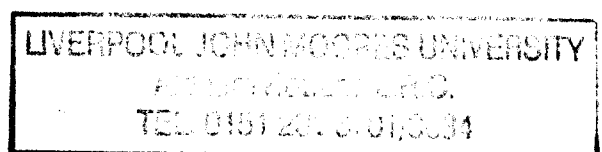


Fig 1: 'Zulu' in The Strand Magazine, 1896, Vol. XI, p.542.

Canine fidelity

The most compelling discourses of the nineteenth century were the dominant cultural fiction of 'canine fidelity' and 'sagacity' that defined certain dogs as loyal, intelligent members of British society. As I have already noted, the discourse of nonhuman animal sagacity had been in evidence since the mid-eighteenth century however by the nineteenth century stories such as the popularised narratives of 'Gelert' and 'Greyfriars Bobby' further emphasised the loyalty and intelligence of the canine and the strength of the bond between a dog and his 'master'.²³ The story of Gelert, although constructed for an early nineteenth century audience, claimed to re-tell the ancient Celtic myth of a dog owned by King Llewelyn. Llewelyn returns home to find his baby is missing, the cot turned upside-down and the dog covered in blood. The King, thinking that Gelert has killed the baby, stabs Gelert only to find that the dog had been protecting the child from a wolf. The wolf is found dead and the baby unharmed. Llewelyn, in mourning for his dog, erects a tomb to honour Gelert's bravery. The story of Greyfriars Bobby tells the tale of a terrier dog who, following the death of his owner, continues to visit his grave every day. The stories of both Gelert and Greyfriars Bobby were however only two of a multitude of narratives of canine fidelity that suffused the popular sphere.

My research indicates that the potency of the canine fidelity narrative spanned nineteenth century culture, with the story of Gelert at the beginning of the nineteenth century and examples such as Briton Riviere's Fidelity in circulation during the late

1800s. In Briton Riviere's 1869 painting entitled Fidelity the myth of canine loyalty is reworked in a depiction of a dog with his head resting on the knee of his imprisoned master. As the man's eyes are covered and his head is bent down, the main subject of the painting is the dog who stands looking loyally at his condemned owner (see fig. 2).

Fig 2: Riviere, Briton (1869) Fidelity in the permanent collection at the Lady Lever Art Gallery.

Riviere has been overlooked in recent nonhuman animal histories predominantly because Edwin Landseer is more often cited as the leading representative in humanised nonhuman animals (see, for example Kean, 1998; Vaughan, 1999). However I regard this artist as especially important as Briton Riviere was one of a group of artists that specialised in painting humanised nonhuman animals and significantly, contributed the illustrations of the dog as 'hostile' and 'humble and affectionate' for Darwin's publication of Expression (Riviere illustrations in Darwin, [1872]1998, p. 57). Moreover, Riviere's paintings were mass reproduced by Stacpoole, Atkinson, Chant, Lewis, Murray, Pratt and Samuel Cousins as prints and engravings, thereby locating Riviere's work within popular culture.²⁴

The painting that brought Riviere to public attention was Circe produced in 1871, the same year that Darwin's Descent was published. Based on the Homeric legend of Circe who turned Ulysses and his companions into swine, Riviere's first notable painting was one in which the human/nonhuman animal continuum was so obviously addressed. In an interview with Briton Riviere published in The Strand Magazine in 1896, the article's author stated, "Mr. Briton Riviere justly occupies the position of being our premier animal painter of today [...] his work is the work of a genius" (How, 1896,

p.3).²⁵ Riviere's 'genius' was, for How, exemplified in the painting Sympathy which How described as "A kindly-natured terrier [...with...] an expression of sympathy on his face, which only an artist such as Mr. Riviere could create on those canine features" (How, 1896, p.12). Yet, for Riviere, the expression of genius was to be found in his own dog 'Speed' who, Riviere claimed, possessed "the eccentricities of genius. He is a dog who thinks, and we are all very fond of him..." (Riviere quoted in How, 1896, p.3). Riviere's attribution of mental prowess to his dog 'Speed' was entirely in keeping with Darwin's claims for the dog in Descent and Expression, the latter of which included Riviere's illustrations of canine emotion and expression.

I draw attention to the work of Briton Riviere here as it exemplifies two important points; in the first place it connects the sphere of popular culture with that of science in that Riviere produced images of dogs displaying emotion for both the mass market and for Darwin's Expression. Secondly, as revealed by the 1876 interview, in his day-to-day pet-keeping practices, Riviere subscribed to the dominant conceptualisation of the dog as an emotional, intelligent being, the very subject of his own paintings, mass produced images, illustrations for Darwin's Expression and the subject of Darwin's discourse on emotion. What I want to emphasise here is that each of these connections exemplifies a dimension of anthropomorphic practice in the nineteenth century. Anthropomorphism was clearly a cultural dominant that, within this discursive formation, was embedded within pet-keeping practices, fine art, popular visual culture, science illustration, and the Darwinian discourse. In addition, these anthropomorphic practices were legitimated by articles such as How's account in the Strand Magazine, proclaiming that Riviere was a 'genius'. It is clear therefore that the credibility of those who subscribed to anthropomorphic practices was certainly not in doubt at this moment in the nineteenth century and the Darwinian discourse gave further legitimacy to the discourse of the dog's sagacity and fidelity.

The loyalty of the canine connected the dog to the human in ways that distinguished the canine from other nonhuman animals during the nineteenth century. Despite all evidence that 'man' was most closely related to the 'ape' in evolutionary terms, Darwin elevated the dog above the primate and the 'savage' in both morality and mental powers. As one commentator noted, "Mr. Darwin finds himself compelled to reintroduce a new doctrine of the fall of man. He shews that the instincts of the higher animals are far nobler than the habits of savage races of men" (Darwin, [1871] 2001, p.103). Such strategies connected to a dominant discourse of race which supposed that the ape was more closely aligned with the 'primitive' or 'savages' of the African interior. To distance white Europeans from black Africans within the discourse of evolutionary continuity within W. Farren White's studies of insects the author claimed that ants, by virtue of their intellect, were closer to humans than apes. White wrote:

[...] the marvellous intelligence of the little people, which seems so closely allied to reason as to differ from it [...] in degree though not in kind, and which places these aculeate Hymenoptera next to man in the ranks of intelligent being, rather than the anthropoid apes, which resemble him only in anatomical structure and physiological endowment [...]

(White, 1895, p.186)

In Descent, Darwin however argued that the dog was one of the "higher mammals" and that the canine possessed consciousness and intelligence as well as morality, a sense of beauty, religious faith, courage, love, memory and shame. In Expression, the emotions of the dog were explored further to reveal that the canine felt and expressed a full range of emotions including fear and terror. What is crucial here is that popularised narratives of canine emotion and loyalty to humans were filtered into and embedded within Descent with Darwin claiming that, "every one has heard of the dog suffering under vivisection, who licked the hand of the operator" and of the "Newfoundland dog [that] drags a child out of the water" (Darwin, [1871] 1981, p.40). Given that Darwin used popularised accounts of canine loyalty and devotion to underpin his hypothesis of nonhuman animal emotion shows evidence of clear links between popular culture and scientific discourse. Whilst the story of the dog and the

vivisection operator caught the public attention and supported public feeling against vivisection practices, stories of canine bravery and fidelity, particularly in the Newfoundland breed, were firmly established as dominant cultural fictions. In this sense, there were clear linkages between popular culture and scientific accounts of anthropomorphised canines that reciprocally supported one another and legitimised the discourse of the dog's fidelity.

Both fictional and factual accounts of canine loyalty and bravery circulated within popular culture. The fictional narrative 'A Modern Gelert' by Walter Ragge (1900) re-worked the earlier story of Gelert. In Ragge's narrative, Nero the Newfoundland is owned by a pair of fraudsters who send the dog to rescue nonexistent children from the sea or from a fire. In the story, people are astounded at the dog's willingness to risk his life and feel pity for the couple who would then pretend that the dog had been unable to reach the children in time. On discovering the fraud the author, in the story, offers to buy the dog and renames him Gelert reasoning:

At least, I am sure that if a child had been drowning in that sea, or burning in that van, he would have rescued her. Is he any less heroic because he recovered only rags in one case and bones in the other? No, I shall certainly call him Gelert, after Llewellyn's Gelert.

(Ragge, 1900, p.146)

Other factual accounts of dogs rescuing children sometimes replaced the Newfoundland with a St. Bernard, as in the account of the 'Animals' Hospital' in the Strand Magazine where the author writes about 'David' the St. Bernard. Thinking that his young mistress was going to drown, David, "took a leap [...] but his front paw caught the iron bars, and his leg was broken" (The Strand Magazine, in Cotterell (ed) 1974, p.34). The author of the article, in accord with the dominant discursive construction of the brave canine, wrote:

Cheer up, David, old boy- look a bit pleasant, David, my brave fellow. But David only shakes his head in grateful thanks for a word of sympathy. He is a credit to his breed, and his noble disposition would lead him to forget what brought him there.

(The Strand Magazine, in Cotterell (ed) 1974, p.34)

As the Chairman of the Kennel Club noted in 1945, the popularity of the St. Bernard breed escalated and overtook that of the Newfoundland in the 1860's. He wrote, "rivalling them in proportions are the St. Bernard's, of which a stream of importations set in during the 1860's, the romantic story of their life-saving exploits on the Great St. Bernard Pass leading from Italy, having taken the public by storm" (Croxtton-Smith, 1945, p.40). Such narratives of canine bravery infused popular culture such as in the short fiction story, 'Vagabonds' published in 1900, where a child is saved from being shot when his dog 'Tinker' leaps into the path of the bullets and dies to save his young master (Marnan, 1900, p.23).²⁶ Similarly, in the novel The Dog, one of a series of 'animal autobiographies' written by G. E. Mitton ([1904] 1910), the hero 'Scamp' rescues a drowning man by pulling him from the water.

In Britain the virtuous characteristics of the dog were confirmed at the highest social level when Queen Victoria wrote of Battersea Dogs Home,

The objects of your association appear to be deserving of the greatest sympathy and commendation; and your solicitude for the welfare of dogs, the friends of man, who have shown so much zeal, fidelity, and affection in the service of mankind, is the fitting complement of the charity which strives to comfort and succour the unfortunate and afflicted members of our own race.

(The Strand Magazine, 1891 in Cotterell (ed), 1975, p.86)

Dogs were thus considered to embody great virtue and fidelity, to be 'friends of man' and most significantly, 'members of our own race'. Victoria's statement confirmed the authority of a canine/human continuum at the pinnacle of the social hierarchy. The discourse of the canine/human continuum was consequently embedded within social codes of correct behaviour that suggested that the dog was the only fitting companion for a 'lady' travelling alone. As one writer in 1896 confirmed, "it is horribly bad form for a lady to drive in the park with her baby by her side, while the presence of a pompous pug or a toy terrier is irreproachably correct" (Fitzgerald, 1896, p.550). The comparison between baby and dog was not inadvertent as the writer also pointed out that, "pet dogs are treated by their mistresses almost precisely as though they were human

members of the family" (Fitzgerald, 1896, p.550). Fitzgerald affirmed, where 'the changes in fashionable dogs' were concerned "as in other matters, Royalty leads the way" (Fitzgerald, 1896, p.545). The extent to which Royal practices, in relation to canine matters, were emulated and thereby assimilated into popular practices was evinced by the late nineteenth century popularity of the 'brave' Newfoundland dog, a breed owned by the Prince of Wales in 1860; also by the burgeoning interest in dog exhibition after 1875 when the Prince of Wales became Patron of the newly established Kennel Club and Queen Victoria regularly exhibited her dogs at shows and attended sheepdog trials.

The legitimacy of the humanisation of dogs was confirmed by Royalty, however the assimilation of the discourse of the canine/human continuum and its associated practices by other strata of late nineteenth century society cannot be dismissed as a fad or a fashion. The humanisation of the canine was ideologically significant and implicated in the circulation of power within society. The dog provided a key ideological exemplar of loyalty, trust, fidelity and humanity within science narratives, factual accounts and popular fictions. As one writer commented, "They are very good fellows, some of these, as a man with any of the characteristics of a good dog must be" (Morrison [1895] in Cotterell 1975, p.93). The humanisation of the dog elevated it into the human social hierarchy and the dominance of the canine/human continuum legitimated by the aristocracy was clearly expressed in Arthur Morrison's 1895 article for the Strand Magazine where he argued:

Certain men are seen hereabout whom nobody would expect to see anywhere else, and about whom I have a theory. These men are the exceptions that prove the Darwinian doctrine of the evolution of the human species through the monkey. In their descent from the primordial protoplasm they must have boldly skipped all the species between dog and man, so that they carry as much external affinity to their last quadruped ancestors as other people do to the monkeys.

(Morrison, 1895 in Cotterell (ed) 1975, p.92)

The humanisation of the dog established a human/canine continuum wherein, as Darwin had suggested, dogs were not only linked through evolution to humans;

canines were higher on the evolutionary ladder than humans from the lower strata of society. Thus, the dominance of the canine/human continuum was inescapable; legitimated by Royalty, embedded within Darwinian theories of evolutionary descent and circulated throughout popular fictions and practices. Such was the dominance of the canine/human continuum that vivisection and cruel practices toward nonhuman animals was reconfigured as cruelty toward dogs. The dominance of the dog within the discourse of anti-vivisection was made clear in newspaper accounts of public anti-vivisection meeting where examples of vivisection cruelty were given only with reference to dogs; throughout many of the articles dogs were the only nonhuman animals specifically mentioned. (See for example: The Daily News, 23rd May 1900, p.2). In comparison a 'pro-vivisection' newspaper article in the Weekly Dispatch presented the moral conundrum of vivisection asking whether the life of a human man was comparable with the life of a rabbit (Weekly Dispatch, 30th May 1886, p.1). Certainly, the anthropomorphised canine was a crucial symbol of the discourse of cruelty within vivisection practices leading pro-vivisection supporters to opt for the less popularly humanised example of the rabbit to support their argument.

However, the relationship between the canine/human continuum and the maintenance of a stratified society was a reciprocal one. As I argued earlier, the stratified social conditions underpinned by the dominance of social control through 'universal' constants in the nineteenth century enabled anthropomorphic practice to flourish; in this sense the humanisation of the nonhuman animal was embedded within the mechanisms of a Victorian biopolitics as discourses of purity, hybridity, mongrelisation and cross-breeding were imposed across the human/nonhuman animal continuum. One aspect of the human/nonhuman animal continuum that proliferated under these conditions was the canine/human continuum, which reciprocally functioned to enable social hierarchisation such that the canine was elevated above 'the savage' and certain members of the working classes. Middle-class constructions of beauty were imposed upon working class aesthetic sensibilities, and working-class human/nonhuman animal

relationships were reconfigured through legislative change. In this sense, as I have demonstrated here, anthropomorphic practice, as it would retrospectively be defined at the beginning of the twentieth century, was significantly involved with the social distribution of power and the circulation of dominant discourses of social control and class hierarchisation.

Conclusion

In 1876 the discursive triangulation between the human/nonhuman animal continuum, popular culture, and public feelings toward vivisection had effected legislative change and thereby evinced the disruptive power of anthropomorphism when constructed as an authorised mode of interpretative practice. By the early twentieth century the reorganisation of knowledge production prohibited anthropomorphism as a credible method for understanding nonhuman animals and thereby nullified the power of the human/nonhuman animal continuum and the credibility of those who subscribed to it.²⁷ In this sense, anthropomorphism in the twentieth century had re-emerged as a different type of social regulatory force that now *denied* legitimacy to those who attributed human characteristics to nonhuman animals. Relocated into the sphere of popular culture as the stuff of narrative fictions and bad scientific practice, the anthropomorphism that had bolstered public support for the antivivisection movement was discursively recast as indicative of misplaced interpretation and sentiment. As such the antivivisection discourse was marginalized and unable to sustain a reasoned political argument in the face of the anti-anthropomorphic discourse.

In part this relied on reasserting difference between human and nonhuman animals at the level of 'cost' to both human knowledge and progress; in other words the main ideological thrust of liberal humanism. Faced with the threat to scientific autonomy and authority, the scientific establishment asked, whether the life of a rabbit was worth the lives of humans, or the implied costs to future knowledge production within science? It is my contention that Darwin's Expression was one of the main casualties of this

rhetoric, in that his anthropomorphic construction of nonhuman animal as emotional beings conflated all too easily with the popularised narratives of intelligent, loyal dogs to challenge the difference necessary for the continued exploitation of experimental subjects. In addition his popularity as a famous scientist attracted further authority and public interest in his statements on nonhuman animal cruelty. As the ideological management of social conduct, class, gender and race had appropriated the anthropomorphised nonhuman animal as a discursive truth, this further legitimated Darwin's anthropomorphic accounts and the strategy to reclaim discursive power necessarily invoked a wholesale rejection of his practices, interpretation, style of discourse and more dangerous ideas; in this case the attribution of emotion and subjectivity to nonhuman animals.

Given that the discursive construction of anthropomorphic practice shifted toward the end of the nineteenth century, the point of transition from the nineteenth century into the early twentieth century marks an important moment in the history of anthropomorphism. Central to the discursive shift is the relationship between popular culture, science, and the human/nonhuman animal continuum. More recently, J. S. Kennedy and others (Guthrie, 1993 & 1997; Caporael & Hayes in Mitchell et al, 1997) have argued that anthropomorphism is both innate and then further, "dinned into us culturally from earliest childhood" via popular fictions. Kennedy argues, "If the study of animal behaviour is to mature as a science, the process of liberation from the delusions of anthropomorphism must go on" (Kennedy 1992, p.5).

I contend however that anthropomorphic interpretations of nonhuman animals have been socially constructed through prevailing systems of knowledge production and anthropomorphism as an interpretative practice is subject to historically specific rules and practices that have legitimated particular conceptions of fact and fiction. Kennedy and Guthrie inevitably fall into the trap of seeing anthropomorphism as a biological, and therefore social and cultural constant, and they also fail to recognise that 'science' is a

set of institutionalised social relations that *acquired* legitimacy. In contrast I argue that the interplay between anthropomorphism and discourses of science and popular culture must be regarded as important in determining how anthropomorphic practice has been significant within power-knowledge relationships; and, rather than simply attempting to negate anthropomorphic practice as a 'problem' for science (as Kennedy does), it is important that is understood as a determining construction of the nineteenth century.²⁸ For instance, whilst anthropomorphic interpretations of dogs in the nineteenth century were important in securing legislative change, it is also significant, as I have argued here, that the anthropomorphic interpretation of a canine/human continuum was contingent on social hierarchisation in which some sections of the working classes were considered lower on the evolutionary/social scale than dogs. Therefore, I propose that my analysis of anthropomorphism moves the debate beyond the dichotomy of the 'rights' or 'wrongs' for science and, rather, examines anthropomorphic practice in terms of the circulation of power within society. Moreover, rather than regarding the cultural dimension of anthropomorphic practice as distinct from, or simply problematic for, science, I argue that the discourses of science and popular culture are both intrinsic to the power/knowledge relationships that condition human/nonhuman animal relationships.

In short, since the nineteenth century the battle over anthropomorphic interpretations of nonhuman animals has been fought in the borderlands between science fact and cultural fiction. As a practice anthropomorphism was aligned with limited intellect, subjectivity, and fiction. Anthropomorphism was positioned as unscientific in that it became polarised against the requirement for science to be aligned with high intellect, objective analysis and 'fact'. In terms of power-knowledge relationships, the disruptive potential of anthropomorphism as a scientifically authorised mode of interpretation was thus quelled in the early decades of the twentieth century.

Endnotes

¹ Ritvo's argument is used uncritically in a later study by Adrian Franklin (1999).

² See for example Crist, 1999, pp. 88-90 for a discussion of the shift from naturalist studies to ethology in the early twentieth century.

³ In addition to its broader popular appeal, as John J. Ward indicated, the influence of Darwin's ideas found a receptive audience amongst other scientists and scholars. At the point when The Origin Of Species had sold over twenty seven thousand copies, George Ramones, explicitly influenced by Darwin, began to promote ejective observation as a recognised scientific method. Ramones' claimed that ejective observation was distinguished from objective and subjective observation. Ejective observation applied subjective knowledge of the self to objective information about other minds; the method could be applied to nonhuman animals and was suggested by Ramones to provide an empirical basis for the study of mental states within evolutionary continuity (Thompson, 1994, pp. 59-60). Romanes' ideas received some acceptance within the wider scientific community however as the divergence between science and popular science that occurred at the beginning of the twentieth century consigned all subjective interpretation to the sphere of cultural fictions.

⁴ Charles Darwin's correspondence on vivisection demonstrates some variation in his views. In private correspondence in 1871 to Prof. Lankester, Darwin states his opposition to vivisection, however in other correspondence he claims that vivisection in some cases was required to further the study of physiology. For a fuller account of Darwin's correspondence on the question of vivisection see: Darwin [1887] 2001.

⁵ Early eighteenth century opponents of cruelty toward nonhuman animals included Alexander Pope and John Locke (see: Clarke & Linzey, (eds) 1990, pp. 119-121). For an excellent account of the history of attitudes toward hunting and animal cruelty from the sixteenth to the nineteenth century see Thomas, 1984, pp. 143-191.

⁶ The Martin's Act (Animal Protection Act) 1822 protected farm and draft animals from 'cruel treatment' and was followed by an 'Act to Consolidate and Amend Several Laws

Relating to the Cruel and Improper Treatment of Animals' in 1835 that prohibited dog fighting, bull baiting and cock fighting.

⁷ The Society for the Prevention of Cruelty to Animals was formed in 1824 (Royal Society for the Prevention of Cruelty to Animals from 1840). For histories of the SPCA and RSPCA see: Kean, 1998; Ritvo, 1987; Turner, 1980.

⁸ Keith Thomas gives many examples of this point and points out that "when Lord Erskine introduced a bill against animal cruelty in 1809, he too urged that cruelty to animals would lead to cruelty to man" (Thomas, 1984, p. 151). For further exemplification also see, Ritvo, 1987, pp. 125-166.

⁹ For a fuller description of the relationship between urban planning and design and nonhuman animal practices see: Franklin, 1999.

¹⁰ For histories of zoo culture see: Mullan & Marvin, 1998 and Franklin, 1999. For an account of nineteenth century zoos and animal attractions see Ham, 1997: 145-163.

¹¹ The lowliest of the 'rural breeds' were the 'lurcher' and 'cur' that were kept and used by poachers.

¹² In London many of the most popular dog pits were housed in taverns owned by ex-boxers including the Half Moon Tavern and the Castle Tavern in Holborn, the Hole in the Wall in Chancery Lane, the Union Arms in Panton Street, the Black Bull in Smithfield, the Sun in Windmill Street and the Prince of Mecklenburgh Arms in Manchester Square. For a list of the names of pugilists who owned public houses see: Jackson, 1990, p. 36.

¹³ For Foucault's discussion of biopolitics see Foucault, [1976] 1990, p. 139.

¹⁴ Of particular interest was the mule, a cross between a male donkey and a female horse, considered to always be infertile and therefore 'proof' of nature's regulation of the purity of species.

¹⁵ See: 'Professor Ewart's Zebra Hybrids' in The Daily News 26th April 1900, a report on zebra hybrids in the Dublin Zoological Gardens.

¹⁶ See an account of the 1824 dog fight at Westminster Pit between 'Boney' and 'Gas' in which the fight lasted one hour and fifty minutes, reproduced in Jackson, 1990, p. 35.

Also see accounts of rat baiting in Weekly Dispatch, 18th February 1900, p.8; Mayhew [1861-62] 1965, pp.174-187.

¹⁷ Harriet Ritvo make a similar point when she argues that, “when nineteenth century dog breeders commented [...] on the difficulty of persuading a prized bitch to mate with the male [...] their remarks were loaded with assumptions about the sexual proclivities of the human female (Ritvo, 1987, p. 3).

¹⁸ See also Morrison, 1893.

¹⁹ Telegony retained discursive authority well into the twentieth century as exemplified by the claims of one writer in 1951 who, writing on the subject, stated, ‘despite such strong evidence against the belief, the ability of a male to influence the progeny of a bitch in subsequent litters sired by other mates is still widely adhered to among animal breeders’ (Daglish, 1950, p. 10).

²⁰ See: Morrison, 1895 in Cotterell, 1975, p. 92.

²¹ The founding of the Jockey Club in 1750 transformed the sport of horse racing into an institutionalised practice governed by a structure of rules, with an established racing calendar and specialised venues. A demand for the work of painters, such as Stubbs, grew as owners commissioned paintings of their prized racing horses and it was observed by artist Jean Andre Rouquet in 1755 that, “We may rank among the number of portrait painters, those who are employed in drawing the pictures of horses in England. As soon as the race horse has acquired some fame, they have him immediately drawn to the life: this for the most part is a dry profile, but in other respects bearing a good resemblance; they generally clap the figure of some jockey or other upon his back, which is but poorly done” (Rouquet [1755] cited in Vaughan, 1999, p.163). As Rouquet’s comments suggested, the horse, in this context, was particularly valued for its racing potential and therefore for its physicality; the body of the horse dominated any representation and thus the convention of painting equine bodies in profile was established to cater to a new aesthetic of the material nonhuman animal body. Observations of the materiality of the nonhuman animal body were discursively dominant during the eighteenth century and this was clearly apparent within art. In 1766, the artist George Stubbs (1724- 1806) published The Anatomy of the Horse, a series of studies of equine anatomy. He was fascinated with anatomy and after giving private lessons on the subject to medical students at York Hospital, Stubbs was commissioned to illustrate a midwifery textbook in 1751. It was Stubbs’ paintings of horses, however, that proved particularly popular and his interest in dissection and anatomical accuracy connected art with the practices of scientific observation and practice. Thus, as the demand for Stubbs’ paintings of horses increased, the conventions of his practice became established as a model for other artists who painted equine pictures.

²² Early bestiaries had been composed and controlled by monks primarily as forms of moral instruction. Nonhuman animals, both mundane and fabulous, exemplified moral and social behaviours that provided lessons on correct human conduct. Some bestiary illustrations provided descriptions of social and moral context and gendered behaviour. In Les Dictz Des Oiseaux et Des Bestes (1493), the exemplar of maternal care offered an illustration and description of the pelican mother on the nest piercing her own breast to feed her offspring with her life blood. The pelican demonstrated the dominance of patriarchal Christian discourse within which the body of the female could be understood in its reproductive capacity as the “pure mother” (Turner, 1997, p. 134). The behaviour of nonhuman animals offered a didactic moral tenet that was exploited within early bestiaries and religious accounts of correct behaviour. The nonhuman animal was not, however, considered the same as the human; and although a moral and immoral continuum could be discerned within bestiaries, discontinuity between human and nonhuman animal also remained apparent. The nonhuman animal could provide exemplars of human conduct only because it existed in a natural state that it was unable to overcome. The natural state was fixed and thus it required a whole range of species within the natural world to offer moral exemplars for the behavioural complexity of the human. In this sense, whilst the pelican could be a good mother, it was the elephant that offered a framework for sexual conduct. The relationship between human and nonhuman animals, within the boundaries of religious knowledge, prescribed a metaphoric discourse within which nonhuman animal exemplars offered one-dimensional moral similarity but were denied the complex multi-dimensional range of behaviours attributed to the human. For histories of the bestiary see: Thomas, 1984. For an extended study see: Salisbury, 1994 and a shorter account in Salisbury, 1997, pp. 9-21.

²³ The story of Gelert was a nineteenth century construction. For the origins of the stories of Gelert and Greyfriars Bobby see, Kean, 1998, pp. 84-88. As Kean also points out, the paintings of Landseer which treated nonhuman animals as subjects in their

own right also contributed to the cohesion and dominance of the fictions of canine fidelity.

²⁴ Source: How, 1896, p.1.

²⁵ It is incidental to my argument but should be noted that Riviere's painting Circe maintained discursive connections with the Homeric legends that were criticised by Xenophanes for their explicit anthropomorphism. For an account of Riviere's painting of Circe see: How, 1896, p. 8, in which Riviere describes the pigs as "remarkably good sitters". For discussion of Xenophanes' criticism of Homeric anthropomorphism see: Emlyn-Jones, 1992, pp. 91-103. For a discussion of Xenophanes criticism of Homer as the 'origin' of anthropomorphism see: Spada, 1997, pp. 37-39 and Guthrie, 1993, p. 63.

²⁶ As early as 1851 there are accounts of the bravery of the Newfoundland. In an article in the Weekly Dispatch it is noted that a Newfoundland was killed whilst chasing poachers. (Weekly Dispatch, 6th April 1851, p. 3).

²⁷ As I demonstrated in the previous chapter, in the last quarter of the nineteenth century Darwin's credibility was severely undermined by his belief in the human/nonhuman animal continuum. See previous chapter regarding morality (and Mivart's criticisms) and mentality (and Morgan's criticisms).

²⁸ Kennedy (1992) does recognise that scientific 'truths' necessarily impact upon social practice and he devotes one chapter of his book (Chapter 5) to the implications of science on nonhuman animal suffering and animal rights. However, his motive in doing this is to argue against Cartesian mechanism, to which he is also opposed, as well as promoting his argument against explicit anthropomorphism.

Chapter Four

Emotion and the nonhuman animal

In the previous chapter I argued that by the twentieth century anthropomorphism had become politically, economically and scientifically 'dangerous' in that it potentially complicated prevailing practices that relied upon difference between human and nonhuman animals. I also noted that anthropomorphism was rejected by science and consigned to the narrative fictions of popular culture. In this chapter I expand on this argument through an examination of the cultural politics of nonhuman animal emotionality in the twentieth century. Here, I am concerned with locating the tensions between institutional discourses that relied upon a non-anthropomorphic construction of nonhuman animals and the anthropomorphic practices of popular culture that attributed nonhuman animals with emotion.

In this chapter I examine various cultural sites where nonhuman animals were constructed as emotional beings to argue that the attribution of emotion to nonhuman animals has been crucial to the commercial exploitation of pet-keeping practices. Maintaining my focus on pet-keeping practices I also examine aspects of the state and scientific regulation of anthropomorphism in the twentieth century to demonstrate how nonhuman animal emotion was constructed as a threat to scientific and social progress. I continue to thread my discussion of the cultural importance of the anthropomorphised dog throughout this chapter and use it to argue that whilst anthropomorphism had acquired a pejorative status by the early twentieth century, a popular cultural myth of canine emotion has been repeatedly appropriated to serve differing ideological interests. I conclude this chapter with a discussion of the paradox that is apparent in the various denials and appropriations of nonhuman animal emotion within the twentieth century. To emphasise the unique undertaking of my work in this chapter it is salient to note the very recent comment by science historian Greg Mitman who states, "Historians have yet to explore when and why questions of subjective

emotional and mental states became once again legitimate, albeit controversial lines of enquiry” (Mitman, 2005, p.178). Here and in the following chapters I address precisely this area of enquiry.

I begin this chapter with a discussion of Charles Darwin’s (1872) last major work, The Expression of the Emotions in Man and Animals, a text that enjoyed huge popularity when it was first published but was then, as Paul Eckman (Eckman 1998, in Darwin [1872] 1998 p. xxxix) notes, virtually ignored for more than ninety years. Through my examination of Expression I identify how a discourse of nonhuman animal emotion constructed within science in the late nineteenth century was reconfigured within pet product advertising in the twentieth century. I argue that the translation of nonhuman emotional life from science to popular culture exploited the commercial possibilities of pet-keeping thereby establishing the emotional nonhuman animal as a significant aspect of the iconography of capitalism. Central to maintaining the status of the pet as an emotional being I explore how the dog was constructed as a family member and, with reference to the work of Gilles Deleuze and Felix Guattari (1996), as an oedipal nonhuman animal. The oedipalisation of the nonhuman animal was intrinsically linked with the attribution of emotion to the pet that I argue was crucial to the distinction between edible and nonedible nonhuman animals. I examine therefore how, under certain circumstances, regulatory discourses of the state and science attempted to dismantle the oedipalisation of the pet in the interests of scientific and economic progress. To challenge other writers’ accusations that representations of emotional nonhuman animals within popular culture are trivial or ‘detritus’, I conclude this chapter with an examination of a cultural myth of canine emotion to identify the ideological interests that have been served through such representations and how they have reconfigured Darwin’s discourse of emotionality for different audiences.

It is not my intention here to define what emotion *is*, rather I am concerned with the cultural sites where the nonhuman animal is constructed as an emotional being. The

objective of this chapter is therefore to demonstrate that the attribution of emotionality is a vital aspect of the cultural politics of nonhuman animal representation and practices and therefore subject to management and regulation. Moreover, I argue that the construction of the nonhuman animal as an emotional being exposes tensions between popular anthropomorphic practice and other authoritative discourses. I argue therefore that as the very existence of the emotional lives of nonhuman animals is highly contested this creates an important paradox within cultural representations of nonhuman animals. In their essay, '*La Pratique Sauvage: Race, Place and the Human-Animal Divide*' cultural geographers Glen Elder, Jennifer Wolch and Jody Emel write:

Certain sorts of animals (such as apes, pets, or revered species) become positioned on the human side of [a] metaphorical line, rendering some practices unacceptable. But other harmful practices are normalized, to reduce the guilt (or at least the ambivalence) associated with inflicting pain or death, and to justify them as defensible behaviours differentiated from the seemingly wanton violence observed in nonhuman nature.

(Elder, Wolch & Emel in Wolch & Emel (eds), 2002, p.432)

In my view it is the attribution, or denial, of emotionality to nonhuman animals which is absolutely crucial to the construction of dominant, normalised nonhuman animal practices. This chapter therefore examines in more depth, what Elder, Wolch and Emel refer to as, the 'metaphorical line' between humans and nonhuman animals. In this case, the 'line' refers to the sites where the humanisation, or anthropomorphisation, of nonhuman animals as emotional beings take place.

Darwin and the representation of nonhuman animal emotion

In her sociocultural study of emotion, Deborah Lupton suggests that within sociology and cultural studies there has been a neglect of the subject of emotion. She claims that, "the emotions have been viewed as irrelevant or disruptive to the project of post-Enlightenment (modernist) academic scholarship, which has tended to privilege rational thought over "irrational emotionality" (Lupton, 1998, pp. 2-3). Importantly, Lupton notes that emotionality became intrinsically linked to the female body during the nineteenth century and enabled a dominant discourse of gendered assumptions where rationality

was aligned with masculinity and irrational emotion with women. This positioning has been clear within popular culture where, for example, the 1930s melodrama was categorised as 'the women's film' due to the films' emotional content; for similar reasons, the soap opera has been constructed as a 'women's genre', and as, Jackson (1993) comments "women tend to be socialized into a form of 'emotional literacy'" (Jackson, 1993 cited in Lupton, 2004, p.27).

Emotion received little attention within science and psychology within the early twentieth century as it was considered an internal state that was unverifiable according to the dominant positivist stance. One result of the feminization of emotion within a discourse of white western masculinised science was that it further devalued the credibility of attributing such states to nonhuman animals. Nonhuman animal emotion was thus disregarded within twentieth century scholarship and psychologist, Robert Plutchik, illustrates this point when he maps out the four major traditions involved in the study of emotion: the evolutionary tradition attributed to Charles Darwin; the psychophysiological tradition associated with William James; the neurological tradition influenced by Walter Cannon; and the psychodynamic tradition linked to the ideas of Sigmund Freud. Significantly, of these four 'traditions' only the evolutionary discourse attributed nonhuman animals with emotion (Plutchik, 1994). However, despite being a scientific best-seller, Darwin's study of emotions was rejected by the scientific establishment throughout much of the twentieth century. Robert Plutchik's discussion of the study of emotion within the evolutionary tradition does not explicitly draw attention to the fact, yet it is apparent within his review of the development of the study of emotion that Darwin's ideas were only re-evaluated in the last two decades of the twentieth century (Plutchik, 1994, pp. 97-99). In short, nonhuman animal emotion was not considered a credible object of study within the sciences between 1890 and 1980 and, by extension nonhuman animals were not constructed within science as emotional beings for ninety years.¹

Darwin's text, The Expression of The Emotions In Man and Animals (1872) therefore stands apart from other scientific work on emotion as it remains the only sustained authoritative study of nonhuman animal emotion to date. What is particularly important about the book is that it was the first scientific text to include photographic illustrations and therefore Expression was fundamental to the establishment of the visual iconography of the emotional nonhuman animal. As Philip Prodger observes:

Rules about photographic objectivity did not yet exist, in part because photographers frequently found it necessary to manipulate their work [...] In many ways the publication of Expression marked the birth of empirical photography. It could not conform to rules about scientific photography, because it was part of the creation of those rules.

(Prodger, 1998, in Darwin [1872] 1998, p.409)

Whilst Expression was undoubtedly crucial to the development of 'the rules' of empirical photography, as I have already mentioned in the previous chapter, some of the illustrations provided for Expression were commissioned from Briton Riviere. A popular artist of the time who specialised in painting humanised nonhuman animals, Riviere was one of a group of artists that provided Darwin with illustrations. With a diverse range of sources for the illustrations of Expression a clear discontinuity in style and originating medium was apparent across the text. Of the fifty-three images contained in the first edition of Expression thirty-five illustrations originated from photographic images produced by Oscar Rejlander, James Crichton Browne, Guillaume-Benjamin Duchenne de Boulogne, Adolph Diedrich Kindermann and George Charles Wallich. Other illustrations were commissioned from artists: Briton Riviere, Joseph Wolf, Alfred May and Thomas Wood. It is also salient to note that those who contributed illustrations for Expression were amongst the leading popular artists and photographers of the time. For example, Briton Riviere's paintings were mass reproduced as prints and engravings, Joseph Wolf's zoological sketches were published in two volumes which outsold the novels of Charles Dickens, whilst Oscar Rejlander was considered to be one of the leading exponents of photographic manipulation (Prodger, 1998 in Darwin [1872] 1998).

The use of a range of different artists and photographers for Expression broke with an established tradition within nineteenth century scientific illustration that tended to use one artist to illustrate throughout a text. A single artist would work in collaboration with the author of a text to produce illustrations that conformed to the established aesthetics of nineteenth century scientific realism (Sappol, 2003). Art works could be distinguished from scientific illustration by reference to the artists' observation and depiction of empirical realism. For the illustrations in Birds Of America (1831-1839), for example, John James Audubon had used a range of techniques including instruments of measurement to ensure realism in his representations (Armstrong, 1997, in Ham & Senior (eds) 1997, pp.104-105). These mixed-media illustrations were then transferred to plates to ensure uniformity and standardisation in the final work (Armstrong, 1997, p 106). The birds in Audubon's illustrations were also represented in their appropriate environments and given an environmental context of, for example, bushes, trees or cliffs were depicted as 'a thing of nature'. On the other hand, the illustrations that accompanied Gray's Anatomy (1858), by Henry Vandyke Carter, removed any trace of environmental context to present black and white drawings of fragmented human body parts which were claimed to be "accurately-lettered engravings [...] all of which are taken from, or corrected by, recent dissections" (Gray, [1858] 1997, p. vii). For the illustrations of Gray's Anatomy Carter adopted a harsh visual style of illustration referred to as "anatomical universalism" (Sappol, 2003, p.6). What the examples of Gray's Anatomy and Birds of America show is that by the nineteenth century distinct conventions for scientific illustration had been established and consistency of style was directly related to the use of one artist for all the illustrations contained within a text.

Despite the mode of presentation, it was the presence of the individual artists in both Birds Of America, and Gray's Anatomy that confirmed that the object of study had been witnessed and observed, at first hand, through claims that the images had been 'drawn from nature' or 'taken from recent dissections'. The range of source material

used by Darwin in Expression resisted the consistency that the individual illustration artists could obtain. Moreover, each artist and photographer who contributed work for Expression was located within a different discipline; for example, Riviere was a popular artist with no experience in the representation of empirical realism unlike the specialist in natural history illustration Joseph Wolf, whilst photographer Oscar Rejlander was a highly experienced manipulator of portrait and landscape photographs for the mass market. Darwin nevertheless made claims about the realism of the illustrations by asserting that the process of reproduction used for Expression ensured that “the accuracy of the copy is guaranteed” and that, “almost complete fidelity is ensured” (Darwin, [1872] 1998, pp. 31-32).

Darwin’s claims for the scientific realism of the illustrations notwithstanding, what does emerge as consistent on examination of the illustrations in Expression is a clear ideological stance with regard to where emotions were located and how they could be represented *visually*. I propose that despite the aesthetic and technical differences within the book, the illustrations in Expression represented and validated a dominant nineteenth century discourse of emotion. Expression was the chief authoritative text on the subject of nonhuman animal emotion that, as I established in the previous chapter, synthesised dominant discourses of science and the popular. Therefore I regard Expression as a decisive articulation of the discourse of nonhuman animal emotion. In the next section of this chapter therefore I identify the key signifiers that underpinned the construction of the emotional nonhuman animal which, I argue, remained within later popular cultural representations of pets.

The discourse of nonhuman animal emotion in Expression

Expression suggested that it was primarily the dog, ape, and human that were considered to show emotion in the head or face, whilst emotion in all other nonhuman animals was expressed through the body and bodily gesture. The particular emphasis placed on the ‘facial’ expression of humans, apes and dogs in the illustrations

correlated the written portion of the text as, over three chapters of Expression, Darwin attributed only humans, dogs and apes with the ability to smile, grin or laugh (Darwin, [1872] 1998, p.118, p.132 & pp. 208-209). With specific reference to dogs, Darwin wrote:

A pleasurable and excited state of mind, associated with affection, is exhibited by some dogs in a very peculiar manner; namely, by grinning [...] The upper lip during the act of grinning is retracted [...] Dogs, in their expression of fondness, have a slight eversion [sic] of the lips, and grin, [...] in a way that resembles laughter [...]
(Darwin, [1872] 1998, pp. 120-121)

The smiling dog was consistently related to a relationship with humans such that expressions of happiness and joy were recounted as anecdotes of canine/human interaction. Happy dogs were more often described within the text as those that were also expressing affection and love toward their human owners (Darwin, [1872] 1998, pp.119- 121). Evidence of the relationship between canine happiness and human contact was further emphasised through an illustration of a dog “caressing his master” where the canine was depicted as ‘smiling’ with the corners of the mouth turned upward in the approximation of a ‘grin’ (see: fig. 8 in Darwin, [1872] 1998, p.59). A similar treatment was given to the illustration of a cat ‘in an affectionate frame of mind’, which as in the illustration of the affectionate dog was depicted in bodily contact with a male human leg (see: fig. 10 in Darwin, [1872] 1998, p. 61). The corners of the mouth of the cat show an upward turn in the illustration, however, nowhere in Expression does Darwin attribute cats with the ability to smile, laugh, or grin. Rather, Darwin noted, cats expressed happiness through “rubbing” or “purring” (Darwin, [1872] 1998, pp.126-128) and he remarked, “Let it further be observed how widely different is the whole bearing of an affectionate cat from that of a dog” (Darwin [1872] 1998, p. 60). Therefore whilst the discourse of nonhuman animal emotion fostered, on one level, a sense that the dog was quite different to and in many ways more ‘human’ than the cat, the illustrations of both canine and feline appropriated ‘the smile’ to signify an affectionate state of mind.

Happiness in monkeys was equally detailed by Darwin as an upward turn of the mouth and in his descriptions he wrote,

The corners of the mouth are then drawn backwards [...] which is so characteristic of our own laughter [...] The teeth in the upper jaw of a chimpanzee are not exposed when they utter laughing noises, in which respect they differ from us. But their eyes sparkle and grow brighter [...]

He also remarked that,

Young orangs, when tickled, likewise grin and make a chuckling sound; [...] and their eyes grow brighter.

And in his description of a tame monkey owned by Dr. Duchenne, Darwin noted,

[...] thus an expression of satisfaction, partaking of the nature of an incipient smile, and resembling that often seen on the face of man, could plainly be perceived in this animal.
(Darwin, [1872] 1998, p. 132)

Two illustrations of a baboon “in a placid condition” and “pleased by being caressed” gave visual credence to Darwin’s descriptions with head studies depicting the upturned corners of the mouth, the ‘smiling mouth’ (showing teeth) and the sparkling eyes, indicated by a clear highlight in each eye (see: figs 16 & 17 in Darwin, [1872] 1998, p.135). Continuity between the expression of happiness for humans and particular nonhuman animals was confirmed later in Expression when Darwin described the emotion in humans remarking, “A bright and sparkling eye is as characteristic of a pleased or amused state of mind, as is the retraction of the corners of the mouth and upper lip” (Darwin, [1872] 1998, p.205).

The illustrations for Expression depicted the dog, the cat, the ape and the human as expressing happiness, affection and pleasure by smiling, although, in his writing Darwin did not credit the feline with the ability to smile. Nonetheless, it was the domesticated pets and the ape that were, through the illustrations in Expression, most clearly humanised in that the images of their emotional states reflected so clearly the description of human happiness. The key signifiers of happiness across the human/nonhuman animal continuum were established within Expression as upturned

corners of a slightly parted mouth and a highlight in the eyes; signifiers which were, as I shall discuss later, evident within the anthropomorphised cultural representations of pets within the twentieth century. However, despite the evidence of continuity between human and nonhuman animals, the illustrations within Expression reveal a paradox in the representations of emotion. In short, all the illustrations of nonhuman animals were drawn whilst photographic images were used to represent human emotions. I propose that this divergence in the treatment of nonhuman animals underpinned a dichotomy in Darwin's Expression that I will discuss here.

Discontinuity and hierarchy in Expression

Expression is significant for being one of the first scientific texts to include photographic illustrations. Whilst William Henry Fox Talbot had promoted the inclusion of photography as part of scientific method in 1839 it took thirty years before photographic reproduction could be usefully employed in a scientific text. Although Darwin wished to capture the instantaneous moment of expression he was frustrated in his efforts as photographic exposure times varied from a matter of seconds up to a couple of minutes. This limitation made the problem of capturing the 'fleeting nature' of emotion a human *and* technological issue. To overcome these problems Darwin and his collaborators employed a variety of techniques. The photographer, Oscar Rejlander, posed for some of the photographs, holding the required expression for the appropriate exposure time. Known for his work in photographic manipulation, Rejlander also provided an image of infant distress in the form of a drawn illustration rendered to look like a photograph. Further to this, the technique of stimulating the human face with electrical impulses was also used as the expression could be technologically maintained for the required exposure time. Thus, one set of photographs of an elderly man's face being stimulated by electrical impulses was included in Expression as engraved reproductions. Concerned that the sight of the electronic technology stimulating a human face would unsettle readers, Darwin instructed that the equipment was to be omitted in the final illustration, and this

manipulation occurred in the transference of the image from the photograph to the engraved plate. Consequently, the final collection of photographs selected for inclusion in many ways defied the later objective intention of science photography to provide 'truthful' non-manipulated images.

Capturing the 'fleeting nature' of emotion presented a problem when it came to photographic illustrations of nonhuman animals, and these proved impossible to acquire. The limitations of photographic technology precluded any possibility that a chimpanzee would remain with a 'sulky' expression on its face long enough to produce a reasonable photographic image. In this case, drawn illustrations of emotional expression in nonhuman animals were substituted.²

Because of the difficulties with new visual technologies, discourses of continuity and shared emotion between human and nonhuman animals articulated 'difference' through the illustrations in Expression. The human body was reproduced as a truthful site of meaning via scientific practices that deployed the new technological apparatus and, thus, the fleeting nature of human expression could be technologically controlled so as to inscribe 'truths' on the materiality of the human body. Paradoxically, however, technological control through the practices of electronic stimulation, photographic manipulation, processes of technological reproduction (for example, engraved plate processes) or control of the self (in the case of Rejlander's 'posed shots' which subordinated the 'natural' fleeting nature of expression to the limitations of the technology) not only organised the human body as a site of meaning within biological discourses but also expressed scientific 'truth' about *humanness* and *animality*. Technological interventions and limitations rewrote the 'nature' state of the nonhuman animal. Human expression could be captured photographically but nonhuman animal emotion had to be drawn from observations.

The technological apparatus that discursively controlled the human body as a sign of emotion was unable to discipline the nonhuman animal body in the same way. A different set of technologies that excluded photographic reproduction had to be employed to reconfigure the nonhuman animal body as a sign of emotional similitude. The body as a site of meaning expressed a further difference as illustrations of human expression fragmented the body and privileged the face and upper body as the locus of emotion, whereas the 'whole' nonhuman animal body was reproduced. Illustrations of *whole* nonhuman animals predominated in Expression with only four illustrations of isolated nonhuman animal heads: tellingly, the head illustrations were of a baboon, macaque monkey, and a dog; the nonhuman animals most popularly thought of as 'humanlike'. Unlike the approach to human representation, the emotion and mental state in nonhuman animals were not confined to particular bodily areas, but rather were found inscribed in a holistic manner that emphasised the 'bodiliness' of nonhuman animals. By way of a comparison, the emphasis on the head in illustrations of humans, the dog, and the ape located emotional states in a more traditionally Cartesian form.

The body, as a site of shared meaning in emotional continuity between human and nonhuman animal was therefore fragmented into different bodily types with distinctly different treatments dependent upon whether the body belonged to a human or a nonhuman animal and reproduced a nonhuman animal hierarchy where some nonhuman animals were 'more humanised' than others. The cat, although attributed with 'a smile' in one illustration was not credited with the ability to smile within the written text and this clearly emphasised the feline's positioning as a liminal nonhuman animal. In this sense, the cat not humanised to the same extent as the dog or the ape. The feline was partially humanised by being attributed with 'a smile' in the image but was animalised within the text where the expression of happiness emphasised its bodiliness rather than emotional expression in the head/face. As I shall discuss later in this chapter the cat was located between the humanised pet and the 'wild' nonhuman

animal, and I suggest that this construction of the feline was evident within Expression at the end of the nineteenth century. Therefore, whilst the discourse of emotion was predicated upon continuity between human and nonhuman animals, I propose that my analysis of the illustrations in Expression reveals a hierarchy that was linked to popular constructions of nonhuman animals, and a crucial set of signifiers of happiness that retained cultural legitimacy into the twentieth century.

From science to popular culture

To attribute nonhuman animals with an emotional life ultimately resolved into accusations of anthropomorphism within scientific discourses, and such claims only served to sharpen the tensions between representations of nonhuman animals within science and popular culture. During the twentieth century, representations of the emotionality of nonhuman animals were excluded from scientific discourses but, as I shall discuss, predominated within popular culture. The dominance of positivism and behaviourism during the first half of the twentieth century designated anthropomorphism as methodologically unscientific and the humanisation of nonhuman animals was consequently aligned with fiction rather than 'science fact'. The dominance of this rejection of anthropomorphism has also resonated through more recent academic texts. As I discussed in the previous chapter, the attribution of emotion to nonhuman animals has been denigrated by academics and scientists alike within the twentieth century. For example, art historian William Vaughan (1999), sociologist James Turner (1980), Darwin historian and psychiatrist John Bowlby (1990) and behaviourist John Kennedy (1992) have all felt it necessary to either reject or trivialise the anthropomorphic practice of attributing nonhuman animals with emotion. Moreover, both Turner and Kennedy explicitly connect anthropomorphism with, what Turner describes as, the "detritus" of popular culture (Turner, 1980, p.65). On the subject of emotion more generally, Boscalgi has commented that the twentieth century location of emotionality has been thought of as, "the sphere of mass culture and kitsch" (Boscalgi, 1993, in Lupton, 1998, p. 65).³ In this sense both emotion and the attribution

of emotion to nonhuman animals have been widely regarded, in a pejorative sense, as the stuff of popular fictions.

However, as I argued in the previous chapter, it was the disruptive potential of the emotional nonhuman animal that was authorised by Darwin's The Expression of the Emotions in Man and the Animals and which was rejected by the scientific establishment as part of a broader strategy of self-interest that necessarily denied any attribution of emotionality to nonhuman animals. The construction of nonhuman animals as emotional beings connected too readily to discourses of animal rights and raised moral and ethical questions about the exploitation of nonhuman animals. Yet, whilst such attributions were re-defined as anthropomorphic and anthropomorphism was consigned to the sphere of popular narrative fictions, it is my view that the emotionality of nonhuman animals, and particularly dogs, gained broader cultural legitimacy throughout the twentieth century.

Here, I am particularly interested in constructions of canine loyalty, grief, and happiness that have assumed a discursive 'truth' within popular culture. I contend that cultural narratives of canine emotion have referenced both 'fictional' and 'real' dogs and have thereby differentiated such stories from the less ambiguous anthropomorphic depictions of, for example, talking nonhuman animals.⁴ In this sense, the attribution of emotion can seem plausibly 'real' when set against a cultural anthropomorphic spectrum that includes talking, singing, and dancing pigs and mice.⁵ It is my assertion that whilst the knowledge conditions of the twentieth century militated against the scientific authorisation of anthropomorphism, the attribution of emotion to nonhuman animals retained a level of cultural credibility. Moreover, as emotion was considered an unverifiable and therefore unsuitable subject for scientific investigation until the late twentieth century the attribution of emotionality to nonhuman animals within popular culture has only served to emphasise the difference between popular discourse and discourses of science. Given that narratives of nonhuman animal emotion have been

trivialised through their location within popular culture but have nonetheless retained their cultural legitimacy, there is clearly a need to re-evaluate the significance of such representations. I propose that the discourse of nonhuman animal emotion was centralised within twentieth century pet-keeping practices and that the iconography of the 'happy pet' was crucial to its commercialisation. Mindful that the UK pet industry is currently valued at £2,357 million per year, I argue that the twentieth century commercial exploitation of pet-keeping practices appropriated the emotional nonhuman animal as an essential signifier of successful pet care within advertising discourses.

Is your pet happy?

Twentieth century popular culture consistently offered confirmation of the emotionality of the nonhuman animal and this resonated most noticeably through pet-keeping practices. A regime of truth that constructed nonhuman animal emotion proliferated within visual culture during the twentieth century and was apparent in the discourse of pet-keeping authorised by pet food companies within their advertising. A discourse of pet care centralised the concept of non human animal 'management' and was predominantly constructed by pet product manufacturers in the first decades of the twentieth century. Within this discourse, the nonhuman animal was constructed as an emotional being whose physical and mental well-being were dependent upon the quality of care given by the owner.

Three leading manufacturers of pet products during the first half of the twentieth century were Spratt's, Sherley's, and Bob Martin's and competition between the rival companies was fierce. In the mid-nineteenth century 'fancy' dogs and cats had been predominantly fed on horsemeat and in London alone around one thousand horses were 'boiled down' to make the two hundred thousand pounds of meat that were consumed by dogs and cats in a single week (see: Mayhew, [1849] 1981, pp 21-22). In 1860 however James Spratt established Spratt's Patent Limited to manufacture Spratt's Meal Fibrine Dog Cakes marketed as an alternative to horsemeat. A. F.

Sherley and Co. was also established in the 1860s and by the beginning of the twentieth century both Spratt's and Sherley's pet products were vying for the attention of consumers in a lucrative pet product market. Concerned that other manufacturers were imitating his products, James Spratt bought an entire issue of engravings by Edwin Landseer to use as images on his promotional materials.⁶ Landseer's work was well known for its depictions of emotional nonhuman animals and the relationship between images of nonhuman animal emotionality and pet product advertising was clearly established.

The mass production of consumer goods enabled by the factory system led pet product manufacturers to invest more in the advertising of their products to distinguish their foods and supplements from those of their rivals. In Words In Ads, Greg Myers (1994) notes that by the end of the nineteenth century advertisers were no longer restricted to the width of a newspaper column and could purchase full page advertisements. Myers remarks, "With higher quality of reproduction, it was possible to experiment with the complex interactions of language and image [...] With more differentiated publications, it also became possible to tailor ads to specific audiences" (Myers, 1994, p. 21). However, in addition to advertising in specialist publications and periodicals Sherley's and Spratt's began publishing their own books and pamphlets on pet care at the end of the nineteenth century. These texts provided guidance to dog and cat owners on pet 'management', feeding, and health, and were ideal vehicles for the promotion and advertising of the companies' products. Spratt's Guide to Dog Management, Sherley's Dog Book and The Sherley Cat Book were distributed through chemists, stores, and corn merchants; the outlets that also sold the ranges of pet products that each company offered. Such was the popularity of the guides, that by 1905, and priced at two pence, Sherley's Hints to Dog Owners: A Guide to the Treatment of Dogs in Health and Sickness was selling in excess of 50,000 copies per year.⁷

Pet product advertising in the first half of the century appealed to both the physical and emotional health of the family pet. Drawn or photographic illustrations of 'happy' dogs featured in advertisements for soaps, insect and conditioning powders, wormers, supplements, and dog and cat food. The iconography that established the joyous emotional state of the dog in pet product advertising typically depicted the head of the canine, a glint of light in the eyes, tongue out and mouth open, the corners of the mouth slightly turned-up approximating a smile. An advertisement for Sherley's Tonic and Condition Powders stated, "Your dog looks to you to keep him happy and contented. He needs a regular tonic to be always healthy and bright" (Sherley's Tonic & Condition Powders advertisement in Sherley's Dog Book 16th Edition, 1936, p.162). Responsibility for the emotional well-being of the pet was aligned with the status of a 'healthy' nonhuman animal, and pet product advertising addressed the pet owner in such a way as to position them as their pets' emotional guardians.

The issue of the pet's happiness was a recurring feature of such advertising and often linked to the status of the nonhuman animal as healthy. As a 1941 advertisement for Bob Martin's condition powders claimed, "Despite wartime handicaps, your dog will always be healthy and happy if you give him his regular Bob Martin's" (Bob Martin's condition powders advertisement, 1941 in Picture Post, December 27th 1941, p.2). And, the cat was granted a similar attribution of health and happiness in an advert for Cat Powders:

Ding dong 'Bell', Pussy's feeling swell
Why's she so fit, Such a sturdy kit?
How's she so slick?, 'Bells' do the trick!

(George Bell's Cat Powders advertisement, 1941 in Picture Post,
December 27th 1941, p.6)

Pet-keeping was thus situated within early twentieth century advertising as an emotional relationship between human and nonhuman animal. Neglect of the pet would bring not only ill health, but a poor emotional state. Thus, the seventeenth edition of the

Sherley's carried an advertisement for Tonic and Condition powders that depicted a bulldog displaying the 'happy dog' iconography and accompanied by the following text,

He was cross, shed his coat, lacked appetite and just moped about all day. Now his owner conditions him regularly with Sherley's Tonic and Condition Powders, and despite the fact that he is somewhat portly, he gambols around like a kitten. He beams on all, his temper remaining unruffled in any circumstances. His good health, liveliness and abundant vitality remain unimpaired so long as he receives his weekly course of Sherley's Condition Powders.

(Sherley's Tonic and Condition Powders advertisement, 1938, in Sherley's Dog Book, 17th edition, 1938, p.163)

And another advertisement for the same product used a photographic illustration of a 'smiling' German Shepherd Dog with an endorsement of the relationship between health and emotion from the dog itself:

My perfect health, my vitality, my bright eyes and my good temper (please do not consider me vain- the credit is Sherley's, not mine) make it obvious that I am regularly conditioned with Sherley's Tonic and Condition Powders.

(Sherley's Tonic and Condition Powders advertisement in Sherley's Dog Book, 23rd Edition, 1944, p. 2)

Pet product companies endorsed the emotional states of well-kept pets and offered the owner guidance on home treatment for a range of illnesses and diseases. Veterinary care was not fully established as part of popular pet-keeping practice until the 1930s and even then, the costs for treatment were beyond the means of many working class pet owners (Cunliffe, 2002, p.100). In the absence of other authoritative discourses, the pet food companies legitimated their own expert status. The preface to the 1905 edition of Hints to Dog Owners, published by Sherley's stated, "We present it to the public with every confidence, as it contains the result of over thirty years practical experience with both sick and healthy dogs" (Sherley's, 1905, p. 2). Endorsements from general consumers with accompanying photographs were included throughout the early Sherley's dog books until 1936 when the preface to the 16th edition stated, "Over fifty years' practical experience of eminent Veterinary Surgeons in the treatment and care of dogs is contained in this guide, and it is without doubt the finest book published at such a nominal price" (Sherleys, 1936, p. 4). The authoritative claims of the dog books shifted from the pet food manufacturers to veterinary surgeons as the legitimacy of

veterinary science became more widely established within pet keeping practices. Still maintaining a discourse of home treatment however, some products in the range were renamed to reflect the shift in authority such as Sherley's Boracic Ointment which became Sherley's Veterinary Ointment in 1936, marketed for the treatment of eczema, burns, scalds, abscesses, ear injuries, sore feet, wounds, and bruises.

By the 1930s the endorsements of general consumers had been replaced by those of specialist breeders, which, coupled with claims to the latest knowledge within veterinary science, were juxtaposed against product advertisements for food and medicines. By the 17th edition of the Sherley's Guide, the preface claimed that the text had been "fully revised by a distinguished Veterinary Surgeon" who remained unnamed throughout later editions. Spratt's claims to authority were consistent throughout the first four editions of their Guide to Dog Management with the text being authored by the Chairman of the Kennel Club, A. Croxton Smith. Whilst there was a clear shift in the authorisation of the pet products from the manufacturer in the first two decades of the twentieth century to veterinary science and professional breeders from the 1930s onward, the attribution of emotion to the dog and cat and its relationship to health and good pet keeping practices remained constant within product advertisements.

The visual motif of the happy smiling dog's head within advertisements echoed the conventions of advertising that used images of humans. Smiling people connoted contentment and pleasure derived from the purchase of products; the images of smiling dogs similarly symbolised consumer happiness. Images of contented cats however, tended to depict the whole body of the nonhuman animal rather than locating emotional expression in the face or head. With reference to the dog however, one writer opined,

To doubt that a dog can laugh is to deny that he experiences any elevation of the spirit. It is to dub him a dull, dejected creature of unchanging mood. And nothing could be more removed from the truth than such libel.

A dog, at his happiest, and in his most exuberant sprits, offers us an open invitation to laugh *with* him, and we, if we value the laughter of

his happy heart, might reciprocate a little more readily at times by inviting *him* to laugh with *us*.

(Crew, 1925, p. 51)

Such conventions evinced linkages to the illustrations of emotion in Darwin's (1872) The Expression of the Emotions in Man and Animals and served to emphasise the extent to which the humanisation of the canine maintained discursive authority within popular culture. In 1925, essayist Frank Crew wrote in the illustrated collection, Devoted to Dogs:

Of the dog, perhaps more than of any other animals less domesticated, such an observation could not hold a greater truth. His eye is the mirror of his soul; it reflects the sum, as it were, of all he has ever felt; it is the record of all that he might have said, all he could say, given tongue; and as he turns his gaze upon you, in contemplation or in questioning, the silent eloquence is there.

(Crew, 1925, p.19)

The theme of the dog's eyes as 'mirrors of the soul' and the location of emotional expression was also appropriated by poet Joe Walker in 1929. In his collection of poetry, Your Dog and Mine Walker wrote in 'Dumb or Deaf?', "[...] Or, best of all- the eager soul-lit glow, In faithful eyes: "Master, I love you so." [...]" and in 'Feeling Lonely', "[...] Then at your feet contentedly he lies, A world's devotion in two doggy eyes" (Walker, 1929, pp. 54 & 70). And these sentiments were echoed within advertisements such as those for Sherley's Tonic and Conditions Powders:

The eyes of a dog are eloquent- devotion, doubt, trust, anxiety... and health or listlessness are all seen very easily in the eyes. Keep *your* dog's eyes bright and alert by treating him with Sherley's Tonic and Condition Powders regularly. Conditioning with Sherley's brings amazing results- the blood-stream is purified and he becomes happy and healthy, perky and spruce- and full of good spirits.

(Sherley's Tonic and Condition Powders advert in The Tail-Wagger Magazine, August 1952, Vol XXXIV, No. 8, p.204)

The location of canine emotion in the face or head of the dog resonated through popular culture and advertising for pet products used images of smiling dogs to confirm for the consumer that certain products would ensure canine happiness. The emotional well-being of the pet was centralised within advertising discourses and linked through images and text with the health status of the nonhuman animal companion. The

signifiers of emotional expression that were described within Darwin's scientific study of human and nonhuman animal emotion were subsequently embedded within the commercial discourse of pet-keeping practices. Smiling dogs and cats with a 'glint' in their eyes in popular culture echoed Darwin's descriptions of sparkling eyes and upturned corners to the mouth in Expression. The discourse of nonhuman emotionality whilst rejected by the scientific establishment thus found cultural legitimacy within the commercial exploitation of pet-keeping practices.

Oedipalised pets

In Expression Darwin repeatedly drew attention to the emotional experiences of nonhuman animals in relation to their interactions with humans. Observations of the happiness of dogs whilst caressing or being caressed by the human owner and greeting the human on their return home, all provided Darwin with anecdotal evidence that underpinned the emotional continuity thesis of Expression. A discourse of pet care in the twentieth century reinforced the construction of the emotionality of the canine and it is this that I will examine in more detail here. I propose that during the twentieth century the pet dog became oedipalised. As I demonstrated in the previous chapter the status of the dog as a signifier of wealth and status and a moralised discourse of animal welfare wherein social propriety was measured against an individual's treatment of nonhuman animals were evident during the nineteenth century. Further to this, the humanised canine functioned to validate social stratification. However, the commercialisation of pet-keeping within the twentieth century, to some extent, dismantled the hierarchisation of dog breeds as social signifiers. I propose that this signalled a shift from the humanisation of dog breeds used to legitimate social hierarchies to a privileging of the model of the 'family' where the dog was more fully constructed as a family member. This shift marked the transition from the infantilised middle class pedigreed canine of the nineteenth century to the oedipalized pet of the twentieth.

To fully exploit the market for pet products it was critical that advertising promoted inclusivity over the exclusivity of a canine hierarchy. The 'every dog' approach favoured by manufacturers to expand the market for their products was evident in a Spratt's advertisement for their full range of dog food stuffs which claimed, "No matter what their birth or breeding they all show Spratt's means right good feeding" (Spratt's Dog Food advert in Croxton-Smith, 1950a, p.88). During the twentieth century companies such as Spratt's and Sherley's claimed that their products were, "For every breed of dog and puppy" (Lintox advert in Sherley's Dog Book 16th Edition, 1936, p. 106), "Equally valuable for Show Dogs and the domestic pet" (Sherley's Tonic and Condition Powders advert in Sherley's Dog Book 16th Edition, 1936, p. 1), a favourite "whatever your choice of dog" (Spratt's Dog and Game Foods advert in Croxton-Smith, 1946, p.59), "a tremendous attraction to dogs of all sizes and breeds" (Bonio advert in Croxton-Smith, 1950a, p.24) and for "the ordinary household pet as well as the show dog" (Sherley's Shampoo advertisement in Sherley's Dog Book 17th Edition 1938, p.24). The discourse of 'good for all dogs' that was promoted by the pet manufacturers no longer devalued the mongrel during the twentieth century with advertisements stating that products were for "Prize winning thoroughbreds and mongrel pets alike" (Yestos Canine Yeast advert in The Tail-Wagger Magazine, March 1952 Vol XXXIV, No. 3, p.82).

With the importance of a canine hierarchy based on breed type and pedigree diminished, in part, by the commercial expansion of a pet product market, the strength of a discourse that had developed an analogous relationship between social hierarchy and canine hierarchy was likewise diluted. A new model of 'the family' was imposed upon the human/canine relationship that still maintained the dominant humanisation of the dog. The immediate early twentieth century human experience of the nonhuman animal was that of the domestic pet; a social, quasi-human that was, as Giles Deleuze and Felix Guattari argue, "oedipalized" (Deleuze & Guattari, 1996, p.233).⁸

Deleuze and Guattari make valid points about pet-keeping practices that can be usefully applied here. Oedipalization, according to Deleuze and Guattari is the social repression of desire that emerges through the social institutionalisation of 'the family'. Operating as a repressive force, 'the family' is recognised as a meaningful structure within which individuals are forced to understand themselves. Applying Deleuze and Guattari's framework of oedipalization to the discussion at hand, 'pets' are therefore those nonhuman animals whose animality is repressed through their inclusion within the family unit wherein they become, for example, the 'child'. Deleuze and Guattari have argued that the family pet is an "Oedipal animal" that 'invite[s] us to regress, draw us into a narcissistic contemplation [...] the better to discover a daddy, a mommy, a little brother behind them [...]' (Deleuze and Guattari, 1996, p. 240).

The positioning of the canine as a 'family member' was commonplace in twentieth century dog literature and was authorised in leading canine texts such as Sharpe's (1924) Dog Training for Amateurs and Leighton's (1924) Your Dog.⁹ In the early twentieth century instructional text Your Dog (1924), author and canine management expert, Robert Leighton wrote,

In choosing a dog for companionship it is always an advantage that it should be comely in appearance and typical, but it is still more important to be assured beforehand of the amiable character and disposition of its particular breed and to know that its kind are capable watch-dogs, gentle in temper, to be trusted with children; and to ascertain in what measure the breed possesses the attributes desirable in an animal that is to be accepted as a member of the household.

(Leighton, 1924, p. 6)

Pet-keeping in the early twentieth century was therefore a practice of oedipalization through which the institutionalised structure of the family was imposed upon those nonhuman animals that remained in the urban environment. Written in 1924 by the 'pioneer of modern dog training' Dog Training For Amateurs opened with the claim "Train a child in the way it should go' is an injunction as sound for animals as for human beings" (Sharpe, 1924, p.5) and in Your Dog, Robert Leighton wrote "A spoiled

dog, like a spoiled child, betrays the mistakes in its upbringing" (Leighton, 1924, p.103). In keeping with my development of Deleuze and Guattari's ideas I do not read Sharpe or Leighton's claims as an animalisation of the child, but rather as the oedipalization of the canine. I argue however, that the twentieth century practices of pet-keeping that humanised the nonhuman animal were culturally distanced from the 'shame' of nineteenth century anthropomorphic practice by normalising oedipalization within mass produced images. Moreover, this cultural legitimisation of the 'family pet' instigated a leakage between cultural fictions of canine emotion and the cultural realities of pet-keeping practices.

The cultural legitimisation of the oedipal nonhuman animal was demonstrated in early twentieth century films such as Edwin S. Porter's The Whole Dam Family and The Dam Dog (1905) and Cecil Hepworth's Rescued by Rover (1905). The single joke in Porter's The Whole Dam Family and The Dam Dog (1905) was constructed through the familial structure and the oedipalized dog. In turn, the audience was introduced to; the Dam father, the Dam Mother, eldest son, eldest daughter, younger daughter, baby, the Dam cook and the Dam dog. The ordering of the sequence of images of the family adopts a normalised structure of family 'by descent' and the final repeat of the joke (the dam(n) dog) was reliant on the ascription of the Father's name to the canine.¹⁰ Similarly conditioned by the overarching discourse of the family structure Rescued By Rover (1905) was the most popular film in the early history of British cinema and described by producer Cecil Hepworth as, "An altogether charming subject, absolutely new in conception and realization" (Hepworth, [1906] in Low & Manvell, 1973, p.109). The popularity of the film was so great that Hepworth had to re-make the film twice to satisfy demand. In Rescued By Rover a middle-class family is traumatised when they discover that a vagrant has kidnapped their baby. The family dog searches and finally discovers where the baby is being held. On his return to the house, the dog attracts the attention of the father, who eventually follows the dog back to the kidnapper's hideout. The baby is rescued and the family is once again complete. In the case of Rescued By

Rover (1905) it is not only the narrative that is dependent upon the familial structure and the oedipalized dog but the actual film itself as Hepworth used his own family and the family pet dog as actors. In this sense the social structure of the oedipal pet and its cultural representation were inseparable within Rescued By Rover and the fictional narrative of canine emotion blurred into the reality of the 'actual' dog owned by Hepworth.

The emotional status of both human and canine was consistently referenced through the familial relationship established between owner and pet. Through this relationship the emotion of love was configured as a reciprocal state of affairs between human and every oedipalised dog. For example, the Preface to the 23rd Edition of Sherley's Dog Book stated, "To own a dog is within the power of everyone, and whether he is of aristocratic breeding or of uncertain parentage makes no difference whatever to the love and loyalty he gives" Sherley's Dog Book, 23rd Edition, 1944, p.3). However, an advertisement for Spratt's Weetmeet declared, "Love alone is not enough! Puppies like humans, really need love: but without proper feeding, your puppy cannot develop [...]" (Spratt's Weetmeet advertisement in Croxton-Smith, 1950a, p.54). Thus the manufacturers of pet products constructed a discourse of reciprocal affection between the human and their canine family member where the dog would love their owner and the owner could express their love for their pet by buying a particular brand of dog food. Whilst the discourse of reciprocal emotion benefited the pet product manufacturers, the same relationship was constructed as problematic within certain state discourses at particular times. Therefore, whilst cultural narratives normalised the emotionality of the nonhuman animal and dominant discourses of the family organised the meaning of the pet within the family unit there was also a requirement for the pet/human relationship to be regulated and institutionally managed. The 'problem' of the emotional nonhuman animal and its consequential discursive management was most apparent during twentieth century wartime.

'Rabbits are no longer pets'

My research has shown that during wartime human/nonhuman animal relationships in Britain were subject to institutional management. Food shortages in 1917 made it problematic for dog food companies such as Spratt's and Sherley's to get the raw materials needed to make dog biscuits and pet owners were admonished by Government Departments for wasting much needed human food on dogs. In April 1917 Captain Charles Bathurst of the Food Controller's Office stated, "People must realise that they keep dogs at their peril; if they cannot feed them without using human food the dogs must be disposed of" (Weekly Dispatch, 29th April 1917, p.2).¹¹ Some dogs were offered as Service Dogs, however many more were offered for euthanasia following Bathurst's statement. Battersea Dogs Home reported that many large dogs that had been adopted as guard dogs by soldiers who were leaving home to fight on the frontline, were being left on the streets or taken to police stations as strays.¹² Whilst the pet dog became a wartime casualty the cat was considered a more practical companion requiring less time and attention with the added benefit of keeping rats and mice under control. A regular column in the Weekly Dispatch advised women to put dogs "gently and painlessly out of the way" whilst "everyone respects a rat and mouse-catching cat" (Weekly Dispatch, 28th January 1917, p.7).

Institutional discourses on food shortage placed the dog in competition with the human and, by doing so, made the difference between canine and human apparent. The dog, unable to escape its oedipal state re-presented the more fundamental challenge of the nonhuman animal- alike, yet unlike; too 'human' to be eaten, yet too 'animal' to be fed. The dog could not slip easily into the category of the commodified nonhuman animal and under such circumstances was marginalised and expelled from the domestic sphere. The cat meanwhile did not suffer the same fate as the dog. In making a comparison between the cat and dog as pets one writer characteristically noted that the cat was independent, selfish and self-serving, whereas the dog was loyal, required training and was dependent on humans (Leighton, 1924, p.9-10). As a nonhuman

animal that could not be fully oedipalised, the cat hovered on the boundary between the oedipal and the 'wild' nonhuman animal: a construction that I have already argued was also evident with Darwin's descriptions of the cat within Expression. Under wartime conditions, the cat was considered to a large extent to be self-sufficient, self-managing and also offered the benefit of vermin control. The oedipal dog however was a drain on human resources.

One consequence of war-time food rationing during the Second World War was that nonhuman animals were officially redefined as either pet or food/commodity and by the end of 1941 only the dog and the cat remained in the category of 'pet' whilst nonhuman animals such as rabbits were re-designated as 'food'. It is salient to note at this point that as I demonstrated in the previous chapter it was the rabbit and not the dog or cat that was used within the pro-vivisection discourse of the late nineteenth century. As I proposed earlier, the dog had become the chief symbolic reference for the anti-vivisection movement whilst it was the rabbit that was used as the signifier for the category 'animal' within arguments that placed the life of a rabbit against that of a human. The dog, by comparison, was too firmly established as a humanised entity to garner any public support for the pro-vivisection discourse therefore it was the rabbit that emerged as the most useful example of an 'expendable' nonhuman animal.

A popular rabbit 'fancy' had grown during the end of the nineteenth century that encompassed breeding and exhibition practices. Although not as popular a pet as the dog or cat, the rabbit nonetheless was established as a 'fancy' or pet with all but two breeds being classified as 'fancy' rabbits. As I stated in the previous chapter, the definition of the fancy or pet nonhuman animal was one that was kept without any regard for its utility and was considered 'not edible' by its inclusion into the emotionalised category of 'pet'. However, the pet rabbit was re-designated as food during the 1940s. Meetings between the Ministry of Food and the British Rabbit Council took place between 1938 and 1947 to discuss the breeding of rabbits for food

production and Government research into rabbit breeding was undertaken between 1939 and 1941.¹³

In 1942 Government initiatives encouraged 'backyard' rabbit and poultry keeping practices as a method of alleviating food shortages.¹⁴ Domestic rabbit keepers were entitled to seven pounds of bran per female rabbit per quarter as the British Government attempted to emulate the breeding programmes already in place in Germany and Italy. Prices were fixed and a four month old rabbit was worth between four and five shillings in flesh and between one shilling and seven and sixpence in fur.¹⁵ To confirm the new status of the rabbit an article in the Picture Post confidently declared, "Rabbits are no longer pets" and offered advice on starting a domestic rabbit business (Picture Post, 23rd May 1942, pp.22-23). The discourse of rabbit breeding appropriated the language of 'production' referring to the rabbit as "the product", the young rabbits as "output" and suggested that doe rabbits should be "turned over to all-out production" (Picture Post, 23rd May 1942, p.22). Thus, unlike the oedipalised dog, the rabbit could be shifted from the category of pet and reconfigured as a commodity by institutional discourses that redefined rabbit 'reproduction' as a form of industrialised 'production'. A discourse of industrialisation was therefore imposed upon rabbit breeding which in turn shifted the status of the rabbit from an emotionalised pet to a de-emotionalised object.

Within anthropology, much has been written on the categorisations of nonhuman animals as either edible or inedible across different cultures. According to Edmund Leach, a cultural distance-scale can be applied to nonhuman animals wherein those that are too close to humans, for example pets, are tabooed and inedible, nonhuman animals that are too far away, for example wild animals, are out of human control and therefore also inedible, whilst those that occupy the middle 'edible' categories are farm animals and game (Leach, 1964, pp. 36-44). Leach further argues that what is edible or inedible within the second category is dictated by ritual or taboo. In this sense, cultural

variations can create specific taboos such that nonhuman animals within the second category may be constructed as inedible, for example Leach suggests, "the Jewish prohibition against pork" (Leach, 1964, p. 32). Other academics have appropriated Leach's edible/inedible categorisations (for example, Tambiah, 1969; Douglas, [1966] 1970) to suggest that nonhuman animals that are too close, that is too 'like us', are inedible because, "the 'civilized condition [is] characterized by a strong cannibalistic taboo [...] eating the 'too close' equals eating oneself" (Falk, 1994, p. 75).

One of the main problems with Leach's categorisations is that they only take into account the edible/inedible categorisations of the nonhuman animal and they cannot take into account the broader set of relations between humans and nonhuman animals. For example, wild nonhuman animals may not be classed, within Leach's categories as 'edible' but they are however 'killable' for trophies or sport for example. Therefore, although I am in agreement with Leach that the dog is culturally determined as 'inedible' it is nonetheless the case that during wartime many thousands of 'pet' dogs were euthanized and Leach's model is unable to account for this cultural practice. The second issue that I have with the structuralist anthropological classifications are that they are culturally fixed and as my research into the changing status of the rabbit during wartime reveals, this type of nonhuman animal shifted from a pet or 'fancy animal' to 'home food production' within a matter of months. In addition to this, my research into wartime home food production has also revealed that, whilst institutional classifications of nonhuman animals were constructed through legislation, what is apparent is that the classifications were prone to slippage. What is crucial to this slippage between pet and product is the attribution of emotion, which I argue was centralised within the human/pet relationship.

Emotional detachment

Sentimental attachment to commodity nonhuman animals was considered to be opposed to the war effort. To avoid sentimentality it was suggested that backyard

breeders should keep more than one nonhuman animal or join a co-operative (Picture Post, 3rd February 1940, p.20). With a single pig, hen or rabbit, there was more chance that the human would become emotionally involved with the individual nonhuman animal and would therefore be unable to kill and eat their 'home food production'. As one commentator wrote in the Picture Post, "[...] there is a psychological factor which operates against efficient production on an individual basis. People keeping one animal are liable to become sentimentally attached to it, treat it as a pet, and shrink from the thought of killing it for food" (Picture Post, 17th February 1940, p.51). Such comments are significant in that they reflected the alignment of pet-keeping with sentimentality, but also because they pointed out that the distinction between the 'pet' and the 'commodity' was potentially ambiguous. In this sense, the 'individuated nonhuman animal' was more likely to enter into an oedipal relationship with the human and its scientific or social categorisation, by specie or as livestock, was not fully able to regulate pet/human relationships. In this sense, I am arguing that institutional discourses such as those that re-categorised the rabbit as 'not pet' remained vulnerable to the oedipal relationship. Thus, the rejection of sentimentality toward nonhuman animals and the appropriation of the discourse of 'production' were part of a discursive strategy to overcome the problem of emotional attachment posed by the nonhuman animal.

A discourse of efficiency and economy in production and consumption prevailed during wartime and in the immediate postwar years. Human/nonhuman animal relationships changed as the food shortages that occupied much of the public attention impacted upon pet-keeping practices. Despite some resistance to the Food Controllers statements during World War One, the Ministry of Food found little opposition when it issued a 'Waste of Food' Order during the Second World War. The Order stated that dogs should only be fed on food that was unfit for human consumption such as household scraps, purchased dog foods or other 'non-human' foods (Control of Food Wastage under Waste of Food Order 1940, MAF150/633).¹⁶ Books and pamphlets

produced by pet food manufacturers such as Sherley's and Spratt's provided guidance on the feeding of dogs and cats. During the interwar years, Sherley's feeding guidelines concentrated on the optimum nutrition for each individual dog, whilst during wartime the focus shifted to the minimum that could be fed to retain the general health of the canine.¹⁷ Whilst many pet products were unavailable due to the general food shortages manufacturers continued to advertise.¹⁸ The advertisements for pet products during wartime unsurprisingly focussed around a discourse of need and necessity and were predominantly canine products whilst postwar advertising discourses centred on the 'wants' of the pet.¹⁹ However, within both discourses of 'wants' and 'needs', the emotional well-being of the pet remained connected to health and feeding practices showing how strongly anthropomorphism shaped pet keeping practices.

Opposition to popular cultural depictions of nonhuman animal emotion

By the late 1950s the pet industry had developed into a highly organised and well-defined hierarchy of experts and amateurs. The experts included those with a 'scientific' background such as veterinarians, Government officials, and a handful of well educated breeders, whilst the pet-owner occupied an amateur status. Pet food companies had shed their didactic discourse of animal management and instead sought out the endorsement of experts.²⁰ The shift toward the privileging of a scientific discourse of nonhuman animal management was demonstrated in instructional and nonhuman animal management books. The author of Dogs as Pets For Boys and Girls (Hope, 1950) referred to the vet as "the man who really does know" and stated "the reason why the vet knows is because he has studied the subject Dog- and, of course, all animals. He learnt the facts of veterinary science and all about the dog generally from books, and then applied the knowledge to all the dogs that came his way" (Hope, 1950, p.5); whilst the writer of Practical Animal Husbandry (1959) claimed that, "To enable the inexperienced to appreciate some of the underlying principles which enable large and often powerful animals to be controlled, made to perform work, or allow secreted milk to be removed from them, some knowledge of elementary animal

psychology and animal behaviour is desirable" (Miller & Robertson, 1959, p.1); and, the author of The Dog Breeders Manual (1950) contended, "The teachings of the modern science of genetics have been applied with significant success, old theories, many little more than superstitions, have been scrapped, worn out shibboleths discarded, and blind observance of rule of thumb practices replaced by the intelligent application of scientific precepts" (Daglish, 1950, p.7).²¹ The Hope, Miller & Robertson, and Daglish texts privileged the application of scientific knowledge and Hope and Miller and Robertson made explicit statements with regard to the anthropomorphic interpretation of nonhuman animals. Hope (1950) stated "we must always be careful not to endow our dog with human traits and feelings" (p.19) whilst Miller & Robertson (1959) claimed "it is very necessary to avoid the popular misconception that some animals are endowed with a near-human capacity" (p.6).

The management of anthropomorphic practices shifted from the state, during wartime, to the scientific expert by the mid-twentieth century. Within discourses of science it was intimated that discourses of emotionality were compromising the professionalism of science practices. Miller and Robertson (1959) argued that popular culture, particularly nonhuman animal performers and pets, led to misplaced attributions of emotionality, intelligence, and loyalty. In their text, written for veterinarians and farmers, they argued, "so often an act which has its real origins in self-preservation is ascribed by the populace to a self-sacrificing concern for its master or mistress" (Miller and Robertson, 1959, p. 6). Popular cultural constructions of nonhuman animals, it was suggested, should not be allowed to compromise professional nonhuman animal practices. Miller and Robertson's comments highlighted the tensions between popular cultural representations of nonhuman animals and the objectivity of scientific practices in the mid-twentieth century. Popular culture was being positioned as a dangerous influence on future scientists and professionals in that it appeared to confirm that emotional states could be attributed to nonhuman animals. Controversially, the ethologist Konrad Lorenz was making precisely these claims in his book, King Solomon's Ring: Lorenz

however suggested that popular culture had provided a beneficial background for his studies of nonhuman animal behaviour. Lorenz stated in his introduction to King Solomon's Ring: New Light On Animal Ways:

The mental development of my own early childhood was, without any doubt, influenced in a most beneficial way by two books of animal stories which cannot, even in the loose sense, be regarded as true. Neither Selma Lagerlof's *Nils Holgersson*, nor Rudyard Kipling's *Jungle Books* contain anything like scientific truths about animals. But poets such as the authors of these books may well avail themselves of poetic licence to present the animal in a way far divergent from scientific truth. They may daringly let the animal speak like a human being, they may even ascribe human motives to its actions, and yet succeed in retaining the general style of the wild animal.

(Lorenz, [1952] 1982, p. xxxiv)

Crucially, whilst the nonhuman animal had not been constructed as an emotional being within discourses of science since the end of the nineteenth century, by the mid-twentieth century it was apparent that popular cultural constructions within pet keeping practices and fictional narratives were considered to be influencing professional practices within science and animal husbandry. Whether constructed as detrimental as with the claims of Miller and Robertson, or beneficial as Lorenz argued, what is important is that popular cultural constructions of the nonhuman animal were to some extent, thought to be shaping professional practices.

Weeping elephants and loving dogs

Konrad Lorenz's King Solomon's Ring was a popular success. Animal behaviourist W.

H. Thorpe wrote:

As evidence for its popularity one need only cite the nine reprintings of the first English edition in its first seven years. It is one of the best and most penetrating non-technical books about animals and animal nature that has ever been written.

(Thorpe [1961] in Lorenz 1982, p. vii)

As Thorpe's comments indicate, popular appeal was linked to the appropriation of a non-technical language. In this sense King Solomon's Ring showed evidence of a clear linkage to Darwin's practices of appropriating 'everyday' discourse to ensure popularity. Inevitably, King Solomon's Ring was labelled as anthropomorphic by much of the scientific establishment (Pettifer & Brown, 1991, p. 194). However, throughout the

middle decades of the twentieth century a shift in thinking about nonhuman animals began to emerge. As I noted in chapter two, this shift was linked with the environmental discourse which reconnected humans with nature and a new discourse of animal rights and nonhuman animal subjectivity that began to emerge within moral philosophy and the philosophy of science.

Nonetheless, as Robert Plutchik's account of the scientific study of emotion implies, it was not until the latter two decades of the twentieth century that nonhuman animal emotion was again considered to be an object of scientific study. In the 1990s two important popular texts were published that explicitly stated that nonhuman animals were emotional beings: When Elephants Weep: The Emotional Lives of Animals ([1994] 1996) and Dogs Never Lie About Love (1998) were best-sellers in the US and the UK with the former title being the number one best selling non-fiction book in Canada.²² Written by Jeffrey Masson and Susan McCarthy When Elephants Weep reasserted the emotionality of the nonhuman animal stating that science had, to the detriment of both human and nonhuman animals, ignored the emotional lives of nonhuman animals. Masson and McCarthy argued,

Some of the most innovative work being done with animals today is directed at language use, self-awareness and other cognitive abilities, so that the wilful blindness of science to the world of animal emotion seems to be on the verge of crumbling. [...] What data there is on animal emotion comes not from laboratory work but from field studies. Some of the most esteemed animal researchers of our day [...] defy orthodoxy [...] and insist on using words like 'love' and 'suffering' to describe animals. Yet these aspects of their work are virtually ignored, nor is it safe for less well-established scientists to use such terms'.

(Masson & McCarthy, [1994] 1996, p.16)

McCarthy and Masson, and Masson's later single author book Dogs Never Lie About Love, discursively reconnected the wild and the domestic nonhuman animal to the world of 'human' emotions. Fundamentally important within these texts however was, the incorporation of anecdotal evidence, the use of scientific evidence, and the appropriation of exemplars of nonhuman animal emotion from popular culture, particularly literature and poetry. Within both texts, science and popular culture were

conflated through an eclectic juxtaposing of narrative fictions and scientific investigations to offer a new discourse on the emotionality of the nonhuman animal that recaptured the attention of the public and consequently put each book onto the best-seller lists.

The relationship between popular narrative fictions of nonhuman animals and scientific practices also occupied the writing of behaviourist John S. Kennedy who argued that anthropomorphism within popular culture was changing the practices of a new generation of scientists. However, Kennedy argued that this was to the detriment of scientific investigation and, he suggested, "It is dinned into us culturally from earliest childhood [...] There is an inescapable ambiguity and inner conflict in the attitude of students of animal behaviour towards anthropomorphism" (Kennedy, 1992, p.5). Echoing earlier concerns from Miller & Robertson in the 1950s, Kennedy's comments made apparent the tensions between popular cultural practices and scientific practices. He warned, "Those who would have us go all the way back to traditional explicit anthropomorphism are still a minority but they show us the way things could go if we are not careful [...] We are witnessing a new swing of the theoretical pendulum, now back towards anthropomorphism" (Kennedy, 1992, p.5). Thus, as knowledge conditions changed toward the end of the twentieth century popular constructions of the nonhuman animal as an emotional being were again being authorised across popularised science, 'serious' science, and popular culture.

The point which I wish to emphasise however is despite the rejection of the emotional nonhuman animal within earlier scientific discourses, emotionality remained centralised within popular pet-keeping practices throughout the twentieth century. A persuasive and dominant discourse of nonhuman animal emotion was strategically harnessed by pet product manufacturers to expand a commercial market that by the early twenty-first century was worth in excess of £2,000 million. The discourse of the emotional pet within pet product advertising could be seen to be dominant throughout the twentieth

century from its nascent formulation in the early twentieth century when James Spratt used the humanised nonhuman animal images of Edwin Landseer on his early promotional materials to the more explicit claims of reciprocated love between dog and human made by Spratt's and Sherley's by the mid part of the century. The emotional nonhuman animal of Darwin's Expression established a set of key signifiers that were subsequently exploited within commercial advertising for pet products; the smiling happy pet with sparkling eyes was pervasive as both image and text and such constructions were also embedded within other popular cultural forms including poetry and films. State and scientific regulation of emotionality in nonhuman animals was evident within discourses of food production and scientific progress where the anthropomorphisation of the nonhuman animal was constructed as detrimental to social and scientific progress, however the popularisation of the pet as an emotional being was clearly dominant and therefore problematic in terms of its regulation. Such paradoxes within the twentieth century appropriation and denial of emotional status to nonhuman animals thus underscored tensions between popular and, what Steve Baker (2000) refers to as, 'serious' discourses; namely those of the state and science.

However, I am not suggesting that the popularisation of nonhuman animal emotionality served only the interests of commercialisation. Therefore in the following section of this chapter I return to the example of the emotional dog to demonstrate how the cultural myth of canine grief has been appropriated to validate discourses of correct social conduct, gender, and racial demonization. I am particularly interested here in examining how the cultural myth of the dog grieving for a dead 'master' has been reconfigured to serve various political interests. What is significant about these popular narratives of canine grief is that they preserve certain aspects of continuity across the nineteenth, twentieth and twenty-first centuries demonstrating their cultural weight and longevity. Whilst discourses of science rejected anthropomorphised constructions of nonhuman animals, the story of canine grief has retained a cultural legitimacy albeit bound by dominant discourses of the time. Here I examine how a story of nonhuman

animal emotion has been appropriated and re-circulated under different discursive conditions and apart from the discourses of science.

The Chief Mourner

fig 3. Landseer, Edwin (1837) The Old Shepherd's Chief Mourner in the permanent collection at the Victoria and Albert Museum.

In 1837 Edwin Landseer painted The Old Shepherd's Chief Mourner (see: fig. 3). In the painting a black and tan sheepdog rests its head on a wooden coffin. On the floor in the bottom left of the painting is a single ram horn and to the right of the dog, on a three-legged stool, are a pair of spectacles and a bible. The objects depicted in the painting- a crook, the ram horn, the bible and spectacles- reference the occupation and morality of the dead man, yet the main subject of the painting is not the death of a 'good shepherd' but rather the expression of canine grief. The central subject of the dog is ascribed with the identity of 'Chief Mourner' by the title of the painting whilst the object of the dog's grief, the old shepherd, is absent from the painting but suggested by the coffin and the symbolic items at the edge of the painting. In the background an empty chair, emphasised within the painting by its golden highlights, reinforces the sense of solitary grief experienced by the dog. Reading the painting in terms of composition from bottom right to top left- from foreground to background- the shepherd's life occupies the foreground, his death is symbolised in the middle of the image, and the empty chair in the background indicates his 'absence'. However, despite its title and compositional

elements, The Old Shepherd's Chief Mourner is not a painting about the lonely life of a shepherd but rather the isolated sorrow of the loyal canine.

From a twenty-first century perspective Edwin Landseer's painting is characteristic of an anthropomorphic nineteenth century sensibility that was rejected by early twentieth century modernism. Steve Baker's (2000) study, The Postmodern Animal, demonstrates that there was a rejection of subjective interpretation and anthropomorphism within art that leads him to conclude, "As the example of modernist art history as a whole suggests, the animal comes to be least visible in the discourses which regard themselves as the most serious" (Baker, 2000, p.21). Baker argues that modern art had to remove all visible traces of the nonhuman animal to effectively banish the, "memories of the unashamedly anthropomorphic sentiment of an earlier age" (Baker, 2000, p.20).²³ Similarly, as I have established in previous chapters, scientific methodologies underwent a parallel shift and sought to expel methods of subjective inference that were thought to produce anthropomorphism in favour of an objective positivist science.

Whilst anthropomorphic nonhuman animals were rejected within 'serious' art and science, they have remained eminently visible within twentieth century popular culture and beyond. Examination of the texts held in the UK Kennel Club archives has shown that in 1930 the Daily Mirror created the 'Brave Dog's Roll Of Honour' and between 1930 and 1935, thirty-six newspaper accounts of bravery, loyalty and devotion in the canine were reported and the dogs in question were issued with the 'VC collar'. Peter Shaw Baker commented in 1935, that "the public interest aroused in the *Daily Mirror* Brave Dogs has been so keen that arrangements have been made for them to appear in person [...] a special bench has been set aside for them and nobody who has had the opportunity should miss meeting them" (Baker, 1935, p.16). Baker's commentary illustrates that within popular culture the humanisation of the canine still retained public appeal well into the twentieth century. Alongside, stories of loyalty, love and devotion, it

is the cultural motif of canine grief at the loss of a human master that has been persistently woven through cultural narratives that have also found cinematic, literary, and photographic form, from the nineteenth to the twenty-first century. The Old Shepherd's Chief Mourner (1837), Greyfriars Bobby (circa. 1858 and Greyfriars Bobby 1961), Caesar the King's Dog (1910), Hachi-Ko (circa. 1925), Lassie (Challenge to Lassie 1949) and Squeak (2002) demonstrate both the longevity of the myth of canine grief and the gender- and specie-specific coding of this cultural narrative.²⁴ In each case the underlying plot is the same; a male human owner dies and the devoted canine mourns their loss, usually returning to the body or grave of the dead master to grieve. What is important about these popular narratives of canine grief is that they rely on the premise that, on the loss of 'the master', dogs experience emotion; an idea that most branches of the scientific community had vehemently rejected at the end of the nineteenth century.²⁵

Grief and sadness: 'I belong to the King'

fig. 4 Earl, Maud (1910) Caesar in the permanent collection at the UK Kennel Club.

Whilst the conventions of depicting nonhuman animal emotion within popular culture were specie-specific and located expressions of happiness in the face and head of the

dog, the intersection of gendered discourses with emotionality also led to other ideological appropriations of the humanised nonhuman animal. The gender and specie specific coding of the narrative of canine grief depicted by Landseer in 1837, was reconfigured for an early twentieth century audience in Maud Earl's 1910 image of Caesar produced following the death of Edward VII. An initial observation confirms that there are obvious similarities between Landseer's The Old Shepherd's Chief Mourner (1837) and Maud Earl's Caesar (1910). The dog occupies the central position within the image, the head of the dog rests on the seat of a chair rather than on the top of the coffin, but here, as in Landseer's 1837 painting the repeated motif of the empty chair references the absence of a human presence. In Earl's image, the empty chair is indicated only by a rough sketch whilst the dog is prominent within the image due to the more detailed working of the canine figure.

Produced seventy-three years apart, both Caesar and The Old Shepherd's Chief Mourner are images of canine grief, yet there are two immediate differences between the images; the Earl image does not exhibit the multiple references to the dead 'master' that are present in Landseer's painting, and the identity of the dog is ascribed through a given name, 'Caesar', rather than in relation to an absent human (the chief mourner); this is because, in the case of Caesar, the image refers to an 'actual' dog, that is, the pet fox terrier that belonged to Edward VII. Unlike the Landseer painting of shepherd and sheepdog, the relationship between Caesar and Edward VII was already in mass circulation prior to Earl's painting. Thus, the image of Caesar did not require the multiple references to the life of the human, but rather required only the image of the dog and the empty chair to make sense of the complete narrative.

Caesar was the constant companion of Edward and photographic portraits of the King and his dog were widely circulated in postcard form. Thus, the identity of Caesar and the dog's relationship to the King were established within popular culture. On the occasion of the King's funeral, Caesar was placed in the official procession where he

followed the carriage containing the King's body and the attending heads of state were instructed to walk behind the fox terrier. Newspapers reported that the dog had headed the procession and three days after Edward's funeral the first edition of Where's Master?, authored by Caesar The King's Dog, was published. The book was an immediate success and between June 13th and September 20th 1910, twelve editions of the book were published and sold out. Maud Earl's image, Caesar, was included as an insert on the first pages of each edition of Where's Master?, and the image was also reproduced in the Illustrated London News. By the Christmas of 1910, the best-selling toys were 'Dog Caesars', reproduced as plush stuffed dolls or plaster models and 'Dog Caesar' calendars had sold out. In The Daily Mail, a local toy merchant was quoted as saying,

[...] we had a 'slump' in Teddy bears. We did ourselves down a bit. Who would have thought in the trade that people would have nothing but Dog Caesars? You see every mortal child that came in here wanted the dog. They would not look at Teddy bears, and we have to save them over for next year.
(Grey, 1910, p.4)

Photographic representations of Caesar were popularly consumed as postcards and prints thereby confirming the relationship of the image to the 'real' dog and following the death of Edward VII the commodification of Caesar continued with the mass reproduction of the canine body in soft toy, plaster, and calendar form, in addition to the publication of the dog's 'memoirs'. In this sense the commodification of Caesar involved the technological reproduction of both the 'body' and 'mind' of the dog. In Where's Master?, Caesar, as the author of the text, assumes the privileged position of providing a first-'person' account of the final days of Edward VII. In the text, Caesar plays out the role of the family pet and makes reference to his connections to two people, 'Master' (Edward VII) and 'She' (Queen Alexandra) thereby suggesting the familial triangle of Father, mother and child. True to the Oedipal myth, when the King dies, Caesar assumes the Father's place and the dedication in Where's Master?, is "To Master's Queen- and mine" (Caesar, 1910, p.7). In accord with this, W. E. Grey wrote in The Daily Mail, "Now he [Caesar] remains with Queen Alexandra, and goes where

she goes [...] because he feels that Queen Alexandra is his special charge" (The Daily Mail, 22nd December 1910, p.4). In Where's Master?, Master tells the dog, "What a typical Englishman you are, Caesar", thereby confirming Caesar's right, as the 'proper son' to take the King's place within the family after Edward's death.

In the pet/owner relationship, Deleuze and Guattari suggest that the nonhuman animal does more than just assume the role of child, father, or brother however; the 'pet' also confirms the place of those within the family, such that each individual understands themselves, in relation to, what Deleuze and Guattari refer to as, their "narcissistic contemplation" of the nonhuman animal (Deleuze and Guattari, 1996, p. 240). Similarly, John Berger argues that in the owner/pet relationship, "[t]he pet *completes* him, offering responses to aspects of his character that would otherwise remain unconfirmed. He can be to his pet what he is not to anybody or anything else [...] The pet offers its owner a mirror to a part that is otherwise never reflected" (Berger, [1980] 1991, p.13). I would argue therefore that within the early twentieth century discourse of Caesar, the pet was positioned as an incomplete, or partial, subjectivity; a point that is most clearly endorsed by the inscription on Caesar's collar: "I am Caesar. I belong to the King".²⁶ The first statement admits the subjective position of the dog, whilst the second part of the inscription retracts part of that identity by confirming that the pet can only exist in relation to the human owner.

Gendered emotion

Discourses of emotion have clearly intersected with discourses of gender and the alignment of the female with emotionality was placed in opposition to the rationality of masculinity within the twentieth century. Within cultural narratives of canine grief the discursive juncture between emotion and gender is apparent. Whilst the gender of the Chief Mourner in Landseer's painting is ambiguous, Caesar is clearly established as a male canine. Deborah Lupton has pointed out that grief and mourning rituals flourished across gendered divides in the nineteenth century however, by the early twentieth

century public displays of grief were considered vulgar (1998, p.17). In the case of Caesar, the shift in the social regulation of emotionality required that the male dog's grief was masculinized by discursively positioning the emotion as firstly, restrained and secondly as a consequence of loyalty. Caesar's emotional self-restraint is most clearly demonstrated in the final pages of Where's Master? where Caesar writes about his leading Edward's funeral procession.

She has just been and patted me, and told me to be a brave dog, and hold myself straight, for I am the King's dog.

Do you know I had almost forgotten. I belong to the King. I mustn't let Master, my King, be ashamed of his little dog to-day. How beautifully Kildaire is marching. He's so proud to be here. And I'm proud too but oh, so very, very sad, for this is my last journey with Master.

(Caesar, 1910, p.53)

I would argue therefore that the process of positioning Caesar as an emotional subject was culturally translated into the masculinized discourse of 'loyalty'. As Caesar could not enter the family structure by biological familial descent (birth) or by contract (marriage), the 'binding agent', or familial tie, became that of 'loyalty'. Therefore I contend that part of the process of 'narcissistic contemplation' also relied upon a cultural discourse of 'loyalty' to cement the human understanding of the owner/pet relationship in the twentieth century. This shift in the gendering of nonhuman animal emotion is clearly exemplified in the introduction to the 1935 book Dog Heroes, a collection of "true stories about canine bravery" where the author states in his introduction,

The dog occupies a unique place in our lives [...] he has won his privileged position because he is able to pander to our sense of vanity. He surrenders himself to us completely, and, once having done so, remains loyal even unto death.

(Baker, 1935, p.11)

The discourse of loyalty operated effectively within the private sphere of familial relations but also in the wider public domain wherein 'loyalty' was configured as an ideological relationship. Thus, in the case of Caesar, W. E. Grey wrote,

What notes of conversations he [Caesar] could furnish, and what records he might provide of discussions on topics of vital importance to all mankind, to which he listened as he lay at his master's feet!

Caesar was always a reserved dog, and carries the habit into private life. He will give away no secrets [...]
(The Daily Mail, 22nd December 1910, p.4)

And Caesar writes in Where's Master?, "It was then that Master said to me, "If you could talk, Caesar, you could tell some surprising things, couldn't you?" I should think I could, but Master knew I wouldn't if I could. He always trusted me with his secrets" (1910, p.51). As an ideological nonhuman animal Caesar's loyalty simultaneously expressed the owner/pet relationship and the relations of power between state and subject; that is to say the institutionally authorised narrative of human loyalty to the monarch/nation was made visible in the cultural narrative of Caesar.

Despite the enduring status of the narrative of canine loyalty, the correspondence of power relations between the ideological nonhuman animal and institutionally authorised narratives was not restricted to the dog and had already been established in the nineteenth century. As I demonstrated in the previous chapter, at the end of the nineteenth century it was not uncommon for the insect to be appropriated as an ideological nonhuman and references to the unfailing loyalty of the ant colony to the queen correlated with the contemporaneous monarch/subject relationship in texts such as Rev, W. F. White's (1895) Ants and their Ways. Other ideological relationships were expressed using insects such as Grant Allan's (1898a, 1898b) use of the Hessian fly and trapdoor spider to express the relations of power between men and women, and Britain and France; and John J. Ward's interpretation of the White Admiral butterfly and the relationship between humans and rules of social etiquette (Ward, 1906). White, Allan and Ward's ideological insects differed from Caesar however. In the case of the King's dog, the nonhuman animal was individuated, ascribed a name, and was positioned as a pet. In this sense, Caesar's 'loyalty' cemented the familial tie between human and nonhuman animal within the private domestic sphere but was reorganised as an ideological correspondence of power relations between state and subject in the public domain.

Squeak: 'they killed my master'

Ninety two years after the images of Caesar were produced The Sun newspaper reported on the death of farmer Terry Ford in Zimbabwe in March 2002. The headline stated, "They killed my master" and the report was accompanied by an image of a dog curled up next to the covered body of his owner, Terry Ford.

fig 5: 'Squeak' in The Sun, 19th March 2002, p.24.²⁷

Reports in the popular press described how Terry Ford had been "brutally murdered" during Robert Mugabe's land reclamation project (The Sun, 19th March 2002, p.24). After Ford had been killed, his pet dog 'Squeak' had refused to leave his master's dead body until Ford's partner had managed to coax the dog away from the corpse. Between 19th March 2002 and 23rd March 2002, The Sun carried three reports on Terry Ford's death and funeral and each story was accompanied by an image of the dog who also featured in each headline; "They killed my master" (The Sun, 19th March 2002, p.24); "Loyal terrier Squeak is safe" (The Sun, 20th March 2002, p.2) and "Loyal to the last" (The Sun, 23rd March 2002, p.20). In this sense the identity of the dead man was understood in relation to the identity and loyalty of the pet.

As a twenty-first century image of canine grief, the photograph of Squeak maintained discursive linkages to the nineteenth century image of the 'chief mourner' and the twentieth century image of 'Caesar'. There is, of course, the factual similarity between Caesar and Squeak, both dogs being brown and white terriers, but beyond this there is

a gender specific relationship that draws all three images of canine grief together; in other words each human was male. Although she does not dwell on the gender specific relationship in her book Animal, Erica Fudge analyses the image 'His Master's Voice' and argues that the oil painting of the dog, Nipper, can be read as both engaging in humanlike activity (listening for pleasure) whilst also enacting his own domination (awaiting commands from the voice of his master) (Fudge, 2002, pp. 68-69). Whilst Fudge does not fully examine the masculinized coding of 'the voice', it is nonetheless pertinent to the discussion at hand that the concept of the 'master' implies domination.

Similar to Fudge's analysis of Nipper, the image of Squeak can also be read as a double coded image; Squeak is engaging in the human emotion of grief whilst the headline also references the domination of the (male) human over the canine, "They killed my master". As with Caesar's declaration, 'I belong to the King', Squeak is given the subjective position from which to announce his domination, 'They killed my master', thereby subsuming the dog into the master/pet relationship and confirming Squeak's status as a partial subjectivity. In this sense, Squeak is only given 'his voice' to announce the master/pet relationship and make the allegation that Mugabe's supporters 'killed' Terry Ford. The canine is thereby attributed with the status of eyewitness in the newspaper account. In the photograph, the blood soaked cover and surroundings indicated the horror that the dog had witnessed and thus the image and text elements of the newspaper report confirmed the reality of the dog's experience and the reason for his grief.

The cultural narrative of canine loyalty is evident in the case of Squeak. As with the 'chief mourner' and Caesar, Squeak is constructed as loyal, devoted, and distraught at the death of his owner, yet remains with him after death.²⁸ As an ideological humanised nonhuman animal, Squeak voices white western concerns about violence in Zimbabwe from an apparently independent standpoint. As a dog, Squeak was afforded the innocence of the nonhuman animal and therefore devoid of political 'reason'. The

canine therefore operated as an ideological signifier of sadness and grief about the political situation in Zimbabwe from an apparently non-political position. The discourse of Squeak was therefore utilised to exacerbate the racial demonization of Robert Mugabe's land reclamation project.

Conclusion

As the example of Squeak suggests, the normalisation of nonhuman animal emotionality within popular culture has persisted to serve differing ideological interests. Whilst discursively positioned as detrimental to the progress of science the emotionality of the nonhuman animal has nonetheless retained cultural legitimacy within pet-keeping practices and popular narratives. I contend that the cultural configuration of pet-keeping has normalised the nonhuman animal as an emotional being which has been key to underpinning the narratives of both Caesar and Squeak in the twentieth and twenty-first centuries. Significant in this cultural arrangement, the owner/pet relationship has been constructed within pet product advertising as an emotional relationship wherein the owner has been positioned as responsible for the pet's physical and emotional well-being. Structured through the discourse of 'the family', which was a pre-eminent mode of social organisation in the first half of the twentieth century, the 'pet' and particularly the dog was normalised as a 'family member'.

Due to the cultural legitimacy of narratives of nonhuman animal emotionality, the practices which attribute nonhuman animals with emotion have been institutionally managed and conditioned at certain points throughout the twentieth century. Tensions between science and popular culture have been apparent as, whilst the nonhuman animal had not been constructed as an emotional being within discourses of science since the end of the nineteenth century, by the mid-twentieth century it was apparent that popular cultural constructions within pet keeping practices and popular narratives were considered to be influencing professional practices within science and animal husbandry. Moreover, such tensions have been made explicit within the last decades

of the twentieth century by academics such as Kennedy (1992), Turner (1980) and others. In the discourse of home food production that emerged during wartime it was necessary for anthropomorphic practices to be managed and regulated by the state and consequently the rabbit was redefined as 'not pet' and the discourse of 'production' was imposed on the practices of rabbit keeping to shift the status of the nonhuman animal for 'pet' to 'food'. State discourses advised owners to euthanize their dogs if they were unable to feed them, positioning the dog as a burden on valuable national resources whilst the utility of cats as mousers and rat-catchers reinforced their practical value above any sentimental attachment.

What emerges from this chapter is that the tension between state, scientific, and popular discourses around the emotionality of nonhuman animals has trivialised the significance of humanised nonhuman animals within popular culture. As my research and analysis have demonstrated, the cultural narrative of the grieving canine has retained cultural legitimacy and longevity over the course of three centuries. From The Old Shepherd's Chief Mourner to Squeak, the attribution of emotion to the canine has been reiterated through cultural narratives that, whilst conditioned by dominant discourses, have also served ideological purposes. In this sense, the narrative of the grieving dog has provided exemplification of restrained emotion and loyalty to the sovereign in the case of Caesar; and, under the auspices of its nonhuman animal categorisation, in the example of Squeak, the anthropomorphised nonhuman animal has assumed an apparently apolitical stance from which to voice white western concerns about political conflict.

I would argue therefore that the cultural narrative of canine emotion cannot be overlooked as a misplaced, overly sentimental interpretation of nonhuman animal behaviour but needs to be understood in terms of its ideological significance. Critiques which have rendered the emotional nonhuman animal as trivial or the 'detritus' of popular culture have only served to obscure the importance of such constructions in

relation to discourses of gender, race and social conduct. Moreover, the happy dog and cat have been absolutely central to the growth of the pet product market in the twentieth century thereby reproducing the emotional pet as a significant facet of the capitalist mediascape. In short, although Darwin's emotional nonhuman animal was rejected within self-proclaimed 'serious' discourses, such constructions found a crucial role within popular discourses which reiterated the key signifiers of emotionality to serve various ideological and commercial interests.

Endnotes

¹ I would however, draw attention to the fact that emotion was attributed to the nonhuman animal within ethology from the mid-twentieth century, in for example the work of Konrad Lorenz. However, these were not *studies* of emotion in the nonhuman animal. However, the ethological discipline did influence the re-evaluation of the study of emotion in the 1980s.

² All, but one, illustration of nonhuman animals in The Expression of Emotions In Man and Animals were drawn rather than photographic representations. One illustration of a dog watching a cat was reproduced by engraved plate from a photograph.

³ Whilst Boscalgi was making reference specifically to human emotionality I feel that his comments are equally applicable to dominant twentieth century views of nonhuman animal emotion.

⁴ The 'real' dogs I am referring to from my examples are Caesar, Hachi-Ko and Squeak.

⁵ For example Babe and Stuart Little. In his writing on Levinas and the dog Bobby, Atterton similarly notes that it is significant that Levinas is writing about an 'actual dog' as the dog is not a narrative device, as it may be in a fictional account. Rather, the 'actuality' of the dog demands that the human/nonhuman animal relationship be subject to closer scrutiny (Atterton in Atterton & Calarco 2004, p.52-53).

⁶ Source: Cunliffe, 2002, p.90

⁷ Source: Sherley's Dog Book, 1905: 2.

⁸ However only certain nonhuman animals were reconfigured as pets and as twentieth century pet statistics show, the dog was, until 2000, the nonhuman animal most popularly kept as a domestic pet in the UK.

⁹ Leighton and Sharpe were considered leading experts in canine management and training. Sharpe began writing dog training guidance in 1895 and is referred to as 'the pioneer of modern dog training' (Sharpe, 1924, p.11).

¹⁰ Porter's The Whole Dam Family and the Dam Dog was based on a popular series of playing cards. The joke was also used in Vaudeville theatre.

¹¹ Captain Charles Bathurst was Controller until August 1917 when he became Chairman of the Ministry of Food until his resignation in November 1920. See: History of the Ministry of Food, Public Records Office documents, MAF 60, 289-290.

¹² It was reported in the Weekly Dispatch that following Bathurst's statement some 200 dogs per week were being offered to Battersea Dog's Home (Weekly Dispatch, 29th April 1917, p.2).

¹³ See: Tame rabbit keeping: meeting with the British Rabbit Council, Public Records Office document MAF 54/79, Agricultural Research Council: report of sub-committee

appointed to review the position of rabbit breeding research in Great Britain, Public Records Office document MAF 54/80 and Relaxing local authority rules on poultry and rabbit keeping, Public Records Office document MAF 54/90.

¹⁴ See: Public Records Office documents MAF 54/98 and 54/99.

¹⁵ See: Rabbits: Policy and Prices 1939-1942, MAF 54/76 and Rabbits Policy and Prices 1942-1949, MAF 54/77.

¹⁶ Also see: Feeding stuff for dogs: control of the dog population 1941, Public Records Office document MAF 84/61.

¹⁷ To make this comparison I refer to editions 16-28 of the Sherley's Dog Book covering the period 1936-1969 with the Waste of Food Order noted in editions 19-25 inclusive.

¹⁸ See: Supplies of rice for dog food, Public Records Office document MAF 84/885 and Supplies of fish liver oil October 1941- March 1948, Public Records Office document MAF97/1931.

¹⁹ Advertisements for Spratt's Bonio (circa. 1954) used the tagline 'It's fun as well as food!' and focussed on the fun attraction of a bone shaped biscuit.

²⁰ For example, Spratts' offered an 'advisory service' with a 'team of experts' but stated, 'we regret however that we cannot deal with queries of a veterinary nature' (Croxtton-Smith, 1950a, p.49).

²¹ The Dog Breeders Manual (Daglish, 1950) was the first book to be published on the subject of canine genetics.

²² Source: author Jeffrey Masson see: <http://www.jeffreymasson.com/cv.html>

²³ The absence of the nonhuman animal subject within early twentieth century art inverted the tendency in nineteenth century anthropomorphic images to reference the disappearance of the human. In Landseer's 1837 painting the human is only suggested by the mementos, or symbolic objects, that occupy the edges of the visible space. Similarly, in other popular Landseer works such as Dignity and Impudence (1839, oil on canvas, Tate Gallery), Low Life (1829, oil on canvas, Tate Gallery), High Life (1829, oil on canvas, Tate Gallery), Laying Down The Law (1840) and The Monarch of the Glen (1851) the human is absent whilst 'humanness' remains in the visible presence of the nonhuman animal.

²⁴ It should be noted that all these examples except Hachi-Ko have their origins in the United Kingdom. Hachi-Ko was a Japanese Akita dog belonging to Professor Eizaburo Ueno, a lecturer at Tokyo University.

²⁵ Charles Darwin's (1872) The Expression of the Emotions in Man and Animals and George Romanes' (1886) Animal Intelligence were the last two major scientific studies of nonhuman animal emotion and widespread refutation of their work accompanied a

modernist shift toward non-subjective scientific enquiry at the beginning of the twentieth century.

²⁶ An image of Caesar's collar with the inscription illustrates the front jacket of Where's Master? , it is also referred to in the text of the book and in W.E. Grey's article in The Daily Mail (22nd December 1910, p.4)

²⁷ Although Associated Press released three images of Squeak beside the covered body of Terry Ford, the photograph, fig. 5, is the picture that was used in The Sun and by the BBCi website.

²⁸ In the case of Caesar, the dog was included in the funeral procession.

Chapter Five

Looking: nonhuman animal subjectivity and natural history documentaries

Writing about wild nonhuman animals in twentieth century zoos John Berger argues, "The look between animal and man, which may have played a crucial role in the development of human society, and with which, in any case, all men had always lived until less than a century ago, has been extinguished" (Berger, [1980] 1991, p.28). Berger's essay is titled 'Why Look at Animals?' and in it he develops his idea that nonhuman animals have disappeared from human social life to such an extent that they exist only as 'spectacle'; to be looked-at in the artifice of the zoo environment. Here I challenge Berger's argument and claim that there are important occurrences within twentieth century popular culture where humans are encouraged to 'look-with' rather than 'look-at' wild nonhuman animals. In these terms I regard 'looking-at' nonhuman animals as 'spectacle' to be a practice that objectifies the nonhuman animal whereas 'looking-with' constructs a shared subjective relationship between the human and nonhuman animal which in turn anthropomorphises that nonhuman animal. Here, I am particularly concerned with the construction of 'wild' nonhuman animal 'looking' within the natural history documentary and nature film.

Berger would certainly suggest that my argument focuses on the contemporary widespread diffusion of animal imagery which he claims is just another aspect of the human separation from 'real' nonhuman animals that effectively renders the nonhuman animal as spectacle (Berger, [1980] 1991, p. 26). I argue instead that within certain nature films the nonhuman animal point of view shot collapses the separation between human and nonhuman animal. In these cases it is the point of view shot that constructs a specific type of spectatorial positioning which implies nonhuman animal subjectivity; this in turn makes the point of view shot highly controversial and ideologically charged as it requires that the audience 'look-with' rather than 'look-at' nonhuman animals. As a

consequence, the nonhuman animal is anthropomorphised through the attribution of subjectivity.

In her influential essay 'Visual Pleasure and Narrative Cinema', Laura Mulvey (1975) discusses how looking constructs subjectivity and, most importantly, how the gaze operates as an oppressive force. Mulvey's argument is motivated by a feminist politics, however, here, I want to appropriate the salient points that she makes to analyse the construction of 'looking' within mainstream film and television natural history documentaries during the twentieth century. The objective of this chapter is therefore to examine how the nonhuman animal gaze and subjectivity is constructed within popular screen narratives and particularly within the natural history documentary. As practices that construct nonhuman animal subjectivity are explicitly anthropomorphic, the aim of this chapter is therefore to interrogate the tensions between discourses of science and popular narrative forms that emerge within the natural history documentary, or in other words within the popularisation of science.

The previous chapter focussed on the emotionality of the nonhuman animal within pet-keeping during the twentieth century. As I demonstrated, constructions of the emotional nonhuman animal within pet keeping practices were predominantly managed by popular discourses, for example, commercial advertising, films, and other popular narratives. This chapter concentrates specifically on the 'wild' nonhuman animal within late twentieth century culture and therefore the primary objects of study that I analyse here are wildlife films and natural history documentaries. What is different about the construction of the 'wild' nonhuman animal within the natural history documentary in comparison with the 'pet' is that the natural history documentary has been explicitly bound to discourses of science in ways that constructions of the pet are not. I propose that precisely because the natural history documentary sits at the juncture between science and entertainment it is a liminal discourse. Its alignment with the 'science fact' of nonhuman animal life and behaviour is constantly coupled with the necessity to

provide an entertaining, but still scientifically 'truthful' account of wild nonhuman animals. As I recount here, the synthesis of science and 'the popular' has led to accusations that natural history documentaries have anthropomorphised nonhuman animals in the interests of popularised entertainment. Such criticisms of natural history documentaries as anthropomorphic have insisted that they are therefore scientifically inaccurate. However I want to set these criticisms against the findings of recent audience survey by the regulatory body Ofcom which showed that the natural history documentary is currently perceived to be the most accurate genre of television programming, figuring substantially above news and current affairs programmes (Ofcom, August 2004, p.13). When this is considered alongside other survey results which suggest that television is the primary source of information for the UK public (Ofcom, 2004, p.7), it is clear that natural history documentary programmes are absolutely central to constructing public knowledge and discourses of 'truth' about nonhuman animals.

Here I am not concerned with whether the anthropomorphisation of nonhuman animals in natural history documentaries is right or wrong. I am interested instead in an examination of *how* nonhuman animals are constructed and how that construction is managed by film making practices and discourses of science within the natural history documentary. As I have already argued that knowledge conditions within science changed during the twentieth century, I will demonstrate here how those changes have regulated the film making practices and the eventual constructions of 'wild' nonhuman animals. I argue here that film makers have altered their practices to variously accommodate or deny anthropomorphic constructions of nonhuman animals in line with dominant discourses of science. This moves my discussion away from other academics' deterministic stance that states that it is changes to filmmaking technologies which have the primary effects on the final product. For example, Nils Lindahl Elliot has argued recently that the point of view shot only became popular in the 1980s within natural history documentaries due to the development of small cameras

that could be attached to nonhuman animals (Elliot, 2001, p. 303). I argue instead that it is the knowledge conditions and therefore dominant discourses that primarily regulate and manage the constructions of nonhuman animals within natural history documentaries. To these ends I use the crucial example of the point of view shot to demonstrate the validity of my argument and I situate this discussion in relation to the politics of 'looking' which reconnects my discussion with the issues I have with Berger's analysis of the nonhuman animal as 'spectacle'.

The continuity system of editing naturalises patterns of looking. Motivated by a human protagonist, eyeline match, point of view and viewpoints have been critically examined in relation to the formal conventions of documentary filmmaking, and to gendered or racialised 'looks' (see for example Winston, B., 1995; Mulvey, 1975; and hooks, 1992). However, as yet there has been little academic attention paid to the patterns of looking inscribed upon *nonhuman animals* within screen narratives and whilst the secondary literature within screen studies includes much debate about the point of view shot, this is discussed exclusively with reference to human subjectivity and identification. For example, in his review of documentary filmmaking Brian Winston recognizes that point of view shots, although rare within the documentary genre as a whole, are utilized on occasion (Winston, B., 1995, p.117). His point however, is made strictly in relation to human point of view shots without any acknowledgement of the ideological implications of attributing either human or nonhuman animal with a 'viewpoint'. In relation to the politics of 'looking', Laura Mulvey (1975) examines how the female is objectified within an oppressive system of looking that denies the woman the power of the gaze and instead positions the spectator from a masculine viewpoint. Similarly, according to bell hooks (1992), the gaze has functioned as part of a larger system of practices that have oppressed black peoples since slavery. As yet however, the politics of looking within natural history documentaries have not been addressed. How then is the hierarchy of looks understood in relation to nonhuman animals?

I argue here that within mainstream film and television the nonhuman animal can be given a point of view and therefore make the spectator privy to a constructed subjective experience. However, as nonhuman animal subjectivity remains a controversial issue, the attribution of subjective experience is fraught with tensions. In short, the filmic construction of subjectivity humanises the nonhuman animal and thus renders the narrative anthropomorphic. Given that film and television discourses are undeniably significant in the cultural construction of nonhuman animals and that the hierarchy of looks is central to power relationships, I argue that it is crucial that patterns of looking are given close critical attention specifically in relation to the natural history documentary.

My first case study in this chapter discusses the relationship of natural history documentaries to nineteenth century popular science narratives and then I move on to examine how practices of looking within such narratives are intrinsically linked to the distribution of power. Through my discussion on the hierarchy of looks I argue, after Mulvey, that subjectivity is constructed through patterns of looking within screen narratives and it is this construction that differentiates between the objectified spectacle to be looked-at, and the subject with which the audience identifies. I relate this to the nonhuman animal to argue that patterns of looking within screen narratives are therefore connected to discourses of power where subjective positioning can be granted or denied to the nonhuman animal through the use or not of the point of view shot. I link this directly to film making practices and through my discussion of continuity editing I demonstrate how editing practices materially connect with the hierarchy of looks. Using shot-by-shot analyses of nonhuman animal narratives that include point of view shots, I argue that shared practices and conventions aligned early nature films with fictional narratives which devalued their claims to scientific accuracy.

Examining the claims of natural history documentary filmmakers more closely I demonstrate how the avoidance of anthropomorphism has regulated their practices in

line with discourses of science and how tensions between entertainment and science have arisen and have been managed. I conclude this chapter with an analysis of two ground-breaking series' of programmes made for the BBC in the 1980s that challenged the conventions of previous natural history films in their attempts to accurately depict the subjective experience of nonhuman animals and insects using point of view shots. I frame my analysis of Supesense and Lifesense by reference to Thomas Nagel's highly influential essay, 'What is it like to be a bat?' (1974) which, as I have already noted, was central to the scientific re-evaluation of nonhuman animal subjectivity in the twentieth century.

The significance of the hierarchy of looks within nonhuman animal narratives has been overlooked within recent academic work. My focus on the significance of the point of view shot in relation to the construction of nonhuman animal subjectivity and anthropomorphism therefore constitutes the unique character of this chapter and addresses the weaknesses within recent critical appraisals of anthropomorphism in natural history documentaries (Elliot, 2001; Scott, 2003).

Nonhuman animal narratives

The mass dissemination of popularised scientific accounts of nonhuman animal life and behaviour can be traced back to the late nineteenth century. What was particularly notable about nonhuman animal narratives produced at this time was the inclusion of photographic images which accompanied the naturalists' written accounts. The popularisation of science narratives within the nineteenth century led to the mass publication of naturalists' accounts of nonhuman animal life in periodicals such as The Strand Magazine, Leisure Hour, Pall Mall Magazine, The English Illustrated Magazine and Grand Magazine (see my earlier discussion of The Strand Magazine in chapter three).¹ Following the successful inclusion of photographic illustrations in Charles Darwin's The Expression of the Emotions In Man and Animals (1872) and the popularisation of photographic practices, many late nineteenth century naturalists also

became keen photographers. The popularity of naturalist photography was further buoyed by Eadward Muybridge's sequential photographs of nonhuman animals in motion that gained widespread public recognition and confirmed the truth value of the photographic statement. Muybridge's photographs had captured the 'true' motion of the equine legs at full gallop; an image that had been imperceptible to the human eye and had therefore eluded nineteenth century painters. Photography therefore offered science an important apparatus of truth production that could visually confirm the scientists' observations and statements.

Naturalists such as John J. Ward illustrated their accounts of nonhuman animal life with accompanying photographs that gave an added dimension of realism to the anthropomorphic narratives of the late nineteenth and early twentieth century. The photograph allowed the reader to see through the eyes of the naturalist and witness the activity of nonhuman animal life as the scientist saw it. For example, in the preface to Some Nature Biographies by John J. Ward, the author states, "The several life histories contained in this volume are largely the outcome of personal observations of Nature, as my camera work will prove [...]" (Ward, 1907, p. v). Photographic illustrations confirmed the truth of the naturalist's interpretation of nonhuman animal life and, reciprocally, the narrative directed the reader's interpretation of the photographic statement.

With the arrival of film and television as a means of mass communication in the twentieth century, the 'wildlife film' and the natural history documentary genre were the screen-based legacy of the nineteenth century illustrated naturalist narrative. The 'truth' of nonhuman animal life and behaviour could be recorded on film and the narrators' voiceovers replaced the written text of earlier print based narratives. Thus, the interaction between image and text, whether spoken or written, combined to produce an overarching truth statement about nonhuman animals and the term 'documentary' united the nature film with other texts considered to be non-fiction or factual.

Over the course of the development of the natural history documentary, three important institutions became involved in wildlife film and television production. Disney first exploited the commercial possibilities of wildlife films in 1948 when the organisation produced On Seal Island (1948), the first wildlife documentary in a series entitled 'True Life Adventures'. On Seal Island won an Oscar in 1949 for Best Short Subject (two-reel) and a BAFTA in 1951 for Best Documentary. The next film in the series, Beaver Valley (1950), achieved further successes winning an Oscar (1951), a BAFTA (1952) and awards at the Berlin International Film Festival (1951) and the Venice Film Festival (1950). Throughout the early 1950s, the Disney 'True Life Adventures' short wildlife films achieved critical acclaim and popular success winning both domestic and international awards.

In the UK, the BBC Natural History Unit was established in Bristol in 1957 to make nature documentaries for television. The series Zoo Quest (1954-1964) presented by David Attenborough established the reputation of the Natural History Unit with its inclusion of high quality location camerawork showing nonhuman animals in their own habitats. As with the nineteenth century naturalists, those working for the Natural History Unit (NHU) were both scientists *and* photographers or filmmakers. The NHU filmmakers distanced their practices from those employed by the Disney studios claiming that the 'True Life Adventures' films were scientifically inaccurate and used staged sequences (Parsons, 1971, p. 15). For technical and commercial reasons Disney's wildlife films had tended to concentrate on mammals and birds; however, in the 1960s, British natural history documentaries began to explore the lives and behaviours of insects.² An entomologist and four zoologists working at Oxford University began to develop new techniques to enable scientists to film microscopic and insect life. The group attracted the attention of the BBC and following the production of commissioned work for the Natural History Unit, the five Oxford scientists founded Oxford Scientific Films (OSF) in 1968. As I shall expand upon later, the work of Disney, the BBC Natural History Unit and Oxford Scientific Films during the 1940s,

1950s and 1960s established the genre conventions of the natural history documentary and, more importantly to my discussion, determined how nonhuman animals should be 'looked-at'.

The 'look' and looking

To situate my later discussion in this chapter of nonhuman animal patterns of looking within screen narratives I will first discuss the importance of looking in relation to power and define what I mean by a hierarchy of looks. Within mainstream cinema there are, according to Laura Mulvey, three kinds of looks and these 'looks' constitute the structuring of screen narratives. The looks that Mulvey identifies are those of the camera, the audience, and the characters. Mulvey argues,

There are three different looks associated with cinema: that of the camera as it records the pro-filmic event, that of the audience as it watches the final product, and that of the characters at each other in the screen illusion. The conventions of narrative film deny the first two and subordinate them to the third, the conscious aim being always to eliminate intrusive camera presence and prevent a distancing awareness in the audience.

(Mulvey [1975] 1999, p. 68)

By denying the technological process and the presence of an audience, cinema aims to present a realistic narrative within which the characters appear to be unaware of either the camera or the spectators. In an interview for the The Making of The Living Planet (1993), BBC Natural History Unit filmmaker David Attenborough echoes Mulvey's claims that wildlife documentary filmmaking attempts to deny the presence of the audience and camera when he states, "[...] all filmmaking and all recording is artificial because you are trying to give a person through artifice, trying to give the viewer through artifice, the impression that the camera is not there" (Interview with David Attenborough in The Making of the Living Planet, 1993). The ordering of the looks within a sequence therefore attempts to "reproduce as accurately as possible the so-called natural conditions of human perception" (Mulvey [1975] 1999, p. 64). One outcome of the hierarchy of looks is that the visual language constructed within cinema naturalises certain types of looking. For my purposes, the pattern of 'looks' within the

wildlife film and the natural history documentary are those of the camera, the audience and the filmed characters; the human presenter/naturalist and the wild nonhuman animals.

In Mulvey's feminist critique of mainstream cinema, the naturalisation of specific patterns of 'looking' is central to the oppressive form that the cinematic narrative takes. By adopting a masculinised position the camera privileges the male gaze in such a way as to objectify the female. One of the consequences of this is that the audience, unable to look in any way other than that dictated by the camera's 'look', is similarly positioned by the male gaze, and the objectification of the female becomes structured into the narrative of the film. What is important here is that Mulvey identifies that the practice of looking establishes a power-relationship and within this relationship the entity being 'looked-at' is objectified whilst the ownership of the gaze is granted the more powerful position. In the argument put forward by Mulvey, the object of the male gaze is sexualised and therefore the female presence within the screen narrative is constructed as an erotic spectacle. For the purposes of my argument I put aside the specific issue of the eroticised female body and instead focus on the issue of the power relationship that is established through 'looking'.

Looking both implies subjectivity and ascribes the 'looker' within the screen narrative with power. As Mulvey argues, when the woman is positioned as the object of the gaze she is objectified. Appropriating Mulvey's model, I contend that when the nonhuman animal is 'looked-at' the process of objectification is the same. Whereas for Mulvey this relationship describes the relations of power between male and female constructions, I argue that the objectification of the nonhuman animal similarly exposes the relations of power between human and nonhuman animals. Michel Foucault has also argued that practices of looking are part of a system of surveillance within which those being looked-at will internalise the gaze and regulate their behaviour accordingly (Foucault, [1976] 1990). It is of significance that both Mulvey and Foucault's theorisations of

looking regard power as implicit within regimes of looking. What is of central importance here is to establish how nonhuman animal looks and patterns of looking are constructed and how these relate to the objectification of, or attribution of subjectivity to, nonhuman animals.

As I have argued in the preceding chapters, the attribution of human characteristics to nonhuman animals is never neutral; humanisation obviates difference and difference is implicit within relations of power, particularly in oppressive regimes of power that rely on difference to justify exploitation. I have already referred to such regimes of power as those involved with nonhuman animal experimentation and intensive factory farming; in short those practices which are based on the exploitation of nonhuman animals. I want to emphasise that the attribution of subjectivity within the screen narrative positions the audience to identify with the nonhuman animal. This positioning therefore constructs a 'truth' about, and importantly empathy with, nonhuman animal experience. In Mulvey's model the attribution of subjectivity can be analysed through the hierarchy of looks within narrative fictions, therefore in appropriating this model I am arguing that the power relations between human and nonhuman animals can be understood through the ascribed patterns of looking. In short, the objectified nonhuman animal that is denied subjective positioning I regard as anthropocentrically constructed, whilst the ascription of subjectivity can be summarised, non-pejoratively, as anthropomorphic.

Continuity editing

The three looks within cinema can be translated into the system of continuity editing that was developed through the work of filmmakers D. W. Griffiths and Edwin S. Porter and consolidated within the Classical Hollywood mode of production in the 1920s. Continuity editing is a system of cutting together shots in such a way that they maintain the integrity of the narrative. Within this system a series of 'rules' are applied to enable the narrative to be cut together in a continuous form so that the audience is unaware of the change of shot. These conventions include, for example, the maintenance of the

180-degree rule, eyeline match, shot/reverse shot and match on action. During editing the continuity system retains the clarity of the narrative and avoids visual disruptions, such as a jump cut for example, that would make the audience aware of the transition from one shot to the next. In this way the visual stream of the film retains its narrative verisimilitude and the audience is guided through the filmic space. The sequence of shots therefore positions the audiences understanding of the narrative, the filmed subjects, and the spatial relations within the frame. In this sense there is a direct correlation between knowledge and 'looking' such that the shot positions the audience within a specific viewpoint from which they can gain understanding of the filmic space and the characters within that space. This location of audience understanding via the shot correlates with Mulvey's discussion of spectatorial positioning and the sequence of shots equates to the series of looks that defines the relationship between the audience and the filmed subject/object.

As a sequence of shots progresses the narrative meaning accumulates. The decision to cut, and the shot that follows, is dictated within the continuity editing system by the flow of the narrative. As the audience is usually positioned in such a way as to identify with a particular character on-screen, the narrative flow will be directed by the action of that character. Central to this relationship between the spectator and the on-screen subject is the relationship between viewpoint and point of view. Broadly speaking, viewpoint relates to Mulvey's look of the camera whilst point of view relates to the look 'owned' by the characters. However, camera and character viewpoint are ultimately the same in that what the audience sees is only ever what the camera looks-at, therefore the viewpoint of the camera and the point of view of the character are maintained as 'different' by the progression of shots and the rules of continuity editing. In this way it is the sequence of shots that dictates the difference between viewpoint and point of view. Camera viewpoint assumes the omniscient view of the action, whilst character point of view approximates the subjective 'looking' experience and therefore indicates the knowledge of that particular character. It is the shot that precedes and the shot that

follows, which determine the type of 'look' or viewpoint and therefore situates the knowledge of the spectator in relation to the narrative and the characters.

Transition from omniscient viewpoint to subjective point of view is often motivated by the direction of look of the subject from the omniscient shot.³ The shot that then follows will match the eyeline of the subject from either a literal viewpoint where the camera takes up the spatial co-ordinates of the subject within the filmic space, or from an approximate viewpoint, to reveal what the subject is looking-at. In assuming an approximate viewpoint the camera is positioned adjacent to the character or 'over-the-shoulder' of the character within the continuity system to give the spectator access to the character's subjective positioning. In the case of an exchange of looks or dialogue, the shot/reverse shot may be used to give the spectator alternative viewpoints, however in this situation it is seldom that the literal point of view is adopted and the over-the-shoulder shot is more often used.

Defining the natural history documentary

Bill Nichols (2001) argues that, generally, the documentary film employs evidentiary editing rather than continuity editing, and that this distinction, in part, distinguishes the documentary from the fiction film (Nichols, 2001, p. 27-28). Nichols describes evidentiary editing in the following way:

Instead of organizing cuts within a scene to present a sense of a single, unified time and space in which we follow the actions of central characters, evidentiary editing organizes cuts within a scene to present the impression of a single, convincing argument supported by a logic.

(Nichols, 2001, p.30)

According to Nichols, evidentiary editing is utilised to organise images in such a way that they support an overarching truth claim made within the narration. However, here I demonstrate that the natural history documentary, a sub-genre of documentary, also uses continuity editing to construct narratives whilst adherence to other generic conventions, dominant discourses of science, professional practices, and the

institutional frameworks that produce and distribute natural history documentaries, define such texts as different from other nonhuman animal narratives. I am not arguing here that all natural history documentaries or wildlife films utilise continuity editing exclusively. It is nonetheless my point that where continuity editing does occur, it is often involved in the anthropomorphisation of nonhuman animals. As I shall demonstrate and discuss, the patterns of looking that are established within continuity editing imply agency and subjectivity, and construct the nonhuman animal as a character within the narrative. By way of comparison, as Nichols argues, where evidentiary editing is utilised, the ordering of shots contributes to “the representation of a single process rather than the development of an individual character” (Nichols, 2001, p.30).

Evidentiary editing denies the construction of a ‘nonhuman animal character’ in the natural history documentary and instead utilises images of nonhuman animals to visually support the narration in relation to behaviour, specie-specific traits, and so forth. Such evidentiary editing is used, for example, in the opening sequence of ‘Victors of the Dry Land’ (Episode 7, Life On Earth, 1979) where four shots of marine iguanas are used to visually confirm four facts about reptiles which are asserted within the narration. The narrator states that reptiles live in the Galapagos Islands (medium shot of an iguana on a rock), reptilian ancestors lived in water (medium shot of an iguana in the sea), reptiles have scaly skin (close-up of an iguana’s skin) and reptiles have adapted to live in high temperatures (medium shot of iguanas basking in the sun). In this case, evidentiary editing does not construct a visual narrative but instead subordinates the visual image to the spoken narration which remains factual, objective, and authoritative in its content and tone. However, in the BBC Natural History Unit film A Mouse’s Tale (1988), continuity editing is employed extensively to construct the mouse as a character within a visual narrative. Although the narration remains factual throughout the film and refers to the generalised habitat and behaviours of house mice, the sequences which utilise continuity editing techniques construct a plot that

concentrates on a single mouse. Through the use of continuity editing, including multiple point of view shots, the mouse observes the humans from a hole in a wall assessing when it is safe to venture out to take food from the kitchen. Importantly, the continuity sequences in A Mouse's Tale adopt the viewpoint of the mouse throughout. In the BBC series Life In The Freezer (1994) evidentiary editing is combined with continuity editing, point of view shots and, in the first programme of the series, a flashback. Films such as A Mouse's Tale and series such as Life In The Freezer, and others which I shall discuss later, demonstrate that evidentiary editing is not used exclusively throughout natural history documentaries and that, in particular cases, continuity editing is appropriated to construct dramatic sequences that centralise a nonhuman animal as a character within an unfolding narrative. It is therefore particularly salient to my argument to establish that whilst evidentiary editing is used within natural history documentaries, continuity editing and associated patterns of looking are intrinsically tied to the anthropomorphisation of nonhuman animals within such texts.

To convey the text's scientific objectivity and authority John Izod and Richard Kilborn (1998) suggest that the wildlife film and the television natural history documentary has, since the 1950s, utilised an expository mode of address. In the delineation of different modes of address within the documentary genre, the expository mode is identified as one that addresses the audience directly and uses a narrator to guide the audience through their interpretation of the filmed event (Nichols, 2001, p.105). The narrator in these cases validates the scientific observation of nonhuman animals through the authoritative voice-over, which in turn directs the viewers' experience of the text. Such narration within the expository mode reinforces the objectivity of evidentiary editing. As Bill Nichols suggests, "Expository documentaries rely heavily on an informing logic carried by the spoken word. In a reversal of the traditional emphasis in film, images serve a supporting role" (Nichols, 2001, p.107). Karen D. Scott has similarly argued

that the conventions of narration in the natural history documentary genre determine, to a large extent, how the viewer will read the text. Scott writes,

The texts tend to be closed, with the relationship between the viewer and the text becoming more didactic as the space for individual interpretation by the viewer is minimized. This results in a "distancing" from the text, as the viewer is encouraged to be a passive observer rather than an active interpreter.

(Scott, 2003, p.31)

Within the nature film and natural history documentary the narrator may be the on-screen presenter/naturalist or may assume the role of the 'unseen speaker' in the 'voice-of-God mode' of narration.⁴ Natural history documentaries produced by Survival Anglia Limited for the Survival Specials programmes, for example, have made use of the 'voice-of-God' mode of narration, as have BBC 'series' such as Lifesense ([1991] 1992) and Supersense (1988) and early Disney wildlife films including On Seal Island (1948) and White Wilderness (1958). In the case of BBC Natural History Unit programmes such as Life On Earth (1979), The Living Planet (1984), and Trials of Life (1990) the presenter, David Attenborough, functions as both off-screen narrator and on-screen guide oscillating between a voice-of-God and a voice-of-authority mode of commentary.⁵

Scott and Nichols both argue that the image is subordinate to the narration within expository documentaries and, as such, the audience is denied the opportunity to make any meaning other than that directed by the narrator. The dominance of narration within the documentary is similarly noted and criticised by Robert Drew, the founder of the Direct Cinema movement, who states, "Narration provides the thread to hang the pictures, the opinions with which to colour the pictures, the facts, the reason, the measurements that give the pictures their logic" (Drew 1983 in Macdonald and Cousins, 1996, p.271). A film such as A Mouse's Tale adopts an expository mode of address that remains factual, authoritative, and non-anthropomorphic in its description of the general behaviour of the mouse. Yet this narration is combined with continuity editing resulting in the visual construction of the mouse as a humanised character

displaying agency, intent and subjectivity and producing a tension between the visual representation and the voice-over. In this and other cases, the narration does not override the anthropomorphic representation of the mouse and therefore the text cannot be regarded as 'closed' in the way described by Karen D. Scott. In Life In The Freezer, a sequence showing the mating ritual of a penguin eschews narration in favour of a musical score which constructs the penguins head bobbing, swaying, and body movements as a comical moment in the programme. Without narration, the penguin sequence has only the semiotic weight of the musical score to situate its meaning, and this produces a humanised burlesque representation of the bird.

Texts such as Life In The Freezer and A Mouse's Tale blur the distinctions between the factual and fictional and expose tensions between narration and image and emerge as exceptions to the genre conventions described by Scott, Nichols and Drew. Edward Branigan has also acknowledged that the documentary should not include subjective flashbacks or point of view shots and that "the traditional notion of the documentary is subverted by the use of such subjective devices" (Branigan, 1992, p. 202 & 285). It is therefore the texts which do include such subjective devices that are of particular interest here as they anthropomorphise the nonhuman animal subject and in doing so, potentially complicate the objective 'truth' claims of the natural history documentary.

Looking like Lassie

To examine how patterns of looking establish subjective positioning within screen narratives it is useful to make a comparison between a nature film and a screen fiction. In this way, I want to draw attention to the system of looks within an explicitly anthropomorphic screen fiction to explain how the appropriation of these conventions within the natural history documentary genre can be understood as problematic in relation to the scientific 'truth' claims of the texts. It is specifically the patterns of looking and the way in which they construct the subjective positioning of the nonhuman animal that is of importance here. As I shall move on to discuss, it is precisely this subjective

positioning which became particularly contentious within natural history documentary film making. The two sequences examined here are both 'chase' sequences from the films Lassie Come Home (1943) and White Wilderness (1958).

Lassie Come Home is the story of collie dog owned by the Carraclough family. Every day at 3.50pm Lassie goes to meet the young son from school however the Carraclough family fall on hard times and the family is forced to sell Lassie to a wealthy Duke. Lassie escapes from the Duke's kennels twice before being taken to Scotland where she escapes for a third time from her kennel pen and the cruel kennel-man Heinz, and makes the journey from Scotland to Yorkshire to be reunited with the Carraclough family. In terms of the overall structure of looking within Lassie Come Home the film can be clearly separated into two viewpoints, that of the humans and of the dog. The narrative structure privileges the human viewpoint from its opening scene until Lassie is put into the Duke's kennels. The dog's viewpoint takes narrative precedence during the journey back to the Carracloughs when, on Lassie's arrival at the family home, the human viewpoint again resumes its dominance. The oscillation between human and canine viewpoint is used as a narrative device to align spectatorial identification and therefore the viewer's sympathies.

By adopting the human viewpoint in the first scenes, the viewer can sympathise with the Carraclough family and their need to sell the much-loved family pet. The cut between shots is therefore motivated by the look of the human characters rather than the dog.⁶ The shift in viewpoint is signalled for the audience when Lassie attempts her first escape. Heinz the kennel-man tells Lassie that he will force-feed her before exiting the frame. Eerie tension-building music accompanies the cut to a close-up of Lassie's head looking toward the off-screen space in the direction of Heinz. An image of a clock is superimposed over Lassie's head as she begins to whine. The superimposed image visually articulates the motivation for Lassie to attempt an escape in order to meet the Carraclough's son from school. The shot is significant for the spectator in that it gives

knowledge of Lassie's internal thoughts and therefore her subjective experience, and from this point in the film Lassie's viewpoint appears dominant. The following series of edits in the scene is motivated by the dog's pattern of looks and centralises Lassie as the main protagonist and therefore the character driving the narrative forward.

In a later scene the Carraclough's son speaks to Lassie when she is returned to the kennels for the second time and the dialogue is accompanied by a classical shot/reverse shot pattern using over-the-shoulder shots approximating the eyeline of the dog. A later scene positions the spectator from the literal viewpoint of a dog/Lassie and includes one of the literal point of view shots in the film. In the dog-catcher scene, Lassie is chased by two men and finding herself trapped she finally jumps out of a top floor window to escape. The whole scene is filmed from the approximate viewpoint of a dog and toward the end of the scene the audience sees the dog-catchers from Lassie's literal point of view as they approach Lassie/the camera with the loop of the dog-catcher's pole ominously extended like a 'hangman's noose' toward the viewer (see: appendix 1, shot 27). A shot by shot analysis of the film clearly shows the importance of the dog's viewpoint to the narrative; the pattern of looking to establish the audience identification with Lassie and her predicament; and the construction of Lassie's subjective experience of the chase via the pattern of looking and the accumulation of meaning and knowledge established through the continuity system.

Throughout the scene the omniscient viewpoint always assumes that of a dog in that it approximates the eyelevel of a dog and the dog-catchers are therefore represented almost exclusively as running legs. Thus, the spectator is not only denied the dog-catcher's/human viewpoint but the viewpoint is restricted to that of a dog's eyeline. As the dog-catchers' heads and eyes are rarely in frame the majority of cuts, excluding shot three, are motivated by Lassie's pattern of looking which therefore privileges her subjective experience of the chase. Even though, at one point in the sequence, the dog-catchers look down from the window after Lassie has jumped, they exit the frame

and therefore the cut is not motivated by their look (see: appendix 1, shot 29). Rather the cut is motivated by the need to give the audience new information about the consequences of Lassie's jump.

Lassie Come Home naturalises the oedipalisation of the dog, that I noted in the previous chapter occurred during the first half of the twentieth century, and uses the structuring concept of 'the family' as both the motivation for Lassie to return to the Carraclouchs and as the pre-eminent mode of character organisation within the film. Lassie is understood in relation to her place within the family and the Carraclouchs are an incomplete 'unit' until Lassie's return. In this way the idealisation of the complete and reunited family at the end of the film signals narrative closure in ways that echo that of Rescued By Rover (1905). The discourse of the family and the cultural myth of the fidelity of the dog position Lassie as a quasi-human, however she is further humanised through the attribution of subjectivity and the spectator is brought into world of the dog's experience through the use of restricted viewpoint, point of view, and shot/reverse shot. The use of continuity system conventions collapses the viewpoints together such that the dog's viewpoint/point of view simultaneously constitutes the humanisation of the dog. As such the continuity conventions of mainstream film naturalise the spectator/Lassie identification by denying human/nonhuman animal difference in relation to subjective experience. The spectator adopts the viewpoint and the point of view of a dog and is therefore subsumed within the narrative by taking the literal place of Lassie in the dog-catcher scene. The viewer 'sees' what Lassie/the camera 'sees' and understands the point of view shot as a truth statement about Lassie's subjective experience.

White Wilderness(1958)

In the 1958 nature film White Wilderness, the same patterns of looking and subjective positioning of the nonhuman animal are in evidence. White Wilderness was produced by the Disney Studios as part of the 'True Life Adventures' series of films. The film was

directed by James Algar who is most notably associated with Disney for his direction of the Sorcerer's Apprentice sequence in the film Fantasia (1940). However Algar also directed thirteen nature documentary films for the Disney Studios between 1948 and 1975. Algar worked with editor Norman R Palmer who was also responsible for the editing of Beaver Valley (1950), another film in the True Life Adventures series, and the fiction films, The Legend of Lobo (1962), The Incredible Journey (1963), Rascal (1969) and The Shaggy D.A. (1976); all of which were fictional nonhuman animal narratives. It is of note therefore that the majority of Palmer's work after White Wilderness has involved the editing of explicitly anthropomorphic fiction films.

In terms of its cultural importance, White Wilderness is the film that constructed the myth of 'lemming suicide' which is still popularly considered to be factual. Within the film, lemmings are depicted jumping from the top of a cliff into the ocean below in an apparent act of altruistic suicide. Food shortages, due to over population, are cited by the narrator as the cause of the mass exodus over the Arctic cliff tops. However, lemmings are not indigenous to the Arctic region and the camera crew purchased the rodents then ushered the lemmings off the top of the cliff to create the sequence. Despite the staged sequences and factual inaccuracies of White Wilderness, the film was received as a factual documentary film. White Wilderness received the Oscar for Best Documentary Feature in 1959, won Best Documentary Feature Film at the Berlin Film Festival 1959 and was nominated for the Flaherty Documentary Award at the BAFTA awards in 1960.

What is particularly interesting about White Wilderness is that, despite using the expository mode of address and a 'voice-of-God' commentary, the film utilises continuity editing and, in doing so, shares the construction of spectatorial positioning with Lassie Come Home. In White Wilderness the dominant character changes from one scene to the next as each nonhuman animal inhabitant of the Arctic region is introduced to the audience. In this way, White Wilderness is constructed from a variety

of short stories which position one particular nonhuman animal or bird as the main protagonist. As in Lassie Come Home a tension-building chase sequence takes place within White Wilderness between a rabbit and a wolverine; and as in Lassie Come Home it is the nonhuman animal being chased that is attributed with the point of view shot thereby aligning the audience sympathy with the rabbit and not the wolverine. At the beginning of the sequence the initial cut is motivated by the direction of the look of the wolverine; the implication being that the wolverine is looking at the rabbit out of frame. However, in the chase sequence the rabbit is given the point of view shot on three occasions from inside a hollow log. The audience is then aligned with the literal, and therefore subjective, point of view at precisely the moment in the sequence when it appears that the rabbit is trapped in the log and escape is impossible. In this way, there are clearly strong parallels with the use of the point of view shot in Lassie Come Home where it is the moment that the dog appears to be trapped that the audience is privy to the canine subjective position. Thus in both chase sequences the point of view shot becomes absolutely crucial to achieving a critical tension within the sequence by collapsing the human viewpoint and nonhuman animal point of view together. It is at the point of entrapment within both sequences that the audience look-*with* and not *at*, the nonhuman animal. Apart from one high angle shot the rest of the shots within the sequence adopt the same nonhuman animal level viewpoint; the same convention that is used in Lassie Come Home. In White Wilderness as in Lassie Come Home tension is built through the sequence by increasing the pace of the edited shots and by the musical score which accompanies the whole sequence.

The examples of White Wilderness and Lassie Come Home illustrate how the same conventions of continuity editing have been applied to fictional and factual screen narratives. These conventions organise the hierarchy of looks to position the audience within the nonhuman animals' subjective experience thereby collapsing human/nonhuman animal difference through the point of view shot. It is the point of view shot that draws the audience into the subjective nonhuman animal realm such

that the viewer 'looks-with' the nonhuman animal and thus erases the objectified 'spectacle' to be 'looked-at'. The point of view shot combined with the dominant viewpoint emphasises the importance of the subject within the narrative and centralises that subject as the main protagonist. Looking from the nonhuman animal point of view allows an audience to identify with, and potentially empathise with, the subject's experience.

Utilising continuity editing rather than evidentiary editing techniques establishes the nonhuman human as an individuated 'character' within the narrative. In this way, even when a didactic expository voice-of-God narration accompanies the sequence, as is present in White Wilderness, the patterns of looking that are established within the flow of the visual narrative ascribe subjectivity and agency to the nonhuman animal. There is therefore an important relationship between the use of continuity editing and the establishment of the individuated animal as a 'character' through which the naturalist/audience is no longer 'looking-at' the nonhuman animal. Instead the nonhuman animal participates in the flow of looks and thereby denies its status as an objectified 'spectacle' to be observed. Through the use of continuity editing, viewpoint, and point of view, the nonhuman animal is individuated and active within the patterns of looking that construct the narrative.

According to Laura Mulvey the act of looking is integral to maintaining gendered difference within screen fictions. I contend that within the nonhuman animal narrative the same ideological process of assigning or denying the nonhuman animal 'the look' is essential to the maintenance or erasure of human/nonhuman animal difference. As I have already established in previous chapters human/nonhuman animal difference is pivotal to human/nonhuman animal power relationships and the late 1970s saw a re-evaluation of nonhuman animal subjectivity precipitated by discourses of animal rights, the environment and within the philosophy of science. What is of note therefore, is that point of view shots disappear from 'serious' natural history documentaries from the late

1950s until the 1980s. Evidentiary editing dominates during the same period and it is not until the late 1980s that continuity editing and the point of view shot emerges as a regular feature of the natural history documentary. As I have established that continuity editing, and particularly point of view shots, construct anthropomorphic representations of nonhuman animals it is my contention that the shift in filmmaking practices that I have outlined here has been discursively regulated by the dominant discourses of science that denied nonhuman animal subjectivity. Therefore the next section of this chapter examines in detail the context of practices that have constructed natural history documentary narratives and their relationship to the anthropomorphisation of nonhuman animals prior to the 1980s.

Looking at nonhuman animals

'Looking' within screen fictions implies subjectivity. As I have shown in my analysis of the dog-catcher chase sequence in Lassie Come Home and the wolverine and rabbit chase sequence in White Wilderness the relationship between patterns of looking, continuity conventions and point of view can naturalise nonhuman animal subjectivity within screen narratives. And, whilst the humanisation of nonhuman animals can serve the dramatic and narrative purposes of a screen fiction, in the case of television natural history documentaries the construction of nonhuman subjectivity has been problematic. For those involved in the popularisation of science for a television audience, the location of the natural history documentary on the border between science and entertainment has raised the complicated issue of balancing the characterisation of nonhuman animals with a 'truthful' depiction of behaviour.

Gerald Thompson, founder member and senior director of Oxford Scientific Films argued that the natural history filmmaker should be a scientist first, and a filmmaker second. Thompson claimed,

I have always regarded the camera, whether for stills or motion pictures, as a means of conveying information. The prime requirement of the wildlife cameraman is a sound knowledge of

biology rather than an expert knowledge of the art of photography. It is much easier for a biologist to learn to take photographs than for the reverse to occur, and the history of Oxford Scientific Films supports this view.

(Thompson, 1981, p. 23)

Statements such as those made by Thompson show evidence of the discursive link between twentieth century natural history film making and the photographic practices of nineteenth century naturalists. Within the popularised discourse of science, the camera has been considered a truth apparatus that records what the naturalist/scientist sees. To ensure that the truth of the observation is retained, Thompson argued that wildlife films should be made by 'scientists' and in this way the spectator would see nonhuman animal behaviour through the discursive regulation of scientific observation rather than being presented with a nonhuman animal narrative constructed by a filmmaker. The implication was, of course, that the 'filmmaker' would create a film that was contrived and would not accurately 'observe' nonhuman animal behaviour within the bounds of knowledge imposed by, for example, biology. Claims such as Thompson's were made to undermine the scientific accuracy of films such as White Wilderness which used fiction filmmakers as opposed to naturalists. Moreover, the editor for White Wilderness was experienced in the construction of fictional nonhuman animal narratives and the majority of his work after the Disney True Life Adventure series was in this genre.

What is crucial here is the distinction between the modes of observation undertaken by the scientist as opposed to the non-scientist. Implicit within Thompson's statement, the biologist or naturalist would view, and so record, the truth of the behaviour and be able to construct a narrative that correctly accords with the conditions of scientific knowledge: To apply this form of discursive regulation in relation to White Wilderness would raise two fundamental questions; does the rabbit even *have* a subjective position and, if so, is the camera accurately recording what that subjective experience would be? In this way the camera is constructed as an apparatus of truth, or as Thompson described it "a means of conveying information", which can provide a scientifically objective representation of nonhuman animal life only if the film maker constructed their

film according to existing scientific knowledge. As mid-twentieth century science disputed any claims to nonhuman animal subjectivity, the point of view shots within White Wilderness were explicitly anthropomorphising the rabbit by ascribing subjective experience.

However, many wildlife film makers tended to talk about anthropomorphism as an issue of the *narration* of the film and not necessarily an issue of shot type or editing. Film maker and naturalist David Attenborough, writing about the television series Life On Earth, argued that the dramatisation of natural history,

[...] risks imposing an appearance of purpose on the animal kingdom that does not exist in reality. Darwin demonstrated that the driving force of evolution comes [...] by the rigours of natural selection. In describing the consequences of this process it is only too easy to use a form of words that suggests that the animals themselves were striving to bring about change in a purposeful way [...] There is no objective evidence of anything of the kind and I have endeavoured, while describing these processes in a reasonably succinct way, not to use any phrases that might suggest otherwise.

(Attenborough, 1979, p.8)

As Attenborough's account shows, although writing more than a hundred years after Charles Darwin published his controversial The Expression of the Emotions in Man and Animals, the spectre of anthropomorphism, that so alarmed twentieth century behaviourists, still haunted the popularisation of science in the late 1970s. Similarly, George Page, executive editor of the television series Nature wrote, "In the early years of the Nature television series, we bent over backwards not to be anthropomorphic in the narration scripts for our programmes, We wanted our films to be scientifically accurate and to be taken seriously" (Page, 1999, p. 17).

What is interesting in both Attenborough and Page's accounts is that they both talk about anthropomorphism, in the form of subjectivity, purpose, and agency, as being located in the narration rather than the visual representation. These statements clearly indicate the dominance of a discourse of logical positivism that attempted to rid twentieth century discourse of the linguistic excesses of the nineteenth century.

Undeniably this logocentric positioning also emphasised important tensions between the two dominant discourses of science and popular entertainment that regulated the form of the natural history documentary. However, despite Attenborough's claims that anthropomorphism was located within the narration of the natural history documentary, the influential natural history series Life On Earth (1979) relied predominantly on evidentiary editing rather than continuity editing and only one point of view shot was used throughout the whole series. The point of view shot used in Life On Earth was from the subjective position of Attenborough himself. Even though the filmmakers appeared more concerned with objective narration, in Life On Earth there remained an implicit denial of nonhuman animal subjectivity, with the point of view shot being reserved only for the human naturalist throughout the series.

As Page's and Attenborough's statements indicated, and as I argue here, the credibility of the wildlife documentary as a scientific document of nonhuman animal life was founded upon a positivist rejection of the anthropomorphic statement. However, whilst it may have been possible to extinguish any anthropomorphic reference within the voice-over, the appropriation of the continuity system, in relation to patterns of looking within narrative filmmaking, was intrinsically tied to the attribution of purpose, intention, agency, and subjectivity to the filmed subject. In this sense, as I have demonstrated in my analysis of a factual and a fictional film, White Wilderness and Lassie Come Home, the conventions of the continuity system engage the audience in a fluid narrative and align the spectator with a human (or nonhuman animal) protagonist through subjective positioning, viewpoint, and motivated cuts. Therefore tensions arose between the need to produce a narrative of nonhuman animal life that was both entertaining and accessible to an audience and, the regulatory influence of scientific discourse to contextualise the representation with an objective narration. As I have already noted, Life On Earth did not include a single nonhuman animal point of view shot however, as I shall discuss, later Attenborough documentaries such as Trials of Life included numerous literal point of view shots. This is consistent with my claim that dominant

scientific discourses of nonhuman animal subjectivity changed in line with a corresponding change within natural history documentaries that included the overt use of the point of view shot to construct subjectivity. I propose however that it is only possible to understand the denial and later inclusion of the point of view shot if the body of natural history documentary work is retrospectively viewed within an understanding of the dominant circulating discourses. Therefore here, I will consider in more detail the establishment of natural history documentary conventions in the twentieth century.

Entertainment and truth

The early Disney wildlife films, such as White Wilderness, were criticised for their anthropomorphic and inaccurate depictions of nonhuman life and behaviour. At issue was Disney's use of continuity editing techniques, musical scores, and 'staged' nonhuman animal performances. According to Christopher Parsons, the first head of the BBC Natural History Unit, the natural history film maker had an obligation to the audience "to ensure that his film is true to life, *within the accepted conventions of film-making*" (Parsons, 1971: 14, emphasis in original). Parsons regarded all film as an "illusory medium" and recognised that the process of filmmaking was, by the nature of its practices, "deceiving the audience" (Parsons, 1971: 19). However, the issue for Parsons was how the qualities of the medium should be used to maintain a scientifically accurate depiction of nonhuman animals that did not succumb to anthropomorphic or erroneous portrayals.

Parsons was responsible for setting out the principles for wildlife filmmaking from his position as head of the BBC NHU, and it was under his leadership that the NHU gained international recognition for production of sequences for series such as Zoo Quest in the 1950s. Parsons' conventions for wildlife films adhered, only in part, to the continuity system. This was because whilst the wildlife film, according to Parsons, should not be contrived it must still command the viewer's attention:

A film that is no more than a succession of medium and close shots can easily turn out to be boring, however interesting the animal action may be [...] In many wildlife films the actual content of true wildlife shots may be 60 per cent or less. The remainder most probably consists of establishing shots of habitat, linking action shots involving humans on scientific work or travel, with atmospheric mood material to convey the changing of a season or time of day. In their own way, all of these can be used to change the pace and the mood of a film, and provide a setting for the real 'jewels', which are the hard-earned natural history sequences.

(Parsons, 1971, p. 144)

In this way, Parsons suggested that there was a clear demarcation between the sequences which created 'mood' and shared the continuity conventions of the fiction film compared to the objective sequences which depicted 'animal action'. This balance between subjective filmmaking and scientific objectivity was, for Parsons, critical to the construction of accurate yet entertaining natural history filmmaking.

Under the leadership of Christopher Parsons the BBC NHU was opposed to the practices of wildlife filmmaking used by Disney in the 'True Life Adventures' series which Parsons referred to as "controlled filming with higher animals" (Parsons, 1971, p.16). One of the techniques which Parsons objected to was the use of "tame or semi-tame individuals as characters in a scripted story, rather like actors" and he stated,

[...] similar techniques are used in the production of so-called 'true-life' cinema films involving only 'wild' animals. It is true that these films are usually intended to provide pure entertainment [...] but the implication that they show natural animal behaviour is misleading.

(Parsons, 1971, p. 16)

Parsons' criticisms were directed specifically toward the Disney True-Life Adventures series which had, for example, used constructed sequences of 'lemming suicide' and fiction film editing techniques yet had still been received as serious documentary films. Parsons argued that the pressure on directors to achieve good box-office returns severely compromised the reality of the films. He claimed that cinema wildlife films tended to include too many scenes of confrontation for the sake of drama and therefore conceded to performance over narrative truth. The truth of nonhuman animal behaviour should not be sacrificed for the sake of dramatic spectacle and Parsons stated that "if

the film has been advertised as a true-life document then the audience has been deceived” (Parsons, 1971, p.19).

The BBC NHU was, however, not averse to using semi-tame or tame subjects in the production of natural history documentaries (Parsons, 1971, p.19). In certain situations the economics of film production militated against the possibility of capturing particularly important shots as the time required to film a natural history programme was dependent on the film maker being in the right place at the right time with the camera running. Filming could range from weeks to months, or years in the case of Life On Earth and Disney’s White Wilderness. Within the context of production economics the use of semi-tame nonhuman animals reproducing ‘real’ behaviours was, for the NHU, the only viable option available. The inclusion of shots of semi-tame nonhuman animals or ‘staged’ shots of particular behaviours was however justified by the authority of the naturalists’/scientists’ knowledge of behaviour to construct a final ‘truthful’ account in the editing suite. As Parsons commented, “A natural history film can be *absolutely* truthful only for the duration of each individual scene, but as a whole it must give a truthful *impression* in film terms” (Parsons, 1971, p. 19 emphasis in original). In other words, each shot is a truthful representation of the activity that has occurred before the camera, however it is the responsibility of the filmmaker to ensure that the combination of each of the ‘truthful shots’ becomes an edited film that offers a ‘truthful’ overall representation of nonhuman animal behaviour as dictated by scientific discourses. What is crucial to note here is that editing techniques were considered vital in constructing the overall scientifically truthful portrayal of nonhuman animal action. Therefore as long as the finished film constituted a truthful account then the inclusion of staged shots could be justified.

Technologies

In addition to the cost implications of extended filming time, the technical limitations of camera equipment meant that some shots were only possible to achieve using ‘staged’

footage. During the 1960s and 1970s, both the NHU and the pioneering Oxford Scientific Film used studio-based or constructed sets to film sequences that would otherwise prove impossible to film under 'natural' conditions. Technical issues involved in the filming of 'wild' nonhuman animals centred on two main obstacles: the distance between photographer and subject, and the design of the camera. Wildlife filmmakers favoured 16mm cameras over 35mm when filming 'in the field'. The lighter 16mm cameras proved more transportable and an equivalent 400 feet length of film for a 35mm camera gave only four minutes of filming as opposed to eleven minutes on a 16mm format.⁷ Noise from the camera, however presented a problem in wildlife filming as the sound of the film running through the camera or the click of the camera being switched on and off could disturb the filmed subject. One way in which many wildlife camera operators overcame this problem was with the use of a 'blimp', a sound-proof box that was fitted round the camera. The blimp, however added considerably to the weight of the camera making it unwieldy and sometimes restricting easy access to the camera controls. Observation of 'wild' nonhuman animal behaviour more often than not made it necessary for the camera and operator to be 'out of sight' of the subject and the long distances between filmmaker and subject required that the camera was fitted with a telephoto zoom lens. As the use of a zoom lens magnifies camera shake, cameras had to be positioned on tripods and often the complete filming apparatus would then be concealed in a 'hide' or 'blind'.⁸ The technical limitations of the camera restricted easy movement from location to location and often made crucial close-ups difficult to acquire. Staged shots could therefore be justified as important to establish the 'truth' of the behaviour under observation, or critical to the integrity of the narrative. Oxford Scientific Film filmmakers, George Bernard and John Cooke, in their account of filming harvest mice described the problems they encountered and the 'staged' solution in the following way:

Whereas the two rabbits were to a great degree tame and tolerant of a good deal of disturbance, the harvest mice, the stars of another project, would at the slightest sound dive headlong into the vegetation. [...] So I used a 105mm macro-lens which allowed me to photograph their antics beyond the critical distance of fright and flight.

A set had to be made that gave the appearance of depth, but which, in fact, restricted the mice to a filmable zone in front of the camera. This tromp-l'oeil was achieved by positioning a clean glass sheet across the set, thereby giving the mice a depth of twenty centimetres in which to perform.

(Bernard & Cooke in Thompson et.al. (1981, pp. 62-63)

Given that the objective of natural history documentary filming was to observe, record, and reconstruct 'real' nonhuman animal behaviour for a general audience, it was necessary for the filmed subjects to act as though they were unaware of the camera and audience. In this sense, the natural history documentary complied with Mulvey's description of the cinematic narrative in that the looks of the camera and the audience were subordinated to the look of 'the characters' within the film, with, as Mulvey points out, "the conscious aim being always to eliminate intrusive camera presence and prevent a distancing awareness in the audience" (Mulvey [1975] 1999, p. 68). The use of 16mm cameras, hides, blimps, sets, and telephoto lenses therefore constructed a specific visual style in natural history documentaries in the 1960s and 1970s that was motivated by the drive to produce a mimetic copy of 'natural' behaviour.

However, as Andre Bazin (1972) argued, filmic representation is never mimetic. Bazin contended that the development of cinema technology has been dependent upon the need to offer the audience "as perfect an illusion of reality as possible within the limits of the logical demands of cinematographic narrative and of the current limits of technique" (Bazin, 1972, p. 26). Whilst Bazin was referring to deep-focus and synchronised sound technologies, the kernel of his argument is still applicable here. From the range of available technologies at the filmmaker's disposal, the natural history filmmaker was impelled to use specific types of apparatus by the need to reproduce the 'illusion of reality', in other words filmed 'natural' behaviour. The tensions implicit within the natural history documentary were therefore that 'reality' was conditioned by the discourses of science that defined 'natural behaviour' whilst film is, as both Christopher Parsons and Bazin pointed out, an 'illusory medium'. In this sense then, the logocentric

assumptions of filmmakers such as Attenborough and Page that a non-anthropomorphic narration would firmly align the natural history documentary with scientific 'realism' can be understood as a strategy for managing the paradox inherent within wildlife filming.

Documentary discourses and the institutional framework

What is apparent from the claims of natural history filmmakers is that there has been a constant struggle between the need to adhere to scientific accuracy whilst maintaining popular appeal and working within the conventions of established filmmaking practices. For the Natural History Unit, and Christopher Parsons, it was important that the distinction between the BBC productions and those of Disney were made apparent. Disney's True Life Adventures films were considered overtly anthropomorphic through their use of staged sequences, point of view shots, and inappropriate musical scores and editing techniques, used to appeal to a popular audience. Erik Barnouw briefly notes in Documentary: A History of the Non-Fiction Film, "Disney was criticized by naturalists for "anthropomorphizing" animal life; through his editing and his use of music, he often seemed intent on portraying animals as burlesque humans" (Barnouw, 1983, p.210). To illustrate this criticism of Disney, on the issue of music in wildlife films for example, Christopher Parsons stated, "Music should be used sparingly in any documentary film, but even more carefully in wildlife films; in strictly scientific behaviour films it is out of place in any case" (Parsons, 1971, p.190).

Yet, as I have demonstrated here, with the exception of the point of view shot, the NHU programmes did share many filmmaking conventions and practices with the Disney productions. How then, were the BBC programmes established as factual documentaries in opposition to the Disney films which were considered by the NHU to be works of fiction? With acknowledgement of Bill Nichols' (2001) model for defining the documentary, I suggest that the "institutional frameworks" for production and distribution and the "community of practitioners" that work within those frameworks

were crucial to the discursive construction of texts as either factual or fictional. As Nichols writes:

It may seem circular, but one way to define documentary is to say "Documentaries are what the organizations and institutions that produce them make." [...] This definition, despite its circularity, functions as an initial cue that a given work can be considered as a documentary. The context provides the cue; we would be foolish to ignore it even if this form of definition is less than exhaustive.

(Nichols, 2001, p.22)

And, in relation to the discursive regulatory relationship between institutions, practitioners and cultural production, Nichols notes, "An institutional framework also imposes an institutional way of seeing and speaking, which functions as a set of limits, or conventions, for the filmmaker and audience alike" (Nichols, 2001, p.23).

Whilst there was a significant sharing of formal conventions between the NHU productions and the Disney wildlife films, the institutional frameworks within which the films were produced were fundamentally distinct. The Natural History Unit operated under the public service broadcasting remit of the BBC from its establishment in 1957. The public service ethos of the BBC required that, whilst the programmes had to be entertaining, the need for them to function as vehicles of information and education distanced them from the commercial constraints and market forces governing productions from the Disney studios. In terms of the relationship between institutional organisation and the practitioners involved in the production of programmes for the BBC, within both the NHU and Oxford Scientific Films, the status of the practitioners as scientists first and filmmakers second, underpinned an explicit commitment toward objective, factual production regulated by the discourses of science and the practices of scientific observation. In the case of Disney, the commercial imperatives and obligation to produce popular entertainment justified the utilisation of non-scientist filmmakers in the production of the True Life Adventures series.

The network of similarities and differences between the BBC and Disney productions is complex. There were clear differences between the institutional frameworks and ethos

of the two organisations, a dissimilar emphasis on the specialist knowledge of the practitioners, and a consequent disparity within the corpus of texts produced by each. The BBC NHU programmes reflexively validated the use of the shared conventions through the institutional framework that contextualised the productions within a 'serious' public service broadcasting philosophy. From this emerged a binary opposition wherein the BBC natural history programmes were serious documentaries made by scientists, whilst the Disney wildlife films were anthropomorphised fictions made by filmmakers. The Disney wildlife films were received as factual documentaries by audiences and other institutions demonstrated through the enduring myth of the lemming suicide from White Wilderness, which still retains cultural legitimacy, and through the numerous awards in the documentary categories that the films won at festivals. However, by the 1960s, the BBC NHU natural history documentaries redefined the conventions of natural history filmmaking and established the dominant regulatory limits that were to be imposed on wildlife films. Produced and distributed by an institution that became synonymous with 'quality' programming the BBC programmes functioned to retrospectively consign the Disney productions to the category of anthropomorphised fictions.

Editing looks and point of view

The orthodox conventions of natural history documentary filmmaking that were defined through the BBC Natural History Unit did recognise the illusory qualities of film as they allowed for the cutting between shots of different nonhuman animal subjects filmed at separate locations or on different days. In this way, maybe two or three different lions, for example, would be filmed on separate days but in the editing process, these shots would be cut together in such a way that the viewer would think that they were watching continuous action of the same lion. What was important for the filmmakers however was to ensure that the individual subjects were similar enough so that the audience do not notice the differences. Parsons explained the process in this way:

The sequence can be built up by shooting additional scenes of both the predator and its prey (albeit with different individuals of the same species), and these can be edited together in a logical sequence immediately before the kill. In this way the audience will be prepared for what is about to happen and will be more appreciative of the action when it occurs.

(Parsons, 1971, p. 172)

Parsons' notion that there should be a logical sequence of events was ultimately prescribed by the continuity system. As such, Parsons' logic was the logic of narrative continuity that was naturalised through conventions of shot construction and editing. In a 'kill sequence' tension and narrative flow was built in ways identical to that of the narrative fiction. Parsons made it clear that continuity rules should be applied in certain dramatic sequences and the flow of shots should take account of the direction of movement and the patterns of looking. In this way, the edited shots were, to some extent, motivated by the 'looks' of the nonhuman animals, and by the direction of their bodily movement. Parsons wrote:

For example, a lucky shot of a lioness killing a zebra could be built up, first by using establishing shots of a herd of zebra grazing, a group of lions nearby, closer shots of zebra, some on the alert, a shot of a lioness stalking, zebra running away, and the key shot of the kill. All the directions must be correct at the start of the kill shot, and the zebra at the alert must look in the direction of the approaching lioness; but there is no reason why a number of shots like these, taken on different occasions, should not make a perfectly acceptable, truthful, and quite dramatic sequence.

(Parsons, 1971, p.172)

However, whilst Parsons, and the BBC NHU, adhered to the conventions of the continuity system for the drama of a 'kill sequence' it was not until the 1980s that the point of view shot was incorporated into the narrative flow of the natural history documentary; a point which is made evident by consideration of David Attenborough's Trials of Life series broadcast in 1990.

What is particularly important to note about the programmes made by or with the involvement of David Attenborough is the status of the presenter/naturalist. As Kilborn and Izod and others have noted, "it has become almost *de rigueur* for wildlife documentaries shown on the BBC to have some involvement by David Attenborough"

(Kilborn and Izod, 1997, p.225, see also Scott, 2003). Programmes made by or with Attenborough have achieved a status wherein audiences have come to expect “the highest standards” within the genre (Kilborn & Izod, 1997, p.225). Therefore, it is particularly important to examine the use of point of view shots within such texts as these programmes have been widely recognised as defining the dominant conventions and standards of production within natural history filmmaking.

Whilst Attenborough had implicitly and explicitly avoided the construction of nonhuman animal subjectivity and anthropomorphism within the narration of Life On Earth in 1979, in the 1990 series, The Trials of Life, the use of the point of view shot to construct the subjective experience of the nonhuman animal was clearly evident. In The Trials of Life the motivated cut and point of view shot were used throughout the series. For example, in episode 2 of the series, ‘Growing Up’, a sequence depicting a short confrontation between an arctic fox and a family of snow geese begins with a close-up of a snow goose’s eyes and head. The next shot is motivated by the look of the snow goose to a close-up of the arctic fox which looks to the right. These two shots, when cut together, suggest that the snow goose has seen the fox and the fox has seen the goose then runs toward it. A long shot of the arctic fox running from left to right maintains the consistency of the direction of look. Once the fox has run past the snow goose there is a cut to a medium shot of the fox looking to the left; thus looking back in the direction of the goose. The final shot is a long shot of the goose looking to the right; in other words, in the off-screen direction of the fox. The utilisation of these continuity techniques establishes the fox and the goose as individuated characters within the visual narrative. In episode 4, ‘Living Together’, a series of motivated cuts is used to depict a family of chimpanzees looking upward to spot their ‘prey’ in the tree canopy above their heads. Six different close-ups of chimpanzee heads with eyes looking upward are cut together with shots of a Diana monkey, a spot nose monkey, and a red colobus monkey. The shots of each monkey are from the point of view of the chimpanzee on the ground. Episode 3, ‘Hunting and escaping’, similarly includes a series of motivated cuts and

point of view shots in a very impressive sequence depicting killer whales attacking sealions at the water's edge. From the fifteen shots that make up one of the key 'kill sequences' of the killer whale attack, six shots are from the killer whale's literal point of view. The sequence follows the same conventions as White Wilderness and Lassie Come Home in that the pace of the editing speeds up and the point of view shots are used, along with the musical score, to increase the tension.⁹

The Trials of Life was shot over three and half years and used many individual nonhuman animals, filmed over the course of days or months, to construct sequences that, once edited together, appeared to show action in a continuous flow. The sequence of shots in the natural history documentary must progress in a way that fulfils audience expectations but still, according to Christopher Parsons, accurately interpret nonhuman animal behaviour. For the filmmaker this means that although they can record multiple individuals the final film must be edited in such a way as it suggests to the audience that they are watching the behaviour of just one individual. As long as the individuals do not have any immediately obvious differences in, for example colour, that the audience would notice as continuity errors, multiple individuals are more often filmed then cut together as if it were the action of just one nonhuman animal. Thus, multiple whales are reduced to the individuated whale and the continuous representation of the subjective experience of the 'hunt' is maintained through the adherence to narrative construction and the continuity system. The audience 'sees' what the whale is looking at, and this is ultimately framed by the discourse of science that supposes that the scientist/filmmaker will 'see' and reconstruct the behaviour in a scientifically accurate way.

Despite the range of shared conventions between the natural history documentary and the nonhuman animal screen fiction there was, as I have already mentioned, until the 1980s, a reluctance to use the literal point of view shot within factual wildlife films. Shots that adopted the viewpoint of the nonhuman animal and cuts motivated by the

look of the filmed subject approximated subjective experience however the literal point of view shot was avoided. As OSF filmmaker George Bernard noted, "one rule I try to abide by, whatever the mood, is to never to patronize the subject- I always try to get down to its level, as if the world is being seen from its point of view" (Bernard & Cooke in Thompson et.al, 1981, p. 60). In this way, viewpoint was emphasised above point of view. In technical terms, it was not until the 1980s that camera technology had advanced to a point when images suitable for broadcast could be achieved with the use of small cameras attached to nonhuman animals (Elliot, 2001). However, as the example of White Wilderness shows, lack of advanced technology in no way militated against the use of the literal point of view shot which could be achieved by placing traditional cameras at the spatial co-ordinates that the nonhuman animal was assumed to have occupied in the previous shot. As I have already established, the practices of wildlife filmmakers were regulated by the dominant discourses of science, particularly within the BBC Natural History Unit. In this sense one has to look beyond technological issues to the changes in scientific knowledge that conditioned the construction of nonhuman animal narratives in natural history documentaries to understand why the literal point of view shot emerged as a convention in the late twentieth century.

Nonhuman animal subjectivity

Until the 1970s, behaviourism and positivism did constrain the discourses on nonhuman animals by denying subjective experience and the associated anthropomorphic statement, and reducing all activity to objectively described behaviour (see chapter two). However, in the mid-twentieth century dissatisfaction with the reductive principles of behaviourism had started to pave a slow return to ideas about nonhuman animal minds and emotion that had been dismissed at the end of the nineteenth century. Aligned with this was a new interest in the appropriation of anthropomorphic interpretation. In 1954 ethologist, Konrad Lorenz rejected the restrictions of behaviourism in his book Man Meets Dog (1954) and wrote in an openly anthropomorphic way. In an interview in 1991, Lorenz claimed,

I tell animal-loving audiences, "your dog is much more stupid than you realize but emotionally he is much more similar to you than you realize" [...]

It is really a mental illness of humanity to believe that something that cannot be defined in terms of the exact nature of science, or cannot be verified by analytical mathematics, has no real existence. In other words, our values are emotional: friendship and truth are illusions. If you believe that everything loses its sense'

(Lorenz, 1991, pp. 200-202)

In Man Meets Dog Lorenz recounted anecdotal evidence to support his claims for the 'friendship', 'intelligence' or capacity for admiration that he contended were all attributable to the canine. Although opposed by many behaviourists, Lorenz's work gained much public attention, and signs that faith in the scientific humanism of the early twentieth century was beginning to erode were emerging by the late 1950's. Cognitive ethologist, Donald Griffin had begun his work on the bat's use of ultrasound in the mid-1950s which was met with rejection by many scientists who could not accept that a bat could hear something that human hearing could not detect. However, Griffin published his study on echolocation, Listening In the Dark, in 1958 and following a meeting with philosopher Thomas Nagel, Griffin began to give serious consideration to the idea of nonhuman animal consciousness (Griffin in Bekoff & Jamieson (eds) 1990, p. xiv; Page, 1999, p. 36). By 1991, Griffin had developed a new approach to the study of nonhuman animals which he called 'critical anthropomorphism' which advocated the pragmatic use of anthropomorphic interpretation. In 1974 however, it was Thomas Nagel's seminal article 'What is it like to be a bat?' that signalled the profound change in scientific thinking about nonhuman animals and led to wider acceptance of the possibility that subjective experience was a valid, if not fundamentally important, avenue of scientific enquiry.

Subjectivity is the conscious experience of an individual and in 1974 Nagel went against the grain of dominant thinking when he called for a re-evaluation of subjective experience of nonhuman animals. Although the very question of nonhuman animal consciousness was rejected within the scientific establishment, Nagel argued that this

was a consequence of reductionism within modern science. Nagel challenged the reductionist position and claimed that a new theory of conscious mental phenomena was needed. He did not however consider that such a change in thinking would happen quickly. Nagel argued,

Most reductionist theories do not even try to explain it. And careful examination will show that no currently available concept of reduction is applicable to it. Perhaps a new theoretical form can be devised for such a purpose, but such a solution, if it exists, lies in the distant intellectual future.

(Nagel, 1974, p.435)

Nagel used the example of the bat to underpin his central argument, namely that the subjective experience of a nonhuman animal could not and should never be measured against that of a human due to the fundamental physical differences between the two. If human consciousness is always to be used as the yardstick for subjectivity, Nagel proposed, then the approach would always be flawed. Using echolocation, the bat's experience of the world was ultimately always profoundly different to that of a human using the five senses. Nagel proposed firstly, that bats have experience and, secondly, that experience is rooted in the physical form of perception used by the bat. The problem, argued Nagel, is that humans were incapable of understanding the subjective experience of the bat because human imagination is limited to human perceptual experiences.

Our own experience provides the basic material for our imagination, whose range is therefore limited. It will not help to try to imagine that one has webbing on one's arms, [...]; that one has very poor vision [...]; and that one spends the day hanging upside down by one's feet in the attic. In so far as I can imagine this [...], it tells me only what it would be like for me to behave as a bat behaves. But this is not the question. I want to know what it is like for a bat to be a bat. Yet, if I try and imagine this, I am restricted to the resources of my own mind, and those resources are inadequate to the task.

(Nagel, 1974, p. 438)

Although Nagel made no mention of anthropomorphism, the implications for anthropomorphic practice were considerable. Nagel was, in effect, arguing for the subjective experience of the nonhuman animal to be recognised on its own terms. Instead of applying a human frame of reference to the bat and therefore

anthropomorphising the creature, Nagel argued for a different approach to understanding nonhuman animal conscious experience based upon individual physical perceptual characteristics. However, Nagel's approach required that subjectivity in itself could not to be considered a solely human attribute and that it was imperative to begin with the assumption that every animal had conscious experience of the world. Herein existed the paradox of Nagel's proposals; although he offered a way of thinking about nonhuman animal experience by arguing that subjectivity was determined by physicality, dominant discourses of mind still maintained that subjectivity, as conscious experience, was a uniquely human attribute. What was needed was a re-evaluation of the singular subjective experience and a turn toward recognition of 'other subjectivities'. This change began to occur in the late 1970s and was without doubt buoyed by the intellectual endeavours of those concerned with female, black and gay subjectivity through feminism, postcolonialism and queer theory. In this way, discourses of other human subjectivities began to pave the way for a re-evaluation of nonhuman animal subjectivity. I am in agreement with Cary Wolfe on this subject when she writes that the nonhuman animal has remained the "repressed Other" that has only recently been called into question due to the crisis of humanism and the poststructuralist interrogation of the human figure (Wolfe, 2003, p.x).

The shift in scientific thinking can be related to broader shifts in philosophical discourses away from humanism and toward relativism. The turn toward relativism had material consequences for popular science in that there was a noticeable shift in the construction of nonhuman animal subjectivities within natural history documentaries in the latter decades of the twentieth century. One aspect of this change was the inclusion of nonhuman animal point of view shots which positioned the audience to identify with the nonhuman animal experience. This change was most apparent in the BBC trilogy of natural history programmes: Life On Earth (1979), The Living Planet (1984) and The Trials of Life (1990). The first series Life On Earth originally transmitted in 1979 used only a *human* point of view shot yet, by 1990, the third series in the trilogy, The Trials of

Life used only *nonhuman animal* point of view shots and did not include any human point of view shots. The anthropomorphic practices that had been utilised by Disney and criticised by the BBC NHU were once again authorised by popular science in the late twentieth century. This shift in the discursive construction of nonhuman animals was concomitant to the construction of nonhuman animal subjectivity in ethology, biology and cognitive science.

The construction of nonhuman animal subjectivity within popular science discourses became particularly apparent in natural history television documentaries of the 1980s and 1990s. In addition, the emergence of television 'pet' programmes, and a swathe of popular science literature about nonhuman animal emotion and agency further muddled the boundary between popular science and fiction during the 1990s (see for example, Masson & McCarthy [1994] 1996 When Elephants Weep and Masson (1998) Dogs Never Lie About Love). In a cultural climate saturated with the normalisation of 'other' subjectivities, through discourses such as feminism and postcolonialism, the inclusion of nonhuman animal subjectivity into popular culture found little resistance. In natural history documentaries, a series titled Supersense, transmitted between 5th December 1988 and 23rd January 1989 on BBC 1, claimed to explore, "the remarkable world of animal senses, presented from the unusual viewpoint of the creatures themselves" (Downer, 1988, p.7). The six programme series epitomised the relativist constructions of the nonhuman animal in its attempts to depict the vast range of sense perceptual experiences in animals other than humans. In other words, the series sought to, "reveal how each animal forms a unique view of the world" (video cover for Supersense series, 1995). However, the filmmaker, John Downer, was clear that the construction of nonhuman animal subjectivity was firmly conditioned by the changing discourses of science when he stated,

What exactly is the animals' view? Fortunately science can now tell us how most animals interpret the world as research has revealed much about their senses. I have used this information, where

possible, to provide an impression of how we are actually perceived by other creatures.

(Downer, 1988, p. 7)

The aim of SuperSense, to present on-screen the nonhuman animal subjective view of the world dictated by their physicality and perceptual processes, attempted to answer Nagel's fundamental question, 'What is it like to be a bat?'. In doing so, SuperSense clearly indicated the shift in thinking about nonhuman animals that had occurred between the mid-1970s and the late 1980s. Whilst Nagel's challenge to reductionist views of nonhuman animal consciousness had been radical within the scientific establishment in 1974, by 1989 the nonhuman animal's subjective view of the world had found its way onto television screens as part of the popularisation of science by the natural history documentary. The emergence of nonhuman animal subjectivity within popular science thus reflected the corresponding shift within discourses of science.

Subjectivity and Super-senses

Supersense achieved the highest viewing figures for a natural history documentary in the year that it was first broadcast.¹⁰ The six programmes in the series focused on different 'senses': 'extra-sense', sight, sound, smell, and time. Each programme offered a representation of the unique experiences that different nonhuman animals have of the world, dependent upon their biologically defined forms of sense perception. There was a clear emphasis on the inadequacy of the human senses that was highlighted at the beginning and end of the series. Supersense opened and closed with the 'humble goldfish' which, the programmes claimed was able to 'see more colours' than humans and so makes sense of the world in its own unique way. What was immediately apparent and distinctive about the Supersense series was that it constructed embodied nonhuman animal subjectivities under the auspices of 'science'.

The Supersense series went beyond the construction of narratives that only sought to represent nonhuman animal behaviour; rather, the series depicted on-screen the unique embodied nonhuman animal experiences of the world. An embodied subjectivity

takes account of both the sensual lived experience of the material body and the regulatory forces that govern it. Bryan Turner usefully describes his own embodiment in the following way:

Like other phenomena in the environment, I can touch, feel, smell and see my body. However, I require my body in order to carry out this touching, feeling, smelling and seeing. In exercising control through embodiment, I have immediate and first-order possession over my body in a way that I do not experience with respect to other objects.

(Turner, 1997, pp 219-220)

In Supersense, the construction of embodied nonhuman animal subjectivities was conditioned by the knowledge claims of science. The series was based on the relativistic claim that all animals experience the world differently, dependent upon their particular and unique form of embodiment. The on-screen construction of nonhuman animal experience utilised a range of film technologies and conventions, most particularly the overtly subjective literal point of view shot, in addition to fast and slow motion and manipulated sound. Thus, within the series, the use of technologically manipulated literal point of view shots positioned the audience in such a way as to approximate the nonhuman animal 'experience' of the world. As producer John Downer commented, Supersense was the first natural history documentary to attempt to depict the world as it is seen by nonhuman animals. However, in representing subjective experience the series broke with many established conventions within the genre. As I argued earlier, wildlife filmmakers had to utilise specific pieces of technology to accurately represent natural behaviour within the bounds of scientific observation and knowledge. Conditioned by new thinking about nonhuman animals Supersense linked behaviour to embodied subjectivity and, in doing so, had to appropriate a different technological apparatus of 'truth production'. Thus, the programme used the cinematic conventions of the subjective camera shot combined with postproduction 'pixellation' and colour correction of the image, to approximate, for example, the world seen through the compound eye of an insect. Slow motion was used to approximate the time-based experience of the world of a housefly and manipulated (slowed-down) sound positioned the viewer in the range of audibility experienced by bat. In this way,

Supersense attempted to represent on-screen the subjective sensory experience through manipulation of the image, thereby removing it one step further from the mimetic aims of earlier natural history documentaries.

However, Supersense was unable to fully realise Nagel's ideal of understanding what it is like to be a bat, or any other nonhuman animal for that matter. The translation of echolocation as subjective embodied experience for the screen was inevitably limited to a reconstruction through image and sound. The depiction of bat perception was impoverished by the limitations of the human senses and imagination but also by the technological constraints of the medium. Nagel made the distinction between the human experience of being a bat and the bat experience of being a bat which was, in the case of Supersense, reduced to the visual and aural experience demanded by television. Whilst the point of view shots used throughout the series merged the human viewpoint and the nonhuman animal point of view, the constraints of the medium precluded anything other than a weakened approximation of nonhuman animal perception. As Laura Mulvey has noted, the conventions of screen narratives attempt to "reproduce as accurately as possible the so-called natural conditions of *human* perception" (Mulvey, [1975] 1999, p.65, my emphasis). Thus there is always a tension between the representation of nonhuman animal subjectivity and the patterns of looking that condition screen narratives. Given that, as Nagel proposes, the nonhuman animal subjective experience is determined by its physicality which will always be different to that of a human and the screen narrative is always regulated by the conditions of human perception the representation of nonhuman animal subjective experience will always be humanised and therefore anthropomorphic. Even within the relativist framework that admits the subjective experience of the nonhuman animal, this is still regarded as a unique embodied subjectivity and similarly for the human, perception determined by physicality is always unique to the human experience of embodiment. For this reason, the screen narrative can only ever be a uniquely human view of the individual nonhuman animal subjective experience. Nonetheless, despite its

failure to accurately reproduce the experience of the nonhuman animal Supersense undoubtedly signalled the arrival of a new form of natural history documentary that purposefully included the point of view shot into its conventions. Moreover, the depiction of subjective experience on-screen was underpinned by scientific discourses that legitimated the truth of nonhuman animal subjectivities.

The extent to which the natural history discourse is conditioned by, and makes apparent, different knowledge claims can be illustrated by a comparison of the Supersense series, with the follow-up series Lifesense. Whilst the Supersense series constructed the embodied experience of nonhuman animals conditioned by the discourses of sense perception; the Lifesense series was discursively conditioned by environmental and animal rights discourses.¹¹ As I argued elsewhere, the discourses of nonhuman animal subjectivity and animal rights effectively undermined the dominance of reductive views about human/nonhuman animal difference (see: chapter two). Using the same technologies and conventions to depict nonhuman embodied subjectivity as the Supersense series, Lifesense was discursively themed around the relationships between human and nonhuman animals from the nonhuman animal perspective. This approach privileged the nonhuman animal view of the world above that of the human and took the construction of nonhuman animal subjectivity in a different direction. In Lifesense the embodied sensory experiences of nonhuman animals, as members of an integrated natural world, were depicted in their relationships with humans. The cover of the video collection articulated the discursive construction of the series:

How do we appear to the animals who share our lives?
From the two million dustmites who inhabit our beds every night to the macaque monkey picking 800 coconuts every day- animals are an integral part of human life...But what do they see? What is the influence of our actions on their behaviour? [T]his unique six part BBC TV series... provides the answers using stunningly innovative film and video techniques to truly show how our lives appear through animal eyes.

(Video cover, Lifesense collection, 1992)

Whereas Supersense had been conditioned by the concept of unique embodied sensory experience, Lifesense examined the relationships between human and nonhuman animals with the emphasis on the nonhuman animal experience of such relationships. Shaped by the dominance of discourses of the environment, animal rights and contemporary ecological concerns, Lifesense privileged the nonhuman animal viewpoint and point of view: The shift toward the popular depictions of anthropomorphised nonhuman animals had thus been clearly established by the 1990s. However, what is most important about this point connects back to my early comment regarding the significance of the natural history documentary in constructing popular understanding of nonhuman animals and being considered the most accurate genre of programming on television. The use of such constructions has been instrumental in raising contemporary concerns about wild nonhuman animals. Such sentiments have been most recently expressed by Sarita Siegel, the director of The Disenchanted Forest (2002), who notes:

As science has become increasingly accepting of filmmakers' needs to communicate with broad audiences via vivid and accessible language that contains metaphors and analogies, which may or may not be anthropomorphic, we should see increased cooperation between science and media in aid of conservation efforts.

(Siegel, 2005, p.221)

In an interview with a representative from the Spanish Cetacean Society for Making Waves (2001), a documentary about the making of the natural history series The Blue Planet (2001), scientist Ricardo Sagarminago remarks,

The presence of film crews on a ship like this is definitely very important. We are not just doing research for academic purposes, we are doing it for conservation so public awareness is a very important part of our programme. It is no use for us just to come up with scientific results, we actually have to get this through to the public; to the politicians that take the measures.

(Interview with Ricardo Sagarminago in 'Making Waves', 2001 on The Blue Planet, 2001, Video 3, at 1 hour, 42 minutes)

Comments such as Siegel's and Sagarminago's make clear that a political agenda is linked to the natural history documentary. As Siegel notes, anthropomorphism is central to communicating with a mass audience and this locates the discursive and

anthropomorphic construction of nonhuman animals as a crucial aspect of contemporary cultural politics.

Natural history documentaries and the cultural construction of nonhuman animals

Given that the myth of 'lemming suicide' that was constructed within Disney's White Wilderness in the mid-twentieth century still retains cultural legitimacy, and that natural history documentaries can still currently attract UK audiences in excess of eight million, the significance of such narratives of nonhuman animal life cannot be overlooked. As Kilborn and Izod remark, "Traditionally, natural history programmes, in all their many guises, have been highly prized for their capacity to generate large, appreciative audiences at peak times" (Kilborn & Izod, 1997, p. 224). However over the last sixty years of wildlife films and natural history documentaries, the tensions between science and popular discourses have placed the nonhuman animal narrative in a precarious situation. Balanced between scientific truth and popular entertainment, the natural history documentary has had to tackle the thorny issue of anthropomorphic interpretation.

The anthropomorphic conventions of the 1950s Disney wildlife films that were so heavily criticised by 'serious' scientist filmmakers have now become a regular feature of contemporary natural history documentaries. Point of view shots, amusing or moody musical scores, flashbacks, and individuated nonhuman animal 'characters' have figured prominently within series such as Trials of Life, Life In The Freezer, Blue Planet, Lifesense and Supersense in addition to BBC NHU wildlife films such as A Mouse's Tale and Brockside. Evidentiary editing sits comfortably alongside continuity editing in many of these programmes, incorporating the subjective nonhuman animal gaze into the flow of looks that construct on-screen narratives. The nonhuman animal is attributed with subjective experience and audiences empathise with the nonhuman animal through spectatorial positioning.

The use of fiction film devices such as narrative and plot within documentary, more generally, has been debated throughout much academic work (see, for example, Kilborn & Izod, 1997, pp. 115-134; Winston, B., 1995, pp. 99-123; Nichols, 2001, pp. 91-99). As Izod and Kilborn have remarked,

[T]here has always been a lively debate amongst documentarists and critics over the legitimacy of certain techniques in the shaping of the documentary account. What indeed, is the status of works bearing the documentary label when so many are structured in much the same way as the fiction works to which they are said to be diametrically opposed?

(Izod & Kilborn in Hill & Gibson, 1998, p. 427)

To address Izod and Kilborn's question, I would argue that natural history documentaries now incorporate fiction film devices precisely because such devices are able to construct the subjective experience that contemporary knowledge conditions suggest is now attributable to nonhuman animals. The constructions of nonhuman animals as subjective individuated 'characters' are acknowledged by scientists as beneficial in raising public awareness of conservation issues and therefore it is crucial to recognise that anthropomorphic representations of nonhuman animals have become intrinsically tied to wider political agendas. However, such shifts do not signal a 'return' to older conventions nor a simple change in the 'style' of natural history documentary productions. Rather, these shifts must be situated within the changing knowledge conditions and emergent discourses of nonhuman animal subjectivity that have regulated and set limits on what can and what cannot be said about nonhuman animals. It is also crucial to recognise that the institutional frameworks within which natural history documentaries and wildlife films have been produced and distributed have, as I have demonstrated, reinforced particular conventions and practices.

Bill Nichols argues that, generally, the documentary genre from the 1980s onwards has shifted to favour what he refers to as a performative mode. Performative documentary, he claims, "freely mixes the expressive techniques that give texture and density to

fiction (point of view shots, musical scores, renderings of subjective states of mind, flashbacks and freeze frames, etc.) with oratorical techniques for addressing the social issues that neither science nor reason can resolve" (Nichols, 2001, p.134). Although Nichols is referring to documentary in a much broader sense, I would suggest that many contemporary natural history documentaries now blend the didactic traditions of the expository mode with elements of the performative mode. What is most significant about this shift, for my purposes, is that the conventions of the performative mode within natural history documentaries construct anthropomorphic representations of nonhuman animals and these are, as the recent Ofcom report would suggest, received by audiences as accurate. To return to John Berger's argument, in the introduction to this chapter, that nonhuman animals have been relegated to mere 'spectacle', I would contend that there are specific cultural sites where this is not the case. As such, nonhuman animals are no longer only 'looked-at'; instead natural history documentary audiences 'look with' and experience the subjective world of the nonhuman animal.

Endnotes

¹ This list of periodicals that published natural history articles has been restricted to those that published accounts by three of the naturalists that I have focussed on within this thesis: John J. Ward, Grant Allen and Rev. F. White. The periodicals mentioned here are therefore not offered as a comprehensive list.

² The BBC Natural History Unit also versioned The Undersea World of Jacques Cousteau into English and broadcast the programmes during the late 1960s and 1970s as part of The World About Us series.

³ A cut may also be motivated by the need to present the audience with new information, for example by cutting from a close-up to a medium shot to give information about the spatial relationship between subjects.

⁴ The voice-of-God narration is one in which the speaker is heard but never seen (Nichols, 2001, p.105).

⁵ The voice-of-authority commentary is one where the speaker is heard and also seen (Nichols, 2001, p.105).

⁶ The narrative can be generally broken down in to the three sections that I identify on the basis of whether the human or the dog motivates the cut, however there are two exceptions to this during the first section of the narrative (Lassie waiting for the son outside the school, and Lassie waking up the son). The dog's viewpoint is used to establish the close bond of affection that exists between the young son and Lassie. The two moments when the dog's viewpoint is privileged are important to the narrative as they provide the motivation for Lassie to return home. However, whilst being aware of these switches in viewpoint, I have, for the purposes of clarity here chosen to describe the structure of the narrative as having three separately identifiable sections.

⁷ These figures relate to film running at a standard 24 frames per second.

⁸ A hide or blind is a simple construction, similar to a tent, usually made from brown or green canvas that allows the camera and camera operator to conceal themselves from the wildlife subject.

⁹ However, in the Trials of Life sequence the point of view shots belong to the predator and not the 'victim'. Interestingly this example in the Trials of Life positions the audience from the point of view of the nonhuman animal aggressor complicating the binary oppositions of 'good' victim and 'bad' predator. With the emphasis on point of view shots and motivated cuts the audience is positioned to identify with the predatory nonhuman animal thereby eliminating the alignment of sympathy with the hunted and locating the hunter as the main protagonist in each sequence.

¹⁰ Source: BARB

¹¹ This shift is most clearly emphasised in the programme credits where the scientific advisors listed include for example James Serpell (Associate Professor of Humane Ethics & Animal Welfare).

Chapter Six

Speaking of nonhuman animals

In this concluding chapter I provide a critical assessment of the contemporary discourses of anthropomorphism and connect these with a history of anthropomorphic practices that has been the focus of this project. Here I am primarily concerned with how contemporary images of anthropomorphised nonhuman animals are used to organise meaning within a late twentieth and early twenty-first century risk society. Using Ulrich Beck's theorisation of the risk society to frame my argument, I am specifically concerned with unpacking a relationship between anthropomorphism, ontological risk, and material risks to human health and welfare that has so far not been addressed within recent academic work. I established in the previous chapter that the attribution of subjectivity to nonhuman animals within cultural texts such as the wildlife film and natural history documentary was apparent by the early 1990s. Emergent discourses within experimental psychology, animal behaviour, philosophy and zoology constructed nonhuman animals as subjective, conscious agents, whilst discourses of conservation, animal rights, and ecology made apparent the complex networks that linked humans to nonhuman animals. As I have already demonstrated, such discourses have shaped various aspects of cultural practices and production and differences between human and nonhuman animals have been, in some spheres, gradually eroded. One crucial aspect of this erosion has been a shift in the authority of cultural practices and texts which anthropomorphise nonhuman animals through the ascription of emotion, subjective experience and, as I shall discuss in this chapter, language.

Nonhuman animal subjectivity and its associated cultural constructions is part of the wider late-twentieth century rejection of humanism which acknowledged 'other' subjectivities and eschewed the notion of a singular unified human history or experience under the rubric of postmodern relativism.¹ The practices that attributed

nonhuman animals with emotion and subjective experience did not however signal a wholesale cultural shift toward the appropriation of anthropomorphic practices. Whilst the cultural climate was suitably conditioned for the construction and representation of 'other' subjectivities, it is precisely this climate that also emphasised human ontological insecurity. In this sense, the notion of the unified coherence of the human as a unique entity that was separated by virtue of specific characteristics from the rest of the natural world, and had been centralised by scientific discourses, was under threat. Thus, an ambiguous relationship between humans and anthropomorphism has emerged.

On one hand, nonhuman animal subjectivity has been actively promoted under the conditions of postmodern relativism (Singer in Atterton & Calarco (eds), 2004, p.xi; Wolfe in Wolfe (ed) 2003, p.x). On the other hand, the emergence of 'other' subjectivities has complicated the coherence of humanness and provoked ontological anxieties. Through the appropriation of anthropomorphic practices there has also been a shift in the distinctions between wild and domestic nonhuman animals wherein wild nonhuman animals are now often constructed as 'at risk' whilst other domestic nonhuman animals are positioned as 'risks' to human health and welfare. What is important within this discursive configuration is that the cultural texts and practices that anthropomorphise nonhuman animals have played a significant role in constructing the popular understanding of nonhuman animals as 'other' subjectivities, and as I shall discuss here, as a strategy for dealing with the risks now posed by and toward nonhuman animals.

In this final chapter I focus on two crucial aspects of our contemporary interactions with anthropomorphism. Firstly, I demonstrate that the 1980s marked a shift in the construction of human/nonhuman animal difference and that contemporary ontological insecurity has become linked to an understanding of the nonhuman animal as an unstable category of 'difference'. I propose that anthropomorphic texts and practices

are a consequence of the shift in knowledge conditions and that they reinforce the instability of human/nonhuman animal difference. Secondly, I argue that particular domestic nonhuman animals have emerged as risks to human health and welfare and this has engendered the production of a new discourse which I term 'abject animality'. I propose that anthropomorphic practices have emerged as part of our cultural strategy for dealing with abject animality. In short, nonhuman animals now pose two kinds of risks: ontological risks to previous conceptions of humanness, and material risks to human health and welfare. Both forms of risk are connected via anthropomorphism.

I suggest that the shift within which these configurations arise can be readily located within the theoretical framework proposed originally by Ulrich Beck (1992) as the 'risk society'. The risk society emerges from the confrontation with the effects of modernization that precipitate, what Beck (1992) refers to as, reflexive modernity. I maintain that under the rubric of reflexive modernity, the reconfiguration of pets and farmed nonhuman animals as 'risks' occurs through discourses of, for example, Bovine Spongiform Encephalopathy (BSE), dangerous dogs, and foot and mouth disease. In contrast to these forms of abject animality, wild nonhuman animals have been repositioned as 'at risk' within discourses of the environment, ecology, conservation and endangerment. I therefore propose here that one cultural strategy that has emerged to deal with the material risks posed by abject animality is the development of 'technological animals'. These 'technological animals' are anthropomorphised liminal creatures that sit at the border between machine, human, and nonhuman animals. Technological animality, I maintain, offers a secure cultural enclave where safe sanitised forms of animality can be safely experienced and managed.

A Risk Society

Discourses that have disrupted the distinctions between human and nature, human and nonhuman animal have emerged within, what Ulrich Beck refers to as, a risk society. Under these conditions, the human body is now positioned as vulnerable and

humanness is conceived of as problematic. Since the late twentieth century, category distinctions that had been secure within modernity have been eroded, blurred, and dissolved. The destabilisation of modern science and the emergence of environmentalism, animal rights, cyborg, and artificial intelligence discourses, have upset distinctions between human and 'other' and consequently human ontological security has been challenged.

Environmentalism effectively disturbed the safety that modern science had offered human progress and showed that humans were intimately connected to the natural world (see chapter two). Human and nonhuman animals were linked through shared 'food chains' and waterways. The effects of modern industrial practices that had supported the regeneration of the postwar West were re-positioned as damaging to the 'global environment'. As such, the consequences of the chemical and biological control of nature and nonhuman animals were re-evaluated in the late twentieth century and discursively configured as cumulative threats to human health.

BSE, foot and mouth, environmental pollution, and food poisoning bacteria such as salmonella, *E.coli*, and *Listeria monocytogenes*, have been linked to intensive industrial practices, farming, slaughter, and food production. As a consequence, food scares have highlighted new risks to the human body and taken for granted practices such as nonhuman animal slaughter and eating have become subject to close scrutiny through new forms and patterns of state and self-regulation. Ultimately it has been the nonhuman animal body that has been configured as harmful, a carrier of disease and death, and that has been discursively aligned with notions of abjection in both the registers of 'animal' and 'food'. According to Julia Kristeva, the abject refers to a breakdown in meaning elicited by things that are, "on the fragile border (borderline cases) where identities (subject/object, etc.) do not exist or only barely so—double, fuzzy, heterogeneous, animal, metamorphosed, altered, abject" (Kristeva, 1982, p.207) The abject, she argues, is signalled by, "[t]hese body fluids, this defilement, this shit

are what life withstands, hardly and with difficulty, on the part of death" (Kristeva, 1982, p. 3). In light of Kristeva's concept of the abject I argue that risk and abjection have been conflated to produce a discourse of 'abject animality'. I also propose that abject animality can be usefully conceptualised within the model of 'risk society'.

The conditions of change in the late twentieth century mark the transition into 'reflexive modernity' and the emergence of a 'risk society'. According to Ulrich Beck, reflexive modernization indicates the transformation from industrial modernization to a confrontation with the effects of modernization. Beck accounts for the transition in two phases:

[F]irst a stage in which the effects and self-threats are systematically produced but do not become public issues or the centre of political conflicts...Second, a completely different situation arises when the dangers of industrial society begin to dominate public, political and private debates and conflicts. Here the institutions of industrial society become the producers and legitimators of threats they cannot control.
(Beck, 1997, p.5)

In other words, modernization produces 'side effects' or threats (particularly ecological and environmental side effects) that traditional institutions are unable to deal with, giving rise to public insecurities and anxieties that are characteristic of a 'risk society'. What is especially important to an understanding of a 'risk society' is the changing relationship between science and society; rather than arising as a consequence of the failure of the project of modernity, risk society emerged as a series of responses to its success (Beck, 1992).

There is a clear distinction to be made, however, between the 'dangers' of modernity and the 'risks' of reflexive modernity. Modernity was characterised by 'personal risks', that is, risks that were contained and localised and often connected to an undersupply of hygienic technologies (Beck, 1992, p.21). Reflexive modernity is, however, identified with 'global' risks rather than personal risks. Ulrich Beck summarises this distinction as follows:

The concept of risk is directly bound to the concept of reflexive modernization. *Risk* may be defined as a *systematic way of dealing with hazards and insecurities induced and introduced by modernization itself*. Risks, as opposed to older dangers, are consequences which relate to the threatening force of modernization and to its globalization of doubt.

(Beck in Beck, Giddens & Lash, 1994, p. 21, emphasis in original)

Within reflexive modernity, risks are the side-effects of modernization that have gone undetected within modernity. Thus, industrialised modernization produced hazards that were not immediately apparent until the latter half of the twentieth century; at which point, modernity begins to become reflexive.

Modernity becomes its own axis of reflexivity; however, reflexivity in this sense does not describe a process of reflection but rather the concept of self-confrontation (Beck, 1997, p. 5). Risks, within reflexive modernity are the undesired effects of industrialisation that only become apparent in the transition from modernity to reflexive modernity; these risks are not chosen or selected but rather they are the outcomes of industrialization within modernity. Reflexive modernity thus emerges at the point of confrontation with these risks. As such, the identification of risks precedes institutional change and authorities, still operating under the auspices of industrial modernization, are unable to control or deal with the side-effects of industrial modernization. As Beck maintains:

On the one hand, society still makes decisions and takes actions according to the pattern of the old industrial society, but, on the other, the interest organizations, the judicial system and politics are clouded over by debates and conflicts that stem from the dynamism of risk society.

(Beck in Beck, Giddens & Lash, 1994, p.5)

Within reflexive modernity there are no 'quick-fixes' as there were for the hazards of modernity; reflexivity demands confrontation with the threats that operate on a de-territorialised and thus, global scale. An outcome of this transition into risk society is that it gives rise to public anxieties and distrust in authoritative institutions. Risks are thus, objects of competing discourses; they are constructed variously through the

media and the disparate disciplines of scientific, anti-scientific, and pseudo-scientific knowledge (Beck, 1994, pp. 22-23). Moreover, the concept of risk segues into emergent forms of ontological insecurity within reflexive modernity that expose the vulnerability of both the human body and the epistemological category of 'human'. Thus, I would argue that modernity could be characterised by the certainty of the knowledge claim '*this* is human', whilst reflexive modernity is most adequately characterised by the uncertainty of the question '*what* is human?'

Managing difference

Ontological security is intrinsically linked with knowledge systems that produce meaningful boundaries separating humans from others. The most immediate problem is, and has been, one of classification. Consequently, when 'Others' have been shown to be 'like us', strategies of management are imposed to re-negotiate difference and re-define humanness. For example, the nineteenth century human/nonhuman animal continuum proposed by Darwin was overturned in favour of twentieth century behaviourism and positivism that re-defined difference between humanness and animality (see chapter three).

Despite carving out a uniquely human place in the world, through discourses of difference, the boundary between humanness and 'otherness' remains slippery. This potential confusion gives rise to anxieties about what it is to be properly human. Where established boundaries are crossed or transgressed resolution to the problem is often achieved through the re-establishment of difference and the ideological management of things into their proper place. At stake, is the balance of power between humanness and otherness in whatever forms that may take and strategies of 'difference' are then used to justify oppression, marginalisation and exploitation; a point that I made with regard to the threats posed by the humanisation of nonhuman animals to the progress

of humanism at the end of the nineteenth and beginning of the twentieth centuries (see chapter three).

One of our human strategies for managing things into their proper places has been to use images of animals to organise understanding. I drew attention to this ideological management in previous chapters and demonstrated how nineteenth century concerns about gender and race appropriated anthropomorphised nonhuman animals to legitimate oppressive social hierarchies. Similarly, in Madness and Civilisation, Michel Foucault has suggested that there is a connection between madness and animality saying "It has doubtless been essential to Western culture to link, as it has done, its perception of madness to the iconographic forms of the relation of man to beast" (Foucault, [1961] 2001, p. 77). Akira Lippit has also argued that "because they [animals] have been denied the status of conscious subjects, animals [have been] sought as the ideal figures of a destabilized subjectivity" (Lippit, 2000, p. 25). In other words, whilst constructing, establishing and maintaining difference between human and 'animal', we (humans) have used images of animality as a means of organising our understanding of what it is to be human, rational and social. Given that nonhuman animals provide a mechanism with which humans can construct, define, re-negotiate and ultimately manage humanness and otherness, the production of knowledge about animality and human/nonhuman animal difference has been pivotal to the organisation of power, control and social regulation in various discursive contexts.

However, within recent discourses of cognitive ethology, experimental psychology, philosophy, and animal rights, nonhuman animals have been configured as subjective beings which possess many of the attributes formally ascribed only to humans: language, consciousness, emotion and subjectivity. Artificial Intelligence and studies of animal language have also upset the distinctions between 'human' and 'animal' and 'technology'. In this sense, contemporary knowledge production has once again problematised notions of what constitutes animality and reproduced the nonhuman

animal as a conceptual 'risk' to notions of human uniqueness. Alongside the blurring of the boundary between human and machine, theorised within the cyborg discourse, the contemporary human/nonhuman animal continuum can be understood as an 'ontological' risk which differ from what I class as 'material' risks. Whilst both ontological risks and material risks are part of a larger economy of risk and insecurity that characterise contemporary life, material risks should be regarded as threats to the corporeal body. With regard to nonhuman animals, material risks arise from the threat of disease, infection or physical harm to the human body. Ontological risk is characterised by conceptual risks to humanness and to the classification of humans as different to nonhuman others.

The discourse of 'risk' has been central to the establishment of the abject status of nonhuman animals. Broadly speaking, the discursive formation of 'risk' can be understood as being concerned with the protection of the human body from threats to an idealised and naturalised status which Anne Balsamo argues is constructed as "healthy, enhanced and fully functional" (Balsamo, 1995a, p. 216). With regard to locating 'risk' temporally, it can be generally observed that during the late twentieth century the abject nonhuman animal body has been irreconcilable with healthy, clean social human bodies. Dominant discourses have prescribed distance, containment and the destruction of abject nonhuman animals as appropriate methods to maintain the welfare of humans from the risks of disease, death or injury. In short, aberrant nonhuman animals have had to be eliminated from the human world and the institutional management of 'abject animality' has been echoed in the restructuring of cultural relationships between human and nonhuman animals. What is crucial to emphasise here is that the management of risk has material consequences for the lives and treatment of nonhuman animals.

The widespread anxieties about the risks associated with nonhuman animals in the late twentieth century have been institutionally reflected in the UK through legislative

change, increased government expenditure on research and the reorganisation of government departments (see for example, The Welfare of Animals (Slaughter or Killing) Regulations 1996, Statutory Instrument 1995, No. 731; Fresh Meat (Beef Controls) (No 2) Regulations Statutory Instrument 1996, No. 1; Food Standards Act 1999, Animal Health Act 2002, The Transmissible Spongiform Encephalopathies Regulations 2006, Statutory Instrument 2006, No. 68). Government strategies have included the compulsory slaughter of 'mad cows' and 'mad dogs' and the introduction of canine breed specific legislation (Dangerous Dogs Act 1991) that has been designed to completely eradicate certain types of dogs in the UK and, in its various international forms, across much of Europe and the United States.² Discourses of hygiene and sanitation have been fundamental to the changes in farming and slaughter practices and to changes in cultural practices such as meat-eating and companion animal ownership. The shifts that emerged during the later decades of the twentieth century have been reflected in decreases in meat sales, a decline in dog ownership, and an increase in the number of unwanted companion animals in animal rescue.³

At the locus of these institutional and cultural shifts, human and nonhuman animal bodies have been reconfigured as sites of anxiety, risk and vulnerability subject to management and regulation. Indeed, protecting the human body from the risks of dangerous nonhuman animals has engendered the reorganisation of cultural practices and emergent strategies for managing abject animality. In short, I argue that humans now indulge in forms of technofetishism to reorder relationships between nature/animality and culture/humanness. Cultural practices such as 'pet-keeping' now include safe, easily controllable, clean animalised technologies such as Furby, Tamagotchi, and robopets, and CGI and animatronics offer humans sanitised versions of managed 'animal worlds'. The outcome of changes to cultural practice has been that nonhuman animals have been 'made safe' by being anthropomorphised and, in reorienting animality toward humanness, the pleasures of animality can be

experienced 'in safety'. Technologically mediated nonhuman animals attenuate both conceptual and the material risks in that they are clean, safe, and do not attract the moral or ethical responsibilities associated with 'flesh and blood' nonhuman animals.

The paradox of nonhuman animal bodies within discourses of risk is that those nonhuman animals that have been controlled and engineered by humans, for example dogs, sheep, cows, and hens, have emerged as threats to the human body; and those that were previously considered 'dangerous' are now constructed as vulnerable within ecological discourses. Thus, the 'wild' nonhuman animal connects more closely with humans than the domestic nonhuman animal, in that it shares the threats of environmental risk with humans. In this sense the categories of 'wild and dangerous' and 'safe and domesticated' have been upset and distorted by emergent discourses in the late twentieth century.

What is peculiar about the risks of reflexive modernity is that they are globalized rather than localised, and arise as a consequence of industrial modernisation. Thus, the risks of reflexive modernity are often conceived of as those directly concerned with 'the environment': nuclear fission, global warming, chemical poisoning, acid rain, destruction of the rain forests, BSE, etc., (Beck, Giddens & Lash, 1994; Lupton, 1999; Franklin (ed), 1998; Beck, 1999; Jagtenberg & McKie, 1997; Adam, Beck & Van Loon, 2000). Nonhuman animals have become discursively positioned as 'risks' to the human body, when they are reorganised within the register of 'food'. In this sense the intensive farming practices of modern industrialisation produce risks such as BSE and egg-related salmonella. Whilst BSE, for example, may be conceived of as a direct outcome of the effects of industrial modernisation within farming practice, it is no less the case that pet-keeping practices are an outcome of industrial modernisation. As such the 'risk' of toxicariasis from dogs, the dangers posed by the 'dangerous dog' and the potential for cross-specie infection (or zoonoses) in other domestic or companion nonhuman animals are the side-effects of industrial modernisation that brought

nonhuman animals into the domestic sphere. In this sense, I want to make clear my argument that cultural practices such as pet-keeping are as much a consequence of industrial modernisation as environmental pollutants.⁴

Beware of the dog

The iconography of 'the hellhound':

fig 6: Poster for Cujo (1983)

fig. 7: 'Snarling Dog' in MCN 18th July, 2001, p.1.

fig. 8: Still taken from The Simpsons (1992) episode, 'Dog of Death'

In relation to the discursive positioning of companion canines in the late twentieth century, I contend that the domestic dog has been constructed as a key site of risk. In this sense canines threatened the safety and well-being of humans due to the established cultural practices of pet-keeping within urban environments. The late twentieth century construction of the abject canine reconfigured discourses of the nineteenth century that I have discussed elsewhere. Specifically the twentieth century discourse emphasised the issues of 'fouling', 'straying' and 'aggression' as major risks to human health and welfare. The control of fouling and straying had been part of the discourse of training that had regulated the animality of the oedipalised dog in the early twentieth century whilst constructions of canine aggression had functioned as an ideological signifier of class and moral depravity in the nineteenth century (see chapter four). In the last two decades of the twentieth century the risks of toxicariasis, thought to be contracted through human contact with canine faeces, in addition to the threat of

being bitten, mauled or killed by straying or aggressive dogs gave rise to a new moral panic about the dangers of the domestic dog.

Images of abject animality were constructed within media discourses and established a set of conventions for representing 'dangerous dogs'. In his analysis of representations of nonhuman animals, Steve Baker has referred to these conventions as 'the iconography of the hellhound' (Baker, 2001, p.170); a set of conventions which formulate a construction opposed to those I have proposed have constructed the happy emotional dog during the twentieth century. Typically the images of 'abject animality' depict the head of a large dog, wide eyed, with gaping jaws, looking directly at the viewer and caught by the camera at the moment of 'attack' (see: figs. 6-8). Indeed the potency of images of abject animality resonate throughout late twentieth century fictions with the same conventions of representation apparent in the 'hellhounds' of The Omen films, the guard dogs belonging to the evil Mr Burns in The Simpsons cartoon series and in the film Cujo (1983). Such cultural depictions of abject canine animality retain linkages with mythological canine figures such as Cerebus, the guardian of Hades in Greek mythology, Garm the four eyed hound that guarded Helheim in Norse mythology and Chontamenti the dog headed god of the underworld in Egyptian mythology. The abject canine within mythology is always situated at the boundary between life and death. Contemporary images of the abject canine also share the iconography that had been apparent in nineteenth century depictions of the cross-breed and the fighting dog that I discuss elsewhere. In this sense, the abject canine maintains associations with social disruption, violence and aggression, and with the nineteenth century working class construction of the fighting dog wherein 'beauty' is intimately tied to the disfigurement of the canine body. In short, the contemporary mythology of the abject canine re-interpreted the mythological and nineteenth century associations between death, evil, moral depravity, and guarding/fighting dogs for a twentieth century risk-saturated culture.

Institutional strategies for dealing with the abject canine led to legislative intervention in the form of the Dangerous Dogs Act 1991. Within the emergent dangerous dogs discourse, pet-keeping was interlinked with the dissolution of social structures such as the blurring of class boundaries and the erosion of national identity. The disruption of social hierarchies thus compounded ontological insecurities that are characteristic of reflexive modernity, and inevitably the canine body became enmeshed in processes of ideological management which included the use of images of animality to organise public understanding and support the introduction of a new biopolitics. This biopolitics, a legislative framework that regulated and managed abject canine bodies through destruction, castration and other methods of control, was an institutional response to public anxieties and risks that was impelled by media discourses.

The dangerous dogs discourse interlinked with the blurring of social hierarchies and the contingent bodily inscriptions of identity. Dominant discourses suggested that the moral status of fighting dog owners was conditioned by their abject nature, as “filthy” “scum” (vox populi in BBC News broadcast on BBC1, 20.12.91) and such owners were clearly gendered as male within media reports. In an extended news report on the Dangerous Dogs Act, one expert interviewee, in relation to the ownership of pit-bull terriers, stated “they see it as a masculinity thing; if you like, it’s like having their dicks on the end of the lead” (Nigel Morris interview, Anglia Tonight, broadcast on ITV, 28th November 1991). The nature of dog-related practices, or ‘sports’ in the twentieth century clearly demarcated between the morally reprehensible (dog-fighting, badger-baiting) and the morally acceptable (hunting with dogs) suggesting that social identity secured the moral ground for cultural practice.⁵ In this way, the imposition of dominant and thus authorised modes of cultural practice defined dog fighting as bereft of moral value thereby discrediting those who maintained links with such practices. Even for those who might not be involved with dog fighting, ownership of a pit-bull terrier, for example, facilitated the construction of an intimidating image and evoked connections between dog aggression, human violence and death. The dominance of such

discursive strategies synthesised the fighting dog owner with the dog in a relationship bound by masculine violence and aggression. This synthesis was articulated in news reports on dangerous dogs, such as one which stated, "For 200 years the American pit-bull terrier has been bred for its aggression, ferocity and strength: For a certain *breed of people* it's become an essential fashion accessory" (Anglia Tonight, broadcast on ITV, 28th November 1991, my emphasis).

Dominant discourses about dangerous dogs centralised the pit bull terrier as an aberrant canine breed, uncontrollable and synonymous with tenacious aggression. Pit bull owners were similarly constructed as social deviants with violent tendencies suggesting shared characteristics between human and canine. In justifying governmental emphasis on the dangers of pit bull terriers, the Home Secretary who introduced the Dangerous Dogs Bill, Kenneth Baker wrote,

To put Rottweilers, Dobermans and Alsations in the same category as pit bulls... would have infuriated the 'green welly' brigade... However the 'pit bull lobby' came to my aid by appearing in front of TV cameras with owners usually sporting tattoos and earrings whilst extolling the allegedly gentle nature of their dogs, whose names were invariably Tyson, Gripper, Killer or Sykes.

(Baker, 1993, p.30)

Kenneth Baker's comments not only emphasised relationships between human social identity and canine breed types, but also highlighted the importance of making such relationships visible within the public sphere. National television provided an appropriate medium for the 'truths' about the anti-social identities of pit bull owners to be visually confirmed. Within this particularly complex social formation, human social identity was inscribed on the pit bull owners' bodies through particular forms of modification, for example tattoos and piercings, suggesting a marginal or disenfranchised social group within a larger social subset of 'dog owners' (See for example, BBC News broadcast on BBC1, 20th December 1991; Anglia Tonight broadcast on ITV, 28th November 1991; Beware of the Dogs broadcast on BBC2, 28th December 1991). Library footage of the snarling, gape-jawed head of a pit bull was repeatedly included in news reports of dog attacks whilst freeze frame images of pit

bull terriers utilising the iconography of the hellhound were used as the background for television graphics detailing dog attacks and proposed control measures. Aligning specific breed types with marginal social groups, Kenneth Baker's claims also highlighted the extent to which the names of pit bull terriers (Tyson, Gripper, Killer, Sykes) operated as signifiers that reinforced dominant discourses of social identity.

Despite having opportunities to demonstrate the 'gentle nature' of the pit bull terrier on national television, pit bull owners were denied any authoritative status and the individuated status of named pit bull terriers further compounded the breeds association with death and violence. Television news, current affairs, and discussion programmes authorised the testimonies of dog-attack victims by including interviews with canine 'experts', for example veterinarians, council dog wardens and RSPCA officers. Pit bull owners however, were more often depicted visually and with an emphasis on their social marginalisation. For example, in an Anglia Tonight special report on pit bulls and the Dangerous Dogs Act, it was noted by the presenter that the two pit bull owners interviewed were unemployed and would refuse to conform to the requirements of the Act (Anglia Tonight broadcast on ITV, 28th November 1991). The ordering of material in the report was particularly notable as it first presented the negative discourse of pit bulls and their owners. A short sequence of rowdy young men with pit bulls was followed by images of pit bull attack 'victims' then expert testimony. RSPCA footage of an illegal dog fight between two pit bulls, followed by footage of a snarling pit bull being forcibly restrained by an RSPCA officer after biting its owner preceded the short interviews with the two unemployed male pit bull owners. Such organisation of material constructed a hierarchy of discourses which privileged the negative constructions of both pit bulls and their owners. As John Corner has noted in relation to the organisation of material in television programmes:

Through the hierarchy of discourses which constitute programmes whether fictional or non-fictional, certain perspectives on events and circumstances depicted are given an epistemological privileging while others are subordinated, marginalized, or excluded.

(Corner, 1999, p.51)

The relationship between social identity and companion animals is clearly at odds with the romanticised vision of ontological security posited with much of the recent pet culture literature. An example of this perspective is articulated by Marjorie Garber in her essay 'Heavy Petting' in which she argues, "In penetrating into the hidden life of dogs, we recover notions of fidelity, family, marriage, beauty, romance, pathos and unambiguousness" (Garber, 1996, p. 32); Thrift argues that "pets clearly can and do inspire affection in and for themselves" (Thrift, 2004, p. 474); and, Adrian Franklin plays down the significance of abject animality when he suggests that, "pit bull terriers complete with studded collars have become familiar accessories to the physically tough 'bloke'" (Franklin, 1999, p. 100). Rather than cementing a sense of coherent social identity, the abject construction of the human/pet relationship was chiefly concerned with the establishment of anti-social identity and such constructions were more closely tied to moral panics and discourses of social instability and violence.

Within the dangerous dogs discourse, breeds of dog were linked to their country of origin and the notion that non-indigenous 'wild and dangerous' breeds of dog were being brought into the UK gathered momentum during the late 1980s. The national identity of allegedly dangerous breeds of dog were raised by MP's during debates on dangerous dogs, leading Tony Banks MP to claim, "People deliberately opt for the large, exotic and savage dog" (Banks, Hansard 14.06.1989, column 1073). Statements such as those made by Banks suggested a link between national identity, violence and aggression. Yet, the 'exotic' origins of the dog breeds in question appeared to draw on a simple distinction between 'foreign' and 'British' with the pit bull being claimed as an American breed and the Rottweiler originating in Germany. A distinction between 'British' and 'other' dogs was clearly articulated by John McAllion MP who argued,

I do not believe that a Jack Russell is capable of bringing down a horse and killing it but an American pit bull terrier is. Is the Minister seriously arguing that the American pit bull terrier is not a

qualitatively more dangerous and different type of dog from the dogs we traditionally have in this country?

(McAllion, Commons Hansard 15.06.89, column 1186)

Within the dangerous dogs discourse the dog became discursively conditioned as 'risk'. This production of risk was thus a confrontation with the side effects of industrial modernisation; in this case the cultural practices of pet-keeping were a consequence of modernisation that brought the dog into the domestic sphere. In the postwar UK, the cultural practices involved in dog ownership spread across class boundaries and in urban environments, these practices included letting dogs roam (and defecate) freely. A confrontation with the canine body, in the late twentieth century, as a site of risk also emphasised the vulnerability of human bodies, exposed to disease and canine aggression. However, the UK government was ill-equipped to deal with such risks and to respond satisfactorily to growing public anxieties.

Statistical data was unavailable to the media and government departments during the 1980s and early 1990s and thus the risk posed by canine aggression could not be adequately quantified. In the absence of a scientific assessment of the risk, the mass media construction of the 'dangerous dog' was positioned as the dominant form of knowledge production about aggressive canines. One news journalist noted "No-one knows exactly which breeds are responsible for the most attacks but there's a whole range of dogs that have been getting a bad press recently and they're not included in the new legislation" (Anglia Tonight broadcast on ITV, 28th November 1991). A BBC documentary titled Beware of the Dogs (1991) also focussed on the "increasing aggression" of "the most popular family pets" including golden retrievers, west highland white terriers and cocker spaniels. Constructed within 'serious' news and documentary programmes, the canine body was discursively positioned as abject and conditioned by mythological, historical and contemporary cultural associations with death, faeces, violence and blood. Abject canine bodies and images of dangerous dogs were used to organise understanding and meaning in relation to the dissolution of social hierarchies

and the erosion of national identity: Pit bull owners were animalised and abject canine bodies were discursively constructed as 'foreign' and 'dangerous'. As Foucault has argued, the nonhuman animal and images of animality have been used to organise human understanding (Foucault, [1961] 2001, p. 77). In the dangerous dogs discourse, the abject canine body became a mechanism through which hierarchical divisions between human and human, and human and animal, could be re-established in an attempt to ameliorate ontological insecurity. The canine body thus became a site of meaning wherein otherness could be ideologically managed.

Making animality safe

The protection of the human body from threats such as pollution and disease has become a particular feature of reflexive modernity. Concurrent with this, hygiene has become a pre-eminent object within discourses of risk.⁶ In this way, abject animality and its associations with excrement have prompted humans to distance themselves from nonhuman animal bodies. This has become most apparent in the UK with the introduction of legislation and local government by-laws that prohibit dog fouling in public spaces and the consequent zoning of human and nonhuman animal spaces (see, for example, The Dog Fouling (Fixed Penalty) Order 2002, Statutory Instrument 2002, No. 425). Parks and other public recreational spaces have been sectioned into human and human/animal zones that prohibit domestic nonhuman animals (particularly dogs) in, for example, children's play areas. Such organisation of public space can be understood as the material outcome of discourses wherein the nonhuman animal is constructed as a risk to the vulnerable within society; in this case, children. In addition, I propose, the human investment in technology has facilitated other forms of material separation between human and nonhuman animal which include the emergence of 'virtual pets' and the use of computer generated images within filmed entertainment.

'Technological animals' have provided humans with managed, sanitised, and controllable forms of animality. However, such technological practices, whilst re-ordering the unruly nonhuman animal and ameliorating public anxieties about nonhuman animal risks, have also engendered a new investment in anthropomorphic practices. It has been argued that humans have become fascinated with virtual pets as they are uncertain about 'real' social relationships (see for example, Garber, 1996, p. 32; Thrift, 2004, p. 474; Franklin, 1999, p. 100), however, I would argue that the new technologically mediated human/nonhuman animal relationships are also a consequence of the prevailing discourses of risk associated with the abject nonhuman animal. In this sense, anthropomorphic practices have become part of a cultural strategy of technological intervention that makes nonhuman animals 'safe'.

Discourses that constructed the nonhuman animal as 'abject' and 'risk' emerged at the end of the 1980s and cultural strategies to manage these risks were clearly apparent within popular practices by the mid-1990s. In 1996 the emergence of the virtual pet, Tamagotchi, heralded a shift in pet-keeping practices. Tamagotchi, an egg-shaped, screen-based simulation of a 'pet', was released by the Japanese toy company Bandai and had sold in numbers exceeding forty million by the time manufacture was discontinued in 1998. Tamagotchi simulated the life cycle of a 'pet' and required owners to clean up after them, feed, praise and discipline them on a regular basis. Owners could interact with the Tamagotchi by pressing buttons and assess the pet's emotional state by watching the screen activity and listening to the digital noises emitted by a small speaker in the back of the housing. Without the necessary care, Tamagotchi could die, but in the event of such a situation arising, a re-set button allowed the owner to begin the pets' life cycle again. Tamagotchi created a new niche market within the toy industry for virtual pets and by 1997 other toy manufacturers had followed Bandai's lead and designed series of keychain virtual pets. Giga Pets, Nano Pets, Pocket Pets and the My Pets series were among the one hundred and fifty different types of virtual keychain pets available by 1997 (Polson, 1997).

In addition to keychain pets, other types of virtual pets designed for the desktop PC were becoming increasingly popular by 1996. In November 1995, the US-based company PF.Magic began to distribute Dogz, a software programme that offered the owner a choice of five different puppies to select from. Once 'adopted', the puppy matured on-screen and the owner could interact with their virtual dog by using the computer mouse to feed, pet, praise, and teach their 'dog' new tricks. The Dogz programme used both 'random' and 'learned' behaviours to create the screen-based illusion of an unpredictable and therefore more realistic pet. In a Washington Post article in 1996, Rob Fulop, the Creative Director of PF.Magic, claimed "Dogz are thinking, responsive, emotional creatures. You can finally develop a real relationship with a living creature on your computer" (Fulop quoted in Finn, Washington Post, 4th August 1996: p.1). The PC based Dogz, and later Catz, were less mobile than the keychain Tamagotchi but operated within the same parameters of cultural practice. Virtual pets offered emotional responses to functional human practices such as feeding and training and whilst 'bad' behaviour and defecation were programmed into the virtual pet environment, moral responsibility for virtual pets was a wholly optional element of the relationship. Moreover, the risks of disease and aggression that were constructed within the discourses of abject animality were avoided within the virtual pet environment. Technologically mediated animality created a new discourse of pet ownership wherein virtual nonhuman animals were clean, sanitised versions of their 'real' analogues. Such intentions were clearly articulated by PF.Magic's marketing director, Brooke Boynton, who claimed, "In the end we wanted all the benefits of life and no death, no messy parts, no disappointing parts. They can get little colds, and you have to be very nice to help them get better. But that's the worst that can happen" (Boynton quoted in Finn, Washington Post, 4th August 1996, p.1).

In 1997 the virtual pet market shifted in direction with the release of the Furby, a robotic pet designed by Tiger Electronics and manufactured by the toy company Hasbro from 1998. Robotic pets were a further development in the virtual pet market

that shifted practices from the screen-based products such as Tamagotchi and Dogz to three dimensional interactive pets. The success of Furby was immediate with over twelve million Furby's sold between 1998 and 2002. Furby combined battery powered motorized movement with microchip technology to enable the virtual pet to respond to the external environment. Infra-red and light sensors mounted in the forehead detected movement and light levels, an internally located audio sensor detected sound, switches in the stomach, back, and mouth were touch sensitive and an internally mounted inversion switch detected horizontal and vertical movement.

The owner was able to interact with a Furby through physical contact. Patting the back and rubbing the stomach elicited a range of pre-programmed responses from the virtual pet expressed by motorized movement of the mouth, eyes, ears and lower body, and by verbal utterances. Furby was 'fed' by pressing the tongue and could also respond to other external stimuli including light, sound, movement and spatial orientation. As with the Dogz programme, Furby was also pre-programmed in such a way as to create the illusion of random autonomous behaviours that were not directly stimulated by owner interaction. However, Furby also offered an interesting new dimension to the virtual pet relationship in that it could 'speak', it 'acquired' language, and could verbally respond to and demand interaction with the virtual pet owner.

The Furby was pre-located within a narrative context for the virtual pet owner and a history was attached to the body of the virtual pet in the form of a small cardboard tag which gave the owner the Furby 'back-story'.⁷ The Furby history also introduced new owners to Furbish™, the 'natural' language of the Furby which the owner was required to learn in order to understand what their Furby was saying. As the Furby matured it began to acquire, or learn, English.⁸ The Furby was sold with a Furbish™/English dictionary that listed forty-seven Furbish™ words that could be combined by the Furby to create phrases such as 'I like kisses' (kah toh-loo may-tah), 'I can't see you' (kah boo ay-ay u-nye) and 'don't feel good' (boo koo-doh e-day). Language development accompanied the four stages of Furby maturation; in the first stage the Furby speaks

only in Furbish™, at the second and third stages it begins to speak in the owners' language and at the fourth stage the fully mature Furby speaks only occasional Furbish™. The development of language was constructed as central to the owner/Furby relationship. Unable to understand Furbish the owner could not meet the needs of the Furby such as food, attention and play without which the Furby 'withdrew' from the relationship with the owner and refused to interact. The Furby instruction manual stated, "If you do not feed me when I get hungry, I will not want to play anymore until you feed me" (Furby Instruction Manual, 1999: 5).

The Furby Instruction Manual, written predominantly in the first-person, addressed the owner directly and established the individuated status of the virtual pet. In this way the Furby Instruction Manual was an important facet of the virtual pet-keeping experience that built the emotional relationship between Furby and owner. Although didactic in its mode of address, the instruction manual began by recounting the narrative of Furby history in the first two pages and establishing the nature of the human/Furby relationship stating, "Hi! I'm Furby and I am so happy to be your friend" (Furby Instruction Manual, 1999: 1). The instruction manual determined that Furby toys have names, a personality, stages of development, specific needs, an ability to play games, dance, sing, perform tricks, and crucially, have the capacity for communication between human and Furby and Furby and Furby. Once the batteries were installed, the new owner was instructed to find out their Furby's name. In this sense, the first words that the new virtual pet uttered were those that established its individuated status as a named identity. Thus, I concur with Donna Haraway when she argues, in relation to nonhuman animals, that "naming [...] is a key rhetorical device bestowing a particular kind of individuality in the form of an apparently timeless, universal selfhood" (Haraway, 1989, p.146). The Furby was able to communicate with its owner and with another Furby and, whilst this function was part of a strategy to ensure that more than one Furby was purchased, the virtual pet relationship created an idealised short-circuit to explicit communication between human and nonhuman animal.

The human/virtual pet relationship is clearly important within a history of anthropomorphic practices. Emerging within the wake of dominant discourses of abject animality of the 1990s, the virtual pet experience is a significant cultural response to the risks posed by non-virtual human/nonhuman animal relationships. The Furby, a technologically mediated form of animality, took the notion of shared communication within the pet/owner relationship and re-worked it into a human logocentric fantasy. As such, in the realm of virtual pet-keeping practices, the sanitisation of animality was intimately bound to the reorientation of animality toward humanness through the pets' illusory appropriation of language and animality could be safely experienced.

Language and difference

Erica Fudge usefully summarises the importance of language in defining boundaries between human and nonhuman animals.

Language has often been regarded as the domain of the human: that is, a kind of logic can be used that defines the difference between human and animal via the ability to communicate through language. 'I can speak, therefore I am human: it cannot speak, therefore it is not human', this logic would go, and what follows from such logic is a structure of power.

(Fudge, 2002, p.117)

Fudge rightly asserts that language has been used as a structuring principle of power relationships wherein the nonhuman animal has been conceptualised as a lesser being due to an inability to 'speak'. In short, dominant discourses have, since the seventeenth century normalised the notion that nonhuman animals cannot speak. This statement however requires qualification, as it signifies a very clear line of distinction between human and nonhuman animals *and* between science and fact and cultural fiction. By this I mean that the act of speech has been very clearly defined within linguistics and psychology as a species-specific type of vocalisation that connects with other significant constructions such as the attribution of mind to the speaker; and therefore, examples of nonhuman animals competently engaging in 'human speech' are considered to exclusively inhabit the realm of popular cultural fictions. It is

particularly significant therefore that the reorientation of nonhuman animal language in the virtual pet relationship occurs at a point in human history when knowledge production has reasserted the attribution of language to the nonhuman animal within scientific discourses of primate language studies and bio-acoustics.

The shift toward attributing nonhuman animals with language emerged in the mid twentieth century. Early experiments to teach the chimpanzee Washoe American Sign Language (ASL) were conducted in the late 1960s after previous attempts to teach primates language and vocalisation had failed. The Washoe project, whilst controversial, foregrounded the possibility that humans were not unique in their use of language. In 1973, the zoologist Karl von Frisch was given the Nobel Prize for his discovery that bees were able to communicate the location of food sources to each other by engaging in behaviour that has been widely described as a 'dance' (Stamp Dawkins, 1998, p.89). Further experiments in language acquisition in chimpanzees also began in 1973 with a primate named Nim Chimpsky. Project Nim attempted to recreate the Washoe project and was funded until 1977 (see: Wise, 1999, p.172-174). In 1980 Sue Savage-Rumbaugh began work with bonobos at the Georgia State University Language Research Centre. The main subject of Savage-Rumbaugh's work was a bonobo named Kanzi, who was taught to use lexigrams, a system of communication that uses symbols to represent words. By the 1980s the specialist field of bioacoustics contributed much to the scientific debates about nonhuman animal language and communication. In 1984, Katherine Payne argued that elephants could communicate with each other over large distances using infrasound that operates below the level of human hearing and the study of whale and dolphin communication at research centres such as the Bioacoustics Research Program at Cornell Laboratory of Ornithology (1984-2001) demonstrated how marine mammals interacted socially (Page, 1999, p. 135).

Whilst earlier research such as the Washoe project had been met with much scepticism within the scientific community, by the 1980s the study of nonhuman animal language and communication was established as a credible, if still controversial, area of scientific research (Stamp Dawkins, 1998). The shifts within scientific knowledge production raised complex questions about the difference between human and nonhuman animals. As zoologist Marion Stamp Dawkins asks in her defence of nonhuman animal consciousness, "If consciousness does not have a human face, speak with a human voice or look out from human eyes, inside what sort of bodies should we look for it? And how will we recognize it when we find it?" (Stamp Dawkins, 1998, p.16). In other words, if consciousness and, crucially, language are not humanlike for example in terms of syntax and grammar, would something ever really be described as language?

At the centre of the new debates about nonhuman animal language and consciousness has been the issue of anthropomorphism and the concern that the attribution of human frames of reference could be mistakenly applied to the nonhuman animal realm. The work of leading primatologist Sue Savage-Rumbaugh has enflamed such debates when she writes about Kanzi and the other bonobos in the following way:

At times as I watch them, I seem to be staring into my distant past and seeing in front of me "quasi-persons"- not people, but "near people." [...] With bonobos I experience a similar two-way understanding. I know how they feel, and they know how I feel. This is possible because of the expressions that emanate from their faces, the way they interpret the feelings of others, the depth of their commitment to one another, and the understanding of one another that they share. [...] This is a perception I cannot shake off or dissuade myself from, no matter how often I try to tell myself that I have no definitive scientific basis for these impressions.

(Savage-Rumbaugh, 2001, p. 4)

Savage-Rumbaugh's attribution of language and communicative ability to bonobos leads linguist Talbot J. Taylor to ask,

from a scientific perspective, does Savage-Rumbaugh give overhasty, loose, even subjectively biased characterizations of

Kanzi's response to hearing those utterances? Do Savage-Rumbaugh's characterizations make up a true and objective representation of what had occurred? Is she in fact justified in characterizing the scenes as she does?

(Taylor in Savage-Rumbaugh et al, 2001, p.139)

However, Donna Harway points out, primates are particularly ambiguous nonhuman animals in that they exist at the boundary of the "almost human" (Haraway, 1989, p. 2). External bodily similarity between humans and primates has certainly motivated much of the research into nonhuman animal language acquisition to focus on chimpanzees, gorillas and bonobos. Yet, as researchers during the 1960s discovered, the vocal apparatus of apes differs substantially from that of humans in the orientation of the vocal-laryngeal tract (Savage-Rumbaugh, in Savage-Rumbaugh et al., 2001, p. 10). The biological difference between humans and primates in the make-up of the vocal apparatus has led researchers to experiment with other forms of communication, including the lexigram system favoured by Savage-Rumbaugh and ASL used in the Washoe project. As a consequence of the appropriation of alternative forms of communication, the relationship between language and 'talking' has become central to the critical appraisal of ape language research findings. As Stuart Shankur has pointed out, the interpretation of ape language as language has been criticised for adopting an overly simplistic notion of what actually constitutes language (Shankur in Savage-Rumbaugh et al., 2001).

The linguist Ferdinand de Saussure argued that the 'speech circuit' must be composed of two individuals that share the same signs linked to the same concepts (Saussure, [1916] 2000). Saussure posited that language should be considered to be composed of 'langue' and 'parole' wherein 'langue' was the system of language rules and parole was the manifestation of those rules within speech or writing. Ape language is problematic in relation to de Saussure's model of the 'speech circuit' for a number of reasons; firstly the biological difference between humans and apes creates a point of contention wherein the ape has neither the capacity to 'speak' or 'write'; in the second

place, the speech circuit implicitly assumes that the communication of shared concepts between 'speakers' is enabled by the minds of the speaking agents. In this sense the attribution of self-hood and mind is intimately connected to the attribution of language. Linguists such as Joel Wallman and cognitive neuropsychologist Steve Pinker have argued that language is innate and can only be attributed to humans on the basis that it is a biological species-specific characteristic. According to Wallman, the crucial moment in human language acquisition takes place when vocal utterances become "linguistic symbols" (Wallman in Savage-Rumbaugh et al., 2001, p. 154). In other words, to refer to the Saussurian model, the point at which shared mental concepts can be transmitted via the speech circuit marks the moment when 'language' has been acquired. The nonhuman animal is therefore barred from language acquisition and from the attribution of mental conceptualisation due to its inability to vocalise. Thus at the root of the critiques of nonhuman animal language lies the intractable boundary of biological difference between human and nonhuman animal. As Wallman asserts, "ape utterances (whether these be vocalizations, gestures, or sign uses) "are better characterised as performative than referential ... [i.e.,] a repertoire of habits that a[re] effective rather than meaningful"" (Wallman, 1992 cited in Savage-Rumbaugh et al., 2001, p.155).

What is particularly important to note about discourses of nonhuman animal language is their connection with power structures that govern human/nonhuman animal relationships. In short, issues of 'animal minds' and crucially animal rights are intrinsically connected to the attribution of language to nonhuman animals. As Stephen Wise (2000) argues in Rattling the Cage: Toward Legal Rights for Animals, "language is more than just tied to consciousness. Without consciousness, there could be no language" (Wise, 2000, p. 158). Language and mind are thus resolutely bound together within discourses of science and animal rights, and there is a demonstrable contingent set of practices. As I pointed out in chapter two, the practices of Cartesian vivisectors differed from their empiricist counterparts and this difference can be linked

to the epistemological underpinning of discourses of difference between human and nonhuman animals. In the case of contemporary discourses of nonhuman animal language acquisition and its relationship to the attribution of mind, it is clear from the writings of Susan Savage-Rumbaugh that the bonobo is not only considered to be human-like but that that status should afford Kanzi humanlike treatment. The production of knowledge about ape language acquisition is bound to an attribution of mind to the experimental subjects as language is recognised as the manifestation of shared mental concepts between communicating individuals; in this case Savage-Rumbaugh and Kanzi. It is therefore interesting to read Savage-Rumbaugh's account of Kanzi's treatment for an illness in which Savage-Rumbaugh expresses concern about the treatment practices.

Although Kanzi was quite willing to accept the frequent injections his illness required, the veterinary staff did not believe that he would continue to do so on a daily basis for several weeks. Thus, it was determined that he should be taken to another facility and placed in a small squeeze cage that barely gave him room to sit and certainly no room to stand [...] Such cages are used routinely with apes that refuse to accept injections. They confine the ape so rigidly that it cannot get away from the needle or knock it out of the veterinarian's hand. [...]

Everyone at the Language Research Centre was concerned about the traumatic effect of this experience on Kanzi, and we took turns staying with him day and night so that he was never alone. [...]

In spite of his extreme confinement, Kanzi did not become depressed, but generally maintained a good humour, though he was certainly bored. I could never have endured the long confinement in that room as well as Kanzi. [...] Kanzi endured all of this, in addition to frequent injections and periodic sedations, with a stoic fortitude that would become most people.

(Savage-Rumbaugh in Savage-Rumbaugh et al., 2001, p. 52-53)

It is important to note that Savage-Rumbaugh positions the experimental subject Kanzi as a thinking, feeling, communicative being. Within Savage-Rumbaugh's account Kanzi is an emotionally enabled sentient entity who is required to 'endure' a set of practices that are normalised within veterinary science as beneficial for nonhuman animal treatment. However, Savage-Rumbaugh constructs a discourse within which such 'ethical' veterinarian practices border on cruelty toward Kanzi. This point is absolutely crucial within discourses of anthropomorphism as it demonstrates how the

treatment of nonhuman animals is intimately connected to the level at which they are humanised. As I argued in chapter four, the construction of nonhuman animals as either food or pet, that is as non-anthropomorphised objects or anthropomorphised subjects, similarly conditioned their status as 'to be consumed', or as a 'pet' that could not be eaten. In Savage-Rumbaugh's account, the experimental subject that is attributed with language is also characterised as possessing a mind and emotional states. Kanzi is therefore affected by his experience in the 'squeeze cage' and responds with appropriate human-like emotions. As such, language is the ultimate humanising concept that is inextricably bound to the construction of human/nonhuman animal practices as either ethical or cruel.

For animal rights activists such as Stephen Wise, the research in ape language acquisition leads him to conclude that there is enough scientific evidence to grant chimpanzees and bonobos legal personhood. Wise's argument takes the findings of ape language research over the last fifty years and argues that chimpanzees and bonobos have been shown to exhibit higher states of autonomy than certain groups of humans, for example infants and "the severely mentally retarded" (Wise, 2000, p.254). He argues therefore that there is a serious legal discrepancy between the dignity rights afforded to humans and denied to primates and contends, "at some point the disparity between the autonomies of nonhuman animals with *no legal rights* and the virtual sea-level autonomies of humans *with* dignity rights becomes completely indefensible" (Wise, 2000, p. 255). And whilst arguments by analogy between human and nonhuman animal are countered by philosophers such as Dennett who argues that it cannot be assumed "that the minds of non-speaking animals are really rather like ours" (Dennett, 1998, p. 18), what is significant within Wise's discussion is that the attribution of language to primates within scientific discourses leads to the demand for wider changes within human/nonhuman animal relationships. What is clear from such demands is that, as occurred in the nineteenth century, the humanisation of nonhuman animals leads to a reconfiguration of power between human and nonhuman animals.

Normalised difference is challenged by the attribution of human characteristics to nonhuman animals, in this case the attribution of language to apes, and consequently the demand for rights for such beings disturbs the naturalised privilege afforded to humans. If language and consciousness are ascribed to particular nonhuman animals then this raises moral and ethical questions about the rights of nonhuman animals and their treatment. Nonhuman animal practices which are normalised as ethical, for example vivisection, are thereby renegotiated through anthropomorphic discourses as cruel.

Virtual pets and the ethics of human/nonhuman animal relationships

In the case of the virtual pet-keeping experience, the relationship between language and cruel treatment is averted. Technologically mediated animality by-passes the issue of cruelty in that the 'talking virtual pet' is always able to return to the status of a 'machine'. The virtual pet can oscillate between the categories of 'animal', 'anthropomorphised pet' and 'machine' and whilst the pet 'requires' feeding, attention and play to function, its status as a piece of technology allows the owner an easy guilt-free return to Cartesian bifurcation, when needed: The final note in the Furby instruction manual makes this point clear,

Problem:

Furby is behaving erratically, not speaking, humming or seems to be malfunctioning or broken.

Solution:

Replace batteries.

(Furby Instruction Manual, 1999, p.12)

The instruction manual reminds the virtual pet owner that when the Furby becomes problematic or erratic it is battery-powered machine that can be terminated by removal of the batteries or 'fixed' by replacing the power source. The morally framed issues of how to treat an 'ill pet' are resolved by referring to erratic or abnormal behaviour in terms of machinic functionality. Whilst the attribution of language to a bonobo is necessarily framed within discourses of rights and ethical treatment, the attribution of language to the virtual pet bypasses any moral or ethical dilemmas.

The escape from moral and ethical responsibility for nonhuman animals combined with the requirement for safe sanitised versions of animality have kept the virtual pet market active since the 1990s. In 2005 a new type of virtual pet entered the market, the Nintendog. Launched in Japan in 2004, Nintendogs sold more than one million units within the first year of sale, more than half of this number being to female consumers.⁹ Nintendogs is an open-ended game for the Nintendo DS console which allows players to select a puppy from a choice of six different breeds of dog.¹⁰ Players teach their puppy voice commands, and train, feed, play with and exercise the Nintendog which eventually can interact with other Nintendogs on different Nintendo DS consoles enabled through wireless technology. Nintendogs is an important addition to the continuing appropriation of technological animality as it conforms to each of the characteristics that I have proposed are central to the technological management of animality. The Nintendogs website clarifies such characteristics by pointing out that,

Each breed of Nintendogs looks and sounds like its real-life counterpart [...] Nintendogs also have unique personalities [...] They stay as puppies for life [...] If you never feed your Nintendog it will not die [...]

(Nintendogs Official Microsite at
<http://nintendogs.nintendo.co.uk/player.cfm>, accessed 20.10.05)

The cleanliness of the technological 'dog' is constantly reiterated through claims that "It's a pet that won't leave puddles on the floor" (Nintendogs Official Microsite at <http://nintendogs.nintendo.co.uk/player.cfm>, accessed 20.10.05). The safe sanitised version of pet ownership that is constructed through Nintendogs functions through the pets' illusory understanding of human language which allows the human to interact with the virtual pet. Nintendogs can be petted by the player using a stylus to 'stroke', 'tickle', or 'touch' the puppy and the first interaction the player has with Nintendogs is the selection and then 'naming' of the puppy. Nintendogs, like all forms of technological animality based on the virtual pet relationship removes any ethical or moral questions about pet ownership in that the puppy, Furby or Tamagotchi can never die, irrespective of the owners' treatment. Safe, sanitised interactions with the

virtual pet similarly ameliorate the material risks to the human body now posed by 'flesh and blood' domesticated nonhuman animals.¹¹

Victims: at risk, under threat

Whilst technological animality distances humans from the threat of nonhuman animal risk, avoids moral questions about pet keeping, and creates a cultural comfort zone where clean sanitised versions of animality can be safely experienced, the wild nonhuman animal has become partner to the human conception of risk. Wild nonhuman animals have been radically transformed through discourses of conservation, the environment and endangerment into the other threatened victims of reflexive modernity. Central to the public discourse of wild nonhuman animals 'at risk' has been the anthropomorphic constructions that have pervaded popular culture since the 1980s. In accord with my proposal, Greg Mitman writes on the subject of elephant conservation:

Whilst an appeal to numbers has often shored up the authority and expertise of science in the political realm, in the case of elephant conservation, anthropomorphism and emotion, more than numbers have lent greater credence to science in the public sphere.

(Mitman, 2005, p.176)

And filmmaker Sarita Siegel writing about the production of The Disenchanted Forest (2002), a film about the conservation of Orangutans, explains,

Knowing I intended to place my documentary on the international satellite and cable market, I had to "hook" audiences by appealing to universal human experiences [...]

When National Geographic requested a hero character for the film to pivot around [...I...] impulsively suggested trying to build a story around Siti [...]

In the film we develop Siti's vulnerability [...]

(Siegel, 2005, pp. 196-213)

As Mitman and Siegel suggest, the construction of anthropomorphic images of endangered species are absolutely pivotal to the circulation of conservation discourses. A dominant discourse of wild nonhuman animal vulnerability utilises signifiers of humanness which are then circulated through mass media forms. Natural history documentaries have, as Siegal maintains, created nonhuman animal heroes

that emerge as heroic precisely because they are the surviving victims of for example, ecological disasters, environmental pollution, habitat destruction or hunting. Celebrity primatologist, Jane Goodall, most clearly articulates the dominant shift toward anthropomorphism within endangerment discourses when she writes,

Unaware of the scientific prejudices of the day, I gave the chimps names and described their rich personalities in human terms, a practice that drew scalding condemnation from some scientists. I readily admit that I was fond of certain chimpanzees. And I believed that having a degree of empathy for my subjects could help me detect slight changes in their mood or attitudes and provide insights into their complex social processes. I think time has proved me right.

(Goodall, 2003, p.78)

The point I want to emphasise here, in relation to Goodall's statement, is that anthropomorphic practices have not simply 'reappeared' within serious and popular science. What Goodall's comments make clear is that anthropomorphic practices were being undertaken more than three decades ago but that they were rejected by serious science. Only recently have such practices, and the scientists adopting them, gained credibility within scientific discourses and this shift has signalled a new alliance between the mass media and science, particularly in relation to conservation and endangerment discourses. Alongside primatologists and natural history documentary film makers, organisations such as the World Wildlife Fund (WWF) now appropriate anthropomorphic descriptions of 'at risk' nonhuman animals to emphasise their vulnerability through schemes such as 'Adopt an animal'. Through the scheme, the public are invited to adopt one of five individuated wild nonhuman animals which are constructed within the endangerment discourse as 'at risk'. Zhu Xiong the panda, Malu Pothe the Bengal tiger, Etin the orangutan, Kiruba, the African elephant, and Kinyanjui the Black rhino, are given names and attributed with an emotional reaction to their endangerment. A similar strategy of constructing the 'at risk' wild nonhuman animal is evident within other cultural texts that connect with natural history documentaries though shared institutional frameworks of production and distribution, and target audiences. In a National Geographic magazine article about polar bears, for example, the bears are anthropomorphised through descriptions of their 'playing' and 'dancing'.

This characterisation of the playful polar bear is then positioned within a discourse of risk when biologist Andrew Derocher, writing about the disappearing habitat, notes "it's pretty clear that these bears will disappear too" (National Geographic, February 2004, p.36). The anthropomorphisation of the polar bears is intrinsically linked to their status as victims 'at risk'; a motif that I propose is repeated throughout the wild nonhuman animal discourses of a risk society.

Reading anthropomorphic images of nonhuman animals 'at risk'

I have already argued, in agreement with Foucault, that images of nonhuman animals are crucial to organising our understanding of the world. Here, I want to expand on this point in relation to the nonhuman animals at risk and their anthropomorphic representations within my case study example of National Geographic magazine. In a recent analysis of the anthropomorphic nonhuman animal images made by commercial photographer, Tim Flach, Cheryce Kramer (2005) offers a useful model for analysing other anthropomorphic images. Kramer suggests that Flach's emotive photographs of nonhuman animals use sensory, gestural and treatment cues to guide the audience's reading of the image. Sensory cues in Flach's photographs, according to Kramer, include the visual foregrounding of sensations such as touch, and the highlight in the eye, a recurring motif within nonhuman animal images that I have independently identified and located historically within this project (see my discussion in chapter three and four). Gestural cues are described by Kramer as "a code of communication conveyed through posture, body language, and implied movement" (Kramer, 2005, p.147) and treatment cues are "references from the treatment of human subjects to the treatment of animal subjects" (Kramer, 2005, p.152).

The range of cues that Kramer identifies can be applied to an analysis of nonhuman animal images in texts such as National Geographic to demonstrate how photographs humanise 'at risk' nonhuman animals. What differentiate the images in National Geographic from the commercial images of Tim Flach are the contexts of their

production and distribution. Whilst Flach's images are created in a studio environment, self-consciously staged at the point of production and are sold commercially through an image bank as 'free-floating' images, the photographs in National Geographic are anchored by captions and the text of the accompanying article. Moreover, the National Geographic images purport to represent actual behaviours and to show the nonhuman animal in its own environment. Despite these differences, the images of both Flach and those included in National Geographic utilise the same sensory, gestural and treatment cues.

fig. 9: 'Elephant' in National Geographic, November 2000, p. 95.

fig. 10: 'Orphan gorilla' in National Geographic, February 2000, p. 84.

The captions and written text that accompany photographs in National Geographic often function to double the anthropomorphic weight of the image, reinforcing the visual cues and guiding the reading of the image. Many of the features in the magazine are photostories composed of between eight to sixteen images over a similar number of pages with captions of between fifty to one hundred words. In 'Preying on giants' (National Geographic, November 2000, pp. 84-95) the final image, in the photostory, of an elephant trunk sniffing the skull of a dead baby elephant utilises sensory cues to place visual emphasis on the relationship between the living and the dead (see: fig 9). The trunk, an indexical signifier of 'elephant', appears to be simultaneously 'looking' and 'sniffing' at the small skull and visually stresses the sensitivity and vulnerability of the species. To anchor the reading of the text more fully,

the elephant's emotional response to the death of one of its herd is recounted in the accompanying captions and referred to as part of the mourning ritual. (National Geographic, November 2000, pp. 95).

The poignant image of a baby gorilla's hand clutching the finger of a human hand in 'Central Africa's Orphan Gorillas' appropriates the sensory cue of touch to construct an iconic signifier recalling the child/parent relationship (National Geographic, February 2000, p. 84). The invoked meaning of the childlike status of the gorilla, reinforced by the continuous use of the word 'orphan' throughout the captions and title, directs the viewer to consider the responsibility for human guardianship over the defenseless 'other' (see fig. 10). Named throughout the accompanying written text, the gorillas are established as individuated characters within a narrative that humanises the subjects still further through the attribution of a 'shared language'. The author of the article writes on first meeting the orphan gorillas, "A quartet of babies raised a chorus of imploring whimpers: gorilla talk for "Gimme!" (National Geographic, February 2000, p. 86).

Fig. 11: 'Ibex' in National Geographic, July 2003, p. 38-39

The comic weight of the gestural cues of a male ibex putting out its tongue toward a female are enhanced by the caption which states ""You want to say to the guy: 'Hey! This is about your reproductive success! Get moving! Why be a C student?'" (National

Geographic, July 2003, pp.38-39). Both the comedy value of the gestural cues and the written text function together to express the childlike naivety of a nonhuman animal that is unaware of its species' demise as it is too busy behaving like a 'naughty schoolboy'; a point that is reinforced by the reference to the male ibex being a 'C student'.

fig. 12: 'Gorilla' in National Geographic, February 2000, front cover.

fig. 13: 'Caged Cheetah' in National Geographic, December 1999, pp. 16-17.

Other images combining sensory and gestural cues emphasise the vulnerability of both the individual and the species through a focus on the eyes, facial expression, and posture of the subject. (see figs. 12 & 13). Such images suggest emotional states, such as fear, sadness, or helplessness, which are shared between human and nonhuman animal. Importantly, the highlight in the eyes hints at the subject's conscious awareness of its own plight. Such images lead me to disagree with Kramer when she writes that, because of the technical difficulties involved in putting a highlight in the eye of the subject, "most animals in wildlife photography look flat, dumb, or muted" (Kramer, 2005, p. 145). As I have already argued in a previous chapter, the highlight in the eye has remained as a key visual motif of the humanised nonhuman

animal within the Darwinian discourse of emotion and later within the commercial imagery used in advertising and within other popular culture texts (see chapter four).

As the images in National Geographic demonstrate, Kramer is wrong in her suggestion that the eye highlight is specific to the orchestrated images produced by Tim Flach. I contend that the eye highlight has a history and cultural significance that is intrinsically bound to the anthropomorphisation of nonhuman animals within popular culture since the nineteenth century. As I have demonstrated and argued in previous chapters, Darwin's discourse of evolutionary continuity used this signifier to link dogs and apes to humans and in the early part of the twentieth century the same motif, rejected by science, was established as a familiar signifier of pet product advertising. The appropriation and meanings of this recurrent motif of humanisation, must however be contextualised within a critical history, such as this, to expose the discursive arrangements that link its utilisation to knowledge/power relationships. Only in this way, can its multiple appropriations be understood as operating within discourses of similitude that utilise nonhuman animal to organise meaning and serve various ideological interests.

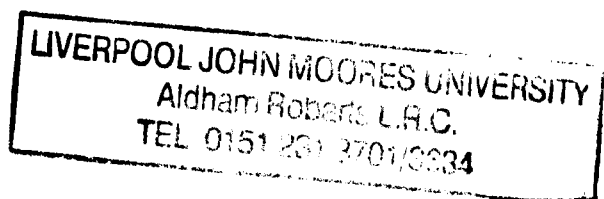
In the case of the National Geographic images, anthropomorphised nonhuman animals have become central to aligning public sympathies with the discourses and ethics of conservation. Such discourses are ideologically situated and use images of anthropomorphised nonhuman animals to organise meaning, often in relation to cultural difference and practices. Glen Elder, Jennifer Wolch and Jody Emel have argued that "Animal practices are extraordinarily powerful as a basis for creating difference and hence racialization" (Elder, Wolch and Emel in Wolch & Emel (eds) 1998, p.73). The discourse of conservation will often include reference to educating the local peoples, particularly in African countries, about the importance of not hunting or killing endangered species. Such cultural practices are often positioned as cruel and the people involved demonized as in 'Central Africa's Orphan Gorillas' which states,

"Although their origins are unknown, most were "bush-meat orphans": Their mothers had been slain by hunters, who butchered the animals and smoked the meat in jungle camps [...]" (National Geographic, February 2000, p.86). Located within a discourse of conservation, the hunting and killing of gorillas is constructed as a violent and reprehensible practice. The humanised images of the orphan gorillas cement such meanings still further suggesting a moralised hierarchy wherein the 'hunters' are constructed as less human(e) than the gorillas.

In relation to the demonization of certain practices within the conservation discourse it is particularly salient to note Elder, Wolch and Emel's remarks, when they write,

Certain sorts of animals (such as apes, pets, or revered species) become positioned on the human side of [a] metaphorical line, rendering some practices unacceptable. But other harmful practices are normalized, to reduce guilt (or at least the ambivalence) associated with inflicting pain or death, and to justify them as defensible behaviours [...]
(Elder, Wolch and Emel in Wolch & Emel (eds) 1998, p.73)

Nonhuman animal practices are discursively bound to knowledge/power relationships wherein, for example, the hunting and killing of gorillas for food is constructed as a moral transgression against the 'at risk' humanised other, whereas western practices of nonhuman animal slaughter and consumption are normalised and legitimated. As such, images of the anthropomorphised nonhuman animal remain absolutely crucial to the organisation of meaning.



The “Mothers of us all”

fig. 17: 'Polar bears' in National Geographic, February 2004, pp. 44-45.

fig. 18 'Fifi' in National Geographic, April 2003, pp. 76-77.

fig. 19: 'Orangutan' in National Geographic, October 2003, pp. 76-77.

As my analysis of National Geographic images has demonstrated so far, many of the images of 'at risk' nonhuman animals construct vulnerability or helplessness through sensory and gestural cues that render the subjects simultaneously human and childlike. Treatment cues that place nonhuman animals in a “familiar symbolic context” (Kramer, 2005, p.152) are also particularly potent visual devices in anthropomorphised images. Here I want to relate treatment cues to the specific symbolic context of motherhood through a comparative analysis of six images from National Geographic published over the period July 1999 to February 2004. What is most important here is that each of these motherhood images is anchored by a conservation discourse. In other words, each of the species, with the exception of the human, is stated within the

written text as being 'at risk'. It could be argued that images of females and offspring comprise a legitimate aspect of wildlife documentation. However, I argue instead that in the set of images selected, the treatment cue of motherhood is appropriated as a humanising concept carrying symbolic and therefore ideological weight within the conservation discourse. In addition, the repeated use of the terms 'mom', 'mother' and 'baby' throughout the written text, anchor the semiotic purpose of the images in relation to idealised and naturalised concepts of nurture; protection, care, helplessness, vulnerability and defenselessness.

The cover image from National Geographic April 2003 reproduces an idealised construction of human motherhood (see fig. 14): an image that could so easily illustrate the description of new mothers written by Daniel Miller in a 1997 article for Theory, Culture & Society. Miller writes,

New mothers will typically spend considerable amounts of time gazing both privately and publicly with an adoring expression at a being that objectifies the very quintessence of goodness. This is moreover goodness that at the same time presents a narcissistic image of herself as refined and purified.

(Miller, 1997, p.70)

The National Geographic image conforms to a dominant myth of the perfect (white) mother; beautiful, composed, and nurturing. The image captures the private gaze between mother and baby which expresses the bond between the two subjects whilst gestural cues, particularly the placement of the arms, suggests nurture and protection of the vulnerable infant. Whilst the same gestural cues are present in each of the images of nonhuman animals with their offspring, it is the similarity in the overall treatment of the subjects that echoes the image of human mother and baby. In this sense, gestural cues located within dominant discourses of motherhood produce a treatment cue which suggests that the nonhuman animals are imbued with the same qualities as a human mother. As such, these cues and the circulating discourses of motherhood locate the reading of the image within, what Kramer refers to as "a familiar

symbolic context" (Kramer, 2005, p.152), which readily connects with the discourse of conservation and endangerment.

The nonhuman animal gaze in the images of cheetah, gorilla and orangutan motherhood does not connect mother and infant within the intimate looking pattern prescribed in the human motherhood image. Rather the wistful gaze into the distance, of the 'mother subjects', reads as a sensory cue to suggest the internal emotional state of the 'at risk' nonhuman animal. In this way, the nonhuman animal is denied the comfort and contentment of motherhood that is expressed within the human mother/baby image, compounding the emotional weight of the image as a visual descriptor of the risks faced by the endangered specie. The signifiers of infant protection are echoed throughout the six images, notably reinterpreted within the whale image as a single fin held over the young whale sheltering the calf from harm. The written text provides further direction in the reading of this image referring to the humpbacks as "singing whales" (National Geographic, July 1999, p.110). The orientation of the image combined with the gestural cues and anchored by the written text humanises the subjects by suggesting that mother and baby are 'standing upright' and singing in harmony.

Anthropomorphism and the politics of conservation

In cultural texts the plight of the endangered specie now appropriates anthropomorphic strategies and places emphasis on childlike vulnerability, the similitude of human/nonhuman animal emotions and shared symbolic contexts. These anthropomorphic images operate within discourses of conservation, endangerment, and environment, where the stakes are high. Political struggles over land, borders, and boundaries are central to the creation of environments, sanctuaries, parks, and habitats to protect 'at risk' nonhuman animals. Suzanne Michel states in her essay 'Golden Eagles and the Environmental Politics of Care' that there is "one political site where human and animal needs for space do conflict: the land-planning process"

(Michel, 1998, p.163). The scale of conflict over nonhuman animal spaces varies. The BBC wildlife film Brockside documents the struggle of badgers and their human protectors against housing developers who plan to build on a one acre site occupied by a badger set. Jane Goodall notes the political complexities of conservation within a 13.5-square-mile area and she writes, "Growing human pressures on the park threaten the chimpanzees' very existence" (Goodall, in National Geographic, April 2003, p.78). Goodall notes that these pressures are a consequence of an increase in refugee settlements around the Gombe National Park which have encroached on the chimpanzee territory. Conservation discourses are intrinsically tied to the creation of nonhuman animal geographies that mark out the borders of spaces occupied by 'at risk' nonhuman animals. Such geographies are inevitably linked to economic, political, and ideological interests.

By way of a comparison nonhuman animals that are constructed as 'risks' also produce new geographies of human and nonhuman animal spaces. As I have already noted, dogs, as risks to human health and welfare, are excluded from parks, shops, restaurants and so forth to produce localised zones of protection for humans. Endangered species often re-write geographies on a larger scale through the creation of national parks and protected habitats, often re-drawing national boundaries (see: Michel, 1998). Maps in publications such as National Geographic reproduce these ideological constructions as spaces of containment for the preservation of species that often, in reality, exclude local humans in favour of the protection of nonhuman animals. In short, anthropomorphism is now indelibly bound to the politics of conservation.

Despite the apparent consistency of the discourse of endangerment and the appropriation of anthropomorphic practices to construct the 'at risk' status of nonhuman animals, it is nonetheless the case that a hierarchy exists. A researcher into the habitat and behaviour of sloth bears stated in a recent article, "Unfortunately sloth bears have to compete with charismatic species such as tigers. The bears get far less

attention than they deserve" (National Geographic, November 2004, p.85). Such statements make clear the paradox of 'at risk' species; some are more charismatic, more newsworthy, more attractive and therefore more readily anthropomorphised and constructed as 'at risk'. Certainly in the public discourse of 'at risk' wild nonhuman animals, it is the species available for adoption through the WWF 'Adopt an animal' scheme and those constructed as 'mothers' within National Geographic that predominate. The paradox of this situation is brought into sharp relief by reference to the IUCN Red List, the definitive database of all known species and their level of endangerment. The African elephant, a key symbol of 'at risk' nonhuman animals is classified as 'endangered' whilst, for example, the Puerto Rican crested toad is *critically* endangered. Less charismatic 'at risk' species such as the toad receive little media or public attention.

Concern for species 'at risk' has saturated public thinking most fully since the 1980s concurrent with; the broader acceptance of anthropomorphism by the scientific establishment, the regular appearance of the point of view shot which constructed nonhuman animal subjectivity within natural history documentaries; the reconfiguration of the pet and farmed nonhuman animal as 'risks' to public health and welfare; and the growth of the pet market structured through the competing commercial discourse of pet-keeping which has continued to construct anthropomorphised representations of 'happy' pets. Such constructions have complicated the boundaries between wild nonhuman animals as 'threats' and the 'safety' of domestic nonhuman animals.

From this contemporary situation a new hierarchy of nonhuman animals has emerged; the favoured anthropomorphised species, and then those that are 'risks', 'threats' or 'uncharismatic'. I argue that this hierarchy is managed and maintained through discourses of popular culture. The construction of dangerous dogs continues to take place predominantly through the popular press, film and television whilst the competing construction of 'happy pets' has been managed through the commercial

discourses of pet product manufacturers. The scientists that have embraced anthropomorphic descriptions have become media celebrities despite the dominance of an anti-anthropomorphic stance within many scientific discourses. Diane Fossey, Jane Goodall, Konrad Lorenz and David Attenborough have all appropriated anthropomorphic practices in relation to nonhuman animals whilst Stephen Hawking and Richard Dawkins author of The Selfish Gene have anthropomorphised other nonhuman objects and entities and, in doing so, garnered popular attention through the mass media. The audiences for anthropomorphic natural history documentaries are such that specialist television channels such as Animal Planet and Discovery Channel are devoted to this genre of programming. At the centre of so many of our interactions with nonhuman animals and their representations, anthropomorphism and anthropomorphic practices have become a cultural dominant.

Conclusion

I have argued throughout this thesis that anthropomorphism is intrinsically bound to changing constructions of human/nonhuman animal difference. In the spirit of a Foucauldian critical history I have demonstrated that shifts in knowledge conditions have produced differing conceptualisations of the nonhuman animal and that discourses of difference and similitude have consequently shaped and regulated cultural texts and practices. Crucially I have noted that these knowledge/discourse configurations are involved in the distribution of power with material consequences for both human and nonhuman animals. A key aim throughout my discussion has been, therefore, to demonstrate how anthropomorphic practices have utilised nonhuman animals to serve various ideological interests and to establish that anthropomorphism is a significant aspect of the multiplicity of cultural interactions with nonhuman animals and their representations.

Central to my discussion has been the relationship between discourses of science and popular culture with the aim of giving voice to a critical history of anthropomorphism

from a cultural studies perspective. In doing so, my intention has been to illuminate the multiplicity of arrangements that construct anthropomorphism as a cultural practice subject to appropriation, management and regulation. This history therefore responds to dominant criticisms that have 'blamed' popular culture for fostering anthropomorphism to the detriment of science and human progress, and so refutes suggestions that anthropomorphism is innate, a 'problem for science' or that humanising practices are 'right' or 'wrong'. Anthropomorphic practices are bound to power-knowledge configurations. Anthropomorphism is therefore a social construction and an identified and defined object of discourse that resonates through, informs, and regulates cultural production, cultural practices, and representations of nonhuman animals.

What emerges clearly from this historical discussion is significance of the interplay and tensions between discourses of science and popular culture. 1970s natural history documentaries demonstrate that anthropomorphism has not been consistently employed across popular culture, however it is the case that for much of the twentieth century popular culture was considered as the repository of anthropomorphic practices. From this I want to make two important observations. Firstly anthropomorphism acquired a pejorative status through its exclusion from 'serious' discourses of science *and* through its perceived continuing inclusion within aspects of popular cultural texts and practices. This arrangement reproduced a binary opposition wherein anthropomorphism within popular culture was positioned as having little credibility or worth when set against the authorised nonhuman narratives of science. However, this pejorative status has obscured the ideological implications of anthropomorphic practices and done little to centralise their importance in relation to human/nonhuman animal relationships and interactions. Here I have examined anthropomorphism in relation to the maintenance and disruption of social hierarchies, animal rights and welfare, the commercial discourses of advertising, and the politics of conservation for example; all of which are hugely significant ideological interactions

with nonhuman animals and their representations. Crucially, I have also demonstrated that each of these configurations also maintains links with discourses of science. My second observation therefore is that scientific narratives have been interwoven with popular cultural narratives and practices, and although anthropomorphism may have been marginalised by science in the early twentieth century, it is apparent that there have been important alliances between discourses of science and popular culture that have produced anthropomorphic texts and practices as objects of discourse.

Rather than popular culture being 'blamed' for the prevalence of anthropomorphism, it is clear that science has often appropriated popular culture to propagate anthropomorphic discourses. For example, the Darwinian discourse of human/nonhuman animal continuity exploited popular culture and more recently, for example, scientists have formed strong alliances with various media channels to gain public and governmental support for conservation projects. What connects both the nineteenth century and twenty-first century science/popular culture alliances is the employment of anthropomorphic discourses. Despite the strategic partnerships between science and popular culture in their appropriation of anthropomorphic discourses, I have also demonstrated within this study that anthropomorphism has been subject to various forms of regulation.

Over the course of this study I have identified what I contend to be the key shifts in a history of anthropomorphism. Relating this to periodisation, I have proposed that the nineteenth century saw the emergence of what was retrospectively defined, in a pejorative sense, as anthropomorphism at the beginning of the twentieth century. Prior to the twentieth century, anthropomorphism was regarded as the attribution of human characteristics to deities however anthropomorphic practices were redefined to relate to nonhuman animals, in part, through a positivist rejection of subjective interpretation. The knowledge conditions that precipitated this shift included the rise of positivist and modernist discourses which I grouped under the rubric of modern humanism. I have

argued here that it was important for the authorities of science and the state to reject and regulate anthropomorphic practices at the end of the nineteenth and through much of the twentieth century. Primarily this regulation was necessary to ensure the continued exploitation of nonhuman animals to serve human interests. As I have demonstrated in this study, anthropomorphism as a cultural dominant underpinned and authorised by the Darwinian discourse of evolutionary biology in the nineteenth century precipitated public support for anti-vivisection. During war-time, anthropomorphism was constructed as damaging to the war-effort and the exploitation of nonhuman animals was central to the rebuilding of a post-war economy. It was therefore vital that anthropomorphism was constructed as an erroneous sentimental or misplaced emotional interpretation of the nonhuman animal. Significantly, the Darwinian discourse of nonhuman animal emotion became an intellectual casualty of this anti-anthropomorphic stance. Through this study I believe that I have substantiated Richard Ryder's speculative suggestion that:

The words 'anthropomorphism' and 'sentimentality', both widely used in twentieth century Britain to disparage those who treated nonhuman animals in ways considered to be only appropriate to humans, were unheard in this context until after Darwin's day. Is it too fanciful to suggest that they were the animal exploiter's defences against the logical implications of Darwinism?

(Ryder, 1989, p.164)

What emerges from this history therefore is an important relationship between discourses of nonhuman animal welfare and rights and anthropomorphism. It is important to recognise however that in the 1970s moral philosophy and the renewed defence of nonhuman animal rights distanced itself from the pejorative label of anthropomorphism. What I feel is significant about this point is that anthropomorphic practices have been intrinsically related to the broader credibility of various individuals and discourses relating to nonhuman animals. I have demonstrated this distancing through my examples of natural history documentaries in the 1970s as well as through statements made by nonhuman animal rights exponents and scientists. I have also proposed here that this distancing was due to the relocation of anthropomorphism

within popular culture at the beginning of the twentieth century where it came to be regarded as lacking in credibility and objectivity and linked to sentiment and emotion. Anthropomorphic depictions of nonhuman animals became synonymous with Disney wildlife films which were criticised for their inaccuracy and lack of scientific realism as well as pet product advertising and other early twentieth century popular fictions. From this configuration tensions between science and popular culture emerged in relation to the construction of representations of nonhuman animals. I have demonstrated through my discussion and case studies, these tensions were particularly visible in the natural history documentary which had to straddle the discourses of science and popular culture.

One secondary observation to emerge from this critical history has been the relationship between gender and anthropomorphism. Whilst there was no conscious intention to focus on this issue, it is nonetheless apparent that certain appropriations of anthropomorphism have been gendered in addition to being commercially marketed through popular culture to a female audience. Within postwar advertising discourses, the anthropomorphised pet was used to appeal to the person responsible for the household budget, primarily the female consumer. Similarly, Nintendogs has been specifically designed to open up the gaming market to female consumers and the strategy utilised by Nintendo has involved young women to market and advertise the game. It is also of note that the console is offered in a choice of pink or baby blue. It is clear that such marketing has succeeded as more than half of the Nintendogs games sold have been to female consumers. That Nintendogs is primarily based around the notion of care-giving connects the gendering of the game with the anthropomorphisation of nonhuman animals within the conservation discourse. In this sense the key images of anthropomorphised nonhuman animals are those that relate to the mother, the child, vulnerability, emotion and to the practices of care-giving and nurturing: all of which are discursively associated with the female.

Another subsidiary finding to emerge from this discussion feeds into the histories of nonhuman animal representation. As my discussions around anthropomorphism in the science of nonhuman animal emotion, advertising, and conservation discourses have shown, the highlight or sparkle in the eye of the represented nonhuman animal is not simply an aesthetic choice or flourish. Rather this is part of a dominant system of representative practices and is directly linked to the ideological construction of the humanised nonhuman animal. The highlighted nonhuman animal eye is embedded within popular culture as a signifier of happiness and as a sensory cue alerting humans to the emotion and consciousness of the nonhuman animal. My discussion demonstrates that nonhuman animal representations are always discursively constructed and crucially that they are used implicitly or explicitly to organise broader schemes of social meaning. Anthropomorphised nonhuman animals function as a way of exposing difference between human and human. Hierarchies have emerged wherein the anthropomorphised nonhuman animal is more human(e) than the 'primitive', 'the hunter', the woman, or the working classes. As such my discussions here have shown that anthropomorphised nonhuman animals are a key mechanism for ordering social relations between humans.

This critical history of anthropomorphism demonstrates that there are no 'real animals' only versions and revisions to animality and humanness that are structured through discursive arrangements. Through these discursive formations, whether it is utilised in the construction of a scientific subject or a companion animal, or in aligning audience sympathies through the subjective point of view shot, anthropomorphism ultimately refuses the 'animality of animals'. This locates anthropomorphism as an ideologically charged practice which quells animality to raise public support for anti-vivisection, animal rights, or conservation politics, to order gender, class or racial difference, to organise moral and social conduct, sell commercial products, or to ameliorate the material risks of nonhuman animal bodies. As my discussions have revealed, such is

the significance of anthropomorphism that it has been subject to state, scientific, and social regulation.

Part of the originality of this thesis lies in its status as the first historiography of anthropomorphism. This critical history of anthropomorphism therefore informs extant histories of human/nonhuman animal relationships. One of the crucial outcomes of this project has been to demonstrate that there are no 'right' or 'wrong' appropriations of anthropomorphism or anthropomorphic practice. Instead there are webs of relationships that will either validate or deny specific concepts as attributable to nonhuman animals. As animals are so central to ordering our human schemes of meaning, such legitimisation or denial will inevitably intersect with the social distribution of power. In informing the current academic debates on nonhuman animals, this critical history suggests that anthropomorphism must not be considered, as it has been, on the periphery of human/nonhuman animal relationships, rather it should be centralised as a significant mechanism of power/knowledge relationships. What is particularly important about such relationships is that they have direct consequences on the lived lives of human and nonhuman animals.

Endnotes

¹ I use the term relativism here in a descriptive and non-pejorative sense.

² At time of writing, Breed Specific Legislation (BSL), that uses the UK 1991 legislation as a model, has been introduced in 27 countries across Europe and the US. See articles by Mays, 2003, also articles in Dog World, 2003 and Our Dogs, 2003.

³ Sources: 'NCDL survey reveals anti-dog discrimination' in Our Dogs, 10th January 2003, p.2; 'Comparative Tables of KC Registrations for the Years 1993-2002 inclusive', in Our Dogs, 24th January 2003, p.13; 'Dogs' homes 'packed' in Our Dogs, 3rd January

2003, p.3, 'Beef information', (2005) on the British Meat website, at http://www.meatmatters.com/sections/britishMeat/beef_information.php.

⁴ My point here refers to the fact that pet-keeping becomes established as popular practice during industrialisation.

⁵ The Hunting Act banning hunting with dogs was not introduced until 2004 following the inclusion of the issue in the Labour manifesto in 2001. Hunting was therefore not on political agendas in 1991 during the dangerous dogs debate and even in 2006, the UK Government's DEFRA website states, "Hunting is not a priority for the Government" <http://www.defra.gov.uk/rural/hunting/default.htm> [accessed 17.03.06]. It is important to note that the Hunting Bill 2003 was not passed by the House of Lords in 2003 or 2004 and the Hunting Act was only passed in 2004 under the Parliament Acts (see: <http://www.defra.gov.uk/rural/hunting/background.htm>).

⁶ The contemporary fascination with hygiene is probably most usefully illustrated by the popularity of a recent UK television programme How Clean Is Your House in which two 'expert' cleaners investigate houses and judge their levels of cleanliness.

⁷ The Furby history states that Furby lived in the clouds before coming to Earth (Furby Instruction Manual, 1999: 1).

8. Furby 'acquired' the language relevant to the particular sales area. I refer here to those Furby that were specifically programmed for Furbish™ to English translation.

⁹ Nintendogs was designed to encourage female consumers into gaming and to open up the gaming markets to include a, previously marginalised, female audience. Sources: Wired 22nd August 2005 at <http://www.wired.com/news/games/0,2101,68558,00.html> and Nintendogs website <http://nintendogs.nintendo.co.uk/> accessed 20.09.05.

¹⁰ An open-ended game is one that has no 'story' and no levels to complete and therefore no final resolution.

¹¹ Whilst it has been noted in various sources that the game is successful in Japan because social conditions prohibit dog ownership in many large cities and the virtual

PAGE NUMBERING AS IN THE ORIGINAL THESIS

pet responds to those cultural conditions, such reasoning cannot account for the success of the game within Europe and the US where dog ownership is neither socially nor culturally prohibited.

Appendix 1

Shot-by-shot of the dog-catcher sequence from Lassie Come Home (1943)

Fade-up from black (1:13:45)

1. Ext. streets M/S Dog's viewpoint tracking: Lassie walking through streets
2. M/S: Dog catchers see Lassie and get out of van (1:13:58)
3. M/S, Dog's viewpoint, tracking: Lassie walking (1:14:01)
4. M/S, Dog's viewpoint, tracking: Dog catchers legs running (1:14:02)
5. M/S, Dog's viewpoint, tracking: Lassie turns looks in the direction of dog-catchers and starts to run away (1:14:06)
6. M/S, Dog's viewpoint, tracking: Legs running (1:14:10)
7. C/U: Lassie's looking in the direction of the dog-catchers, turns runs out of frame (1:14:12)
8. M/S, dog's viewpoint, tracking: Legs running (1:14:13)
9. M/S, Dog's viewpoint, track and pan: Lassie running (1:14:15)
10. M/S, Dog's viewpoint, track pan: Legs running (1:14:17)
11. M/S, Dog's viewpoint: Lassie stops, looks behind and runs up an alley (1:14:19)
12. M/S, Dog's viewpoint: Legs running, dog-catchers follow up the alley (1:14:24)
13. L/S: Lassie turns in the dead end of the alley (1:14:27)
14. L/S, Low angle: Dog-catchers appear in shot and run up the alley (1:14:31)
15. L/S, Match action: Dog-catchers corner Lassie at the end of the alley, Lassie turns and runs into a building, dog-catchers follow (1:14:32)
16. Interior building, M/S, Dog's viewpoint, match action, pan: Lassie runs to stairs (1:14:37)
17. Low angle, M/S, match action: Lassie runs up stairs (1:14:39)
18. M/S, Dog's viewpoint, pan: Legs run to stairs (1:14:41)
19. Low angle, M/S, match action: Dog catchers run up stairs (1:14:43)

20. M/S, Dog's viewpoint, pan: Lassie runs through table legs (1:14:45)
 21. M/S, Dog's viewpoint, match action: Lassie runs through tables (1:14: 47)
 22. M/S, Dog's viewpoint: Legs run past tables (1:14:48)
 23. L/S, Low angle: Lassie runs through frame and round a corner (1:14: 51)
 24. L/S, Low angle: Lassie trapped in the room, looks through open window,
looks back in the direction of the dog-catchers (1:14:52)
 25. M/S, Low angle: Legs run through frame (1:14:55)
 26. C/U: Lassie looking in the direction of the dog-catchers (1:14:58)
 27. L/S, POV Lassie: Dog-catchers walk menacingly toward the camera with the
catcher's pole and loop extended (1:14:59)
 28. M/S: Lassie looks in the direction of the dog-catcher turns and jumps out the
window (1:15:01)
 29. Ext. building, L/S, Low angle, match action: Lassie jumps from window. Dog-
catchers appear at window look down then walk away from window (1:15:02)
 30. MLS: Lassie on the floor, gets up and limps in pain behind a stack of barrels
(1:15:12)
- Dissolve to interior of Carracloough's cottage. (1:15:28)

Appendix 2

Shot-by-shot of wolverine/rabbit chase sequence from White Wilderness (1958)

1. Ext. Arctic woodland L/S wolverine looks left
2. M/S, Rabbit in log, looks right and runs out of frame left
3. L/S, tracking: wolverine running
4. L/S, rabbit running
5. M/S, rabbit running, wolverine in pursuit
6. L/S, wolverine chasing rabbit- run out of frame
7. L/S: wolverine chasing rabbit
8. L/S, wolverine chasing rabbit
9. L/S, wolverine chasing rabbit
10. M/S, high angle wolverine chasing rabbit
11. C/U, rabbit running
12. C/U, wolverine running
13. M/S: rabbit runs through frame chased by wolverine
14. C/U, rabbit runs into hollow log
15. M/S, wolverine arrives at log
16. Interior hollow log, C/U, rabbit point of view; wolverine at the opening to the
log
17. Exterior log M/S, wolverine climbs onto log
18. M/S, wolverine on log, finds a hole and puts paw through hole
19. Interior log C/U, rabbit head and wolverine paw
20. C/U, rabbit head and eyes
21. L/S, rabbit point of view looking out the end of the hollow log as it begins to
roll from side to side
22. Exterior hollow log, L/S, wolverine rolling the log
23. L/S, log rolls downhill toward camera

24. Interior hollow log, rabbit point of view, out of the end of the log as it rolls downhill
25. Exterior shot L/S, log rolls toward lake
26. C/U: log hits the water and rabbit swims from the end of the log
27. M/S, rabbit swims to shore
28. M/S: rabbit in a clearing cleaning legs

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