

The weave of presence: a creative and critical
exploration of the enactment of animal subjectivity
in poetry

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Summary

This finite planet, radically altered by human activity, faces both climate change and biodiversity loss. We urgently need to recognise our connectedness and interdependence with the more-than-human world, yet human estrangement from nonhuman nature persists. This thesis explores poetry's potential role to re-connect us with nature, particularly other animals. Specifically, it explores, critically and creatively, the poetic enactment of nonhuman subjectivity, and animal *presence*.

Theoretical approaches informing the project include Martin Buber's study of 'I-Thou' modes of relating to the world; Iain McGilchrist's examination of left and right brain hemisphere differences; Ralph Acampora's concept of symphysis, and posthumanism's challenges to human exceptionalism. I also explore the implications of going 'beyond the brain', privileging instead embodiment and whole living creatures.

The thesis comprises three chapters investigating animal senses, emotions, and language, together with examples of how these have been enacted poetically, drawn from the work of Les Murray, Elizabeth Bishop and others. A collection of poetry titled '*...the weave of presence*' explores the ideas examined in the critical section. Both critical and creative elements of the thesis are informed by science as well as the humanities.

In investigating the poetic enactment of nonhuman animals, I draw on the work of Scott Knickerbocker ('sensuous poesis'), Randy Malamud ('empathetic imagination'), and Aaron Moe's attention to animals' 'bodily poesis'. I embrace both Malamud's 'ecocritical aesthetic', and Michael Malay's conceptualisation of 'seeing poetically'.

Through investigating animal senses, emotion, and language, I conclude that while humans are evolutionarily connected to other animals, it is important to respect and celebrate animals' alterity. Further, while poetry has a role in re-connecting humans empathically with the more-than-human world, poetry is not the only means of accomplishing this, and on its own is insufficient. Finally, poetry's 'creatureliness' can enable, albeit imperfectly, the poetic enactment of animal being.

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Structure and terminology

Structure

The critical part of my thesis (Part I) comprises a prologue, an introduction, three chapters and a discussion. Part II consists of ‘Creative commentaries’ in which I consider the relationship between each thesis section and selected examples of my own poetry.

The creative element, Part III, comprises a collection of poems titled ‘...*the weave of presence*’, a phrase quoted from the final line of Les Murray’s poem ‘Mollusc’.¹ This title was chosen because my thesis explores how poetry might bring into being, albeit imperfectly, the *presence* of living things. Further, the title acknowledges the centrality of Murray’s *Translations from the Natural World* collection, in shaping my project.

The word *weave* is also significant to my PhD. The etymology of ‘text’ derives from the Latin *texere*, which means ‘to weave, to join, fit together, braid, interweave, construct, fabricate, build’ and relates to the idea of poet as weaver.² Various ideas and themes weave through my own collection, and through my thesis, contributing to what I hope is a coherent whole. Poetry collections might be compared to ecosystems in which the various elements interact, interdepend, and interweave. A living thing depends on its environmental context and will not flourish if removed from that context. While individual poems can stand on their own, nonetheless they are strengthened and informed by the ‘conversations’ arising within a collection in which the poems speak to and enrich one another. My collection comprises fifty-seven poems, organised into six themed sections.

Terminology

The language around ‘animals’ and ‘humans’, the ‘natural world’ and the human wrought world is fraught with linguistic and conceptual difficulties. For example, it is scientifically and philosophically incoherent to lump together all animals and distinguish them from humans, and yet this is what we routinely do. This blurs the obvious fact that humans are

¹ Les Murray, ‘Mollusc’, in ‘Presence: Translations from the Natural World’, *Translations from the Natural World* (Manchester: Carcanet Press Limited, 1993) 13-54 p. 26.

² <https://www.etymonline.com/word/Text>

animals, as well as obscuring the vast and vital differences between species. Replacing the word ‘animals’ with ‘nonhumans’ runs into similar difficulties, while the term ‘nonhuman animals’ is only marginally better; while a reminder that we too are animals it still distinguishes and separates humans from the rest. David Abram’s phrase ‘more-than-human worlds’ has its appeal in that it implies the vastness, complexity, mystery and wonder of all that lies beyond the human realm.³ But it still implies a binary: human versus non- (or more-than-) human, whereas in practice, as Timothy Morton makes plain in *Ecology Without Nature*, humans are part of nature and to suggest otherwise is misleading.⁴ In writing this thesis I have used the terms ‘humans’, ‘animals’, ‘nonhuman’ and ‘nonhuman animals’ where appropriate and in accordance with their commonly understood meanings. I also use the term ‘more-than-human world’ where relevant. Using these various terms is a pragmatic choice but does not imply that humans are not animals, animals are not marvellously varied, and that to distinguish between the human and nonhuman is necessarily meaningful.

³ David Abram, *The Spell of the Sensuous*, (New York: Vintage Books, 1997) p. 7.

⁴ Timothy Morton, *Ecology Without Nature: Rethinking Environmental Aesthetics* (Cambridge, M.A.: Harvard University Press, 2009).

Part I:

The weave of presence: a creative and critical
exploration of the enactment of animal subjectivity
in poetry

Prologue

Imagining a world without animals: ‘The Last Animal’ by Elizabeth Bishop

The din of the dusty world and the locked-in-ness of human habitations are what human nature habitually abhors; while, on the contrary, haze, mist and the haunting spirits of the mountains are what human nature seeks, and yet can rarely find. Guo Xi, eleventh century¹

‘I’ve found, – by golly, I’ve found a animal.’ Elizabeth Bishop²

Elizabeth Bishop’s short story ‘The Last Animal’, written in 1934, contemplates a world bereft of nonhumans. In envisioning such a world Bishop made an imaginative leap that, at the time, might have seemed a science fiction thought experiment. However, to the contemporary reader equipped with knowledge of human-caused wildlife loss, Bishop’s tale appears prophetic. A recent UN report, for example, found that around one million species face extinction.³

I first read ‘The Last Animal’ some years ago. Then, as reports of extinctions and climate chaos became rife, I returned to Bishop’s tale at the start of my PhD. Its themes – the false notion that humans are apart from nature; the valuing of technological progress over a natural world relegated to exploitable resource, and the fantasy of human flourishing without the presence of animals – helped shape this project. The story also touches on questions of nonhuman sentience and human-animal relations which are key concerns of my thesis.

¹ Cited by Lucy Jones, *Losing Eden: Why Our Minds Need the Wild* (London: Allen Lane, 2020) p. 7.

² ‘*I’ve found, – by golly, I’ve found a (sic) animal.*’ Elizabeth Bishop, ‘The Last Animal’, in *Elizabeth Bishop: Prose*, ed. by Lloyd Schwartz (London: Chatto & Windus, 2011) 475-79 p. 477.

³ IPBES (2019): *Summary for policymakers of the global assessment report on biodiversity and ecosystem services of the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services*. Ed. by S. Díaz *et al.* IPBES secretariat, Bonn, Germany, p. 12. See also Elizabeth Kolbert, *The Sixth Extinction: An Unnatural History* (London: Bloomsbury, 2015).

Bishop's story centres on Roger Rappaport, the eight-year-old son of the last remaining Professor of Zoology at the fictional Merton College. We learn that the college trustees have been trying to get rid of the chair of Zoology for years, the subject being, as 'everyone agreed, [...] a dead science [...]'.⁴ Merton, we discover, aims to be 'a college for practical vocational training', while zoology 'was no longer living, it was only a matter of interest to a few doddering professors or reactionaries (like Professor Rappaport) who could not face the facts of modern life [...]'.⁵ These facts include the shocking revelation that animals are extinct. Moreover, the loss is total including the 'Infusoria', a collective term for microscopic aquatic creatures.⁶ In Bishop's fictional world humans appear to survive without extant animals, a fallacious conceit given that our survival depends on life-sustaining ecological webs.⁷ David Wallace-Wells in his book, *The Uninhabitable Earth*, is unsentimental about 'nature', yet makes plain what is at stake:

I may be in the minority in feeling that the world could lose much of what we think of as "nature," as far as I cared, so long as we could go on living as we have in the world left behind. The problem is, we can't.⁸

Bishop hints at this; humans have not escaped unscathed, evidenced by a 'sharp decrease' in the birth rate.⁹

⁴ Elizabeth Bishop, 'The Last Animal', p. 475.

⁵ Ibid. p. 475.

⁶ Ibid. p. 476.

⁷ For an account of the principles and history of ecology, see Sean B. Carroll, 'The Economy of Nature', in *The Serengeti Rules: The Quest to Discover How Life Works and Why It Matters* (Princeton, New Jersey: Princeton University Press, 2016) 30-46.

⁸ David Wallace-Wells, *The Uninhabitable Earth: A Story of the Future* (London: Allen Lane, 2019) p. 36.

⁹ Elizabeth Bishop, 'The Last Animal', p. 475.

Much in this story is left unsaid, for example we are not told how or why this extinction has occurred. The catastrophe is presented matter-of-factly as if humanity has taken it in its stride. Roger muses:

Why it seems only yesterday that there was a fair number of animals around at the various institutions and papa's work was alive and exciting. And now everyone thinks there's nothing left of it except a lot of old pictures with names underneath.¹⁰

We learn in passing that the last living specimens in Rappaport's lab expired due to student carelessness. No-one notices what is happening until it is too late, eerily anticipating our present environmental predicament.

The issue of indifference to and ignorance of environmental damage is addressed by Callum Roberts.¹¹ Roberts contends that few people, including conservationists, recognise the scale of declines in oceanic life compared to 'their pre-exploitation state'.¹² He describes 'collective amnesia', and how 'shifting environmental baselines' normalise oceanic degradation.¹³ Shifting baselines and the related concept of 'environmental generational amnesia' have pernicious effects; nature's decline is measured against, say, our childhood recollections.¹⁴ Inevitably, losses are normalised, accommodating a 'creeping disappearance' of species.¹⁵ Peter Kahn quotes Jill Fredston, dismayed at the sterility of the Norwegian coast which nonetheless enraptures visitors from urban parts of Europe:

¹⁰ Elizabeth Bishop, 'The Last Animal', p. 476.

¹¹ Callum Roberts, *The Unnatural History of the Sea: The past and future of humanity and fishing* (London: Gaia Publishing, 2007) p. xii.

¹² *Ibid.* p. xii.

¹³ *Ibid.* p. xii. The 'shifting baseline syndrome' is a concept developed by fishery scientist, Daniel Pauly; Daniel Pauly, 'Anecdotes and the shifting baseline syndrome of fisheries', *Trends in Ecology and Evolution*, 10:430 (1995), cited by Callum Roberts, *The Unnatural History of the Sea*, pp. 264-65, and Peter H. Kahn, *Technological Nature: Adaptation and the Future of Human Life* (Cambridge M.A.: Massachusetts Institute of Technology, 2011) p. 174.

¹⁴ Peter H. Kahn, *Technological Nature*, p. 174.

¹⁵ *Ibid.* p. 174.

That experience frightened us to the marrow. It made us realize that, like the perpetually grazing sheep [in Norway], centuries of human habitation have nibbled away not only at the earth but at our perception of what constitutes nature. When we do not miss what is absent because we have never known it to be there, we will have lost our baseline for recognizing what is truly wild.¹⁶

Something of the kind has happened in Bishop's fictional world as catastrophic losses are rationalised and minimised.

In *The Moth Snowstorm* Michael McCarthy describes a childhood lived prior to intensive farming, remembering a 'time of natural abundance', a profusion of butterflies, hares, larks and poppies, as well as the moths and other insects which blizzarded car windscreens.¹⁷ He recalls how, at the journey's end, 'you would have to sponge away the astounding richness of life'.¹⁸ McCarthy notes that around 2000 he realised this phenomenon had largely disappeared.¹⁹ His observations are confirmed by studies cataloguing the catastrophic decline in terrestrial invertebrates upon which the rest of life depends.²⁰

Rappaport justifies the continued study of zoology in terms of its cultural significance – etymology and mythology – without which, he contends, English cannot be appreciated.²¹

Curiously, 'zoology' has more in common with the humanities than science, perhaps distantly

¹⁶ J. A. Fredston, *Rowing to Latitude: Journeys along the Arctic's Edge* (New York: North Point Press, 2001) p. 217, quoted by Peter H. Kahn, *Technological Nature*, p. 170.

¹⁷ Michael McCarthy, *The Moth Snowstorm: Nature and Joy* (London: John Murray, 2015) pp. 12 & 13.

¹⁸ *Ibid.* p. 13.

¹⁹ *Ibid.* p. 103. The irony of this abundance being revealed by motor vehicle technology is not lost on McCarthy, p. 105.

²⁰ *Ibid.* pp. 104-105; Caspar A. Hallmann *et al.* 'More than 75 percent decline over 27 years in total flying insect biomass in protected areas', *PLOS ONE*, October 18 (2017) 1-21.

<https://journals.plos.org/plosone/article?id=10.1371/journal.pone.0185809>; Damian Carrington, 'Car 'splatometer' tests reveal huge decline in number of insects', *The Guardian*, Wed 12 February 2020.

<https://www.theguardian.com/environment/2020/feb/12/car-splatometer-tests-reveal-huge-decline-number-insects>

²¹ Elizabeth Bishop, 'The Last Animal', p. 475.

foreshadowing the academic discipline of Human-Animal studies.²² The only ‘animal’ in the institution is a ‘cast iron deer’ in a lifelike pose, labelled ‘DEER’.²³ We learn how it was unearthed and assumed to be a fossil, and of Rappaport's disappointment when it is found not even to have been a once living thing. He paints it to resemble a live deer thereby highlighting the chasm between living things and facsimiles thereof.²⁴ There is poignancy in Rappaport's desire to preserve an artefact which faintly echoes a living creature.

‘The Last Animal’ depicts a world where the loss of nonhumans goes largely unmourned, as if humans have rationalised their absence. Zoology is anachronistic, a love of nature at odds with modernity. Disaster is downplayed and collective denial prevails. McCarthy argues that the Romantics’ respect and admiration of nature’s beauty was ‘contemptuously swept [...] aside’ by modernism.²⁵ While McCarthy’s statement flattens the complexities of modernism, including its respect for what had gone before (for example, in *The Waste Land* T.S. Eliot drew on previous philosophical and literary traditions), it is the case, nevertheless, that increased reliance on technology and industrialisation, combined with a narrow understanding of what constitutes human progress, has alienated our species from its ineluctable rootedness in, and connection to, nature.²⁶ This is evident in Bishop’s story – regret at the loss of nonhuman species is considered sentimental and antithetical to technological innovation. Merton’s trustees express something akin to James Scott’s ‘Authoritarian High Modernism’ which ‘denied the existence of human nature, with its messy

²² See Margo DeMello, *Animals and Society: An Introduction to Human-Animal Studies* (New York: Columbia University Press, 2012).

²³ Elizabeth Bishop, ‘The Last Animal’, p. 476.

²⁴ For a discussion of the challenges inherent in addressing the question ‘what is life?’, see Paul Davies, ‘What is Life?’, in *The Demon in the Machine: How hidden webs of information are solving the mystery of life* (London: Allen Lane, 2019) 5-26.

²⁵ Michael McCarthy, *The Moth Snowstorm*, p. 158.

²⁶ For further discussion of this issue, see Timothy Morton, *Ecology Without Nature: Rethinking Environmental Aesthetics* (Cambridge M.A.: Harvard University Press, 2009).

needs for beauty, nature, tradition, and social intimacy'.²⁷ The world conjured by Bishop is primarily characterised by what philosopher Martin Buber termed 'I-It' relationships in which a detached, instrumental view prevails.²⁸ Almost entirely absent is the 'I-Thou' mode of encounter in which humans attend to others in relationships of mutuality. For Buber, 'All real living is meeting'.²⁹

Bishop's story takes an unexpected turn as Roger, a lonely child 'rather old for his age', waits at the window for his father to come home.³⁰ An old man approaches, carrying a large straw basket. Roger assumes the basket contains a gift. He opens the door to the man who declares, 'I've found, – by golly, I've found a (*sic*) animal'.³¹ The unidentified animal has 'a pointed nose and whiskers and close round ears, and extremely large dark eyes that were full of tears'. Roger cares for it until his father returns:

It was rather sad to see Roger's gentleness and discretion with the creature. Born at an earlier day he would probably have made one of those people who cannot mingle comfortably with their own sort, but in the society of animals became at once charming and lovable. However, as things were, Roger, except for this short while, was destined to go through life never appearing at his best [...].³²

This passage highlights the psychological importance of animals for humans, particularly children. Jim Mason argues that animals influenced the evolution of human consciousness.³³

²⁷ James C. Scott, *Seeing like a state: How certain schemes to improve the human condition failed* (New Haven: Yale University Press, 1998), cited by Steven Pinker, *Enlightenment Now: The Case for Reason, Science, Humanism and Progress* (London: Allen Lane, 2018) p. 12.

²⁸ Martin Buber, *I And Thou*, trans. by Ronald Gregor Smith (Edinburgh: T. & T. Clark, 1958), cited by Jenny Odell, *How to Do Nothing: Resisting the Attention Economy* (London: Melville House Publishing, 2019) p. 104.

²⁹ Martin Buber, *I And Thou*, p. 11.

³⁰ Elizabeth Bishop, 'The Last Animal', p. 476.

³¹ *Ibid.* p. 477.

³² *Ibid.* p. 478.

³³ Jim Mason, *An Unnatural Order: The Roots of Our Destruction of Nature* (New York: Lantern Books, 2005) p. 93.

Paul Shepard explores the role animals play in the growth and development of human minds, stating that:

Animals are among the first inhabitants of the mind's eye. They are basic to the development of speech and thought. Because of their part in the growth of consciousness, they are inseparable from a series of events in each human life, indispensable to our becoming human in the fullest sense.³⁴

Mason suggests that because other animals are both like and unlike humans, we are pushed to compare and to categorise: 'Animals made us think. Animals drove and shaped human intelligence'.³⁵ He observes a contradiction in how humans regard animals, which also plays out in Bishop's story. On the one hand, 'Our dominionist culture denigrates animals, yet our brain/mind needs them as fertilizer'.³⁶ In a similar vein David Abram asks: 'Do we really believe that the human imagination can sustain itself without being startled by other shapes of sentience – by redwoods and gleaming orchids and the eerie glissando cries of humpback whales?'³⁷

Many writers describe how deep connections with nature have been formative and psychologically sustaining experiences. McCarthy recalls a troubling childhood episode and recounts how his fascination with butterflies, who 'entered [his] soul', was both protective and healing.³⁸ John Lewis-Stempel records how nature provided comfort and interest to WWI soldiers, while memoirs by Helen Macdonald and Chris Packham, among others, detail how

³⁴ Paul Shepard, *Thinking Animals: Animals and the Development of Human Intelligence* (Athens, Georgia: The University of Georgia Press, 1998) p. 2, quoted by Jim Mason, *An Unnatural Order*, p. 94.

³⁵ Jim Mason, *An Unnatural Order*, p. 93.

³⁶ *Ibid.* p. 98.

³⁷ David Abram, *Becoming Animal: An Earthly Cosmology* (New York: Vintage Books, 2011) pp. 128-29.

³⁸ Michael McCarthy, *The Moth Snowstorm*, p. 5.

nature provided solace and a pathway through various challenges.³⁹ Further, contact with nature, even if only through the hospital window, has a measurably beneficial effect on mental and physical well-being.⁴⁰

The term ‘Nature Deficit Disorder’ coined by Richard Louv describes human alienation from nature.⁴¹ ‘Species loneliness’ similarly captures this estrangement.⁴² The artist Jenny Odell discusses how cultivating attentiveness to birds alleviated her own experience of this loneliness.⁴³ In Bishop’s world, absent of animals, inhabitants are deprived of opportunities to gaze at ‘the Open / deep in animals’ eyes’.⁴⁴ A world without, or depleted of animals is unthinkable, yet this is the world Bishop conjured.

The animal’s discovery partially revives Rappaport’s career. It is kept captive and exhibited. The reason for the animal’s tears is unexplored. Does it weep because it is the last of its kind? Does it weep because it has been captured? That the animal weeps, is shocking and poignant, begging the question as to whether animals, aside from humans, express distress through tears.⁴⁵ The story suggests that animals have emotions, and experience both suffering and

³⁹ Helen Macdonald, *H is for Hawk* (London: Vintage, 2014); Chris Packham, *Fingers in the Sparkle Jar: A Memoir* (London: Ebury Press, 2016); John Lewis-Stempel, *Where Poppies Blow: The British Soldier, Nature, The Great War* (London: Weidenfeld & Nicolson, 2017).

⁴⁰ Michael McCarthy, *The Moth Snowstorm*, p. 61. For a discussion of the psychological and physical health benefits of connecting with nature, see Lucy Jones, *Losing Eden*, e.g., pp. 11-22.

⁴¹ Richard Louv, *Last Child in the Woods: Saving Our Children from Nature-Deficit Disorder* (Chapel Hill, NC: Algonquin, 2005), cited by Peter H. Kahn, *Technological Nature*, p. 165.

⁴² See Robin Wall Kimmerer, *Braiding Sweetgrass: Indigenous Wisdom, Scientific Knowledge, and the Teachings of Plants* (Minneapolis, MN: Milkweed Editions, 2013) p. 208, cited by Jenny Odell, *How to Do Nothing*, p. 143.

⁴³ *Ibid.* p. 143.

⁴⁴ Rainer Maria Rilke, ‘Duino Elegies; The Eighth Elegy’ in *Selected Poems*, trans. by Susan Ranson and Marielle Sutherland (Oxford: Oxford University Press, 2011) p. 165.

⁴⁵ Marc Bekoff concludes that some nonhuman animals do weep. He calls for more research into this little understood subject; Marc Bekoff, ‘Do Elephants Weep as an Emotional response? (Op-Ed)’, *Live Science: Expert Voices*, September 28, 2013. <https://www.livescience.com/40029-do-elephants-weep-as-an-emotional-response.html> See also Frans de Waal who suggests that a grieving chimpanzee mother showed ‘hints of tears’, Frans de Waal, *Mama’s Last Hug: Animal Emotions and What They Teach Us about Ourselves* (London: Granta Publications, 2019) p. 24.

pleasure. Roger strokes the creature and its tears subside. It responds by arching its neck towards his hand and moving its tail. Roger dimly recalls this to be ‘the sign of gratitude on the part of some animal’ but he cannot recall which.⁴⁶ That he has only the faintest inkling about dog behaviour underlines his estrangement from nonhumans.

Despite the miraculous discovery of ‘the last animal’, Rappaport’s implicit assumption is that animals are subservient to humans. Rappaport, not the animal, benefits from its discovery, his right to appropriate it is taken for granted. No thought is given to the possibility that the creature might have interests and a life to lead. It is assumed that this really is the last animal; no-one suggests there might be conspecifics, a mate, or offspring. The animal’s eloquence is restricted to helpless tears, and the protagonists, aside from Roger, express no interest in its subjectivity. It seems the absence of animals has resulted in a loss of empathy and curiosity about other minds, a consequence that might be predicted by Mason and Shepard.

Although my project focuses on poetry, Bishop’s story seems a fitting starting point as it anticipates current threats to wildlife, as well as our, to all intents and purposes, collective indifference to this. Obliviousness to climate chaos and species extinction persists despite evidence of real and looming danger. An article in *The Psychologist* addresses why this might be.⁴⁷ One explanation proffered is that ‘abstract and invisible threats aren’t terrifying to brains that evolved to solve local, experiential and imminent problems’.⁴⁸ This results in a paradox; self-evidently the consequences of climate change are already here in heatwaves, floods,

⁴⁶ Elizabeth Bishop, ‘The Last Animal’, p. 478.

⁴⁷ Cameron Brick and Sander van der Linden, ‘Yawning at the apocalypse’, *The Psychologist*, September 2018, 30-35.

⁴⁸ Ibid. p. 32; See also Owen Jones, ‘Why don’t we treat the climate crisis with the same urgency as coronavirus?’ *The Guardian*, Thu 5 Mar 2020.

<https://www.theguardian.com/commentisfree/2020/mar/05/governments-coronavirus-urgent-climate-crisis> This complex issue is discussed from a literary perspective by novelist, Amitav Ghosh. Amitav Ghosh, *The Great Derangement: Climate Change and the Unthinkable* (Chicago: The University of Chicago Press, 2016).

wildfires and the like, yet these are frequently treated as discrete events to be managed and recovered from, while the underlying climatic changes driving them remain abstract and difficult to grasp.

My project, which explores the poetic enactment of nonhuman subjectivity, was conceived partly as a response to the environmental emergency.⁴⁹ More specifically I wanted to investigate the role that poems, sometimes termed ‘empathy machines’, might play in facilitating an empathic response to nature.⁵⁰ However, humility is required when embarking on such an endeavour; as Seamus Heaney stated, ‘no lyric has ever stopped a tank’.⁵¹ Discussing ecocriticism, Timothy Clark questions its vulnerability ‘to delusions that the sphere of cultural representations has more centrality and power than in fact it has’.⁵² Clark cautions readers against exaggerating the ‘importance of the imaginary’ which risks ‘consolidating a kind of diversionary side-show, blind to its relative insignificance’.⁵³ But while Heaney appeared pessimistic about poetry’s power to effect change, he also asserted that while poetry ‘does not propose to be instrumental or effective’ it ‘holds attention for a space, functions not as distraction but as pure concentration, a focus where our power to concentrate is concentrated back on ourselves’.⁵⁴ Elsewhere he stated: ‘what [poems] do is

⁴⁹ Subjectivity is defined as ‘the quality or condition of being based on subjective consciousness, experience, etc.’, Oxford English Dictionary. In the broadest sense I assume all living beings are the subjects of a meaningful life and take it for granted that they have survival interests and a point of view, whether or not they are ‘conscious’. All life has something to say and our species needs to listen. Given the absence of evidence, I make no assumptions about the levels of neural complexity required for ‘subjective consciousness’, nor do I assume that living things in possession of it are in any way superior to others, or any more deserving of respect. For further discussion of these issues, see Matthew Calarco, *Zoographies: The Question of the Animal from Heidegger to Derrida* (New York: Columbia University Press, 2008) p. 130.

⁵⁰ Anita Sethi, ‘Roger Robinson: ‘Poets can translate trauma’’, interview in *The Guardian*, Sat 13 June 2020. <https://www.theguardian.com/books/2020/jun/13/roger-robinson-poets-can-translate-trauma>

⁵¹ Seamus Heaney, *The Government of the Tongue: The 1986 T. S. Eliot Memorial Lectures and Other Critical Writings* (London: Faber and Faber Limited, 1989) p. 107, cited by Scott Knickerbocker, *Ecopoetics: The Language of Nature, the Nature of Language* (Amherst, Massachusetts: University of Massachusetts Press, 2012) p. 3.

⁵² Timothy Clark, *Ecocriticism on the Edge: The Anthropocene as a Threshold Concept* (London: Bloomsbury Academic, 2015) p. 21.

⁵³ *Ibid.* p. 21.

⁵⁴ Seamus Heaney, *The Government of the Tongue*, p. 108, cited by Scott Knickerbocker, *Ecopoetics*, p. 187.

they change people's understanding of what's going on in the world'.⁵⁵ Clark similarly argues that ecocriticism does have a role in advancing comprehension of ecological problems, a necessary pre-cursor to addressing them.⁵⁶ William Rueckert, discussing the relationship between literature and ecology, asks: 'How can we move from the community of literature to the larger biospheric community which ecology tells us [...] we belong to even as we are destroying it?'⁵⁷ My position is that art, including poetry, can facilitate new ways of seeing and of paying attention; through art 'we can start to imagine what it might be like to live differently upon the earth'.⁵⁸ This is consistent with Odell's view of art as a framing device, artworks as 'training apparatuses for attention'.⁵⁹ Artistic projects create structures that hold 'open a contemplative space against the pressures of habit, familiarity, and distraction that constantly threaten to close it'.⁶⁰ Odell states that: 'When the pattern of your attention has changed, you render your reality differently. You begin to move and act in a different kind of world'.⁶¹ She describes how birdwatching filled her world with hitherto unheeded birds, developing her capacity to perceive their variety, behaviour and song with ever finer degrees of discernment.⁶²

A further argument to be made in support of poetry's potential contribution to addressing the ecological crisis concerns how the environment and its nonhuman denizens are perceived and conceptualised, particularly in industrialised societies. Psychiatrist and literary scholar Iain

⁵⁵ Seamus Heaney, 'Walk on air against your better judgment': Heaney on life, poetry, God and Ireland', *The Irish Times*, Fri, Aug 30, 2013. <https://www.irishtimes.com/news/ireland/irish-news/walk-on-air-against-your-better-judgment-heaney-on-life-poetry-god-and-ireland-1.1510774>

⁵⁶ Timothy Clark, *Ecocriticism on the Edge*, p. 21.

⁵⁷ William Rueckert, 'Literature and Ecology: An Experiment in Ecocriticism', in *The Ecocriticism Reader*, ed. by Cheryll Glotfelty and Harold Fromm (Athens, Georgia: The University of Georgia Press, 1996) 105-23, p. 121.

⁵⁸ Jonathan Bate, *The Song of the Earth* (London: Picador, 2001) p. 251.

⁵⁹ Jenny Odell, *How to Do Nothing*, p. 109.

⁶⁰ *Ibid.* p. 6.

⁶¹ *Ibid.* p. 122.

⁶² *Ibid.* pp. 7-8; 121-22.

McGilchrist's theory concerning differences between the right and left brain hemispheres offers a framework for thinking this through. In *The Master and his Emissary* McGilchrist undertakes a wide-ranging survey of how the two hemispheres engage with the world.⁶³ He traces the evolutionary origins of these differences and their adaptive presence in other species.⁶⁴ Essentially, the argument goes, all animals are faced with two core problems: to eat and to avoid being eaten. Addressing the first problem requires a focus on detail, such as is needed when a bird searches for seed on the ground among grit and stones; the second requires a holistic view, scanning the environment for risk and other salient features. Over time these functions became more distinct; birds keep one eye (the right) focused on the food source and the other, which is 'wired' to the right hemisphere, scans the wider environment.⁶⁵ It is not quite this simple however, as the hemispheres do, necessarily, interconnect and communicate with one another.⁶⁶ Although brains vary in complexity and structure across species McGilchrist makes the case that human brains are heir to these hemispheric differences. While interested in how the two hemispheres contribute differently but complementarily to our engagement with the world, he debunks simplistic generalisations. For example, language, reason and 'science' are not 'located' in the left hemisphere any more than music and art are solely represented by the right.⁶⁷ In summary, both brain hemispheres are involved in everything that we do, however, each is involved in a different way.

McGilchrist's title comes from a parable, 'The Master and his Emissary', in which a wise ruler cedes too much control to his emissary, a clever bureaucrat, contemptuous of his

⁶³ Iain McGilchrist, *The Master and his Emissary: The Divided Brain and the Making of the Western World* (New Haven and London: Yale University Press, 2010).

⁶⁴ Ibid. p. 27.

⁶⁵ Ibid. pp. 25-26. See also: Iain McGilchrist, 'The Divided Brain and the Making of the Western World', RSA Animate, https://www.ted.com/talks/iain_mcgilchrist_the_divided_brain 2.05-3.05 mins.

⁶⁶ Iain McGilchrist, *The Master and his Emissary*, pp. 209-33.

⁶⁷ Ibid. p. 56. See also: Iain McGilchrist, 'The Divided Brain and the Making of the Western World', 0.30-0.50 mins.

master's 'temperance and forbearance'.⁶⁸ McGilchrist employs this story as a metaphor for the relationship between the left hemisphere, with its spotlight focus, intolerance for uncertainty and preference for parts over wholes, and the right, with its holistic vision, capacity to comprehend metaphor, sensitivity to emotion, and focus on entire living bodies.⁶⁹ He believes the story sheds light both on human psychology and processes shaping Western culture, particularly during the past five hundred years.⁷⁰ While the world-views of both hemispheres (within individuals but also within societies) and co-operation between them are vital, McGilchrist argues that inter-hemispheric conflict has emerged and become entrenched.⁷¹ He argues that currently we are metaphorically 'in the hands of the vizier [the emissary], who, however gifted, is effectively an ambitious regional bureaucrat with his own interests at heart'.⁷² To do justice to McGilchrist's thesis is beyond the scope of my own. However, the relevance of his position to our environmental crisis is indicated by the following observations: 'The left hemisphere's principal concern is utility. It is interested in what it has made, and in the world as a resource to be used'.⁷³ Further: 'The left hemisphere likes things that are man-made. Things we make are also more certain: we know them inside out, because we put them together. They are not, like living things, constantly changing and moving, beyond our *grasp*'.⁷⁴ The left hemisphere's incapacity for metaphor and the right's affinity with it mean 'that understanding of the indirect, connotative language of poetry depends on the right hemisphere, the importance of metaphor is that it *underlies all forms of understanding whatsoever*, science and philosophy no less than poetry and art'.⁷⁵ As McGilchrist suggests in his final chapter, the dominance of 'left-hemisphere' perspectives

⁶⁸ Iain McGilchrist, *The Master and his Emissary*, p. 14.

⁶⁹ Ibid. p. 49 (metaphor); p. 55 (parts versus whole); p. 54 (emotional focus); p. 83 (certainty versus ambiguity).

⁷⁰ Ibid. p. 14.

⁷¹ Ibid. p. 14.

⁷² Ibid. p. 14.

⁷³ Ibid. p. 55.

⁷⁴ Ibid. p. 79.

⁷⁵ Ibid. p. 71.

might be remedied by a re-emphasis on right-hemisphere approaches to the world.

Engagement with poetry, art and nature; an appreciation of embodiment, together with a recognition of the interconnectedness of living systems, could facilitate a re-balancing shift towards a more holistic view. McGilchrist, for all his wide-ranging and scholarly approach to his subject, acknowledges that if his thesis ‘turns out to be ‘just’ a metaphor’ he would be content for he has a ‘high regard for metaphor’, it being ‘how we come to understand the world’.⁷⁶

Whether or not McGilchrist’s ideas prove to be ‘just’ a metaphor, the world Bishop conjures in ‘The Last Animal’ may readily be characterised as ‘left-brained’. In contrast, to *see poetically* as defined by Michael Malay brings a different, more holistic and open-ended perspective which tolerates ambiguity, responds emotionally, appreciates life’s interconnectedness and the presence and embodiment of whole living things, and, arguably, was never more relevant than at this present time.⁷⁷

Caring for our living planet demands scientific fact *and* emotionally engaging stories, as discussed by George Monbiot.⁷⁸ Art and science are complementary, being, as it were, the yin and yang of thought. Both are grounded in precise observation and the development of technical skill. But they also involve imaginative engagement with the world through which it can be re-envisioned and understood in new ways.⁷⁹

⁷⁶ Ibid. p. 462.

⁷⁷ Michael Malay, *The Figure of the Animal in Modern and Contemporary Poetry* (Cham, Switzerland: Springer Nature, 2018) p. 3. For further discussion of the concept of seeing poetically, see below, pp. 36-37.

⁷⁸ George Monbiot, ‘A Story of Our Times’, in *Out of the Wreckage: A New Politics for an Age of Crisis* (London: Verso, 2017) 1-28.

⁷⁹ Iain McGilchrist, *The Master and his Emissary*, pp. 7 & 71.

While we cannot protect what we do not understand, we will not protect what we do not love.⁸⁰ As ecologist Neil Evernden succinctly states, ‘Environmentalism without aesthetics is merely regional planning’.⁸¹ Poems can awaken ‘one to the natural world through [their] emotive and rhetorical power’, achieved paradoxically through the defamiliarizing effects of their artifice.⁸² While poetry alone is insufficient, through helping to (re-)connect us with what David Abram terms ‘more-than-human worlds’, it can play its vital part.⁸³

While driven by environmental concerns my PhD was also founded on a personal desire to embark on what Marc Bekoff describes as a journey of ‘re-wilding the heart’, through creative and compassionate engagements with animals and animal poetry.⁸⁴ Through this project I have begun to recover my sense of kinship with other animals and have come to understand that ‘They have been speaking all along’.⁸⁵

⁸⁰ Stephen Jay Gould, *Eight Little Piggies* (New York: W. W. Norton & Co., 1993) p. 40.

⁸¹ Neil Evernden, ‘Beyond Ecology: Self, Place, and the Pathetic Fallacy’, in *The Ecocriticism Reader*, ed. by Cheryll Glotfelty and Harold Fromm, 92-104 p. 103. Cited by Scott Knickerbocker, *Ecopoetics*, p. 3.

⁸² Scott Knickerbocker, *Ecopoetics*, p. 3.

⁸³ David Abram, *The Spell of the Sensuous*, (New York: Vintage Books, 1997) p. 7.

⁸⁴ Marc Bekoff, *Rewilding Our Hearts: Building Pathways of Compassion and Coexistence* (Novato, California: New World Library, 2014).

⁸⁵ Eva Meijer, *Animal Languages: The Secret Conversations of the Living World*, trans. by Laura Watkinson (London: John Murray, 2019) pp. 231-32.

Introduction

The story of the mind exiled from Nature is the story of Western Man. Ted Hughes¹

We cannot win this battle to save species and environments without forging an emotional bond between ourselves and nature as well – for we will not fight to save what we do not love [...]. Stephen Jay Gould²

‘You won’t understand anything about the imagination until you realise it’s not about making things up, it’s about perception.’ Philip Pullman³

Secret commonwealths and magic wells

Philip Pullman’s latest novel concerns the eponymous ‘secret commonwealth’, a world beyond the everyday, peopled by supernatural entities and unseen forces.⁴ This world cannot be apprehended directly by shining searchlights or, by ‘making lists and classifying and analysing. You’ll just get a lot o’ dead rubbish what [*sic*] means nothing’.⁵ Instead, Pullman’s character Master Brabandt tells Lyra Silvertongue, ‘The way to think about the secret commonwealth is with stories. Only stories’ll do’.⁶ A core theme in the novel is Lyra’s disenchantment, partly consequent on her engagement with reductionist thought.⁷ She looks back to a time when the universe seemed alive and full of meaning: ‘Something like the cry of an owl out on the marshes would have been blazing with significance’.⁸ Lyra’s alienation echoes the estrangement from nature detailed in Bishop’s story, a state of affairs which Ted

¹ Ted Hughes, *Winter Pollen: Occasional Prose*, ed. by William Scammell (London: Faber and Faber Limited, 1995) p. 129.

² Stephen Jay Gould, *Eight Little Piggies* (New York: W. W. Norton & Co., 1993) p. 40.

³ Philip Pullman, *The Secret Commonwealth* (London: David Fickling Books, 2019) p. 163.

⁴ Philip Pullman, *The Secret Commonwealth*.

⁵ *Ibid.* pp. 312-13.

⁶ *Ibid.* p. 313.

⁷ Specifically, Lyra is reading two books, one of which ‘sternly rejects the illogical, the irrational, the imagination, while the other rejects the possibility of truth altogether’, Philip Pullman, ‘25 years of His Dark Materials: Philip Pullman on the journey of a lifetime’, *The Guardian Review*, Sat 10 Oct 2020, Issue no. 143, pp. 6-8, p. 7. <https://www.theguardian.com/books/2020/oct/10/25-years-of-his-dark-materials-philip-pullman-on-the-journey-of-a-lifetime>

⁸ *Ibid.* p. 319.

Hughes characterised as the ‘story of Western Man’.⁹ Pullman regards imagination as crucial to Lyra’s re-engagement with the secret commonwealth: ‘[Imagination is] much deeper, much more complex and mysterious than [superficially making things up], and it involves the whole of our being’.¹⁰ This present project aims to contribute, through the medium of poetry, to the creation of imaginative stories about our relationship with nonhuman nature, stories privileging companionship, compassion, and interconnection, and foregrounding the *blaze of presence* inherent in living things.¹¹

While my thesis is neither about fantasy worlds nor the supernatural, it does concern ‘magic wells’, the inexhaustible and wondrous depths discovered when other living things are encountered open-mindedly and open-heartedly, seen, as Malay puts it, poetically.¹² It is about engaging imaginatively with nonhuman animals, through heightened perception and attention. Pioneering ethologist Konrad Lorenz advocated an approach to the study of animals which he termed the (*die*) *Ganzheitsbetrachtung*, translated as ‘holistic contemplation’, rooted in care and respect.¹³ Engaging with nature poetically means cultivating holistic, empathic ways of seeing, free as far as possible, from anthropocentric assumptions. This way of seeing or relating was characterised by Martin Buber as ‘I-Thou’.¹⁴ He described the many ways in which one might ‘consider a tree’: as a picture; as movement;

⁹ Ted Hughes, *Winter Pollen*, p. 129.

¹⁰ Philip Pullman, ‘25 years of His Dark Materials: Philip Pullman on the journey of a lifetime’, p. 8. Here Pullman cites the influence of William Blake in thinking about the nature of imagination as well as ‘Iain McGilchrist’s inexhaustible book *The Master and his Emissary*, which explores the profound difference between the left and right halves of the brain’, Pullman, ‘25 years of His Dark Materials’, p. 8.

¹¹ In the final line of his poem ‘Great Bole’, Les Murray states of the tree trunk – the bole – ‘I blaze presence’. Les Murray, ‘Great Bole’, in ‘Presence: Translations from the Natural World’, *Translations from the Natural World* (Manchester: Carcanet Press Limited, 1993) 13-54 p. 29.

¹² Michael Malay, *The Figure of the Animal in Modern and Contemporary Poetry* (Cham, Switzerland: Springer Nature, 2018) p. 3. The term ‘magic well’ was originally coined by ethologist, Karl von Frisch. For further discussion see Frans de Waal, *Are We Smart Enough to Know How Smart Animals Are?* (London: W.W. Norton & Company, Ltd., 2016) p. 11, and below, p. 53.

¹³ Konrad Lorenz, *The Foundations of Ethology* (New York: Simon and Schuster, 1981), cited by Frans de Waal, *Are We Smart Enough to Know How Smart Animals Are?* pp. 19-20.

¹⁴ Martin Buber, *I And Thou*, trans. by Ronald Gregor Smith (Edinburgh: T. & T. Clark, 1958).

classified as a species; in ‘pure numerical relation’, and by subduing ‘its actual presence and form so sternly that I recognise it only as an expression of law [...]’.¹⁵ But it is also possible to ‘become bound up in relation’ to the tree so that ‘The tree is now no longer *It*’.¹⁶ For Buber, to relate to the tree – or any living thing – as I-Thou, does not mean abandoning other ways of seeing, instead: ‘Everything belonging to the tree is in this: its form and structure, its colours and chemical composition, its intercourse with the elements and with the stars, are all present in a single whole’.¹⁷ This is an embodied relationship, the tree is ‘is bodied over against me and has to do with me, as I with it [...]’.¹⁸ A key theme of my thesis is to explore and create poetry in this spirit of direct relation. While such an endeavour will inevitably fall short, central to my project is the cultivation of an *intention* to see other animals as they are and to listen to what they have to say.

The description of poems as ‘empathy machines’ chimes with Karen Joy Fowler’s belief that, ‘The project of literature and art is to acknowledge other lives and extend tolerance and celebration about our differences The project of art and literature is to extend the circle of empathy...’.¹⁹ In her novel *We Are All Completely Beside Ourselves*, one of Fowler’s characters proposes:

a sort of reverse mirror test. Some way to identify those species smart enough to see themselves when they look at someone else. Bonus points for how far out the chain you can go. Double bonus for those who get all the way to insects.²⁰

¹⁵ Ibid. pp. 7-8.

¹⁶ Ibid. p. 7.

¹⁷ Ibid. pp. 7-8.

¹⁸ Ibid. p. 8.

¹⁹ Anita Sethi, ‘Roger Robinson: ‘Poets can translate trauma’’, interview in *The Guardian*, Sat 13 June 2020. <https://www.theguardian.com/books/2020/jun/13/roger-robinson-poets-can-translate-trauma> (‘empathy machines’); Kaite O’Reilly, ‘Words from the Singapore Writer’s (*sic*) Festival 2014’.
<https://kaiteoreilly.wordpress.com/tag/karen-joy-fowler/>

²⁰ Karen Joy Fowler, *We Are All Completely Beside Ourselves* (London: Serpent's Tail, 2014) pp. 201–02. Similar arguments regarding the role of literature in increasing empathy are proffered by Steven Pinker. Pinker describes reading as ‘a technology for perspective-taking’ and links the rise in literacy to a corresponding

My thesis explores the view that poems, through the facilitation of imaginative identification, can act to increase empathy for the more-than-human.

Rewilding our hearts – poetry and presence

Also at the heart of this PhD is a recognition that the planet is in crisis consequent on human activity. While the term ‘Anthropocene’ remains ill-defined its broad import is that: ‘‘Human activities have become so pervasive and profound that they rival the great forces of nature and are pushing the Earth as a whole into planetary *terra incognita*’’.²¹ Christopher Peterson, discussing the uniquely human entanglement of narcissism and capacity to cause harm, refers to the ‘double valence’ of the self-referencing term, ‘Anthropocene’:

To what extent does embracing this vocabulary concede the deleterious effects that humans have wrought on the environment as well as provide a form of ironic consolation? Perhaps we have utterly screwed up the planet, we tell ourselves, but at least we can take credit for it! The human thus reasserts its power in the same stroke as it reproves itself.²²

Human arrogance and ignorance about the more-than-human world have led to our making ‘huge and horrific global messes’ requiring urgent repair.²³ Although adept at denial, we are, belatedly, recognising the consequences of our behaviour. However, as with the denizens of

increase in ‘the empathy circle’. Steven Pinker, *The Better Angels of Our Nature: The Decline of Violence In History and Its Causes* (London: Allen Lane, 2011) p. 175.

²¹ Will Steffen, Paul J. Crutzen and John R. McNeill, ‘The Anthropocene: Are Humans Now Overwhelming the Great Forces of Nature?’, *Ambio*, 38 (2007) 614-21 p. 614, quoted by Timothy Clark, *Ecocriticism on the Edge: The Anthropocene as a Threshold Concept* (London: Bloomsbury Academic, 2015) p. 1. For a somewhat anthropocentric view of the Anthropocene, see Gaia Vince, *Adventures in the Anthropocene: A Journey to the Heart of the Planet We Made* (London: Chatto & Windus, 2014) e.g., ‘We have become the masters of our planet and integral to the destiny of life on Earth’, p. 7. The term ‘Anthropocene’ was first coined by Dutch chemist and Nobel laureate, Paul Crutzen in 2002, see P. J. Crutzen, ‘Geology of Mankind’, *Nature* 415 (3 January 2002) 23. <https://www.nature.com/articles/415023a> Cited by Gaia Vince, *Adventures in the Anthropocene*, p. 7.

²² Christopher Peterson, *Monkey Trouble: The Scandal of Posthumanism* (New York: Fordham University Press, 2018) p. 2.

²³ Marc Bekoff, *Rewilding Our Hearts*, p. 3.

Bishop's fictional world our estrangement from nature and affinity with human-wrought technology are barriers to change. Concern about this is not new, for example, writing in 1936, Elizabeth Atkins noted that the preceding 'twenty years [had] removed most of us from habitual association with animals'.²⁴ She continued: 'Living with machines rather than with horses and cows, and in cities rather than among creatures of the woods and fields, we see animals nowadays with a shock of novelty'.²⁵ Nature is silenced in a world privileging human reason and language through erosion of the idea that nonhumans also speak.²⁶ Nature's marginalisation follows from a 'view of nature as a symbolic instead of animistic presence, *as a mute object instead of a valuable subject*'.²⁷ As we routinely ignore or dismiss nonhuman sentience and suffering, our fellow creatures are endangered or pass into extinction.²⁸ Aside from urgent questions of survival on a degraded planet, and the rights of living things to exist without human interference, this impoverishes humans psychologically and spiritually. Books such as Marc Bekoff's *Rewilding Our Hearts*, and Simon Barnes' *Rewild Yourself*, as well as the current popularity of 'nature writing', attest to the need to reconnect with nature.²⁹

²⁴ Elizabeth Atkins, 'Man and Animals in Recent Poetry', *PMLA*, 51, 1 (1936) 263-83 p. 266.

²⁵ *Ibid.* p. 266.

²⁶ See for example Christopher Manes, 'Nature and Silence', in *The Ecocriticism Reader*, ed. by Cheryl Glotfelty and Harold Fromm (Athens, Georgia: The University of Georgia Press, 1996) 15-29, cited by Christa Grewe-Volpp, 'How to Speak the Unspeakable: The Aesthetics of the Voice of Nature', *Anglia: Journal of English Philology*, 124, 1, (2006) 122-43 p. 127.

²⁷ Christa Grewe-Volpp, 'How to Speak the Unspeakable', p. 127, emphasis added.

²⁸ For an account of the history of climate change, see Nathaniel Rich, *Losing Earth: A Recent History* (New York: Farrar, Straus and Giroux, 2019). Marc Bekoff dubs humans '*Homo denialus*'; Marc Bekoff, ed., *Ignoring Nature No More: The Case for Compassionate Conservation* (Chicago: The University of Chicago Press, 2013) p. xiv. See also IPBES (2019): *Summary for policymakers of the global assessment report on biodiversity and ecosystem services of the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services*. Ed. by S. Díaz *et al.* IPBES secretariat, Bonn, Germany. <https://doi.org/10.5281/zenodo.3553579> p. 12.

²⁹ Marc Bekoff, *Rewilding Our Hearts*; Simon Barnes, *Rewild Yourself: 23 Spellbinding Ways to Make Nature More Visible* (London: Simon & Schuster UK Ltd., 2018); see also George Monbiot, *Feral: Rewilding the land, sea and human life* (London: Penguin Books Ltd., 2014), Isabella Tree, *Wilding: The return of nature to a British farm* (London: Picador, 2019), and Benedict Macdonald, *Rebirding: Rewilding Britain and its Birds* (Exeter: Pelagic Publishing, 2019).

Marc Bekoff asks: ‘What can we do about the distance and alienation from nature and other animals that allows us to be so destructive?’³⁰ The obverse of this alienation can be summed up by the term ‘biophilia’, coined originally by social psychologist Erich Fromm, and later elaborated on by Edward O. Wilson.³¹ Biophilia, for Wilson, is ‘the innate tendency to focus on life and lifelike processes’.³² Stephen Jay Gould believes that the process of change begins with (re-)forging emotional connections with nature.³³ How, though, do we engender love for our fellow animals and for the habitats and ecosystems on which they, and we, depend? Iain McGilchrist argues that the prevailing culture alienates us from our own embodied nature and from the ‘embodied nature of the world around us’.³⁴ In consequence, even efforts to protect nature can be reductionist, emphasising nature’s utility; a commodification rather than an appreciation of intrinsic value.³⁵ Our relationship with nature can become, therefore, predominantly instrumental, that is, of ‘I’ to ‘It’. Buber described love, in contrast, as a ‘responsibility of an *I* for a *Thou*’.³⁶

³⁰ Marc Bekoff, *Ignoring Nature No More*, p. xv.

³¹ Erich Fromm, *The Anatomy of Human Destructiveness* (Harmondsworth, Middlesex: Penguin Books, 1977). Fromm defined biophilia as ‘the passionate love of life and of all that is alive; it is the wish to further growth, whether in a person, a plant, an idea, or a social group’, p. 485. See also Edward O. Wilson, *Biophilia: The human bond with other species* (Cambridge, Massachusetts: Harvard University Press, 1984).

³² Edward O. Wilson, *Biophilia*, p. 1. See also Peter H. Kahn, *Technological Nature: Adaptation and the Future of Human Life* (Cambridge M.A.: The MIT Press, 2011) p. 11.

³³ Stephen Jay Gould, *Eight Little Piggies*, p. 40.

³⁴ Iain McGilchrist, *The Master and his Emissary: The Divided Brain and the Making of the Western World* (New Haven and London: Yale University Press, 2010) p. 440.

³⁵ Ibid. p. 440. This is an issue of considerable complexity. Neil Evernden, for example, describes the pitfalls of privileging nature’s utility over its intrinsic value; Neil Evernden, ‘Beyond Ecology: Self, Place, and the Pathetic Fallacy’, in *The Ecocriticism Reader* ed. by Cheryl Glotfelty and Harold Fromm, (Athens, Georgia: The University of Georgia Press, 1996) 92-104 pp. 92-93. Others, for example, Tony Juniper, regard nature’s crucial economic role as key to making the case for its protection; Tony Juniper, *What Has Nature Ever Done for Us? How money really does grow on trees* (London: Profile Books, 2013). More recently, a report by the World Economic Forum examines the economic risks of environmental destruction; World Economic Forum, *Nature Risk Rising: Why the Crisis Engulfing Nature Matters for Business and the Economy*, (Geneva, Switzerland: World Economic Forum in collaboration with PwC, 2020).

http://www3.weforum.org/docs/WEF_New_Nature_Economy_Report_2020.pdf

³⁶ Martin Buber, *I And Thou*, p. 15.

Les Murray wrote that ‘poetry is presence’.³⁷ Further, poetry is ‘about essence, and making things real and present to yourself and the other readers’.³⁸ For Werner Senn, Murray’s conceptualisation of presence and its poetic evocation equates to ‘a sense of wholeness and fullness of being’.³⁹ While both prose and poetry are important Western culture has become unbalanced towards the prosaic and mechanistic.⁴⁰ Murray himself resisted ‘the dominance of the intellect, of theory and ideology over the spiritual and the mysterious’.⁴¹

As my title suggests, a central purpose of this project is to explore poetry’s role in foregrounding the *presence* of living things. For me, presence concerns a being’s capacity to live in ‘full dignity’; to be itself, whole, alive and embodied, able to express the range of its behavioural and biological repertoires within a functioning ecosystem.⁴² Presence also implies significance conferred through recognition and attentiveness. McGilchrist employs the concept of ‘presence’ or ‘presencing’ to further distinguish between the approaches of the right and left hemispheres.⁴³ The right hemisphere is drawn to things ‘still ‘present’ in their newness, as individual existing entities’; however, when perceived by the left hemisphere they are ‘re-presented’ as representatives of a category’, becoming ‘over-familiar, inauthentic and therefore *lifeless* [...]’.⁴⁴ These insights add another level of significance to Murray’s claim that poetry ‘is presence’, and will be explored through this thesis.

³⁷ Missy Daniel, ‘Poetry is Presence: An Interview with Les Murray’, *Commonweal*, 22 May 1992, 9-12 p. 11. The phrase ‘poetry is presence’ forms part of the fourth line of Murray’s quatrain, ‘Distinguo’, from Les Murray, *Dog Fox Field*, (1990) in Les Murray, *Collected Poems* (Manchester: Carcanet Press Limited, 1998), p. 348.

³⁸ *Ibid.* p. 10.

³⁹ Werner Senn, ‘Les Murray’, in *A Companion to Australian Literature since 1900*, ed. by Nicholas Birns and Rebecca McNeer (Woodbridge, Suffolk: Camden House, 2010) 269-80 p. 269.

⁴⁰ Iain McGilchrist, *The Master and his Emissary*, p. 445.

⁴¹ Werner Senn, ‘Les Murray’, p. 269.

⁴² The term ‘full dignity’ originates in a poem by Les Murray. Les Murray, ‘The Meaning of Existence’, in *Poems the Size of Photographs* (Manchester: Carcanet Press Limited, 2002) p. 101, line 8.

⁴³ Iain McGilchrist, *The Master and his Emissary*, p. 244. McGilchrist writes of ‘presencing’ as a right hemisphere activity while the left hemisphere is engaged with transforming – representing – what is authentically present and living into ‘cliché’, p. 244.

⁴⁴ *Ibid.* p. 56.

Representation – or enactment?

A key aim of my project is to explore the role of poetry in re-connecting us with nature and our animal kin. More specifically it is an investigation of how poetry might achieve this through the *enactment* of animal subjectivity.⁴⁵ According to Les Murray enactment is a defining feature of poetry. Poetry ‘enacts its matter, often more fully and satisfyingly than it could ever be enacted in the world [...]’.⁴⁶ However, while Murray’s ‘Presence’ collection exemplifies this, not all ‘animal poetry’ enacts animal being. Following Scott Knickerbocker, I distinguish between poetry that attempts to *enact* the phenomenal worlds of its subjects, facilitating readers’ ability to ‘feel-with’ animals directly through empathic engagement, and poetry that is representational, implying (lifeless) imitation or attempts to speak for the animal.⁴⁷ My exploration of poetic enactment involves going *Beyond the Brain* to embrace the concept of embodiment, and direct engagement with whole living beings.⁴⁸ I reject Cartesian dualism which mutes nonhuman voices, considering instead the work of philosophers such as Maurice Merleau-Ponty, and contemporary thinkers such as Alva Noë, Alan Jasanoff, Guy Claxton and others.⁴⁹ Merleau-Ponty’s stance is encapsulated in his statement: “‘I do not have a body, I am my body’”.⁵⁰

⁴⁵ Scott Knickerbocker, *Ecopoetics: The Language of Nature, the Nature of Language* (Amherst, Massachusetts: University of Massachusetts Press, 2012) p. 13.

⁴⁶ Les Murray, ‘Poems and Poesies’, in *The Paperbark Tree: Selected Prose* (London: Minerva, 1993) p. 348.

⁴⁷ Scott Knickerbocker, *Ecopoetics*, p. 13.

⁴⁸ Louise Barrett, *Beyond the Brain: How Body and Environment Shape Animal and Human Minds* (Woodstock, Oxfordshire: Princeton University Press, 2011). A focus on embodiment (or ‘bodiment’) is also congruent with the concept of *symphysis* as defined by Ralph Acampora. Ralph Acampora, *Corporal Compassion* (Pittsburgh PA: University of Pittsburgh, 2006) p. 76, and below, pp. 31-32.

⁴⁹ Alva Noë, *Out of Our Heads: Why You Are Not Your Brain and Other Lessons from the Biology of Consciousness* (New York: Hill and Wang, 2010); Guy Claxton, *Intelligence in the Flesh: Why your mind needs your body much more than it thinks* (New Haven and London: Yale University Press, 2016); Alan Jasanoff, *The Biological Mind: How Brain, Body, and Environment Collaborate to Make Us Who We Are* (New York: Basic Books, 2018).

⁵⁰ Tirza Brüggemann cites the origin of this quote as Adrienne Dengerink Chaplin, ‘Phenomenology: Merleau-Ponty and Sartre’, in *The Routledge Companion to Aesthetics*, ed. by Berys Gaut and Dominic McIver Lopes

Tirza Brüggemann draws on the writings of Merleau-Ponty in her discussion of the role of empathy in animal poetry, quoting his statement that: ““thus there is an indivision of my body, of my body and the world, of my body and other bodies, and of other bodies between them””.⁵¹ ‘From this’, she argues, ‘it follows that our subjective experience does not hide inside of our brains; it is visible in a shared social world’.⁵² Merleau-Ponty considered subjective experience to be shared and not confined to humans:

Why would not the synergy exist among different organisms, if it is possible within each? Their landscapes interweave, their actions and their passions fit together exactly: this is possible as soon as we no longer make belongingness to one same “consciousness” the primordial definition of sensibility [...]⁵³

My thesis carries these ideas into the realm of poetry facilitated by Anat Pick’s conceptualisation of poetry as creaturely, Ted Hughes’ comparison of poems to animals, as well as the sensuous poesis of Scott Knickerbocker; Aaron Moe’s zoopoetics, central to which is his emphasis on paying attention to animals’ *bodily poesis*, and Randy Malamud’s empathetic imagination.⁵⁴ I also draw on Ralph Acampora’s concept of symphysis, ‘the sense of sharing with somebody else a somaesthetic nexus experienced through a direct or systemic

(New York: Routledge, 2002) 126-136 p. 168; Tirza Brüggemann, ‘Animal Poetry and Empathy’, *Humanities*, 6, 18 (2017) 1-14 p. 5.

⁵¹ Maurice Merleau-Ponty, *Nature: Course Notes from the Collège de France*, trans. by Robert Vallier, compiled and with notes by Dominique Séglaard (Evanston: Northwestern University Press, 2003) p. 279, quoted by Tirza Brüggemann, ‘Animal Poetry and Empathy’, p. 5.

⁵² Tirza Brüggemann, ‘Animal Poetry and Empathy’, p. 5.

⁵³ Maurice Merleau-Ponty, *The Visible and the Invisible*, ed. by Claude Lefort; trans. by Alphonso Lingis (Evanston: Northwestern University Press, 1968) p. 142, quoted by Tirza Brüggemann, ‘Animal Poetry and Empathy’, p. 6. Merleau-Ponty’s engagement with evolution and rejection of an abyssal difference between humans and animals is examined by Louise Westling, who argues that his work went considerably beyond that of Heidegger ‘by suggesting that the Logos of the incarnate world can be perceived in many animal styles and voiced by many different creatures’. Louise Westling, ‘Heidegger, Merleau-Ponty and the Question of Biological Continuism’ *New Formations*, 76 (2012) 38-52 p. 52.

⁵⁴ Anat Pick, *Creaturely Poetics: Animality and Vulnerability in Literature and Film* (New York: Columbia University Press, 2011); Ted Hughes, *Winter Pollen*, p. 10; Scott Knickerbocker, *Ecopoetics*; Aaron M. Moe, *Zoopoetics: Animals and the Making of Poetry* (Lanham, Maryland: Lexington Books, 2014); Randy Malamud, *Poetic Animals and Animal Souls* (New York: Palgrave Macmillan, 2003).

(inter)relationship'.⁵⁵ Symphysis bears comparison with empathy, grounded in the body, transforming what is perceived into something viscerally experiential.

Questions and challenges

Three key questions shape this project. First, how possible is it for poets and readers to step out of the narrow human frame of reference and into different ways of being? Second, what challenges are encountered when attempting to do this? Third, how might these be overcome, or at least be made explicit? Challenges include limits of knowledge about the lives of other animals; the constraints inherent in using human language to 'translate' what might be radically different experiential worlds, and the uses and pitfalls of anthropomorphism. A key principle will be to respect and acknowledge both the alterity of other species *and* our evolutionary relatedness, if only, though profoundly, through a shared experience of being alive.⁵⁶

An additional challenge associated with writing 'animal' poetry is ethical – to what extent is art which takes inspiration from the lives of other creatures a form of capture, an explicitly or implicitly violent act?⁵⁷ For Melissa Boyde the ways in which humans treat animals highlights a troubling contradiction. While many Western countries extol freedom and equality they nevertheless have 'the containment of animals at their heart – the captivity of

⁵⁵ Ralph Acampora, *Corporal Compassion*, p. 76.

⁵⁶ Self-evidently, relatedness varies; chimpanzees, for example, with whom *Homo sapiens* were thought to share some 98.5% of DNA (though this has now been found to be around 95%), are genetically closer to humans than, say, dragonflies. See Matt Ridley, *Nature via Nurture: Genes, experience and what makes us human* (London: Fourth Estate, 2011) p. 24 (98.5%), p. 25 (95%). *Homo sapiens*' most distant relative is thought to be an ancestor of the comb jelly or *ctenophore*: 'The evolution of animals proceeds [...] from a hovering ghost-like mother [...]', see Peter Godfrey-Smith, *Other Minds: The Octopus and the Evolution of Intelligent Life* (London: William Collins, 2017) p. 21.

⁵⁷ Melissa Boyde, ed., *Captured: The Animal Within Culture* (Basingstoke, Hampshire: Palgrave Macmillan, 2014) p. 3.

animals is an accepted part of the landscape both figuratively and literally'.⁵⁸ Boyde regards representations of animals in writing and other media as 'at best partial, at worst not only misleading or obscuring but also a subsumption of all who are not human'.⁵⁹ Margo DeMello problematises human 'cultural translation' as 'inevitably enmeshed in conditions of power [...]'.⁶⁰ The same applies 'when trying to understand, and put into human words, the minds of non-human animals'.⁶¹ She argues that, acting from a presumption of superiority, humans 'can either choose to ignore what animals are saying, making them silent, or can interpret for them, which runs the risk of doing so from the human point of view'.⁶² It is germane to my project to question whether poems that attempt to *enact*, as opposed to those which *represent* nonhuman animals, are also acts of 'capture'. Arguably this is less likely, due to the poet's willingness to engage empathically with animal subjectivity and to carry this experientially into poems. However, is it, to some degree, unavoidable? For example, in Les Murray's poem 'Pigs', which begins, 'Us all on sore cement was we', the poet speaks for the pigs.⁶³ But Murray also *enacts* the pigs' visceral experience *through* the artifice of his empathic translation.

Brüggemann, in her analysis of Meghan O'Rourke's poem, 'Inventing a Horse', describes how the poem culminates in O'Rourke adopting the horse's imagined perspective, and seeing the world 'through his eyes: "a field empty of everything but witchgrass, fluent trees and

⁵⁸ Ibid. p. 2.

⁵⁹ Ibid. p. 3.

⁶⁰ Margo DeMello, ed., *Speaking for Animals: Animal Autobiographical Writing* (New York: Routledge, 2015) p. 5.

⁶¹ Ibid. p. 5.

⁶² Ibid. p. 5.

⁶³ Les Murray, 'Pigs', in 'Presence: Translations from the Natural World', *Translations from the Natural World* (Manchester: Carcanet Press Limited, 1993) 13-54 p. 36.

some piles of hay””.⁶⁴ Arguing that the poem conveys that the horse’s experience of the world is not ‘to be found inside his mind’, she continues:

These sentences seem to indicate that there is no boundary between knowing what it is for me to have a horse’s experience and knowing what it is for a horse to have a horse’s (i.e., his own) experience. Such a boundary would, again, assume an underlying separate self, detached from the body.⁶⁵

For Merleau-Ponty, according to Brüggemann, ‘subjective experience is to be found in the world’; at the end of the poem we are ‘not *inside* the horse’s mind; rather the horse’s intentions and interests are visible to the trained eye of the poet’.⁶⁶ Here, the poet engages with the horse’s *Umwelt*, that is, what is salient to him in his sensory world.⁶⁷ O’Rourke confines herself to the visual sphere, though horses also rely on other senses; nevertheless, what matters is her empathic engagement with the horse.

However, despite the possibility of intersomatic engagement, the suggestion that the poet, even one with a ‘trained eye’, can experience the world *as a horse might experience it*, is problematic, risking a fall into the colonising traps that Boyde and DeMello identify. Thomas Nagel in his paper ‘What Is It Like to Be a Bat?’, an exploration of the nature of consciousness, concludes that it is impossible to know what it would be like to be a bat *from the bat’s point of view*.⁶⁸ By contrast, J. M. Coetzee’s fictional novelist, Elizabeth Costello, asserts her capacity to ‘think [her] way into’ fictional characters, and argues that she can also,

⁶⁴ Meghan O’Rourke, ‘Inventing a Horse’, in *Halflife* (New York: W. W. Norton & Company, Inc., 2007), also online at <https://www.poetryfoundation.org/poems/54896/inventing-a-horse> quoted by Tirza Brüggemann, ‘Animal Poetry and Empathy’. The poem is reproduced in full, p. 9; ‘witchgrass’ quote, p.10.

⁶⁵ Tirza Brüggemann, *Animal Poetry and Empathy*, p. 10.

⁶⁶ *Ibid.* p. 11.

⁶⁷ For a discussion of the term *die Umwelt*, coined by Jakob von Uexküll, see Dorion Sagan, ‘Introduction: Umwelt After Uexküll’, in Jakob von Uexküll, *A Foray into the Worlds of Animals and Humans with A Theory of Meaning* (Minneapolis: The University of Minnesota Press, 2010) p. 2, and below, pp. 50-51.

⁶⁸ Thomas Nagel, ‘What Is It Like to Be a Bat?’, *The Philosophical Review*, 83, 4 (1974) 435-50, reprinted in Douglas R. Hofstadter and Daniel C. Dennett, eds., *The Mind’s I: Fantasies and Reflections on Self and Soul*, ed. by (New York: Basic Books, 2000) 391-403.

therefore, ‘think [her] way into the existence of a bat or a chimpanzee or an oyster, any being with whom I share the substrate of life’.⁶⁹ While Nagel’s arguments are hard to refute, Coetzee’s arguments are also persuasive. The position adopted in this project is perhaps best reflected by Malamud who summarises his ‘ecocritical aesthetic’ in the following terms: ‘seeing animals without hurting them; seeing them in *their* contexts; teaching about animals; advocating respect for them; and finally *knowing* them, richly but also incompletely’.⁷⁰ Similarly, zoologist Donald Griffin notes that while humans and other animals are likely to share basic concerns, relinquishing ‘the implicit assumption that any conscious experiences of other animals must be a subset of human experiences, [confronts us] with the difficulty of determining, or [...] clearly imagining, what such nonhuman experiences are actually like to the animals who experience them’.⁷¹ He concludes that, while complete comprehension is beyond us, nonetheless ‘enterprising investigation can probably achieve significant if incomplete understanding’.⁷² Malamud’s ecocritical aesthetic, while acknowledging the impossibility of fully comprehending another animal (or human), nonetheless advocates poetic engagement, provided this is undertaken with sensitivity and respect.

Just one species among many: rethinking *Homo sapiens*

This thesis is also informed by posthumanism which challenges notions of human exceptionalism and essentialism and dispenses with outdated notions of the *scala naturae*.⁷³ I

⁶⁹ J. M. Coetzee, *The Lives of Animals* (Woodstock, Oxfordshire: Princeton University Press, 1999) p. 35, quoted by Tirza Brüggeman, *Animal Poetry and Empathy*, p. 11.

⁷⁰ Randy Malamud, *Poetic Animals and Animal Souls*, p. 45.

⁷¹ Donald R. Griffin, *Animal Minds: Beyond Cognition to Consciousness* (Chicago: The University of Chicago Press, 2001) p. 6.

⁷² *Ibid.* p. 6.

⁷³ For a discussion of posthumanism see Cary Wolfe, *What Is Posthumanism?* (Minneapolis: The University of Minnesota Press, 2010) e.g., pp. xxv-xxvi. The *scala naturae* (‘Ladder of Being’) or the ‘Great Chain of Being’, a term originally coined by Aristotle, denotes a hierarchical view of nature with God, angels, and humans at the top in descending order; Frans de Waal, *Are We Smart Enough to Know How Smart Animals Are?* p. 12. George Lakoff and Mark Turner demonstrate how the ‘Great Chain of Being’ is a powerful anthropocentric metaphor

embrace instead the principle that nature is ‘a bush with many branches’.⁷⁴ Additionally, the tautologous view underpinning human exceptionalism, that humans are ‘unique’ and that this confers ‘specialness’ is resisted. Instead ‘uniqueness’ in nature is the norm; every species is ‘special’ by dint of its evolutionary adaptation to particular environments, constraints and opportunities.⁷⁵

According to Cary Wolfe, posthumanism demands that we interrogate hitherto unquestioned ways of human being by ‘recontextualizing them in terms of the entire sensorium of other living beings and their own autopoietic ways of “bringing forth a world” [...]’.⁷⁶ As we are ourselves animals this process is expansive, broadening our understanding of who we are and properly locating us in interconnected ecological systems and within a common evolutionary history, as well as illuminating shared physiological, behavioural and psychological repertoires.⁷⁷ This conceptualisation of posthumanism allows humans to come home to their place in nature and is a process of expansion into a wider earthly family, a descent from exceptionalism’s lonely mountain-top to dwell in inter-species conviviality among our fellow beings.

which persists into the present day. George Lakoff and Mark Turner, *More Than Cool Reason: A Field Guide to Poetic Metaphor* (Chicago: The University of Chicago Press, 1989) pp. 166-69.

⁷⁴ The ‘Great Chain of Being’, while embedded in language and culture, bears little relationship to biological reality, see Frans de Waal, *Are We Smart Enough to Know How Smart Animals Are?* p. 12. Ibid. p. 22 (‘bush with many branches’).

⁷⁵ Henry Gee, ‘Brian Cox’s Human Universe presents a fatally flawed view of evolution’, *The Guardian*, Tue 14 Oct 2014.

<http://www.theguardian.com/science/blog/2014/oct/14/brian-coxs-human-universe-presents-a-fatally-flawed-view-of-evolution> Frans de Waal deconstructs the notion of human exceptionalism and finds ‘the best and most enduring claims about human exceptionalism to be the funny ones, such as Mark Twain’s “Man is the only animal that blushes – or needs to.” But, of course most of these claims are deadly serious and self-congratulatory’, Frans de Waal, *Are We Smart Enough to Know How Smart Animals Are?* p. 13.

⁷⁶ Cary Wolfe, *What Is Posthumanism?* p. xxv.

⁷⁷ Ibid. xxv.

Posthumanism's de-stabilising of the human in the light of myriad forms of nonhuman being is congruent with Michael Malay's vision of the poetic, which transcends poetry to be 'rather an attitude, sensibility or mode of attention'.⁷⁸ Malay states that:

To see poetically is to enter an open-ended relationship with the world, to relinquish, insofar as possible, the temptation to accommodate things within pre-existing patterns of thought (what Derrida calls 'discourse'). It is to be *moved* by reality, an experience which may involve surprise, delight and wonder, but also perhaps fear and self-estrangement. The poetic does not take us 'back home', as Derrida remarks, but alters the ground beneath our feet, changing our sense of what we thought we knew: it is a peculiar and powerful form of voyaging.⁷⁹

Poetry has the power to defamiliarise taken-for-granted views of nature, and the capacity to disturb exceptionalist notions that the human perspective should prevail. This project addresses how poetry can facilitate our re-enchantment and affinity with the natural world.

Poetry and science

To enact animal subjectivity through poetry I contend that it is essential to cultivate, as far as possible, an understanding of animal being. Without this one risks lapsing into simplistic or crude anthropomorphism whereby human characteristics are projected onto animals.⁸⁰ This does justice neither to animal alterity nor evolutionary relatedness.⁸¹ Respect for nonhumans is a core principle of compassionate conservation, requiring that we take the trouble to

⁷⁸ Michael Malay, *The Figure of the Animal in Modern and Contemporary Poetry*, p. 3.

⁷⁹ Jacques Derrida, "'Che cos'è la poesia?'" , in *A Derrida Reader: Between the Blinds*, ed. and trans. by Peggy Kamuf (New York: Columbia University Press, 1991) 221-37 p. 225, cited by Michael Malay, *The Figure of the Animal in Modern and Contemporary Poetry*, p. 3.

⁸⁰ One example of this is G. K. Chesterton's poem 'The Donkey', in *The Collected Poems of G. K. Chesterton* (New York: Dodd, Mead and Company, 1927), <https://www.poetryfoundation.org/poems/47918/the-donkey>. Michael Symmons Roberts, in his poem 'Portrait of a Dove', playfully explores anthropomorphism. Michael Symmons Roberts, *Drysalter* (London: Jonathan Cape, 2013) p. 73.

⁸¹ Greg Garrard, *Ecocriticism* (Abingdon, Oxon: Routledge, 2012) pp. 155-57.

understand animals' lives and to listen to them.⁸² Compassionate conservation 'puts forward a scientific and evidence-based conceptual approach that stipulates that conservation initiatives should first do no harm'.⁸³ Accordingly, this project draws from the insights of science as well as the humanities. To do so is not without precedent; many poets have drawn inspiration from science – and vice versa.⁸⁴

In recent years, the scientific study of animal senses, sentience, and communication has flourished. While a comprehensive survey is beyond the scope of this thesis, my project is informed by this literature. I draw on the work of pioneering biologist Jakob von Uexküll, as well as contemporary figures such as Donald Griffin, Marc Bekoff and Frans de Waal. Although the recent insights of science can seem revelatory regarding animal behaviour and sentience, similar ideas can be traced back through the history of science, for example to Aristotle.⁸⁵

While my thesis draws on both art and science, in practice doing so is challenging. As Eileen Crist observes, the language of science tends to treat animals as objects, rather than as subjects, which is clearly at odds with this project's underpinning principles.⁸⁶ Further, the relationship between the arts and sciences has a chequered history.⁸⁷ In 1959 C.P. Snow's

⁸² Daniel Ramp and Marc Bekoff, 'Compassion as a Practical and Evolved Ethic for Conservation', *BioScience*, 65, 3 (2015) 323-27. See also Marc Bekoff, ed., *Ignoring Nature No More*.

⁸³ Daniel Ramp and Marc Bekoff, 'Compassion as a Practical and Evolved Ethic for Conservation', p. 325.

⁸⁴ Elizabeth Atkins, 'Man and Animals in Recent Poetry', p. 263. Atkins' review of animals in American poetry after World War I recognised the influence of contemporary biology and a view of 'the animal' inflected by the perspective of evolutionary theory, p. 263.

⁸⁵ A. Lytton Sells, *Animal Poetry in French and English literature and the Greek tradition* (London: Thames and Hudson, 1957) pp. xiv-xvii.

⁸⁶ Eileen Crist, *Images of Animals: Anthropomorphism and Animal Mind* (Philadelphia: Temple University Press, 2000) p. 2.

⁸⁷ According to William Davies the humanities are currently under attack by elements within the recently elected UK government. William Davies, 'How the humanities became the new enemy within', *The Guardian*, Fri 28 Feb 2020.

<https://www.theguardian.com/commentisfree/2020/feb/28/humanities-british-government-culture>

Rede Lecture addressed what Snow regarded as a lamentable gulf between the ‘two cultures’.⁸⁸ Philosopher Mary Midgley considered the issue in her book *Science and Poetry*, asserting the complementarity of the two spheres, while scientists such as evolutionary biologist Richard Dawkins and physicist Richard Feynman both argued that science can enhance the possibilities of poetry.⁸⁹ Feynman stated: ‘It does not do harm to the mystery to know a little about it. For far more marvelous is the truth than any artists of the past imagined! Why do the poets of the present not speak of it?’⁹⁰

I concur with Brendan Galvin who believes that to write effectively about nature requires the writer to be well-informed.⁹¹ Further: ‘When a poem about natural things is done well, it can provide its author with a rich source of imagery and language and its reader *with an experience unavailable anywhere else*’.⁹² Galvin argues that nature poetry is important: ‘And if poets, who are supposed to be the psychic advance guard, the lightning rods of the race, don’t know anything about the environment around them, how can we hope to preserve it?’⁹³

The potential synergy between poetry and science is addressed by Tim Dee.⁹⁴ Writing about the work of the poet and ornithologist John Buxton, Dee observes that in Buxton’s writing, each discipline informed the other:

⁸⁸ C.P. Snow, ‘The Two Cultures’, *The Rede Lecture, 1959*, Cambridge University Press, <https://metode.cat/wp-content/uploads/2014/07/Rede-lecture-2-cultures.pdf>

⁸⁹ Mary Midgley, *Science and Poetry* (Abingdon, Oxfordshire: Routledge Classics, 2006); Richard Dawkins, *Unweaving the Rainbow* (London: Penguin Books, 2006). See also John Holmes, ed., *Science in Modern Poetry: New Directions* (Liverpool: Liverpool University Press, 2012).

⁹⁰ Richard Feynman, *The Feynman Lectures on Physics: Volume 1, Chapter 3, The Relation of Physics to Other Sciences*, ‘Introduction’, footnote 1. https://www.feynmanlectures.caltech.edu/I_03.html

⁹¹ Brendan Galvin, ‘The Contemporary Poet and the Natural World’, *The Georgia Review*, 47, 1 (1993) 130-44 p. 137.

⁹² *Ibid.* p. 140, emphasis added.

⁹³ *Ibid.* p. 136.

⁹⁴ Tim Dee, *The Running Sky: A Birdwatching Life* (London: Vintage, 2010) p. 86.

Science makes discoveries when it admits to not knowing, poetry endures if it looks hard at real things. Nature writing, if such a thing exists, lives in this territory where science and poetry might meet. It must be made of both; it needs truth and beauty.⁹⁵

Malay also argues for mutually collaborative relationships between art and science and quotes scientist Hal Whitehead in discussion with writer Philip Hoare.⁹⁶ Regarding whales, Whitehead observes that if humans relate to them through the “metrics that correspond to how we see the world”, we are “likely severely to underestimate their capabilities”.⁹⁷ He continues:

this is where people like you come in – because artists and writers aren’t constrained by the scientific processes. You can speculate, imagine yourself in the world of the whale. And then open-minded scientists, by looking at what artists produce, may make hypotheses that will lead us onto paths that will begin to crack these great mysteries.⁹⁸

‘Science’, moreover, is not a monolith. Some approaches are reductionist, aiming, as Plato suggested, to ‘carve nature at its joints’.⁹⁹ However, Vinciane Despret’s ‘additive empiricism’, while adhering to objectivity, aims to embrace nature’s complexity ‘so as to multiply the voices that can be heard’.¹⁰⁰ McGilchrist makes it plain that both art and science depend on the holistic, emotionally connected, embodied way of being associated with the right hemisphere, *and* the objective, analytical approach of the left.¹⁰¹ Murray contrasted ‘whole-speak’, the language of poetry and religion, with ‘narrow-speak’, ‘which is just head

⁹⁵ Dee cites John Buxton, *The Redstart* (London: Collins, 1950), Tim Dee, *The Running Sky*, p. 86.

⁹⁶ Philip Hoare and Hal Whitehead, ‘The Cultural Life of Whales’, *The Observer*, Sun 30 Jan 2011, <https://www.theguardian.com/science/2011/jan/30/whales-philip-hoare-hal-whitehead>, cited by Michael Malay, *The Figure of the Animal in Modern and Contemporary Poetry*, p. 192.

⁹⁷ Philip Hoare and Hal Whitehead, ‘The Cultural Life of Whales’, quoted by Michael Malay, *The Figure of the Animal in Modern and Contemporary Poetry*, p. 192.

⁹⁸ *Ibid.* p. 192.

⁹⁹ Louise Stone, ‘Trying to carve nature at its joints: Respecting the complexity of psychiatric diagnosis’, *British Journal of General Practice*, 70, 699 (2020) 504. <https://bjgp.org/content/bjgp/70/699/504.full.pdf>

¹⁰⁰ Bruno Latour, ‘Foreword: The Scientific Fables of an Empirical La Fontaine’, in Vinciane Despret, *What Would Animals Say If We Asked the Right Questions?* (Minneapolis, Minnesota: University of Minnesota Press, 2016) vii-xiv p. ix.

¹⁰¹ Iain McGilchrist, *The Master and his Emissary*, p. 71.

talk, just reason', associated with prose.¹⁰² Both are important but poetry, as Jeremy Noel-Tod observes: 'bends the bars of the prose cage'.¹⁰³ This project engages with both art and science, seeking to avoid 'the hackneyed polarities' of either.¹⁰⁴ Science facilitates our understanding of the remarkable lives of our fellow creatures but without the imaginative engagement brought about by 'seeing poetically' we may remain estranged from the more-than-human. My PhD explores poetry's role in bending the literal and metaphorical bars within which animals are contained so they might stream into presence.

Overview

In summary, my project explores poetry's potential to re-connect us with the more-than-human world, and with other animals. The overarching question addressed by my thesis is: to what extent can poetry enact animal being so that readers might experience symphyical engagement with their nonhuman kin through the medium of this artform?

The project embraces several interwoven themes including Despret's additive empiricism, the importance of both right and left hemisphere approaches to the world, and the complementarity of art and science. It is guided by Malamud's 'ecocritical aesthetic', Malay's stance of 'seeing poetically', and a posthumanist decentring of *Homo sapiens*. I aim to foreground, critically and creatively, both the evolutionary and ecological connectedness of living things, *and* a respect for each being's alterity.

¹⁰² Missy Daniel, 'Poetry is Presence: An Interview with Les Murray', p. 12.

¹⁰³ Jeremy Noel-Tod, *The Penguin Book of the Prose Poem: From Baudelaire to Anne Carson* (London: Penguin Books, 2018) p. xxi.

¹⁰⁴ Tim Dee, *The Running Sky*, p. 86.

Each chapter explores a different aspect of animal subjectivity, specifically: senses, emotions, and communication. However, while necessary for clarity, this separation is artificial and at odds with the holistic principles of the project. In practice each sphere of subjectivity is enfolded into the others in animals' embodied lives. For example, how an animal senses the world and what matters to her at a given time will influence her modes of communication and emotional responses.

The critical, scientific, and creative elements of my project inform each other. Each chapter consists of a discussion of salient scientific issues, together with insights from the fields of Human-Animal studies, philosophy, and literature as appropriate. Close readings of key poems relevant to each chapter's theme explore, test, and illustrate these ideas, issues, and insights as they are brought to life in poetry.

The critical element of this PhD has informed the creative part, that is, my process as a poet. It has facilitated, for example, my exploration of approaches to poetic form and language. In turn, this experimentation has enhanced my understanding of the work of others.

The process of selecting poems for discussion was initially informed by Vanessa Robinson's continuum of animal poetry, at one end of which lie 'animals turned symbols or metaphors, ignored as individuals in their own right and used solely to comment on some aspect of the human condition'.¹⁰⁵ Further along the continuum are anthropocentric depictions of human-animal interactions, while at the other end are poems that try to recreate animal others, from the animal's perspective. The present project is concerned with this last category. The poems

¹⁰⁵ Vanessa Robinson, 'Poetry's Language of Animals: Towards a New Understanding of the Animal Other', *The Modern Language Review*, 110, 1 (2015) 28-46 p. 28.

selected to explore the themes of each chapter are drawn from several sources. Many are from Les Murray's collection, 'Presence: Translations from the Natural World'. Other poets whose work is considered include Elizabeth Bishop, David Harsent, Denise Levertov and Don Paterson.

Chapter one focuses on animal senses. The first part discusses approaches to understanding animals' sensory worlds and draws on the work of Jakob von Uexküll, particularly his concept of the *Umwelt*, as well as the work of more contemporary scientists. I introduce issues of animal sentience and animal consciousness and explore the implications of the question posed by Nagel's paper, 'What Is It Like to Be a Bat?' The writings of Scott Knickerbocker, Aaron Moe and Randy Malamud are considered, each offering a different frame through which to view the subject of animal senses as enacted in poetry. I also explore poetry's 'creatureliness', as proposed by Anat Pick, as well as anthropomorphism in animal poetry. These themes are tested and interrogated through close readings of poems by Les Murray focusing on animal senses. Specifically, I consider how Murray's approach to poetic effects and form facilitates engagement with animals' sensory worlds.

Chapter 2 addresses the question of animal emotion. A key idea explored in this chapter is the concept of embodiment, together with a focus on the whole living creature, as opposed to a narrow focus on the brain. This is consistent with the phenomenological approach of Merleau-Ponty and others, as well as contemporary scientists such as Louise Barrett.¹⁰⁶ I also explore Ralph Acampora's concept of *symphysis*, particularly the value of this idea in reading poetry which engages with animal emotion.¹⁰⁷ Further, this chapter considers the relationship

¹⁰⁶ Louise Barrett, *Beyond the Brain*.

¹⁰⁷ Ralph Acampora, *Corporal Compassion*, p. 76.

between animal emotion and the ethical treatment of nonhumans. Poems by Murray, Bishop, Levertov and others, chosen for their focus on various aspects of animal affect, from joy to suffering, explore how poetry might evoke symphyical engagement with animal emotion.

Chapter 3 considers the question of communication within the more-than-human world and addresses Murray's assertion that 'living things do all talk'.¹⁰⁸ I argue that human language is just one of many modes of communication in the natural world; that information exchange is fundamental to life, and that human language has its evolutionary roots in the communication of other living things. Some of the myriad ways in which animals communicate are explored, as is the contested boundary between human language and animal communication. As DeMello observes, this boundary is challenged by recent research into animal communication systems.¹⁰⁹ The chapter includes close readings of poems by Murray and others which address the nature of language, as well as exploring embodied communication and the varieties of 'talk' that exist beyond human language.

This PhD investigates whether poetry has a role in re-connecting us emotionally and imaginatively with the biodiverse more-than-human world, and particularly with our fellow animals, before it is too late. From its early beginnings, the project has developed organically. Taking Despret's additive empiricism as a methodological frame, I have sought to create a multivocal narrative.¹¹⁰ Close readings of poems relevant to each chapter have been informed by approaches and voices chosen from various fields to create a collaborative conversation, imaginative *and* empirical. My approach recognises that multiple levels of analysis can

¹⁰⁸ Peter F. Alexander, *Les Murray: A Life in Progress* (South Melbourne, Victoria: Oxford University Press, 2000) p. 244.

¹⁰⁹ Margo DeMello, ed., *Speaking for Animals*, pp. 5-7.

¹¹⁰ Bruno Latour, 'Foreword: The Scientific Fables of an Empirical La Fontaine', in Vinciane Despret, *What Would Animals Say If We Asked the Right Questions?* p. ix.

helpfully be brought to bear on any issue, and that there is no single, definitive way to answer a question. While this could be a recipe for chaos (and indeed at times I have fallen into confusion), my method has been to test different perspectives against one another – for example, scientific ideas illuminated by poetry and vice versa – so that a nuanced picture might emerge. The word ‘weave’, which features in my title, has become key, as has the idea of interconnection, crucial both to the biological ecosystems on which life depends, as well as to ecosystems of ideas and poetry.¹¹¹

¹¹¹ See earlier, ‘Structure and terminology’, p. 5.

Chapter 1

Perceiving the world in myriad ways: the poetic enactment of animal senses

I sometimes think that good poets open themselves to all the voices in the air, and they are there, of the live and dead, of animal and plant and inert matter, of whatever inhabits the rest of the universe.

Alice Notley¹

The aim of this first chapter is to investigate how poetry might enact the sensory worlds of a range of creatures, focusing primarily on Les Murray's collection, 'Presence: Translations from the Natural World', hereafter 'Presence'.² I will argue that in this collection Murray displays a remarkable ability to be open to 'all the voices in the air', both animal and plant, and to foreground the living presence of 'more-than-human worlds'.³ The work of three contemporary theorists of animal poetry are drawn on as varied lenses through which to view key poems from 'Presence'. These are Scott Knickerbocker ('sensuous poesis'), Aaron Moe ('zoopoetics'), and Randy Malamud ('empathetic imagination').⁴ First, I will consider some ways in which the sensory worlds of animals have been conceptualised, drawing on the work of biologist Jakob von Uexküll, philosopher Thomas Nagel, and others. I will also briefly review what is known about animal senses; discuss distinctions between sentience and consciousness and address the question of what we can know or imagine about the experiences of fellow animals. It is important to note that senses are active and embodied, and not merely the passive reception of external stimuli by sense organs, centrally processed by the brain. Sensory acuity develops through the engagement of a living being with its

¹ Adam Plunkett and Alice Notley, 'Talk to the Dead: Ruth Lilly Prize winner Alice Notley on the Voice and Spirits of her Poetry.' Interview by [Adam Plunkett](https://www.poetryfoundation.org/articles/70222/talk-to-the-dead). <https://www.poetryfoundation.org/articles/70222/talk-to-the-dead>

² Les Murray, 'Presence: Translations from the Natural World', *Translations from the Natural World* (Manchester: Carcanet Press Limited, 1993) 13-54.

³ David Abram, *The Spell of the Sensuous*, (New York: Vintage Books, 1997) p. 7.

⁴ Scott Knickerbocker, *Ecopoetics: The Language of Nature, the Nature of Language* (Amherst, Massachusetts: University of Massachusetts Press, 2012); Aaron Moe, *Zoopoetics: Animals and the Making of Poetry* (Lanham, Maryland: Lexington Books, 2014); Randy Malamud, *Poetic Animals and Animal Souls* (New York: Palgrave Macmillan, 2003).

environment.⁵ A line in Elizabeth Bishop's poem 'Sandpiper' perfectly exemplifies sensory embodiment; as the bird scrutinises myriad grains of sand searching for invertebrates, 'His beak is focussed'.⁶

Approaches to understanding the sensory worlds of animals

'Sensitivity' is defined as 'The ability to respond to environmental change' and is a property shared by all living things.⁷ While this definition is inclusive it is generally acknowledged that there are differences between sensing and responding as plants do, and *sentience* which entails 'being a living system with a point of view on the world around it'.⁸ Sentience is considered a particular property of animals, and while it is uncertain at what level of neural complexity sentience emerges it is both unwise and unscientific to presume its absence. As Frans de Waal states, the 'credo of experimental science remains that an absence of evidence is not evidence of absence'.⁹ Moreover, humans, just one species among millions, frame the questions; inevitably biases are inherent in our partial perspective. De Waal quotes Werner Heisenberg: 'What we observe is not nature in itself, but nature exposed to our method of questioning'.¹⁰

⁵ Louise Barrett, *Beyond the Brain: How Body and Environment Shape Animal and Human Minds* (Woodstock, Oxfordshire: Princeton University Press, 2011) p. 97.

⁶ Elizabeth Bishop, 'Sandpiper', in *Complete Poems* (London: Chatto & Windus, 2004) p. 131. For a discussion of the sensitivity of birds' beaks, see Tim Birkhead, *Bird Sense: What It's Like to Be a Bird* (London: Bloomsbury, 2013) pp. 76-80.

⁷ M. Thain and M. Hickman, *The Penguin Dictionary of Biology, Eleventh Edition* (London: Penguin Books, 2004) p. 644.

⁸ Peter Godfrey-Smith, *Other Minds: The Octopus and the Evolution of Intelligent Life* (London: William Collins, 2017) p. 79.

⁹ Frans de Waal, *Are We Smart Enough to Know How Smart Animals Are?* (London: W.W. Norton & Company, Ltd., 2016) p. 13.

¹⁰ Werner Heisenberg, *Physics and Philosophy: The Revolution in Modern Science* (London: Allen and Unwin, 1958) p. 26, quoted by Frans de Waal, *Are We Smart Enough to Know How Smart Animals Are?* pp. 7 & 15. An intriguing example of this is proposed by George Lakoff and Rafael E. Núñez. They question the Platonic assumption that there is 'a disembodied mathematics transcending all bodies and minds and structuring the universe – this universe and every possible universe', proposing instead that mathematics is produced, structured and limited by the structure of 'the brain, the body, and the world'. George Lakoff and Rafael E. Núñez, *Where Mathematics Comes From: How the Embodied Mind Brings Mathematics Into Being* (New York:

Traditionally science proceeds by a process of ‘subtractive empiricism’, embodying a ‘wish to simplify and to accelerate, sometimes even to eliminate accounts altogether and if possible, silence storytellers as well’.¹¹ Vinciane Despret, in contrast, is an ‘*additive* empiricist’. While no less interested in ‘objective facts and grounded claims’, the additive empiricist prefers ‘to add, to complicate, to specify, and, whenever possible, to slow down and, above all, hesitate so as to multiply the voices that can be heard’.¹² This open-minded plurality of perspectives (resonating with philosopher Markus Gabriel’s ‘New Realism’ which challenges the dominance of a scientific worldview), creates space not only for animals but also for poets.¹³

Murray appeared to have something similar in mind when he stated:

The Enlightenment puts all of its eggs in the basket of the waking consciousness. Even when it plays lip service to our other dimensions. It’s, therefore, one dimensional. To destroy the Enlightenment – which is what I’m out to do – *is to find something bigger than it*. I’m not out to destroy it just out of dislike for it; it’s because I think it’s untrue. It’s a misrepresentation of the way that humans work and the world is.¹⁴

Murray’s ‘Presence’ collection, with its multiple voices, including strands of DNA, mammals, birds, plants and invertebrates, mirrors Despret’s approach, which also frames this present project. The hallmark of Despret’s method is ‘and-and’ rather than ‘either-or’ and this is reflected in the approach of the ‘scientific humanities, meaning that to understand what

Basic Books, 2000) p. 1. One might add that this is not confined to human brains and bodies as there is increasing evidence that some animals and birds also have the capacity to deal with numerical concepts. See, for example, Belinda Recio, ‘Count Them In: Numerical Cognition’, in *Inside Animal Hearts and Minds: Bears That Count, Goats That Surf and Other True Stories of Animal Intelligence and Emotion* (New York: Skyhorse Publishing, 2017) 85-91.

¹¹ Bruno Latour, ‘The Scientific Fables of an Empirical La Fontaine’, Foreword to: Vinciane Despret, *What Would Animals Say If We Asked the Right Questions?* (Minneapolis, Minnesota: University of Minnesota Press, 2016) p. ix.

¹² *Ibid.* p. ix.

¹³ Markus Gabriel, *Why the World Does Not Exist* (Cambridge: Polity Press, 2015), e.g., p. 103.

¹⁴ Barbara Williams, ‘An Interview with Les A. Murray’, *Westerly*, 2 (1992) 45-56 pp. 52-53, emphasis added. These ideas can also be usefully compared with those of Iain McGilchrist, *The Master and his Emissary: The Divided Brain and the Making of the Western World* (New Haven and London: Yale University Press, 2010).

animals have to say, all the resources of science *and* of the humanities have to be put to work'.¹⁵

An animal's ability to sense the world is fundamental to its capacity to sustain itself, to procreate and avoid danger. It is therefore entwined with affect; what an animal senses is positively or negatively valenced depending on whether it presents opportunity or threat. The senses also drive communication, that is, signals evolve 'to activate sensory abilities and biases of receivers that are already in place', a process termed *sensory exploitation*.¹⁶ Senses, emotions or affect, and communication are intimately linked. It seems surprising therefore that Tim Birkhead in his book *Bird Sense* found that the study of animal senses, especially bird senses, 'has had a chequered history'.¹⁷ In spite of a wealth of informal observations gathered over centuries, the systematic study of animal senses was neglected or treated mechanistically within the discipline of physiology.¹⁸ Birkhead's decision to address the topic was a way 'to make up for lost time', as well as a response to a perceived change of attitude, particularly among animal behaviourists, who have, over recent decades, 'effectively rediscovered the sensory systems of birds and other animals'.¹⁹ Knowledge of the sensory worlds of myriad creatures including fish, insects, birds, cephalopods, and mammals, is burgeoning. Moreover, this knowledge extends beyond the five familiar senses of sight, hearing, smell, touch and taste, to include the detection of floral electrical charges by foraging pollinators; the perception of ultraviolet light by birds; echolocation in some bat species, and geomagnetic sense in migratory birds and fish, as well as mammals such as

¹⁵ Bruno Latour, 'The Scientific Fables of an Empirical La Fontaine', Foreword to Vinciane Despret, *What Would Animals Say If We Asked the Right Questions?* pp. ix ('and-and') & vii ('scientific humanities').

¹⁶ John Alcock, *Animal Behaviour: An Evolutionary Approach, Tenth Edition* (Sunderland, MA: Sinauer Associates, Inc., 2013) p. 70.

¹⁷ Tim Birkhead, *Bird Sense*, p. xiii.

¹⁸ *Ibid.* p. xiii.

¹⁹ *Ibid.* p. xiii.

foxes. Some senses, shared with humans, can be readily comprehended, while others, such as echolocation, challenge our comprehension.²⁰ In many cases animals' senses vastly exceed human sensory acuity in say, sight (raptors), smell (dogs), hearing (cetaceans and elephants), and motion and temporal perception (insects such as dragonflies). Appreciating the remarkable capacities of other animals destabilises notions of human exceptionalism.

The *Umwelt*

That senses are crucial to how animals interact with their environments was recognised in the early twentieth century by Jakob von Uexküll (1864 - 1944).²¹ Von Uexküll's breakthrough was his realisation that each species has a particular perspective, a unique take on a shared environment. He distinguished the approach of physiologists who investigate 'the organs of living things and the way they work together just as a technician would examine an unfamiliar machine', from that of biologists who take 'into account that *each and every living thing is a subject that lives in its own world, of which it is the center*'.²² This perspective depends both on what is salient to the animal and on their sense organs and physiology, and results from the complex physical and behavioural adaptations each species evolves in response to its environment. Salience is variable and complex, determined by both the animal's state and environmental factors. To take an obvious example, what matters to a deer alters according to whether it is the breeding season. Von Uexküll termed this unique point of view the *Umwelt*. For some animals such as von Uexküll's famous tick the matter is relatively simple and unvarying while other species 'are always in a process of

²⁰ However, as Donald Griffin notes, many blind people employ echolocation, sometimes without conscious awareness of this ability. Donald R. Griffin, *Animal Minds: Beyond Cognition to Consciousness* (Chicago: The University of Chicago Press, 2001) p. 7.

²¹ Jakob von Uexküll, *A Foray into the Worlds of Animals and Humans with A Theory of Meaning* (Minneapolis: The University of Minnesota Press, 2010) p. 166.

²² *Ibid.* p. 45, emphasis added.

experimentation, transforming affects and ways of being affected [...]’.²³ Frans de Waal distinguishes the *Umwelt* from the concept of ‘*ecological niche*, which concerns the habitat that an organism needs for survival’.²⁴ The ‘*Umwelt* stresses an organism’s self-centred, subjective world, which represents only a small tranche of all available worlds’.²⁵ For Despret an important question raised by the concept of the *Umwelt* is ‘that of knowing what matters to animals’.²⁶ Each animal perceives its environment in a particular way, according to its senses and needs. As de Waal puts it:

Some animals perceive ultraviolet light, for example, while others live in a world of smells or, like the star-nosed mole, feel their way around underground. Some sit on the branches of an oak, and others live underneath its bark, while a fox family digs a lair among its roots. Each perceives the same tree differently.²⁷

Despret highlights von Uexküll’s originality in defining perception as ‘an activity that fills the world with perceptual objects. For von Uexküll, *to perceive is to bestow meaning*’.²⁸ In this view perception is a creative act bringing the animal’s world into being:

The fact that von Uexküll defines “concrete milieu” and “lived milieu” as equivalent finds its meaning in that the two terms refer to “being captured” [*prises*], captured insofar as the direction proves to be indeterminate; on one hand, the milieu “captures” the animal, and

²³ Vinciane Despret, *What Would Animals Say If We Asked the Right Questions?* pp. 166-167. For von Uexküll’s description of the tick’s *Umwelt*, see Jakob von Uexküll, *A Foray into the Worlds of Animals and Humans*, pp. 44-45.

²⁴ Frans de Waal, *Are We Smart Enough to Know How Smart Animals Are?* p. 8.

²⁵ *Ibid.* p. 8.

²⁶ Vinciane Despret, *What Would Animals Say If We Asked the Right Questions?* p. 164. The vital question of ‘what matters to animals’ is also addressed by Marion Stamp Dawkins (*Why Animals Matter*), however she approaches the issue from the perspective of ‘animal welfare’ which, as Marc Bekoff and Jessica Pierce point out, despite its value, has serious limitations. For example: ‘[...] welfare science aimed to improve the lives of animals within the context of those situations in which human activities impose “welfare burdens” on our fellow creatures’. Marc Bekoff and Jessica Pierce, *The Animals’ Agenda: Freedom, Compassion and Coexistence in the Human Age* (Boston, Massachusetts: Beacon Press, 2017) p. 23; Marion S. Dawkins, *Why Animals Matter: Animal consciousness, animal welfare and human well-being* (Oxford: Oxford University Press, 2012).

²⁷ Frans de Waal, *Are We Smart Enough to Know How Smart Animals Are?* p. 8.

²⁸ Vinciane Despret, *What Would Animals Say If We Asked the Right Questions?* p. 161, emphasis added. See also Dorion Sagan’s discussion of von Uexküll’s role in developing the study of semiotics, Dorion Sagan, ‘Introduction: Umwelt After Uexküll’, in Jakob von Uexküll, *A Foray into the Worlds of Animals and Humans*, p. 4. Vinciane Despret admits to some disappointment with von Uexküll’s *Umwelt*, arguing that it works best for relatively simple animals, pp. 162-163.

affects it, while on the other hand, the milieu only exists because it is an object in being captured, in the way that *the animal confers to the milieu the power to affect*.²⁹

Despret quotes Gilles Deleuze (one of several thinkers influenced by von Uexküll) who ‘was right to insist on the fact that animals are “neither in our world, nor in another, but *with an associated world*”’.³⁰ Using the example of domestication (termed a place of ‘intercapture’ by Jocelyne Porcher ‘at the heart of which new *Umwelten* are created and overlapped’), Despret illustrates how the requirement to co-exist can result in ‘the transformation of a being-with-its-world by another being-with-its-world’.³¹ Horses, for example, are ‘beings-with-a-world whose bodies carry and matter [*porte et importe*], attune themselves with beings-with-a-world who form a new body with them [...]’.³²

Despret uses William James’s concept of a ‘pluriverse’ in which a number of sensory worlds co-exist and intersect.³³ This is reminiscent of Charles Darwin’s contemplation of a ‘tangled bank’,

clothed with many plants of many kinds, with birds singing on the bushes, with various insects flitting about, and with worms crawling through the damp earth, and to reflect that these elaborately constructed forms, so different from each other, and dependent upon each other in so complex a manner, have all been produced by laws acting around us.³⁴

²⁹ Vinciane Despret, *What Would Animals Say If We Asked the Right Questions?* p. 162, emphasis added.

³⁰ Gilles Deleuze and Claire Parnet, *Dialogues II*, rev. ed., trans. by Hugh Tomlinson and Barbara Habberjam (New York: Columbia University Press, 2007) pp. 60-61, quoted by Vinciane Despret, *What Would Animals Say If We Asked the Right Questions?* p. 165, emphasis added by Despret.

³¹ Jocelyne Porcher, *Vivre avec les animaux: Une Utopie pour le XXIe siècle* (Paris: La Découverte, 2011), quoted by Vinciane Despret, *What Would Animals Say If We Asked the Right Questions?* p. 165. However, Porcher’s analysis, for example through using the term ‘intercapture’, seems to imply an equality of power relations between domesticated animals and their keepers, as if the animals are freely participating in an exchange. As Marc Bekoff and Jessica Pierce make clear, this is not the case. Marc Bekoff and Jessica Pierce, *The Animals’ Agenda*.

³² Vinciane Despret, *What Would Animals Say If We Asked the Right Questions?* p. 165.

³³ William James, *The Pluralistic Universe* (Lincoln: University of Nebraska Press, 1996), cited by Vinciane Despret, *What Would Animals Say If We Asked the Right Questions?* p. 166.

³⁴ Charles Darwin, *On the Origin of Species* (Oxford: Oxford University Press, 2008, first published in 1859) p. 360.

The concept of a pluriverse relates to a fundamental concept within ecology, that is, the interconnectedness of life forms with each other and their environment.³⁵ It also brings home another tragedy of extinction; as Despret makes clear, if any of these other worlds disappear, whole segments of reality are lost ‘to ontological oblivion’.³⁶

One poignant aspect of species loss is that humans are only beginning to comprehend the myriad ways in which animals sense their surroundings. Karl von Frisch, who discovered the honeybee’s communicative waggle dance, likened the life of the bee to ‘a magic well, the more you draw from it, the more there is to draw’.³⁷ Frans de Waal notes that Donald Griffin, a pioneer in animal cognition studies, also applied the term ‘magic well’ to bats’ echolocation, ‘seeing this capacity as yet another inexhaustible source of mystery and wonder’.³⁸ The idea of magic wells captures the fascination that an understanding of other animals can bring and enriches our appreciation of nature. In contrast, there is something arid and thin about a world depleted of other creatures, other ways of being. John Muir, quoted by Robert Macfarlane, addressed the particularities of nature in sentiments reminiscent of the ideas encapsulated in the term ‘magic well’.³⁹ Muir wrote that ‘every tree calls for special admiration. I have been making many sketches and regret that I cannot draw every needle’.⁴⁰

Two poets who exemplify this dizzying attention to detail are Colin Simms and Peter

³⁵ Robert Macfarlane, *Landmarks* (London: Hamish Hamilton, 2015) p. 69; see also Sean B. Carroll, ‘The Economy of Nature’, in *The Serengeti Rules: The Quest to Discover How Life Works and Why It Matters* (Princeton, New Jersey: Princeton University Press, 2016) 30-46.

³⁶ Éric Chevillard, *Sans l’orang-outan* (Paris: Minuit, 2007), quoted by Vinciane Despret, *What Would Animals Say If We Asked the Right Questions?* p. 167.

³⁷ Karl von Frisch, *Bees: Their Vision, Chemical Senses and Language* (New York: Cornell University Press, 1971). The original quote is: ‘The bee’s life is like a magic well: the more you draw from it, the more it fills with water’. De Waal cites a secondary source for the von Frisch quote: Martin Lindauer, ‘Introduction’, in *Neurobiology and Behavior of Honeybees*, ed. R. Menzel and A. Mercer (Berlin: Springer, 1987) 1-6 p. 6; Frans de Waal, *Are We Smart Enough to Know How Smart Animals Are?* p. 11.

³⁸ Donald Griffin, ‘Return to the magic well: Echolocation behavior of bats and responses of insect prey’, *Bioscience*, 51, 555-56, cited by Frans de Waal, *Are We Smart Enough to Know How Smart Animals Are?* p. 11.

³⁹ Robert Macfarlane, *Landmarks*, p. 11.

⁴⁰ John Muir, *My First Summer in the Sierra* (New York: Houghton Mifflin, 1911), in John Muir, *Nature Writings*, ed. by William Cronon (New York: Library of America, 1997), quoted by Robert Macfarlane, *Landmarks*, p. 11.

Larkin.⁴¹ In *Hen Harrier Poems*, Simms writes about the eponymous birds across landscapes, seasons, and through time. The poems attest to a naturalist's attentiveness, for example, in 'Wind's partnership (harrier)':

See how he manages economy; flap soar and stall
his wind; his strength and directing has it skip
along lee of the long dyke at the head-wall
like a tide's rip, the current that lifts lets fall [...] ⁴²

A famous prose example is J.A. Baker's *The Peregrine*.⁴³ For example,

A peregrine flew over, and hovered above the sea-wall where partridges were crouching in the grass. It was a lion-coloured tiercel, fierce and proud, looking down with luminous, dark, liquescent eyes. Where the wide wings joined the chest the feathers underneath were thickly mottled with diamond-shaped spots, like the fur of a snow leopard. The amber hawk glowed briefly in the sun, then flew inland.⁴⁴

Poetry, perhaps because of what have been identified as its 'creaturely' qualities, is a means by which animal *Umwelten* might be enacted. Sarah Bouttier employs Anat Pick's concept of the creaturely, defined as 'the condition of exposure and finitude that affects all living bodies whatever they are'.⁴⁵ Further, according to Pick, 'The materiality of life turns us all into creatures sharing in a common embodiment and mortality'.⁴⁶ Based on Pick's definition, Bouttier's essay:

⁴¹ Colin Simms, *Hen Harrier Poems* (Bristol: Shearsman Books, 2015), and Peter Larkin, *Give Forest Its Next Portent* (Bristol: Shearsman Books, 2014).

⁴² Ibid. p. 24.

⁴³ J. A. Baker, *The Peregrine; The Hill of Summer & Diaries* in *The Complete Works of J. A. Baker*, ed. by John Fanshawe (London: HarperCollins Publishers Ltd, 2011).

⁴⁴ Ibid. p. 138.

⁴⁵ 'Interview with Anat Pick, author of *Creaturely Poetics*', *Columbia University Press Blog*, Animal Studies, July 19 2011 <https://www.cupblog.org/2011/07/19/interview-with-anat-pick-author-of-creaturely-poetics/> quoted by Sarah Bouttier, 'Creaturely Texts, Texts on Creatures', *European Journal of English Studies*, 19, 1 (2015) 111-22 p. 111.

⁴⁶ Ibid. p. 111.

argues that some texts, too, participate in the creaturely, being embodied and finite at the same time, in a way that redefines their materiality and referentiality. Indeed, they are embodied and exposed because they are themselves both *openly textual and striving to express their objects' presence in the world*.⁴⁷

Bouttier's choice of illustrative texts are poems having 'creatures as their objects', assuming 'that such objects might facilitate the making of a creaturely text'.⁴⁸ She notes Pick's dependence on Simone Weil's observation that: 'The vulnerability of precious things is beautiful because vulnerability is a mark of existence'.⁴⁹ Bouttier also quotes Cary Wolfe who places "shared embodiment, mortality and finitude" at the heart of a posthumanism concerned with challenging arbitrary divisions between 'animal' and 'human'.⁵⁰ Bouttier's account of a creaturely text is strikingly similar to Scott Knickerbocker's theory of 'sensuous poesis'. For Bouttier:

A creaturely text is not mimetic in that by fully acknowledging its own textuality, it does not erase itself in order to produce the illusion that the representation of its object is real. Instead, it gives a sense of what being in the world is like simply through its attempt to be in the world itself.⁵¹

Knickerbocker similarly argues that sensuous poesis involves embracing the artifice of figurative language:

When a poet skillfully experiments with various sound effects in a poem, when a reader revels in the sensuous pleasure a poem provides, and when a literary critic deepens our understanding or appreciation of the way a poem's form – its body – shapes meaning, these

⁴⁷ Sarah Bouttier, 'Creaturely Texts, Texts on Creatures', p. 111, emphasis added.

⁴⁸ Ibid. p. 111.

⁴⁹ Simone Weil, *Gravity and Grace*, trans. by Emma Crawford and Mario von der Ruhr (London: Routledge, 2004) p. 108

https://mercaba.org/SANLUIS/Filosofia/autores/Contempor%C3%A1nea/Weil%20%28Simone%29/Gravity%20and%20Grace.pdf?hc_location=ufi ; quoted by Sarah Bouttier, 'Creaturely Texts, Texts on Creatures', p. 112.

⁵⁰ Cary Wolfe, 'Flesh and Finitude: Thinking Animals in (Post)Humanist Philosophy', *SubStance* 37, 117 (2008) 8–36, p. 8, quoted by Sarah Bouttier, 'Creaturely Texts, Texts on Creatures', p. 112.

⁵¹ Sarah Bouttier, 'Creaturely Texts, Texts on Creatures', p. 115.

writers and readers experience both their own and the poem's embodiment, even when silently sounding the poem to one's inner ear.⁵²

Bouttier selects Murray's poem 'Stone Fruit' to illustrate textual creatureliness.⁵³ Although this poem concerns plant life, she argues that 'the fruit's materiality is asserted with such insistence that I believe it can be taken as a creature in this poem – and a form of textual creatureliness'.⁵⁴ Bouttier's approach is at least equally applicable to Murray's animal poems.

The notion that poems are creaturely was also advanced by Ted Hughes:

In a way, I suppose, I think of poems as a sort of animal. They have their own life, like animals, by which I mean that they seem quite separate from any person, even from their author, and nothing can be added to them or taken away without maiming and perhaps even killing them. And they have a certain wisdom. They know something special ... something perhaps which we are very curious to learn.⁵⁵

Hughes also likened poems to 'an assembly of living parts moved by a single spirit', and, in writing a successful poem, 'You will have captured a spirit, a creature'.⁵⁶ For Hughes the process involves paying attention: 'You keep your eyes, your ears, your nose, your taste, your touch, your whole being on the thing you are turning into words'.⁵⁷ The concept of the *Umwelt* is relevant here; the poet *is* a sensorially engaged animal, focusing on what is salient in an act of mutual capture. Hughes compared writing poetry to hunting:

The special kind of excitement, the slightly mesmerized and quite involuntary concentration with which you make out the stirrings of a new poem in your mind, then the outline, the mass

⁵² Scott Knickerbocker, *Ecopoetics*, p. 7.

⁵³ Les Murray, 'Stone Fruit', in 'Presence', p. 48, cited by Sarah Bouttier, 'Creaturely Texts, Texts on Creatures', p. 119.

⁵⁴ Sarah Bouttier, 'Creaturely Texts, Texts on Creatures', p. 119.

⁵⁵ Ted Hughes, *Winter Pollen: Occasional Prose*, ed. by William Scammell (London: Faber and Faber Limited, 1995) p. 10.

⁵⁶ *Ibid.* pp. 12 & 13.

⁵⁷ *Ibid.* p. 13.

and colour and clean final form of it, the unique living reality of it in the midst of the general lifelessness, all that is too familiar to mistake.⁵⁸

In contrast to hunting, however, poetic animals are apprehended in the sense of fostering appreciation and deeper understanding, rather than literal capture. Drawing on Paul Shepard's book, *Thinking Animals: Animals and the Development of Human Intelligence*, Aaron Moe argues that the dynamics of hunting played a part in the shaping of human cognition and, echoing Hughes, that the necessary attentiveness involved in hunting is also a crucial element in zoopoetics: 'As one animal *stretches the mind* toward the bodily movements, gestures, and vocalizations of another, consciousness continues its "reciprocal spiral"'.⁵⁹ Elsewhere Moe observes that 'Poets revel in ways-of-being – in ontology – rather than ways of knowing', recognizing 'the profundity of gestures in language'.⁶⁰ For Moe poems *gesture*, carrying 'material, somatic, and, [after George Kennedy] rhetorical energy', suggestive of creatureliness.⁶¹

So, what is it like to be a bat?

Poets attempting to convey with integrity something of the *Umwelten* of other creatures are faced with several challenges. First, I would argue, they must have some *knowledge* of how the animal senses its world and what is salient to it. In the absence of this animals may be misrepresented – or mis-enacted. José Emilio Pacheco plays with animal misrepresentation in his poem 'Investigation on the Subject of the Bat' which Malamud describes as 'rampantly

⁵⁸ Ibid. pp. 11-12.

⁵⁹ Paul Shepard, *Thinking Animals: Animals and the Development of Human Intelligence* (Athens, Georgia: University of Georgia Press, 1998) pp. 6-7, cited by Aaron Moe, *Zoopoetics*, p. 24.

⁶⁰ Aaron Moe, *Zoopoetics*, p. 23.

⁶¹ Aaron Moe quotes George A. Kennedy, 'A Hoot in the Dark: The Evolution of General Rhetoric', *Philosophy & Rhetoric*, 25, 1 (1992) 1-21 p. 2. Aaron Moe, *Zoopoetics*, p. 23.

subjective and imaginative, certainly full of anthropomorphic fallacies'.⁶² The poem is playfully inventive, pointing to the cultural baggage with which bats are burdened. For example:

It is, of course, a fallen angel, and has lent its wings and
costume to the legion of devils.

Blind (as we know what), it loathes the sun. And melancholy
is the primary note in its disposition.⁶³

Bats are not in fact blind, their vision being almost as good as that of humans.⁶⁴ For Malamud the 'animal's vivid presence amid the forces of Pacheco's poetry is a step in the process of shucking conventional and delimiting conceptions of bats [...]'.⁶⁵ Bats and other animals are encumbered with stale myths or simplified and reduced to one or two traits of questionable accuracy (foxes are cunning, owls are wise, raptors are pitiless etc.). While this tendency goes to the heart of human culture, reflecting Claude Lévi-Strauss's observation that animals are "good to think [with]", animals themselves are diminished.⁶⁶ Paul Mason discusses the essential role animals have played and continue to play in human evolution. He asserts that: 'Because animals shaped our minds as a species, they shape our minds as individuals today'.⁶⁷ That animals are co-opted into human culture need not be problematic for the animals, provided we are clear that these cultural creatures are pale versions of living, breathing real animals who, like Walt Whitman, 'contain multitudes'.⁶⁸ Pacheco's poem

⁶² José Emilio Pacheco, 'Investigation on the Subject of the Bat', in *An Ark for the Next Millennium*, trans. by Margaret Sayers Peden (Austin, TX: University of Texas Press, 1993) pp. 49-53; Randy Malamud, *Poetic Animals and Animal Souls*, p. 8.

⁶³ José Emilio Pacheco, 'Investigation on the Subject of the Bat', p. 51; quoted by Randy Malamud, *Poetic Animals and Animal Souls*, p. 8.

⁶⁴ See: The Bat Conservation Trust website: http://www.bats.org.uk/pages/all_about_bats.html

⁶⁵ Randy Malamud, *Poetic Animals and Animal Souls*, p. 9.

⁶⁶ Claude Lévi-Strauss, *Totemism*, trans. by R. Needham (Boston: Beacon, 1963), quoted by Margo DeMello, *Animals and Society: An Introduction to Human-Animal Studies* (New York: Columbia University Press, 2012) p. 288.

⁶⁷ Jim Mason, *An Unnatural Order: The Roots of Our Destruction of Nature* (New York: Lantern Books, 2005) p. 93.

⁶⁸ Walt Whitman, *Song of Myself*, Section 51, <https://www.poetryfoundation.org/poems/45477/song-of-myself-1892-version>

allows space for both. In highlighting a range of bat tropes, he creates the (accurate) impression that elsewhere, outwith the constraints of his poem, real bats are living their lives, unconcerned with what humans project onto them. Marianne Moore, in her poem ‘He ‘Digesteth Harde Yron’’, also plays with this tendency to misconstrue animals, making (ironic) use of the false notion that ostriches eat iron to stay healthy.⁶⁹ A more recent example is Michael Symmons Roberts’ poem ‘Portrait of a Dove’ which challenges stereotyped views of these birds.⁷⁰ Symmons Roberts’ dove resists the symbolic role with which she has been saddled and for which ‘She blames Picasso, him and Noah’. The rough syntax of this phrase effectively undermines the dove’s assigned saintliness; she ‘is sick of being a symbol’. Symmons Roberts’ dove has a hooligan heart, rebelling against familiar tropes. She wants, for example, to ‘stuff her crop / with bin-ripe chilli-chicken wings’, and longs to ‘burst the white chest / of a fan-tailed pigeon with a well-aimed nod’. She is more punk than paragon. Yet in troubling the dove’s supposed saintliness, Symmons Roberts heaps other questionable characteristics onto her. However, the poem succeeds as the dove is dislodged from her stereotyped perch. Readers must reconsider their assumptions.

A second consideration, in addition to knowledge of animal senses, is that poets should attempt to gain some insight into what it might *feel like to be* that other creature. Third, they must find a way of conveying this experience effectively. Finally, they must tread a line between recognising and respecting the alterity of the other, avoiding the trap of anthropomorphism, while at the same time recognising points of commonality and identification. The poet might ask herself: how possible is it for a human to know something

⁶⁹ Marianne Moore, ‘He ‘Digesteth Harde Yron’’, in Simon Armitage and Tim Dee, eds., *The Poetry of Birds*, (London: Penguin Books, 2011) pp. 1-3. According to Simon Armitage and Tim Dee, however, ostriches are ‘famous for their unscrupulous snacking’, ostrich stomachs having been found to contain barbed wire, bullets, diamonds, and an improbable array of other objects, *The Poetry of Birds*, p. 287.

⁷⁰ Michael Symmons Roberts, ‘Portrait of a Dove’ in *Drysalter* (London: Jonathan Cape, 2013) p. 73.

about the subjective experiences of other creatures? Thomas Nagel famously asked 'What Is It Like to Be a Bat?'⁷¹ While acknowledging that there is 'something that it is like to be a bat', that is, bats have subjective experience, he argues that his title question is essentially unanswerable.⁷² According to Nagel, while a human might be able to imagine itself inhabiting a bat-like body with a capacity for flight, navigation by echolocation and the habit of roosting upside down in darkness, this would only allow the imagining individual to know what bat-hood might be like from a human perspective, falling short of capturing how it would feel from the *bat's* point of view.⁷³ Nagel raised this question to highlight the uniqueness and seeming inaccessibility of another individual's subjective experience, thereby illustrating the difficulties inherent in understanding consciousness. The mind-body problem, also known as 'the hard problem of consciousness', concerns the, to date, impossibility of developing an adequate explanation to account for how nervous systems give rise to subjective experience – the relationship between 'mind' and brain.⁷⁴ As Nagel puts it, 'Consciousness is what makes the mind-body problem really intractable'.⁷⁵ Nagel's paper grapples with the impossibility of directly experiencing the 'qualia' which comprise the experience of, say, another's perception of the colour red, or the rich 'smellscape' to which dogs have access.⁷⁶ This issue is a core challenge when considering or writing poetry which attempts to enact another creature's subjective experience. Peter Godfrey-Smith regards subjective experience as 'the most basic

⁷¹ Thomas Nagel, 'What Is It Like to Be a Bat?', in *The Mind's I: Fantasies and Reflections on Self and Soul*, eds., Douglas R. Hofstadter and Daniel C. Dennett (New York: Basic Books, 2000) pp. 391-403.

⁷² Ibid. pp. 393 ('something [...] a bat) & p. 394.

⁷³ Ibid. p. 394.

⁷⁴ See, for example, Oliver Burkeman, 'Why can't the world's greatest minds solve the mystery of consciousness?' *The Guardian*, Wed 21 Jan 2015, <https://www.theguardian.com/science/2015/jan/21/-sp-why-cant-worlds-greatest-minds-solve-mystery-consciousness>; Susan Blackmore, *Consciousness: An Introduction* (Abingdon, Oxon: Routledge, 2013) pp. 30 & 33-36; Marcus du Sautoy, 'Sixth Edge: The Chatbot App', in *What We Cannot Know* (London, 4th Estate, 2016) 301-60 p. 304; Jim Al-Khalili and Johnjoe McFadden, *Life on the Edge: The Coming of Age of Quantum Biology* (London: Bantam Press, 2014) p. 247.

⁷⁵ Thomas Nagel, 'What Is It Like to Be a Bat?', p. 391.

⁷⁶ Susan Blackmore, *Consciousness: An Introduction*, p. 26: 'A quale is what something is *like*', for example the smell of coffee or the colour red.

phenomenon that needs explaining, the fact that life feels like something to us'.⁷⁷ He distinguishes between *sentience* and *consciousness*, arguing that sentience precedes consciousness.⁷⁸ According to Godfrey-Smith, if there is something it is like to be a particular animal then the animal is sentient.⁷⁹ A similar distinction is made by Todd Feinberg and Jon Mallatt between *sensory consciousness*, the quality of 'something it is like to be', and more obviously human-like consciousness which involves, for example, consciousness of one's own thoughts.⁸⁰ There are varying views on who within the animal kingdom has what sort of mind. Godfrey-Smith argues that, 'Sentience is brought into being somehow from the evolution of sensing and acting; it involves being a living system with a point of view on the world around it'.⁸¹ He demonstrates how even bacteria 'sense the world and act', though sentience as such is considered unlikely in such simple entities.⁸² The capacity to sense and act paves the way for communication and coordination between cells; as Godfrey-Smith puts it, this is 'the birth of social behaviour'.⁸³ Returning to Pacheco, Malamud argues that his poem 'inspires – and [...] empowers – Pacheco's readers to perform our own imaginative interactions with bats, which is a step toward experiencing what it is like to be a bat'.⁸⁴

Ben Lerner, exploring the 'hatred of poetry' states that:

Poetry arises from the desire to get beyond the finite and the historical – the human world of violence and difference – and to reach the transcendent or divine. You're moved to write a poem, you feel called upon to sing, because of that transcendent impulse. But as soon as you

⁷⁷ Peter Godfrey-Smith, *Other Minds*, p. 78.

⁷⁸ *Ibid.* p. 79.

⁷⁹ *Ibid.* p. 79.

⁸⁰ Todd E. Feinberg and Jon M. Mallatt, *The Ancient Origins of Consciousness: How the Brain Created Experience* (Cambridge, MA: The MIT Press, 2015) pp. 1-2.

⁸¹ Peter Godfrey-Smith, *Other Minds*, p. 79.

⁸² *Ibid.* p. 79. While sentience in bacteria is improbable, nevertheless, as Frans de Waal states: 'an absence of evidence is not evidence of absence', Frans de Waal, *Are We Smart Enough to Know How Smart Animals Are?* p. 13.

⁸³ Peter Godfrey-Smith, *Other Minds*, p. 18.

⁸⁴ Randy Malamud, *Poetic Animals and Animal Souls*, p. 8.

move from that impulse to the actual poem, the song of the infinite is compromised by the finitude of its terms.⁸⁵

Attempting to write from the viewpoint of another creature is an enterprise undertaken in a spirit of hope, a desire to transcend the human and to connect with ‘more-than-human worlds’.⁸⁶ For Nagel the gulf is too wide, the attempt doomed to founder on what Jacques Derrida termed the ‘abyssal rupture’ between the human “‘I-we” and what we *call* animals’.⁸⁷ Malamud, in contrast, discussing Nagel’s paper, perceives grounds for optimism in ‘the empathizing imagination that, [...], is epitomized by art [...]’.⁸⁸ He continues:

I believe that art has the potential to present a valuable (if not complete and flawless) account of what it is like to be a different animal from ourselves. Indeed, I think that simply the expression of *wanting* to know what it is like to be a bat is the beginning of actually achieving that knowledge, and this expression of cognitive desire may quite possibly represent the incipient motive for creating (and for experiencing) an artistic representation of an animal.⁸⁹

He concurs with Nagel,

that we should “form new concepts and devise a new method” in order to expand our experiential and epistemological sense of animals, but [discounts] what [Nagel] deems the limitations of human empathy and human imagination in this endeavor. The empathizing imagination can be enlisted to enhance the awareness of sentient, cognitive, ethical, and emotional *affinities between people and animals*, and it is the potential for enhanced appreciation of these affinities that makes me want to know what it is like to be a bat.⁹⁰

Carl Safina, writing from a scientific perspective, also discusses Nagel’s suggestion that we cannot know what it is like to be a bat. He asks, firstly, ‘What *kind* of bat?’, highlighting the

⁸⁵ Ben Lerner, *The Hatred of Poetry* (London: Fitzcarraldo Editions, 2016) pp. 12-13.

⁸⁶ David Abram, *The Spell of the Sensuous*, p. 7.

⁸⁷ Jacques Derrida, *The Animal That Therefore I Am*, ed. by Marie-Louise Mallet, trans. by David Wills (New York: Fordham University Press, 2008) p. 30.

⁸⁸ Randy Malamud, *Poetic Animals and Animal Souls*, p. 7.

⁸⁹ *Ibid.* p. 7.

⁹⁰ *Ibid.* p. 9.

imprecision in Nagel's question.⁹¹ In so doing, Safina points to the human tendency to lump all animals (or bats) together, failing to appreciate their remarkable diversity of form and ways of being. Safina notes that some '20 percent of all mammal species [over twelve hundred] are bats'.⁹² Further, while each individual within each bat species might have a slightly different answer to Nagel's question, Safina also argues that, as fellow mammals, we have much in common with bats and therefore should be able, through the exercise of empathy and imagination, to know something about them: 'Bats feel comfort, rest, arousal, exertion, maternal urges; [...] so there are shared basics'.⁹³ J.M. Coetzee, writing in the persona of 'Elizabeth Costello', also challenges Nagel's conclusion that it is impossible to know what it is like to be a bat. The important thing for Costello/Coetzee is not the particularities involved in being a bat but the common quality of joy in being alive which, according to Costello, inheres in all animals, including *Homo sapiens*.

What is it like to be a bat? Before we can answer such a question, Nagel suggests, we need to be able to experience bat-life through the sense-modalities of a bat. But he is wrong; or at least he is sending us down a false trail. To be a living bat is to be full of being; being fully a bat is like being fully human, which is also to be full of being. Bat-being in the first case, human-being in the second, maybe; but those are secondary considerations. To be full of being is to live as a body-soul. One name for the experience of full being is *joy*.⁹⁴

For Costello/Coetzee, the specifics of morphology, sensory capacities and so on, are incidental and secondary to the common factor of *being*. Simon Barnes writes of the 'Is-ness' shared by every living thing.⁹⁵ He discusses the gnathostomulid, a marine worm with

⁹¹ Carl Safina, *Beyond Words: What Animals Think and Feel* (New York: Henry Holt and Company, LLC, 2015) p. 285. In fact, Nagel does broadly identify the kinds of bats to which he is referring: 'most bats (the microchiroptera (*sic*), to be precise)' but this still, arguably, lacks precision. Thomas Nagel, 'What Is It Like to Be a Bat?', p. 393. The suborder Microchiroptera comprises the echolocating bats of which there are 930 species worldwide. <https://www.britannica.com/animal/Microchiroptera>

⁹² Carl Safina, *Beyond Words: What Animals Think and Feel*, pp. 284-85.

⁹³ *Ibid.* p. 284.

⁹⁴ J. M. Coetzee, *The Lives of Animals* (Woodstock, Oxfordshire: Princeton University Press, 1999) p. 33.

⁹⁵ Simon Barnes, *Ten Million Aliens: A Journey Through the Entire Animal Kingdom* (London: Short Books, 2014) p. 249.

impressive jaws: ‘A gnathostomulid is because it is. It requires nothing more than existence to be worth existing. *Life is about being alive: life is what life is and because life is. We can say with the gnathostomulid: “I is therefore I am”*’.⁹⁶

De Waal takes a different approach to Nagel’s question, though arguably, this is a matter of emphasis. He agrees that it is indeed ‘beyond our comprehension’ to know how it feels to be a bat from the bat’s point of view.⁹⁷ De Waal’s approach is to ‘focus on the world that animals live in, and how they navigate its complexity. Even though we can’t feel what they feel, we can still try to step outside our own narrow *Umwelt* and apply our imagination to theirs’.⁹⁸ De Waal’s stance is persuasive. While we can never feel *directly* what another feels, it is also the case that this, as he and Costello/Coetzee eloquently argue, should not be a barrier to *attempting* to empathise imaginatively, albeit imperfectly, with human and non-human living beings. Murray, in his ‘Presence’ collection, does just this.

‘Presence: Translations from the Natural World’

Les Murray, writing about ‘Presence’, stated that this ‘big long project’ was one he’d ‘deliberately kept vague and instinctive, finding my way rather than planning’.⁹⁹ In a letter to Angela Smith he stated that ‘Presence’ was a way to escape his usual preoccupations: ‘It’s a rest from the human, and from making myself ill with worry about social-cultural stuff that’s

⁹⁶ Ibid. p. 249, emphasis added. This echoes E. E. Cummings who wrote of “the indescribable Is” of being alive’, in E. E. Cummings, *A Miscellany Revised*, ed. by George J. Firmage (New York: October House, 1965) p. 251, quoted by Aaron Moe, *Zoopoetics*, p. 11.

⁹⁷ Frans de Waal, *Are We Smart Enough to Know How Smart Animals Are?* p. 9.

⁹⁸ Ibid. p. 9.

⁹⁹ Peter F. Alexander, *Les Murray: A Life in Progress* (South Melbourne, Victoria: Oxford University Press, 2000) p. 244.

probably ephemeral anyway'.¹⁰⁰ It is noteworthy that Murray, who struggled with depression, found refuge in identification with non-human living things.¹⁰¹ Murray continued:

It's tentatively titled Presence, with the subtitle Translations from the Natural World. It successively touches the lives of many animals, birds, even plants and insects and fish, sometimes giving a sense of their life from the outside, more often by pretending to translate their 'speech' – living things do all talk, I say, but they don't talk human language, or always speak with their mouth. I'm trying to be neither Walt Disney nor Ted Hughes, and enjoying the constraints: no hands, no colour vision if they're mammals ... not much metaphor or sense of time, no consequences, no mercy, but no vindictiveness either etc. Equally good fun are the new senses and powers, such as flight, the ability to see thermals in air, to hear and talk in infrasound (the elephants do this), to see heat when I'm a snake, to detect scents beyond the human range, to live forever until you die.¹⁰²

In this passage Murray addresses the issue of anthropomorphism head on, declaring his intent to side-step both Disney and Hughes. 'Disney' has become metonymic for sentimental and simplistic anthropomorphism which projects human characteristics onto animals.¹⁰³ In biology anthropomorphism has become 'an epithet to vilify any and all human-animal comparisons, even the most cautious ones'.¹⁰⁴ De Waal coined the term *anthropodenial* to describe 'the a priori rejection of humanlike traits in other animals or animallike traits in us'.¹⁰⁵ He supports a *critical anthropomorphism*, in which 'human intuition and knowledge of an animal's natural history [are used] to formulate research questions', and argues that 'Unjustified linguistic barriers fragment the unity with which nature presents us'.¹⁰⁶ De

¹⁰⁰ Ibid. p. 244.

¹⁰¹ Murray is not the first writer to do so. J. A. Baker, author of *The Peregrine*, was a troubled man whose 'express purpose was to annihilate himself' through immersion in nature, see Charles Foster, *Being A Beast* (London: Profile Books, 2016) p. 6.

¹⁰² Unpublished letter, Les Murray to Angela Smith, 19 July 1990, quoted by Peter F. Alexander, *Les Murray: A Life in Progress*, pp. 244-45.

¹⁰³ Greg Garrard refers to this as 'disnification'; Greg Garrard, *Ecocriticism* (Abingdon, Oxon: Routledge, 2012) pp. 154-55.

¹⁰⁴ Frans de Waal, *Are We Smart Enough to Know How Smart Animals Are?* p. 24.

¹⁰⁵ Ibid. p. 25.

¹⁰⁶ The term 'critical anthropomorphism' was originally coined by biologist Gordon Burghardt in 'Cognitive ethology and critical anthropomorphism: A snake with two heads and hognose snakes that play dead', in *Cognitive Ethology: The Minds of Other Animals: Essays in Honor of Donald Griffin*, ed. C. A. Ristau

Waal's point is that evolutionary continuity makes it highly improbable that humans are so separate from other species that insightful, empathic and imaginative engagement with animals should be deemed out of bounds. Louise Barrett offers a different perspective. She rejects the critical anthropomorphism of de Waal and others, arguing that 'evolutionary parsimony' is an inadequate justification given that 'our own introspection about how our own minds work need not be an accurate guide to how they actually do work', adding that decision making processes may be far simpler than 'our conscious self-monitoring suggests'.¹⁰⁷ She regards anthropomorphising as 'doubly wrong' as 'it assumes we understand our own cognitive mechanisms, and it then attributes this inaccurate and imperfect model to other species'.¹⁰⁸ Barrett argues that the anthropomorphising approach does other animals a disservice, denying them 'their own voice: we impose our views on them, instead of allowing their view to be revealed to us (to the extent we are able to appreciate it)'.¹⁰⁹ The result is that 'we lose our ability to appreciate the animal on its own terms, and our chance to understand another way of being in the world'.¹¹⁰

While Barrett's cautions should be heeded, de Waal's position is also valid. Malamud's 'ecocritical aesthetic' is a balanced stance through which animals are seen in their contexts, without harm or interference, knowing them 'richly but also incompletely'.¹¹¹ Malamud,

(Hillsdale, NJ: Lawrence Earlbaum Associates, 1991) 53-90. Cited by Frans de Waal, *Are We Smart Enough to Know How Smart Animals Are?* p. 26. Aaron Moe also addresses the issue of anthropomorphism, arriving at similar conclusions to de Waal. He refers to Greg Garrard's typology of anthropomorphisms and zoomorphisms, from 'crude' (exemplified by cartoons) to 'critical', which involves 'recognizing an animal's rhetorical agency'. Aaron Moe, *Zoopoetics*, p. 18; Greg Garrard, *Ecocriticism*, p. 154.

¹⁰⁷ Louise Barrett, *Beyond the Brain*, pp. 12-13. On p. 13 Barrett cites Timothy Wilson, *Strangers to Ourselves: Discovering the Adaptive Unconscious* (Cambridge, Massachusetts: The Belknap Press of Harvard University Press, 2002). Wilson discusses the 'modern view of the adaptive unconscious' and states: 'a lot of the interesting stuff about the human mind – judgments, feelings, motives – occur outside of awareness for reasons of efficiency, and not because of repression', Timothy Wilson, *Strangers to Ourselves*, p. 8. It diminishes neither humans nor nonhumans to assume that much activity occurs below the level of awareness.

¹⁰⁸ Louise Barrett, *Beyond the Brain*, p. 13.

¹⁰⁹ Ibid. p. 17.

¹¹⁰ Ibid. pp. 17-18.

¹¹¹ Randy Malamud, *Poetic Animals and Animal Souls*, p. 45. See earlier, pp. 34-35.

while acknowledging the impossibility of fully comprehending another animal (the same applies to other humans), nonetheless advocates poetic engagement with animals, undertaken with sensitivity and respect. For de Waal, to imagine another creature's *Umwelt* is not far-fetched. He describes observing jackdaws learning to fly: 'Once they became expert flyers, I enjoyed their playful tumbling in the wind as if I were flying among them. I entered my birds' *Umwelt*, even though imperfectly'.¹¹² Numerous examples exist of writers and scientists whose open-minded empathic engagement with other animals facilitates similar experiences.¹¹³ This capacity taps into what Malamud terms 'empathetic imagination'.¹¹⁴ For Moe imaginative engagement with animals involves primarily 'attentiveness to another species' bodily *poiesis*', while Knickerbocker uses the term 'sensuous poesis' where the artifice of language is employed 'to enact, rather than merely represent, the immediate, embodied experience of nonhuman nature'.¹¹⁵ I will argue that Murray utilises all three strategies in 'Presence'.

In his statement Murray also distinguishes his approach from that of Ted Hughes whose relationships with the animal subjects of his poems could be characterised as anthropomorphic insofar as he emphasises perceived traits of cruelty or pitilessness, in say, raptors or his famous pike.¹¹⁶ Murray met Hughes, and wrote his poem 'Anthropomorphics' for him.¹¹⁷ In this poem Murray explores various approaches to animals, implicitly critiquing

¹¹² Frans de Waal, *Are We Smart Enough to Know How Smart Animals Are?* pp. 8-9.

¹¹³ Examples include: J. A. Baker, *The Peregrine*; Konrad Z. Lorenz, *King Solomon's Ring: New Light on Animal Ways*, trans. by Marjorie Kerr Wilson (London: The Reprint Society Ltd., 1953); Jane Goodall, *In the Shadow of Man* (London: Weidenfeld & Nicolson, 1999); John Clare, *Poems selected by Paul Farley* (London: Faber and Faber Limited, 2007); Gerard Manley-Hopkins, *Poems and Prose*, selected and edited by W. H. Gardner, (Harmondsworth: Penguin Books Ltd., 1967).

¹¹⁴ Randy Malamud, *Poetic Animals and Animal Souls*, p. 12.

¹¹⁵ Aaron Moe, *Zoopoetics*, p. 10; Scott Knickerbocker, *Ecopoetics*, p. 17.

¹¹⁶ Ted Hughes, 'Hawk Roosting' and 'Pike', *Collected Poems*, ed. by Paul Keegan (London: Faber and Faber Limited, 2003) pp. 68-69 ('H R') and pp. 84-86 ('Pike').

¹¹⁷ Les Murray, 'Anthropomorphics', from *The People's Otherworld* (1983), in Les Murray, *Collected Poems* (Manchester: Carcanet Press Limited, 1991) p. 173; Peter F. Alexander, *Les Murray: A Life in Progress*, p. 186.

crude anthropomorphism (for example alluding to the cartoon *Tom and Jerry*), while playfully employing it, for example in the lines:

Similarly the snake, having struck and left you with it,
flourishes off quickly, his expression if anything self-righteous.

or subverting it, as in:

Hunting, we know, is mostly a form of shopping
where the problem's to make the packages hold still;¹¹⁸

and,

Even with sex, the symbolic beasts can be unreliable:
the great bull, mounting, cramps his lungs on her knobbed spine
and looks winded and precarious.

According to Peter Alexander, Hughes influenced Murray 'by reaction'.¹¹⁹ While Murray appreciated Hughes and liked his animal poems, he avoided imitating them when writing 'Presence'.¹²⁰ Murray, in asserting his intention to avoid attributing 'vindictiveness' to animals, underlines his distance from Hughes, and particularly from any tendency to project vicious human characteristics onto animals.¹²¹

Murray described enjoying the constraints involved when writing from other species' perspectives, for example 'no hands, no colour vision if they're mammals [...]', and the fun

¹¹⁸ Here Murray evokes a 'left-hemispheric' perspective, where animals are reduced to body parts, as opposed to the 'right-hemispheric' perception of whole living things. See Iain McGilchrist, *The Master and his Emissary*, p. 67.

¹¹⁹ Peter F. Alexander, *Les Murray: A Life in Progress*, p. 186.

¹²⁰ *Ibid.* p. 186.

¹²¹ The issue of anthropomorphism in Hughes' animal poems is complex and beyond the scope of this present chapter. For example, the hawk in Hughes' poem 'Hawk Roosting' was described by Keith Sagar as 'a robot programmed by an insane God', Keith Sagar, *Ted Hughes and Nature: 'Terror and Exultation'* (Clitheroe, Lancs: self-published by Keith Sagar, 2009) p. 83. However, in an interview with Ekbert Faas discussed by Elaine Feinstein, Hughes stated that he 'did not have in mind 'the symbol of some horrible totalitarian genocidal dictator. Actually what [Hughes] had in mind was that, in this Hawk, Nature is thinking'', Elaine Feinstein, *Ted Hughes: The Life of a Poet* (London: Phoenix, 2002) p. 95. And in 1971 Hughes stated: 'If the Hawk and the Pike kill, they kill within the law and their killing is a sacrament in this sense', Ted Hughes, *Winter Pollen*, pp. 262-63. Jonathan Bate, exploring possible interpretations of 'Hawk Roosting', describes the issue as 'all very confusing'; Jonathan Bate, *Ted Hughes: The Unauthorised Life* (London: William Collins, 2015) p. 165.

to be had when imagining oneself into the *Umwelt* of another animal.¹²² Murray's statement suggests the 'Presence' poems are scientifically informed – for example regarding infrasound in elephants and the visual detection of heat (infrared) in snakes. Birds may (as he asserts) be able to see thermals, but the situation is more complex as birds are also equipped with an organ which detects changes in pressure and altitude.¹²³ However his suggestion that mammals cannot perceive colour is incorrect; some have excellent colour vision (for example, primates, including humans), while others (e.g., cats) have poorer colour vision but the capacity to see in conditions of low light.¹²⁴

Murray's intention to title his collection 'Presence' signals an important theme in his work. For Murray 'poetry is presence'.¹²⁵ In 'Presence' the varied lifeforms Murray portrays, from the exterior, or more frequently from an inside perspective, become marvellously present to the reader, realised in all their individuality. Murray presents us with living forms as magic wells; each plant or animal portrayed in his collection is richly equipped with adaptations and is an experiencing subject with a unique take on the world. The other key to the collection is the concept of translation. Murray states that all living things 'talk', though not necessarily as humans do. From this stance it becomes possible to think of Murray's poems as translations. This idea must have come naturally to Murray, given his abilities as a linguist and his former employment as a translator of academic texts from various European languages into English.¹²⁶

¹²² Peter F. Alexander, *Les Murray: A Life in Progress*, p. 244.

¹²³ This is known as Vitali's organ, the paratympanic organ (PTO), or the 'organ of flight'. See Christopher S. von Bartheld and Francesco Gionessi, 'The paratympanic organ: a barometer and altimeter in the middle ear of birds?' *Exp Zool B Mol Dev Evol.* 316, 6 (2011) 402–08.

¹²⁴ Gerald H. Jacobs, 'Evolution of Colour Vision in Mammals', *Phil. Trans. R. Soc. B Biological Sciences*, 364, 1531 (2009) 2957–67.

¹²⁵ Missy Daniel, 'Poetry is Presence: An Interview with Les Murray', *Commonweal*, 22 May 1992, 9-12, p. 11.

¹²⁶ Peter F. Alexander, *Les Murray: A Life in Progress*, p. 112.

The concept of the *Umwelt* is central to my discussion of Murray's animal poems and so it is fitting to begin with the poem 'Shellback Tick'.¹²⁷ Von Uexküll's description of a tick, a creature equipped with a suite of senses adapted perfectly for each stage of its life cycle, illustrates the tick's unique perceptual world:

Out of the egg crawls a not yet fully developed little animal, still missing one pair of legs as well as genital organs. Even in this state, it can already ambush cold-blooded animals such as lizards, for which it lies in wait on the tip of a blade of grass. After many moltings, it has acquired the organs it lacked and can now go on its quest for warm-blooded creatures. Once the female has copulated, she climbs with her full count of eight legs to the tip of a protruding branch of any shrub in order to fall onto small mammals who run by underneath or to let herself be brushed off the branch by large ones. The eyeless creature finds the way to its lookout with the help of a general sensitivity to light in the skin. The blind and deaf bandit becomes aware of the approach of its prey through the sense of smell. The odor of butyric acid, which is given off by the skin glands of all mammals, gives the tick the signal to leave its watch post and leap off. If it then falls onto something warm – which its fine sense of temperature will tell it – then it has reached its prey, the warm-blooded animal, and needs only use its sense of touch to find a spot as free of hair as possible in order to bore past its own head into the skin tissue of the prey. Now the tick pumps a stream of warm blood slowly into itself. [...]

The tick's hearty blood meal is also its last meal, for it now has nothing more to do than fall to the ground, lay its eggs, and die.¹²⁸

In Murray's poem the poet, and so the reader, enter the *Umwelt* of the tick. Murray effaces human presence to foreground the animal's subjectivity.

Murray seems quite explicitly to immerse himself in animal being in his 'Presence' poems, relishing the pleasure to be had through 'new senses and powers', for example 'to hear and talk in infrasound (...) to see heat *when I'm a snake*'.¹²⁹ Malamud's approach to animal poetry

¹²⁷ Les Murray, 'Shellback Tick', in 'Presence', p. 40.

¹²⁸ Jakob von Uexküll, *A Foray into the Worlds of Animals and Humans*, pp. 44-45.

¹²⁹ Peter F. Alexander, *Les Murray: A Life in Progress*, pp. 244 & 245, emphasis added; and earlier, p. 65.

is encapsulated in his term ‘empathetic imagination’. This approach, which ‘can be enlisted to enhance the awareness of sentient, cognitive, ethical, and emotional *affinities between people and animals*’, is applicable to Murray’s art.¹³⁰ In his discussion of animal poetry Malamud draws on Gilles Deleuze and Félix Guattari’s concept of ‘becoming-animal’, as articulated in *A Thousand Plateaus*.¹³¹ Malamud quotes Akira Mizuta Lippit who highlights the subversiveness of Deleuze and Guattari, in whose

reinvention of the world as becoming-animal, the subject of a human system is also exposed to the forces that other systems ... impose upon it. Humanity’s being is opened to animal being.... The work of Deleuze and Guattari seeks to map, against every convention of mapping, a terrain open to animal being.¹³²

Murray’s capacity to empathise imaginatively with other living things is evident in ‘Shellback Tick’. Here the animal’s entire being is portrayed as attuned to procuring blood, its only means of sustenance:

the blood thereof
is the strength thereof is
the jellied life-breath is O the
sweet incision so the curdy reed
floodeth sun-hot liquor the only ichor the only
thing which existeth [...]

The tick’s experience seems ecstatic, of religious intensity, conveyed in part through language evocative of the Bible – ‘thereof’, ‘O’, ‘floodeth’ and ‘existeth’. This effect is reinforced by the word ‘ichor’ which is both the fluid flowing in the veins of ancient Greek gods, and an archaic term for the watery liquid exuding from a wound. The poem is also

¹³⁰ Randy Malamud, *Poetic Animals and Animal Souls*, p. 9, and earlier, p. 62.

¹³¹ Gilles Deleuze and Félix Guattari, *A Thousand Plateaus*, trans. by Brian Massumi (Minneapolis: University of Minnesota Press, 1987), discussed by Randy Malamud, *Poetic Animals and Animal Souls*, pp. 10-17.

¹³² Akira Mizuta Lippit, *Electric Animal: Toward a Rhetoric of Wildlife* (Minneapolis: University of Minnesota Press, 2000) p. 128, quoted by Randy Malamud, *Poetic Animals and Animal Souls*, p. 11.

reminiscent of Gerard Manley Hopkins, an influence on Murray.¹³³ The use of internal rhyme: ‘liquor’ and ‘ichor’, suggests Hopkins’ poem ‘The Windhover’: ‘Stirred for a bird’, and ‘Fall, gall’.¹³⁴ Hopkins evoked a sense of ecstasy, not only by use of this word (‘In his ecstasy!’), but also through the repeated use of ‘oh/O’, evoking both something beyond human language:

Brute beauty and valour and act, oh, air, pride, plume, here
and ardent address:

O my chevalier!¹³⁵

Echoes are present in Murray’s poem: ‘is O the / sweet incision’, and later: ‘O one tap of splendour turned to me –’. Murray’s tick is single-minded; all that exists for her is blood. For the tick, living without sustenance for some time, perhaps years, the meal of blood, her vital final drink, facilitates procreation.¹³⁶ Murray, through empathic imaginative engagement, enables the reader to identify with a creature whose sensory world is wholly shaped by the detection of a mammalian blood source and the act of feeding. While Murray does not explicitly refer to olfaction (the detection of butyric acid), or discernment of mammalian warmth, we nonetheless gain insight into the tick’s *Umwelt*. The thwarting encounter with coagulation – ‘need-clotting strings / of plaque’, wherein clotting frustrates the tick’s feeding – is dealt with by ‘reagent drool’, a reference to a compound in tick saliva which delays coagulation. This line also contains the only indication, ‘I’, that the poem is written from the tick’s perspective. The line ‘I dissolve with reagent drool’, while

¹³³ See for example, Michael Malay, *The Figure of the Animal in Modern and Contemporary Poetry* (Cham, Switzerland: Springer Nature, 2018) pp. 172-176; Lawrence Bourke, *A Vivid Steady State: Les Murray and Australian Poetry* (Kensington, NSW: New South Wales University Press, in association with Strawberry Hills, NSW: New Endeavour Press, 1992) p. 49.

¹³⁴ Gerard Manley Hopkins, ‘The Windhover’, *Poems and Prose*, selected and ed. by W. H. Gardner, (Harmondsworth: Penguin Books Ltd., 1967) p. 30.

¹³⁵ *Ibid.* p. 30.

¹³⁶ Frans de Waal, *Are We Smart Enough to Know How Smart Animals Are?* p. 8.

informative, is also, arguably, problematic as Murray ‘speaks for’ the tick. Further, this breaks the poem’s spell; the tick would have no more knowledge of the properties of its saliva than we (unless told) have of ours. The tick’s perspective shifts from sentience (there is something it is like to be a tick) to something else; in conferring on the tick the self-conscious capacity to comment on its own biology, Murray highlights the challenges inherent in writing poetry which enacts the tick’s *Umwelt*.

Aside from two full stops (lines fourteen and eighteen), the poem flows in one unpunctuated sentence, suggestive of continuous blood flow from mammal to tick. Scott Knickerbocker’s ‘sensuous poesis’ is helpful here.¹³⁷ The poem’s form (its body) enacts the long drink that the tick takes. Reading the poem aloud is challenging; there is nowhere to pause for breath and the experience is reminiscent of that of downing without pause a volume of fluid. The rhythm of the poem is more-or-less steady, coming in waves like swallowing. Knickerbocker identifies Gerard Manley Hopkins as an exponent of sensuous poesis.¹³⁸ In view of Hopkins’ influence on Murray, that this term is also applicable to Murray is unsurprising.

Knickerbocker suggests that: ‘Poets who practice sensuous poesis in the manner of [Emily] Dickinson and Hopkins use formal poetic devices *to enact, rather than merely represent*, the immediate, embodied experience of nonhuman nature’.¹³⁹ Blood, its detection and ingestion are the focus of the tick’s sensory world; through the poem’s form readers are invited *experientially* into that world. For these reasons ‘Shellback Tick’ exemplifies poetry’s creatureliness: the body of the poem and the body of the tick dance in reciprocal evocation.

¹³⁷ Scott Knickerbocker, *Ecopoetics*, p. 2.

¹³⁸ *Ibid.* p. 13.

¹³⁹ *Ibid.* p. 17, emphasis added.

Moe's concept of 'zoopoetics' is also relevant to Murray's tick. An important key to Moe's ideas is the notion of *attentiveness*, which '*stretches towards another*'.¹⁴⁰ This resonates with an observation of Murray's concerning poetry's essence: 'Like prayer, it pulls all the motions of our life and being into *a concentrated true attentiveness* [...]'.¹⁴¹ As I will show, Murray demonstrates both attentiveness and curiosity towards the subjects of his poems.

In Murray's poem 'Two Dogs' readers are immersed in a scent-driven sensory world.¹⁴² Two dogs, or rather a bitch and a dog, read their surroundings through olfaction. The poem is written in the third person ('she' and 'he') but this does not detract from its immediacy. We experience vicariously a visceral pleasure in this rich scent-scape, for example:

Road pizza clay bird, hers answer him, rot-spiced good. Blady grass,
she adds, ant log in hot sunshine. Snake two sunups back. Orifice?
Orifice, he wriggles.

Murray's language is staccato and briskly telegraphic. Through this compressed language he evokes the informative richness of a dog's scent-driven sensory world. Alexander describes Murray's dogs as talking 'in smells, in a work of passionate empathy', recalling Malamud's empathetic imagination.¹⁴³ Everything the dogs encounter is packed with meaning inaccessible to humans with their relatively impoverished sense of smell. The poem's rhythm is mostly brisk, for example: 'Frosty darks coming, he nuzzles. High wind rock human-free howl', and: 'Bark tractor, / white bitterhead grub and pull scarecrow. Me! assents his urine'.

¹⁴⁰ Aaron Moe, *Zoopoetics*, p. 25.

¹⁴¹ Les Murray, 'Poems and Poesies', in *The Paperbark Tree: Selected Prose* (London: Minerva, 1993) 341-45 p. 348, emphasis added.

¹⁴² Les Murray, 'Two Dogs', in 'Presence', p. 19.

¹⁴³ Peter F. Alexander, *Les Murray: A Life in Progress*, p. 245; Randy Malamud, *Poetic Animals and Animal Souls*, p. 13.

Murray's curt phrases enact the engaged immediacy of dogs exploring their surroundings, paying attention, becoming engrossed then moving on, tails wagging like metronomes. This poem is more than an act of translation in that Murray seems to become the animal through what has been termed elsewhere, a process of 'theriomorphism'.¹⁴⁴

The poem's language and syntax are frequently defamiliarising. Murray employs a riddling opacity, reminding readers that the dogs' *Umwelt* hovers between alien strangeness and accessibility. The dogs' sensory world is translated for us, yet retains a radical difference, conveyed through phrases such as 'saliva chickweed', and 'Soon. Away, away, eucalypts speeding –'. The compressed phrase 'pull scarecrow' conjures a vivid image.

The poem begins with the word 'enchantment': 'Enchantment creek underbank pollen, are the stiff scents he makes,'. While the rest of the poem, through its pared down language, conjures excitement and immediacy, the word 'enchantment' potentially distances the reader from the dogs' experience. The word hints at mystery and magic, implying human concepts alien to dogs. But who is to say other animals do not experience what we might call transcendence?¹⁴⁵ Belinda Recio, for example, summarises evidence suggesting that some animals may experience states akin to those which humans characterise as 'spiritual'.¹⁴⁶ And an animal intensely engrossed in a sensory experience might well experience ecstatic engagement. 'Enchantment' conveys the intoxicating pleasure that dogs might feel through a free exploration of their surroundings; these dogs are sentient and their investigations

¹⁴⁴ The term 'theriomorphic', meaning to adopt animal form, was used by Desmond Morris to describe the demeanour of pioneering ethologist Konrad Lorenz during a lecture at Bristol University in 1951. Cited by Frans de Waal, *Are We Smart Enough to Know How Smart Animals Are?* p. 39.

¹⁴⁵ The well-documented phenomenon of transcendent 'awakening experiences' has been studied by psychologists. There is no reason to suppose animals might not also experience such wordless states characterised by a sense of connection, altered time perception, including intense present-moment awareness, a feeling of peace, accompanied by intense perception and positive affect. For a discussion, see Steve Taylor, 'An awakening', *The Psychologist*, September 2018, 42-47.

¹⁴⁶ Belinda Recio, 'A Sense of the Sacred: Death and Spirituality', in *Inside Animal Hearts and Minds*, 51-57.

purposeful, while their discoveries carry emotional valence. As the animals emerge into presence, we cannot disregard them; through Murray's poem they proclaim their 'is-ness'.¹⁴⁷

The first poem in 'Presence' is titled 'Eagle Pair'.¹⁴⁸ Its first line: 'We shell down on the sleeping-branch' signals immediately to readers that they are to be privy to the workings of a non-human, in this case avian, mind. The word 'shell', usually a noun, is, in this context a verb. The reader must pause to reflect on this unusual usage which would not happen had a more predictable term been employed. Readers are dislodged from usual habits of seeing the world, even the world of another creature, from the human perspective, and must confront the fact that a 'bird's-eye-view' may be quite different. Again, Murray, through his defamiliarising language, introduces another creature's *Umwelt*. To 'shell down' suggests that eagles construe sleep as a return to the protected enclosure of the egg, an understanding the reader can only arrive at through an empathic, imaginative engagement with the eagles' perceptual world. Murray uses the artifice of figurative language to engage us in the birds' alternative perspective. There are echoes here of 'to settle down' while the soft 'sh' works onomatopoeically to invoke the soothing sound of a parent lulling an infant to sleep. Murray conveys the alterity of eagles while simultaneously pointing to commonalities between humans and other animals, for example the requirement for rest. The word 'shell' implies safety and protection but also carries other implications, for example, of fragility and vulnerability, perhaps alluding to fragile habitats and risks to native species.

The poem's first sentence ends with a reference to a specific location; the eagles 'shell down on the sleeping-branch'. The phrase 'sleeping-branch' also provokes reflection and is a

¹⁴⁷ Simon Barnes, *Ten Million Aliens*, p. 249.

¹⁴⁸ Les Murray, 'Eagle Pair', in 'Presence', p. 15.

further shift from the human perspective. The hyphenated phrase suggests that this is a special, specifically chosen place. There is implied agency – the eagles have not alighted on this branch at random, rather, the implication is that it was selected according to criteria to which humans are not party. The phrase ‘sleeping-branch’ carries hints of Aboriginal language and culture. According to Steven Matthews ‘[...] Murray became fascinated by the spiritual resonance of place, and by the ways in which his own association with places drew together related cultural threads’.¹⁴⁹ Further, ‘Murray’s poems consistently focus upon this [his home district of Bunyah] territory. But what this mapping essentially establishes is a descriptive consonance between local Aboriginal language and the physical features of the landscape’.¹⁵⁰ The term ‘sleeping-branch’ recalls how language facilitates the identification of significant features, begging the question: how do other animals map and label salient features in their worlds?

The line ends with the straightforward phrase, ‘All night’, enjambed in line two: ‘the limitless Up digests its meats of light’, which plunges readers back into the birds’ unfamiliar perspective. The ‘limitless Up’ implies the freedom of air, salient from the birds’ vantage point – the reader (earth-bound and flightless) begins to apprehend how it might be to soar as eagles do.

The poem is written in couplets. The eagles’ world is divided into binary categories: Up and Down. Both are capitalized, as are proper nouns, signalling significance. Bert Almon, discussing this poem, suggests that the rhymed couplets are ‘appropriate for mated birds’ but then goes on to argue that the binaries ‘Up’ and ‘Down’ reflect the birds’ ‘limited

¹⁴⁹ Steven Matthews, *Les Murray* (Manchester: Manchester University Press, 2001) p. 8.

¹⁵⁰ *Ibid.* p. 9.

universe'.¹⁵¹ I would contest this arguably anthropocentric reading; humans are, after all, earthbound while birds occupy both earth and air. Moreover, if the concept of the *Umwelt* is invoked, Murray is correct in intuiting that what is salient for eagles is both air and earth and the contrast between them; it is therefore appropriate that these should be capitalised as 'Up' and 'Down', implying significance, even reverence.

In the line: 'the limitless Up digests its meats of light' the reader must again see things from the birds' perspective. Eagles hunt to survive therefore their world is perceived according to this imperative; light is understood as a process of digestion, light has been consumed like meat and is being incorporated. The birds' world is again resolved into salient binaries; there is meat or 'meats' and everything else is presumably non-meat. These eagles construe their world in their own terms, projecting onto it their preoccupations and unique perspective. This mirrors human anthropocentrism and reflects how we, as individuals and as a species, project our preoccupations onto our environment, for example our unfortunate tendency to view nature as a repository of natural resources or 'standing reserve', a term Martin Heidegger borrowed from forestry, in which forests are regarded as, 'so much wood waiting to be extracted, utterly available and infinitely manipulable'.¹⁵²

The next stanza begins with the eagles' view of dawn. The sun is construed as a 'circle-winged Egg'. Salient for eagles are flight and the possession of wings. To focus on these aspects of the sun – its apparent flight across the sky (and, for eagles, how else but by the possession of wings?) – again brings into focus the birds' presumed understanding of the

¹⁵¹ Bert Almon, 'Fullness of Being in Les Murray's "Presence: Translations from the Natural World"', *Antipodes* 8, 2 (1994) 123–30 p. 124.

¹⁵² Kate Rigby, 'Earth, World, Text: On the (Im)possibility of Ecopoiesis', *New Literary History*, 35, 3 (2004) 427–42 p. 429. Referring to 'standing reserve', Rigby quotes Martin Heidegger, 'The Question Concerning Technology', in *Martin Heidegger: Basic Writings*, ed. and intro. David Farrell Krell (London: Routledge, 1996) p. 321.

world. Further, there is a suggestion of mythology here, perhaps mirroring that of Aboriginal peoples. The capitalised 'Egg' suggests a deity, the source or origin – much as eggs are the origin for birds in cycles of laying, incubating, hatching and fledging.¹⁵³ The egg is metonymic for life, as the sun gives life and is the ultimate source of all energy on earth.

The sun emerges from 'long pink and brown', perhaps the horizon or distant hills. As in the first stanza there is an enjambment so that the sentence flows into the fourth line where the Egg 're-inverts life'. Again, there is the suggestion that eagles perceive the world binarily: throughout the night, life is 'inverted', rendered not-life – asleep; with the dawn life 're-inverts'. Inverting something implies turning it upside down or inside out. Re-inversion suggests reversal; sleep/death is an inversion of life, the sun brings life and, thereby, re-inversion. The rest of the line returns to the categorisation of the world into 'meats' and by implication, non-meat. With the dawn 'meats move or are still on the Down'. These 'meats' are prey animals. The eagles have no interest in them other than as units of nutrition. This is unsettling; to reduce wild animals to their nutritional value, seems cold and 'inhumane'. On further reflection it becomes apparent that the eagles' reduction of wild animals to 'meats' is comparable to the human tendency to view farm animals in terms of nutritional utility – cattle are categorised as 'beef' or 'dairy', sheep are 'mutton' or 'lamb', while hens are 'chicken'; each creature is synonymous with its 'meat'. Murray refers to this objectification in his poem 'Anthropomorphics'.¹⁵⁴ In many human societies the process of meat production is sanitised; while 'animals kill because of their basic survival instincts; the urbanites, by contrast, hide from themselves the killing that results in the processed and packaged food that they buy at the supermarket'.¹⁵⁵

¹⁵³ See Tim Birkhead, *The Most Perfect Thing: Inside (and Outside) a Bird's Egg* (London: Bloomsbury, 2017).

¹⁵⁴ Les Murray, 'Anthropomorphics', in Les Murray, *Collected Poems*, p. 173.

¹⁵⁵ Lawrence Bourke, *A Vivid Steady State: Les Murray and Australian Poetry*, p. 57.

The third stanza begins: ‘Irritably we unshell, into feathers’; suggesting a rustle of feathers as the birds awaken, perhaps needing to preen. ‘Irritably’ also evokes morning grumpiness, the first example in the poem of what might be characterised as ‘crude anthropomorphism’.¹⁵⁶ ‘Unshell’ references the first line where to sleep is to ‘shell down’. The line continues: ‘we lean open and rise’, evoking flight, an effortless leaning into buoyant air, perhaps rising on a thermal. The next line continues: ‘and magnify this meat, then that’. This line emphasises the eagles’ visual acuity. Readers adopt the birds’ perspective as they select their prey. One could feel alienated by the dispassionate selection of an animal as the next meal, yet once again there is a hint of the human – shoppers in the supermarket selecting a cut of meat. There are, however, significant differences: eagles are obligate carnivores and therefore have no choice – they must hunt or perish. The line ends: ‘with the eyes of our eyes’. This might alert readers to the fact that raptors have two foveas, one deep and one shallow.¹⁵⁷ In summary, the poem imagines the eagles’ *Umwelt*. We cannot know whether Murray envisions this with any degree of accuracy, but the point is that he is attentive and imaginatively empathic to these birds, inviting readers to engage. Crucially Murray embraces the idea that these birds have a perspective, that, to use Nagel’s phrase, there is ‘something that it is like to be’ an eagle.¹⁵⁸

In ‘The Snake’s Heat Organ’ a new perceptual ability is introduced.¹⁵⁹ Safina discusses the myriad ways in which animals see because of their capacity to detect parts of the electromagnetic spectrum that humans cannot, for example: ‘Some snakes use pit organs – not their eyes – like pinhole cameras to *visualize* infrared energy emitted by warm bodies’.¹⁶⁰

¹⁵⁶ Greg Garrard, *Ecocriticism*, pp. 154-55.

¹⁵⁷ Tim Birkhead, *Bird Sense*, p. 17. Birkhead describes the fovea as ‘the crucial spot on the back of the eye where the image is sharpest’.

¹⁵⁸ Thomas Nagel, ‘What Is It Like to Be a Bat?’, p. 393.

¹⁵⁹ Les Murray, ‘The Snake’s Heat Organ’, in ‘Presence’, p. 28.

¹⁶⁰ Carl Safina, *Beyond Words: What Animals Think and Feel*, p. 321.

This reads like a riddle and yet meaning is discernible. The fox laps the ‘blank’ or cool water; as it drinks the water is swallowed rhythmically, passing through the gullet beneath the brain which is ‘coruscating’ or brilliantly bright, into the gut which, by the snake’s reckoning, is about the length of three of its cast-off skins. The word ‘guttering’ suggests the flicker of a flame – and then the fox is named.

Conclusion

This chapter explores animal senses and how these are enacted through Murray’s ‘Presence’ poems. The *Umwelt*, an animal’s point of view within its unique sensory world has been a particular focus.

Prior to writing his ‘Presence’ sequence, Murray was ‘very sick with depression’, wanting to escape the human world and ‘get into the lives [...] of other living creatures’.¹⁶¹ Rilke’s ‘Eighth Duino Elegy’ seems to capture what Murray strove to discover, and also, to avoid:

With all its eyes the natural world looks far
into the Open. Only *our* eyes look back,
set like traps about all living things,
encircled round their free, outward path.
What *is*, in that outside, we learn only
by looking in their faces; for we force
even the youngest child to turn and look
backwards into design, not at the Open
deep in animals’ eyes.¹⁶²

The second stanza continues:

Were the animal that moves towards us

¹⁶¹ Les Murray, Interview 6 September 2000, Bunyah, NSW, with Ulla Fürstenberg, in Ulla Fürstenberg, ‘*Les Murray Country*’: *Development and Significance of an Australian Poetic Landscape* (Tübingen, Germany: Gunter Narr Verlag, 2004) p. 208.

¹⁶² Rainer Maria Rilke, ‘Duino Elegies: The Eighth Elegy’ in *Selected Poems*, trans. by Susan Ranson and Marielle Sutherland, (Oxford: Oxford University Press, 2011) p. 165.

in its assured direction to possess
consciousness such as ours – it would wrench us
round in its steps. But it feels itself
inexhaustible, unapprehended, unaware
of its condition, pure, like its regard.
And where we see the future it sees all,
and, in the all, itself, healed, for ever.¹⁶³

Rilke's poem captures the way in which animals are sentient, fully engaged in their salient sensory worlds and, perhaps, free from the burden of human (self)-consciousness which can overwhelm an individual with anxious or depressive over-thinking. To engage with animals using Malamud's empathetic imagination requires an abandonment of the mind's chattering thought, and instead a mindful engagement through a quasi-shamanic process. Murray was aware of Mircea Eliade's book *Shamanism*.¹⁶⁴ Eliade wrote:

In numerous traditions friendship with animals and understanding their language represent paradisaic syndromes. In the beginning, that is, in mythical times, man lived at peace with the animals and understood their speech. It was not until after a primordial catastrophe, comparable to the "Fall" of Biblical tradition, that man became what he is today – mortal, sexed, obliged to work to feed himself, and at enmity with the animals. While preparing for his ecstasy and during it, the shaman abolishes the present human condition and, for the time being, recovers the situation as it was at the beginning. Friendship with animals, knowledge of their language, transformation into an animal are so many signs that the shaman has re-established the "paradisaic" situation lost at the dawn of time.¹⁶⁵

That a move towards identifying with animals was a natural one for Murray is suggested by the following statement:

¹⁶³ Ibid. p. 167.

¹⁶⁴ Lawrence Bourke, *A Vivid Steady State: Les Murray and Australian Poetry*, p. 64.

¹⁶⁵ Mircea Eliade, *Shamanism: Archaic Techniques of Ecstasy* (Princeton, New Jersey: Princeton University Press, 1964, 2004) p. 99. According to Yuval Harari, Eliade's 'primordial catastrophe' occurred around 10,000 years ago with the gradual shift from a hunter-gatherer life to agriculture 'when Sapiens began to devote almost all their time and effort to manipulating the lives of a few animal and plant species', Yuval Noah Harari, *Sapiens: A Brief History of Humankind* (London: Vintage, 2014) p. 87. Jim Mason draws a similar conclusion, critiquing the 'dominionism' which came with the rise of agriculture; Jim Mason, *An Unnatural Order*, pp. 21-49.

My first friends were animals and plants: cows and goannas and willy wagtails and crows and all sorts of things. They were as much part of my growing up as humans were, actually rather more because I was an only child and did not see much in the way of humans except my parents... I've always been a bit wary of the human race.¹⁶⁶

In line with Knickerbocker's 'sensuous poesis', Murray embraces a range of poetic artifice in his 'Presence' poems. Examples include the couplet form of 'Eagle Pair'; de-familiarising language ('Eagle Pair' and 'The Snake's Heat Organ'); archaic language and absence of punctuation in 'Shellback Tick', and the abbreviated, telegraphic language in 'Two Dogs'. Murray's figurative language evokes the strangeness of other animals' sensory worlds while offering the possibility of connection mediated by language. Murray's use of personification throughout 'Presence', 'overtly claim[s] that we take note of the nonhuman world; yet [...] also impl[ies] the possibility that the nonhuman world takes note of us, as [it] rhetorically place[s] the nonhuman in the position of interlocutor, even if silent'.¹⁶⁷

Moe's concept of zoopoetics, whereby the poet pays attention to other species' bodily poesis is also relevant. For example, Murray's attentiveness to the way unleashed dogs explore their environment is reflected in the brisk rhythms and linguistic brevity in 'Two Dogs'. In 'Shellback Tick' the long drink of blood finds expression in the poem's unpunctuated form while in 'The Snake's Heat Organ' the phrase 'glimmering as I spin / lightly over textures' vividly enacts the snake's bodily poesis in its muscular glide over the terrain.

In discussing 'Presence', Greg Garrard draws on the work of Kate Rigby who argues for a 'negative ecopoetics' which holds the possibility of saving 'the earth by disclosing the

¹⁶⁶ Les Murray, from *The Daylight Moon* (a film by Don Featherstone, 1990) in Ulla Fürstenberg, *Les Murray Country*, p. 209.

¹⁶⁷ Scott Knickerbocker, *Ecopoetics*, p. 6.

nonequation of word and thing, poem and place'.¹⁶⁸ She also states that: 'Only to the extent that the work of art is self-canceling, acknowledging in some way its inevitable failure to adequately mediate the voice of nature, can it point us to that which lies beyond its own enframing'.¹⁶⁹ In light of this Garrard considers that Murray's 'Presence' poems can be 'seen as a magnificent collection of inevitably failed poems that gesture towards a numinous unity underlying the breathtaking diversity of life'.¹⁷⁰ Unsurprisingly Knickerbocker disagrees with Rigby's analysis arguing that rather than '[falling] out of embodied experience of nature when we fall into language', human language is 'part of nature', biologically evolved and embodied through its physicality.¹⁷¹ Elsewhere he quotes Gary Snyder who stated that

Language and culture emerge from our biological-social natural existence, animals that we were/are. Language is a mind-body system that coevolved with our needs and nerves. Like imagination and the body, language rises unbidden. It is of a complexity that eludes our rational intellectual capacities.¹⁷²

Moe takes a similar view of language as evolved and biological. He quotes George A. Kennedy who argued that humans and animals 'share a "deep" universal rhetoric', and that "'Speech," Kennedy deduces, "would not have evolved among human beings unless rhetoric already existed."' ¹⁷³

Murray distinguished 'whole-speak' from 'narrow-speak', arguing that the former unites 'the body, the dreaming mind, and the conscious mind', three elements which cohere in a work of

¹⁶⁸ Kate Rigby, 'Earth, World, Text', p. 437, cited by Greg Garrard, *Ecocriticism*, p. 169.

¹⁶⁹ Kate Rigby, 'Earth, World, Text', p. 437.

¹⁷⁰ Greg Garrard, *Ecocriticism*, p. 169.

¹⁷¹ Scott Knickerbocker, *Ecopoetics*, pp. 7 & 4 ('part of nature').

¹⁷² Ibid. p. 4.

¹⁷³ George A. Kennedy, 'A Hoot in the Dark: The Evolution of General Rhetoric', pp. 6 & 4, quoted by Aaron Moe, *Zoopoetics*, pp. 8 & 9.

art or in any creative act.¹⁷⁴ Murray's concept of 'whole-speak' accords with the kind of embodied language described by Knickerbocker and Moe. While poetry that attempts to enact the sensory worlds of other animals will inevitably be imperfect, nonetheless I would argue that Murray's poems are an effective, though ultimately flawed means by which the *Umwelten* of other animals are brought into vivid presence.

¹⁷⁴ Missy Daniel, 'Poetry is Presence: An Interview with Les Murray', p. 12 ('whole-speak', 'narrow-speak') & p. 11 ('the body, the dreaming mind [...]').

Chapter 2

Joy and suffering: the poetic enactment of animal emotion

I came late to the love of birds. For years I saw them only as a tremor at the edge of vision. They know suffering and joy in simple states not possible for us. Their lives quicken and warm to a pulse our hearts can never reach. J.A. Baker¹

I've been studying nonhuman animals all my life. As a child, I sensed that other animals had emotions and awareness, and much of my career as a scientist has been devoted to discovering if this was true (it is), and then how and in what ways. Marc Bekoff²

The principle aim of this chapter is to investigate the praxis of Michael Malay's concept of 'seeing poetically' with respect to the emotional lives of animals.³ More specifically I explore the poetic enactment of animal emotion, with reference to works by Elizabeth Bishop, Les Murray, John Kinsella and Coral Hull, and others. Here *enactment* emphasises dynamic engagement with animals through close attention to their physicality or 'bodiment', and ways-of-being in the world.

Ralph Acampora in his book *Corporal Compassion* poses the following question:

How is it that some species' bodily modes of address to their world are similar enough to others' to allow and account for an overlay of what we might call *intersomaticity*, a characteristic of animate experience in which felt senses of bodiment are shared and potentially in dynamic relation?⁴

My second aim is to consider Acampora's question as it relates to the emotional lives of nonhumans. I make no assumptions about which species are 'similar enough' to which others, preferring to keep an open mind regarding the potential for intersomaticity between

¹ J. A. Baker, *The Peregrine; The Hill of Summer & Diaries in The Complete Works of J. A. Baker*, ed. by John Fanshawe (London: HarperCollins Publishers Ltd, 2011) p. 28.

² Marc Bekoff, *Rewilding Our Hearts: Building Pathways of Compassion and Coexistence* (Novato, California: New World Library, 2014) p. 1.

³ Michael Malay, *The Figure of the Animal in Modern and Contemporary Poetry* (Cham, Switzerland: Springer Nature, 2018) p. 3. See earlier, pp. 36-37, for a discussion of 'seeing poetically'.

⁴ Ralph Acampora, *Corporal Compassion: Animal Ethics and Philosophy of Body* (Pittsburgh PA: University of Pittsburgh, 2006) p. 18.

living things, regardless of complexity and evolutionary relatedness. Further, I would question whether intersomaticity is in fact, ‘an overlay’; instead, I argue that it is instantiated in the living interconnectedness and varieties of communication across life forms.

My investigation takes as a starting point the posthumanism of Cary Wolfe, as well as the work of Acampora, Anat Pick and other theorists whose work privileges the whole embodied animal. Additionally, I take account of scientific approaches to animal emotion with the intention of creatively exploring the edges of what is known. It is beyond the scope of this project to offer a comprehensive account of animal emotion therefore approaches are selected primarily for their potential to facilitate imaginative engagement with animals’ affective lives. Eliza Bliss-Moreau’s application of Elizabeth Feldman Barrett’s theory of Constructed Emotion (TCE) to nonhuman species is of particular interest.

The study of animal emotion was neglected until relatively recently and remains contested.⁵ Many scientists, including Jaak Panksepp, Marc Bekoff and Carl Safina, now concur with Charles Darwin in accepting emotional continuity across species, as discussed in *The Expression of the Emotions in Man and Animals*.⁶ They consider emotion to be an evolved capacity with ancient origins, conferring advantages across the range of challenges that animals encounter. Frans de Waal, for example, regards emotions to be as vital to survival as animals’ physical organs.⁷ Others adopt more sceptical positions ranging from denial of

⁵ For example, Marian Stamp Dawkins, arguing for the importance of animals and their welfare, highlights the inconsistency and confusion around animal sentience and emotion. Marian Stamp Dawkins, *Why Animals Matter: Animal consciousness, animal welfare, and human well-being* (Oxford: Oxford University Press, 2012) p. 3.

⁶ Charles Darwin, *The Expression of the Emotions in Man and Animals*, (London: Penguin Classics, 2009); Marc Bekoff, *The Emotional Lives of Animals* (Novato, California: New World Library, 2007); Jaak Panksepp, *Affective Neuroscience: The Foundations of Human and Animal Emotions* (New York: Oxford University Press, 2005); Carl Safina, *Beyond Words: What Animals Think and Feel* (New York: Henry Holt and Company, LLC, 2015).

⁷ Frans de Waal, *Mama’s Last Hug: Animal Emotions and What They Teach Us about Ourselves* (London: Granta Publications, 2019) pp. 165-66.

animal emotion, to caution about terminology, adopting neutral language when describing ostensibly emotional behaviour.⁸ Alan McElligott, for example, defends this latter position, not in order to negate animals' emotional lives but to avoid an anthropomorphism which could undermine or blur their distinctive, species-specific characteristics.⁹ De Waal, on the other hand, rejects the use of different terminology to describe human and (say) ape behaviour, arguing that 'Those who exclaim that "animals are not people" tend to forget that, while true, it is equally true that *people are animals*'.¹⁰ For de Waal, using neutral terms to describe animal behaviour imposes unwarranted 'linguistic barriers', artificially fragmenting nature's unity.¹¹ There is a debate between those who, like de Waal, regard evolutionary continuity as the most parsimonious approach to animal emotion, and those who adopt a more cautious approach.¹² However, there are also those who go to convoluted lengths to reject animal sentience and intentionality.¹³ Unsurprisingly de Waal regards this as illogical.¹⁴ For example, René Descartes' position that humans have souls while animals are 'mere machines', begs the question: 'why, if we descended from automatons, we aren't automatons ourselves'.¹⁵

⁸ See for example, Charles Foster, *Being A Beast* (London: Profile Books, 2016) p. 33. Frans de Waal, however, highlights the absurdity of denying that animals have feelings which in humans would be associated with emotions: 'Desires work by being felt', Frans de Waal, *Mama's Last Hug*, p. 128. Despite this, de Waal also reminds us that 'Science is at its best when it questions common preconceptions', arguing for deeper and more nuanced interrogation of animal emotion, to further our understanding of the subject. This stance respects both evolutionary continuity *and* differences between species. Frans de Waal, *Mama's Last Hug*, p. 8.

⁹ Thomas Thwaites, *GoatMan: How I Took a Holiday from Being Human* (New York: Princeton Architectural Press, 2016) p. 55.

¹⁰ Frans de Waal, *The Bonobo and the Atheist: In Search of Humanism Among the Primates* (New York: Norton, 2014) p. 145, emphasis added.

¹¹ Frans de Waal, *Are We Smart Enough to Know How Smart Animals Are?* (London: W.W. Norton & Company, Ltd., 2016) p. 26, and earlier, p. 65. De Waal does however, caution against anthropomorphism 'when the human-animal comparison is a stretch, such as with regards to species distant from us.' *Ibid.* pp. 24-25.

¹² See Louise Barrett, *Beyond the Brain: How Body and Environment Shape Animal and Human Minds* (Woodstock, Oxfordshire: Princeton University Press, 2011) pp. 11-14.

¹³ For example, see Frank Dreckmann, 'Animal Beliefs and Their Contents', *Erkenntnis*, 51, 1, 'Animal Mind' (1999) 93-111. For a sceptical view of the 'New Anthropomorphism', see John S. Kennedy, *The New Anthropomorphism* (Cambridge: Cambridge University Press, 1992).

¹⁴ Frans de Waal, *The Ape and the Sushi Master: Cultural Reflections of a Primatologist* (New York: Basic Books, 2001) p. 69.

¹⁵ *Ibid.* p. 69.

An obvious problem faced by students of animal emotion is that *felt* experiences of emotion are inaccessible to observers. As Baker put it ‘Their lives quicken and warm to a pulse *our hearts can never reach*’.¹⁶ That we do not have access to the emotional experiences of other species has been used to undermine animal emotion studies, however the same objections can be applied to emotion perception between humans.¹⁷ We intuit the feelings of others but can never directly access another’s emotional state.¹⁸ Jonathan Balcombe argues that, even with the advantage of a shared language the experiential gulf between two humans is as unbridgeable ‘as it is between a human and a non-human animal’.¹⁹ It is therefore theoretically and ethically incoherent to accept sentience in *Homo sapiens* while denying it in other species.²⁰

De Waal distinguishes between *emotions*, observable through various bodily changes, and *feelings*, which are their privately experienced corollaries.²¹ He states: ‘Anyone who *claims to know what animals feel doesn’t have science on their side*. It remains conjecture’.²² However, he also notes that science routinely works with unobservable phenomena and there is no logical reason why this should not also apply to the phenomenology of animals’ lived experience.²³ Moreover, a weight of evidence now supports the idea that animals do

¹⁶ J. A. Baker, *The Peregrine*, p. 28, emphasis added.

¹⁷ Frans de Waal, ‘What is an animal emotion?’, *Ann. N. Y. Acad. Sci.* 1224 (2011) 191-206 p. 199; Jonathan Balcombe, ‘Animal pleasure and its moral significance’, *Applied Animal Behaviour Science*, 118 (2009) 208-16, p. 209.

¹⁸ Frans de Waal, ‘What is an animal emotion?’, p. 199.

¹⁹ Jonathan Balcombe, ‘Animal pleasure and its moral significance’, p. 209.

²⁰ *Ibid.* p. 209.

²¹ Frans de Waal, *Mama’s Last Hug*, p. 127. Clarifying this distinction goes some way towards resolving disputes in the field of animal emotion; *Ibid.* p. 256. Mark Bekoff similarly distinguishes emotions and feelings, the latter being internally experienced psychological phenomena; Marc Bekoff, *The Emotional Lives of Animals*, p. 6.

²² *Ibid.* p. 7, emphasis added.

²³ *Ibid.* pp. 263-64.

experience their emotions, that is, they *feel*.²⁴ While accepting this, de Waal nevertheless points out the ‘leap of faith’ entailed in assuming that related species have related feelings.²⁵ For the poet whose avowed intention is to enact poetically other animals’ emotionality, this ‘leap of faith’ represents an imaginative challenge, risking on the one hand anthropomorphic fantasy, and on the other, a failure to do justice to the richness of nonhuman affective experience.²⁶ Engaging poetically with the complexity and mystery of animal emotions demands a capacity to tolerate, even celebrate, ambiguity and unknowing. John Keats’ notion of ‘negative capability’, ‘when man is capable of being in uncertainties, Mysteries, doubts, without any irritable reaching after fact & reason – [...]’, is apposite here.²⁷

The epigraph quotations broadly reflect the position I take. For Bekoff animal emotion is indisputable, although *how* it is experienced remains an open question.²⁸ Baker sensed that birds know both suffering and joy, and yet there is also something elusively *other* about them.²⁹ Baker’s observation encapsulates evolutionary continuities between species, whilst allowing for radical alterity. Malay, in his discussion of Les Murray’s ‘Presence: Translations from the Natural World’, addresses the ways in which Murray manages this tension, for example, identifying two kinds of translation. ‘Translation by analogy’ finds creative continuities across species boundaries, while ‘wild translation’ suggests otherness through breaching grammatical convention and challenging readers with ‘language that skates at the edge of sense’.³⁰

²⁴ Marc Bekoff, *Rewilding Our Hearts*, pp. 1-2.

²⁵ Frans de Waal, *Mama’s Last Hug*, pp. 7-8.

²⁶ Randy Malamud, *Poetic Animals and Animal Souls* (New York: Palgrave Macmillan, 2003) p. 10.

²⁷ John Keats, *The Letters of John Keats, 1814-1821*. 2 Vols. Ed. by Hyder Edward Rollins (Cambridge, MA: Harvard University Press, 1958) pp. 193-94, quoted by Li Ou, *Keats and Negative Capability* (London: Continuum International Publishing Group, 2009) p. 1.

²⁸ Marc Bekoff, ‘Animal emotions, wild justice and why they matter: Grieving magpies, a pissy baboon, and empathic elephants’, *Emotion, Space and Society*, 2 (2009) 82-85 p. 83.

²⁹ J. A. Baker, *The Peregrine*, p. 28.

³⁰ Michael Malay *The Figure of the Animal in Modern and Contemporary Poetry*, pp. 164-65.

Bodiment, symphysis and shared vulnerability

My focus on animal physicality – *bodiment* – reflects a turn across various disciplines which goes ‘beyond the brain’ to view both humans and nonhumans holistically as uniquely constituted living bodies within a social and environmental context.³¹ Louise Barrett asserts that the behaviour of organisms is ‘driven by physiological processes (which include cognitive/psychological processes) that reflect the kind of nervous system it possesses, which in turn reflects the kind of body it has, which in turn is influenced by the kind of ecological niche it occupies’.³² Further, ‘a reduced focus on animals’ “inner lives” and greater attention to how their brains, bodies and environments work together will give us a deeper understanding of how intelligent adaptive behaviour is produced’.³³ In a similar vein Alva Noë argues that ‘mind science, like biology more generally, must give pride of place *to the whole, living being*’.³⁴ Alan Jasanoff observes that neither behaviourism nor ‘neuroessentialism’ (or the ‘cerebral mystique’, the notion that brains and nervous systems solely determine who we are) are adequate in making sense of how an individual animal becomes itself.³⁵ Instead,

[...] each of our acts is guided by the minute contours of our surroundings, from the shapes of the door handles we use to the social structures we participate in. Science teaches us that the nervous system is completely integrated into these surroundings, composed of the same substances and subject to the same laws of cause and effect that reign at large – and that our biology-based minds are the products of this synthesis.³⁶

³¹ Louise Barrett, *Beyond the Brain*. Frans de Waal states that: ‘The body is back in cognition research [...]’, Frans de Waal, ‘What is an animal emotion?’, p. 194.

³² Louise Barrett, *Beyond the Brain*, pp. 10-11.

³³ *Ibid.* p. 18.

³⁴ Alva Noë, *Out of Our Heads: Why You Are Not Your Brain and Other Lessons from the Biology of Consciousness* (New York: Hill and Wang, 2010) p. xv, emphasis added.

³⁵ Alan Jasanoff, *The Biological Mind: How Brain, Body, and Environment Collaborate to Make Us Who We Are* (New York: Basic Books, 2018) pp. 159-60 (‘neuroessentialism’); pp. 3-6 (‘cerebral mystique’).

³⁶ *Ibid.* p. 170.

This focus on the ‘whole living being’ is congruent with Anat Pick’s approach.³⁷ In contrast to Cary Wolfe whose ‘critique of the “discourse of species” works its way *internally* through “the ‘inside,’ the site of what used to be called the ‘self’ and the ‘subject’”, Pick ‘proceeds in the opposite direction, *externally*, by considering the corporeal reality of living bodies’.³⁸ This chapter investigates the poetic implications of these ideas, drawing particularly on Acampora’s concept of *symphysis* which conveys ‘the sense of sharing with somebody else a somaesthetic nexus experienced through a direct or systemic (inter)relationship’.³⁹

Acampora’s approach accords with a shift in perspective regarding the nature of empathy, once considered a cerebral activity achieved through ‘a “leap of imagination into someone else’s headspace,” or by consciously simulating their situation’.⁴⁰ More recently, as de Waal outlines, particularly since the discovery of mirror neurons, scientists have had to rethink the nature of empathy with the body now central to its understanding: ‘Empathy jumps from body to body’.⁴¹ For Acampora, ‘Cultivating a bodiment ethos of interanimality is not a matter of mentally working one’s way into other selves or worlds by quasi-telepathic imagination, but is rather about becoming sensitive to an already constituted “inter-zone” of somaesthetic conviviality’.⁴² Tirza Brüggemann considers these issues in her paper exploring empathy and animal poetry.⁴³

³⁷ Anat Pick, *Creaturely Poetics: Animality and Vulnerability in Literature and Film* (New York: Columbia University Press, 2011) pp. 2-3.

³⁸ Ibid. pp. 2-3. Pick quotes Cary Wolfe, *Animal Rites: American Culture, the Discourse of Species, and Posthumanist Theory* (London: The University of Chicago Press, Ltd., 2003) p. 193.

³⁹ Acampora, *Corporal Compassion*, p. 76.

⁴⁰ Frans de Waal quotes Simon Baron-Cohen, ‘Autism – ‘autos’: Literally a total focus on the self?’, in *The Lost Self: Pathologies of the Brain and Identity*, ed. by T. E. Feinberg and J. P. Keenan (Oxford: Oxford University Press, 2005) 166-180 p. 170; Frans de Waal, *Mama’s Last Hug*, p. 89.

⁴¹ Ibid. p. 89. See also Frans de Waal, *The Age of Empathy: Nature’s Lessons for a Kinder Society* (New York: Harmony Books, 2009) p. 79.

⁴² Ralph Acampora, *Corporal Compassion*, p. 84. Roman Krznaric similarly distinguishes two forms of empathy: ‘empathy as *perspective-taking*’ (cognitive empathy), and ‘empathy as a *shared emotional response*’ or ‘affective empathy’, Roman Krznaric, *Empathy: Why it matters, and how to get it* (London: Rider Books, 2015) p. 9.

⁴³ Tirza Brüggemann, ‘Animal Poetry and Empathy’, *Humanities*, 6, 18 (2017), 1-14. Discussed earlier, ‘Introduction’, pp. 30-31; 33-34.

As previously noted, Simone Weil wrote: ‘The vulnerability of precious things is beautiful because vulnerability is a mark of existence’.⁴⁴ Symphysis demands vulnerability, in the sense of a capacity to be open to the beauty and finitude common to all living things. Symphysis invites us to relinquish our narrowly constructed humanity to enter into ‘cross-species “conviviality”, a shared experience of interactivity’.⁴⁵ Evidence that this involves reciprocity, occurring between species, rather than being human led, is provided by research demonstrating that animals (horses for example) perceive, interpret and act on emotional cues across species boundaries.⁴⁶ Stanley Cavell wrote of humans’ ‘unwillingness ... [...] to make room for [horses’] capacity to feel our presence incomparably beyond our ability to feel theirs [...]’.⁴⁷ Research supports Cavell, showing that animals are perceptive participants in cross-species conviviality.⁴⁸

Anat Pick ‘is interested in whether and how dehumanization can be reclaimed as, at least partly, positive’.⁴⁹ By ‘dehumanization’ I take her to mean the deconstruction of narrow,

⁴⁴ Simone Weil, *Gravity and Grace*, trans. by Emma Crawford and Mario von der Ruhr (London: Routledge, 2004) p. 108. https://mercaba.org/SANLUIS/Filosofia/autores/Contempor%C3%A1nea/Weil%20%28Simone%29/Gravity%20and%20Grace.pdf?hc_location=ufi ; quoted by Anat Pick, *Creaturely Poetics*, p. 3, and Sarah Bouttier, ‘Creaturely Texts, Texts on Creatures’, *European Journal of English Studies*, 19, 1 (2015) 111-22 p. 112. See earlier, p. 54.

⁴⁵ Ralph Acampora, *Corporal Compassion*, p. 27.

⁴⁶ For example, Leanne Proops, Kate Grounds, Amy Victoria Smith and Karen McComb, ‘Animals Remember Previous Facial Expressions that Specific Humans Have Exhibited’, *Current Biology*, 28 (2018) 1428-32; Amy Victoria Smith, Clara Wilson, Karen McComb and Leanne Proops, ‘Domestic horses (*Equus caballus*) prefer to approach humans displaying a submissive body posture rather than a dominant body posture’, *Animal Cognition* 21 (2018) 307-12.

⁴⁷ From a letter from Stanley Cavell to Vicki Hearne, quoted in Vicki Hearne, *Adam’s Task: Calling Animals by Name* (London: William Heinemann Ltd., 1987) p. 115, quoted by Cary Wolfe, *Animal Rites*, p. 5.

⁴⁸ For an example of cross-species communication in a non-domesticated animal, see Alan G. McElligott, Kristine H. O’Keeffe and Alexandra C. Green, ‘Kangaroos display gazing and gaze alternations during an unsolvable problem task’, *Biology Letters*, 16 (2020). See also Matilda Boseley, ‘“What’s that Skip?” Researchers say kangaroos can communicate with people’, *The Guardian*, Wed 16 Dec 2020. [eguardian.com/science/2020/dec/16/whats-that-skip-researchers-kangaroos-communicate-talk-people](https://www.theguardian.com/science/2020/dec/16/whats-that-skip-researchers-kangaroos-communicate-talk-people)

⁴⁹ Anat Pick, *Creaturely Poetics*, p. 6.

speciesist views of what it means to be human, enshrined for example in the tenets of humanism.⁵⁰ For Pick:

Embodiment undermines institutionalized speciesism in two ways: first, it provides a critical space for thinking of the human outside Cartesian abstractionism, as rigorously material. Second, embodiment makes for a different sort of aesthetics and ethics along the rudimentary lines Weil suggests. It is important to add that it is not a matter of taking the body out of discourse as some pure precultural entity, but of looking at how notions of embodiment – the material, the anonymous, and the elemental – provide a powerful antidote to anthropocentrism.⁵¹

Alva Noë asserts that the way in which we learn about other minds is experiential rather than theoretical: ‘Our commitment to the consciousness of others is, rather, a pre-supposition of the kind of life we lead together’.⁵² While it is possible to adopt a stance of theoretical detachment, such a position is incompatible with the mutual co-operation predicated on the assumption that others, including nonhuman animals, have a point-of-view and feelings – as we do.⁵³ Children intuitively connect with animals and do not question that they lead purposeful, sentient lives, while those who work with animals rely on being able to interpret their behaviour and emotions.⁵⁴ The animal trainer, poet and philosopher Vicki Hearne

⁵⁰ For a discussion of humanism see Steven Pinker, ‘Humanism’, in *Enlightenment Now: The Case for Reason, Science, Humanism and Progress*, (London: Allen Lane, 2018) 410-53. Although Pinker points out that ‘humanism doesn’t exclude the flourishing of animals’, the focus of his book is on ‘the welfare of humankind’, p. 410. These are not mutually exclusive or readily separable; human flourishing depends on the flourishing of nonhuman life including animals. Les Murray critiqued humanism, particularly as manifested in the ‘grimmer reaches of utilitarianism’. Les Murray, ‘Poems and Poesies’, in *The Paperbark Tree: Selected Prose* (London: Minerva, 1993) 341-45, pp. 341-42.

⁵¹ Anat Pick, *Creaturely Poetics*, p. 6.

⁵² Alva Noë, *Out of Our Heads*, p. 33. The vital importance of experiential learning about other minds in the development of human beings (and, doubtless, other mammalian species) is explored by psychotherapist Sue Gerhardt, who states that: ‘the kind of brain that each baby develops is the brain that comes out of his or her experiences with people’, Sue Gerhardt, *Why Love Matters: How affection shapes a baby's brain* (Hove, East Sussex: Routledge, 2005) p. 38. The consequences of inadequate nurture are exemplified by the poor outcomes of children placed in Romanian state-run orphanages during the regime of Nicolae Ceauşescu; see David Eagleman, *The Brain: The Story of You* (Edinburgh: Canongate Books Ltd., 2015) pp. 9-12.

⁵³ Alva Noë, *Out of Our Heads*, p. 33.

⁵⁴ As Mary Midgley observed, if mahouts misinterpreted the ‘basic everyday feelings’ of elephants, ‘they would not only be out of business, they would often simply be dead’. Mary Midgley, ‘The Mixed Community’, in *The Animal Rights/Environmental Ethics Debate*, ed. by E. C. Hargrove (New York: State University of New York

argued that trainer and animal co-create ‘a common world between beings with vastly different phenomenologies’.⁵⁵ Moreover this intersubjectivity is dependent on “the flow of intention, meaning, believing,” the “varied flexions of looped thoughts,” [...].⁵⁶ I would argue that these processes occur at the level of whole living bodies and are mediated through symphysical engagement.

Noë’s position is consistent with ‘common sense’ or ‘folk psychology’ views of animal sentience, often dismissed as sentimental anthropomorphism; however, these views deserve serious consideration as the products of our evolution on a shared planet.⁵⁷ For Antonio Damasio our confidence that other animals are conscious derives from their ‘patently motivated flow of emotions’ and ‘our automatic and reasonable assumption’ that these signify feelings and sentience.⁵⁸ Further, insisting on our difference from other animals ‘denies the shared underpinnings and destroys a deeper sense of cohesion that sustains our sanity and keeps our world from disintegrating’.⁵⁹ Don Paterson’s poem ‘Mercies’ expresses the intersubjectivity between human and dog, a relationship epitomising Hearne’s co-created inter-species worlds and Acampora’s inter-species conviviality.⁶⁰ The animal nears death and faces euthanasia. She intuits something is about to occur ‘On the steel bench’ and

Press, 1992) p. 214, quoted by Jeffrey M. Masson and Susan McCarthy, *When Elephants Weep: The Emotional Lives of Animals* (London: Vintage, 1996) p. 21.

⁵⁵ Cary Wolfe, ‘In the Shadow of Wittgenstein’s Lion’, in *Zoontologies: The Question of the Animal*, ed. by Cary Wolfe (Minneapolis: The University of Minnesota Press, 2003) 1-57 p. 5.

⁵⁶ Ibid. p. 5. Wolfe quotes Vicki Hearne, *Adam’s Task*, p. 58.

⁵⁷ For an ethnobiological perspective on questions of animal sentience, see Raymond Pierotti and Cynthia Annett, ‘We Probably Thought That Would Be True: Perceiving Complex Emotional States in Nonhumans’, *Ethnobiology Letters*, 5 (2014) 15-21. John Ó Maoilearca, discussing the thinking of Mary Midgley and Bruno Latour on anthropomorphism, observes that for these philosophers, anthropomorphism is ‘ubiquitous and unavoidable’, and that the more pressing question concerns the *manner* in which it should be practiced. John Ó Maoilearca, *All Thoughts Are Equal: Laruelle and Nonhuman Philosophy* (Minneapolis: University of Minnesota Press, 2015) p. 200.

⁵⁸ Antonio Damasio, *The Feeling of What Happens: Body, Emotion and the Making of Consciousness* (London: Vintage, 2000) p. 101.

⁵⁹ Paul Shepard, *The Others: How Animals Made Us Human* (Washington, D. C.: Shearwater, 1996) p. 88, quoted by Frans de Waal, *The Ape and the Sushi Master*, p. 49.

⁶⁰ Don Paterson, ‘Mercies’ in *40 Sonnets* (London: Faber & Faber Ltd, 2015) p. 43.

she tried and tried to stand, as if to sign
that she was still of use, and should escape
our selection. [...]

The communication between dog and human is non-verbal, yet more profound for that:

[...]. So I turned her face to mine,
and seeing only love there – which, for all
the wolf in her, she knew as well as we did –
she lay back down and let the needle enter.⁶¹

Acampora's concept of symphysis connects with Gilles Deleuze and Félix Guattari's vision of 'becoming-animal', instantiated in relationships of fluidity and permeability between species.⁶² In conceptualising animals, Deleuze and Guattari 'privilege action – intensity, dynamism, becoming – over mere form'.⁶³ For Steve Baker there is a distinction between imitation and “the intense and thorough-going experience of becoming animal. Artists cannot remain detached, but ... are caught up in the lines of flight their work initiates”.⁶⁴ This mirrors distinctions between enactment and representation. Enactment is visceral while representation rests on reason. Discussing the ethical treatment of animals, Acampora privileges 'embodied emotion' over 'cogitative reason', arguing that the former 'is really more rational than we thought' and 'more valuable [...] than most moral philosophers have been ready to grant'.⁶⁵ Attempting to join metamorphically or shamanically with other animals' dynamic physicality through the medium of, say, poetry, facilitates 'becoming animal', a process of feeling-with other beings, while respecting their difference and autonomy. It is also important to acknowledge that failure is almost inevitable, but 'What is

⁶¹ 'for all / the wolf in her'; in fact, wolves have a complex social structure with strong affiliative bonds – or love – between, say, a mated pair, see Carl Safina, *Beyond Words: What Animals Think and Feel*, p. 151.

⁶² Gilles Deleuze and Félix Guattari, *A Thousand Plateaus*, trans. by Brian Massumi (Minneapolis: University of Minnesota Press, 1987), cited by Randy Malamud, *Poetic Animals and Animal Souls*, p. 11.

⁶³ *Ibid.* p. 11.

⁶⁴ Steve Baker, *The Postmodern Animal* (London: Reaktion, 2000) p. 139, quoted by Randy Malamud, *Poetic Animals and Animal Souls*, p. 12.

⁶⁵ Ralph Acampora, *Corporal Compassion*, p. 77. Acampora's position accords with that of Antonio Damasio, discussed, for example, in *Descartes' Error*. Antonio Damasio, *Descartes' Error: Emotion, Reason and the Human Brain* (London: Papermac, 1996).

at stake, after all, is not the success or failure of sympathetic identification but *the sensibility involved in the imaginative effort*. There is a richness to the attempt which stands independent of its success'.⁶⁶ Malay's words echo Randy Malamud's 'ecocritical aesthetic'.⁶⁷

Ethics and animal emotion

Discussion of animal emotion intersects with ethical concerns about how nonhumans are treated by humans. For Richard Foster, 'The blind eye we turn to the suffering of animals is probably the greatest example of cognitive dissonance in the world'.⁶⁸ To ignore animal suffering entails suppressing empathic engagement with them, a move rationalised either by acceptance of Cartesian views of animals as unfeeling automata and/or 'dominionism'.⁶⁹ Neither position is defensible in light of ever-accumulating scientific evidence.⁷⁰

An appreciation of the affective experiences of animals has long been regarded as central in guiding their ethical treatment by humans. The philosopher Tom Regan included emotionality as one of several capabilities, the presence or absence of which could help ascertain whether something should be deemed 'a subject-of-a-life'.⁷¹ However, these frameworks are anthropocentric; the determination of an animal's moral status rests on tests set by the *dominant* species, invariably spelling trouble for the animals. As Wolfe observes, these models end up 'reinforcing the very humanism that seems to be the problem in the first place'.⁷² Acampora addresses this issue, arguing that we must abandon 'residual

⁶⁶ Michael Malay, *The Figure of the Animal in Modern and Contemporary Poetry*, p. 2, emphasis added.

⁶⁷ Randy Malamud, *Poetic Animals and Animal Souls*, p. 45.

⁶⁸ Richard Foster, personal communication with, and quoted by, Marc Bekoff, *Rewilding Our Hearts*, p. 53.

⁶⁹ For a discussion of 'dominionism' see Jim Mason, 'Dominionism Identified', in *An Unnatural Order: The Roots of Our Destruction of Nature* (New York: Lantern Books, 2005) 21-49.

⁷⁰ See, for example, Frans de Waal, 'Sentience', in *Mama's Last Hug*, 239-74.

⁷¹ Tom Regan, *The Case for Animal Rights* (Berkeley: University of California Press) p. 242, cited by Beth Dixon, 'Animal Emotions', *Ethics and the Environment*, 6, 2 (2001) 22-30 p. 24.

⁷² Cary Wolfe, *Animal Rites*, p. 192, quoted by Anat Pick, *Creaturely Poetics*, p. 7.

homocentrism’ to ‘expand the range of caring regard through the very gesture of recognizing our own vital status as animate zoomorphs’.⁷³

Taking an historical perspective, Stephen Eisenman traces how a more compassionate stance towards animals emerged during the mid-eighteenth century however, it was ‘riven by disagreement from the start’.⁷⁴ Eisenman details the emergence of two approaches, the first based on ‘a reformist or animal-welfare discourse’ deriving from the Christian notion that humans are stewards of creation with a duty of care towards it, together with utilitarianism.⁷⁵ For Jeremy Bentham, a utilitarian, animal emotion, specifically animals’ capacity to suffer, was key to determining whether they should be afforded ethical consideration.⁷⁶ The ‘welfare’ approach, however, still privileged humans over animals so the latter could be exploited. The second approach was more radical,

the product of the Enlightenment cult of nature, abolitionism, and the universalistic aspirations of French and English Jacobins [...] following the start of the French Revolution in 1789. This movement proposed a veritable overturning of human-animal relations. Its adherents believed that humans had no God-given or natural right to exploit animals at all – for food, clothing, research or any other purpose – and that the laws of nature cried out for universal freedom and mutual respect for all.⁷⁷

⁷³ Ralph Acampora, *Corporal Compassion*, p. xiv.

⁷⁴ Stephen F. Eisenman, *The Cry of Nature: Art and the Making of Animal Rights* (London: Reaktion Books Ltd., 2013) p. 9.

⁷⁵ *Ibid.* p. 9.

⁷⁶ Helen Proctor, ‘Animal Sentience: Where are We and Where are We Heading?’, *Animals*, 2, 4 (2012) 628-39 p. 629. See also ‘Jeremy Bentham: Principles of Morals and Legislation’, in Linda Kalof and Amy Fitzgerald, eds., *The Animals Reader: The Essential Classic and Contemporary Writings* (Oxford: Berg, 2007) pp. 8-9.

⁷⁷ Stephen F. Eisenman, *The Cry of Nature*, p. 10. Randy Malamud, however, points out that matters are not so straightforward. He notes that Jean Baudrillard ‘relates the rise of humanist civilization to inhumane treatment of animals: “animals were only demoted to the status of inhumanity as reason and humanism progressed.”’ Jean Baudrillard, *Simalacra and Simulation* (Ann Arbor: University of Michigan Press, 1994) p. 133, quoted by Randy Malamud, *Poetic Animals and Animal Souls*, p. 4.

Versions of these two approaches find expression today, the first in animal welfare which mitigates animal suffering within a context that nevertheless permits exploitation.⁷⁸ Problems inherent in this position are exemplified, for example, by Temple Grandin who utilised her capacity for empathising with animals to design sophisticated slaughter methods, while Rosamund Young in *The Secret Life of Cows*, and Jaqueline Yallop in *Big Pig, Little Pig* sensitively portray these sentient animals, making their eventual deaths particularly disturbing.⁷⁹ John Berger captures the contradiction: ‘A peasant becomes fond of his pig and is glad to salt away its pork’.⁸⁰

Marc Bekoff and Jessica Pierce subscribe to a different vision, deconstructing narrow concepts of welfare and focusing instead on ‘well-being’, which encompasses the principles that animals have agency, interests, a capacity for positive as well as negative affect, and their own agendas.⁸¹ This approach emphasises what animals themselves might have to say about how they wish to live and how humans impinge on their lives.⁸²

⁷⁸ See, for example, Marian Stamp Dawkins, *Why Animals Matter: Animal consciousness, animal welfare, and human well-being* (Oxford: Oxford University Press, 2012), and Temple Grandin and Catherine Johnson, *Animals in Translation: Using the Mysteries of Autism to Decode Animal Behavior* (Orlando, Florida: Harcourt Inc., 2006).

⁷⁹ Temple Grandin and Catherine Johnson, *Animals in Translation*; Rosamund Young, *The Secret Life of Cows* (London: Faber & Faber Limited, 2017); Jacqueline Yallop, *Big Pig, Little Pig: A Tale of Two Pigs in France* (London: Fig Tree, 2017). For a critique of Grandin’s position see Marc Bekoff and Jessica Pierce, *The Animals’ Agenda: Freedom, Compassion and Coexistence in the Human Age* (Boston, Massachusetts: Beacon Press, 2017) pp. 31-32, and Marc Bekoff, ‘My Beef With Temple Grandin: Seemingly Humane Isn’t Enough’, *Psychology Today*, April 14, 2013. <https://www.psychologytoday.com/us/blog/animal-emotions/201304/my-beef-temple-grandin-seemingly-humane-isnt-enough>

⁸⁰ John Berger, *Why Look at Animals?* (London: Penguin Books Ltd., 2009) p. 16.

⁸¹ Marc Bekoff and Jessica Pierce, *The Animals’ Agenda: Freedom, Compassion, and Coexistence in the Human Age* (Boston, Massachusetts: Beacon Press, 2017).

⁸² See, for example, Marc Bekoff, *The Animal Manifesto: Six Reasons for Expanding Our Compassion Footprint* (Novato, California: New World Library, 2010); Marc Bekoff and Jessica Pierce, *The Animals’ Agenda*; Eva Meijer, *Animal Languages: The Secret Conversations of the Living World*, trans. by Laura Watkinson (London: John Murray, 2019) pp. 215-32. For a slightly different perspective, see Anat Pick, who contrasts ‘extensionism’, in which ‘moral consideration’ is afforded to animals according to how they compare to humans, and ‘the more decidedly posthumanist project to tackle and alleviate what Cary Wolfe called the “fundamental repression” (*Animal Rites* 1) of nonhuman subjectivity’; Anat Pick, *Creaturely Poetics*, p. 2.

The more we learn about other animals, the more problematic human treatment of them becomes, uncomfortably calling into question some of the scientific practices that led to these insights.⁸³ For Alva Noë, ‘our knowledge of other minds should perhaps better be understood as a kind of moral commitment [...]’.⁸⁴ An implied moral commitment toward nonhuman others is reflected in a plethora of recent books exploring animals’ subjectivity. One such is Belinda Recio’s *Inside Animal Hearts and Minds*.⁸⁵ Chapters cover animal humour, reciprocity and cooperation, fairness or justice, friendship, play, empathy, and death and spirituality. Examples are drawn from diverse species, including cetaceans, birds, fish, reptiles, and various terrestrial mammals. Recio quotes American naturalist Henry Beston who ‘described animals as “other nations” that are “living by voices we shall never hear.”’⁸⁶ She argues that scientists are now giving ‘voice to these other nations’.⁸⁷ Recio’s purpose in writing her book is to ‘help those voices be heard, with the hope that [...] we will more readily recognize them as kindred spirits and treat them – and the environments that sustain them – more compassionately’.⁸⁸ Poetry, in its ‘creatureliness’, is an artform through which these voices might be heard, notwithstanding the ethical pitfalls involved, for example, in presuming to ‘speak for’ animals.

Engaging empathically with animals is a step towards advancing their compassionate treatment, however, as Paul Bloom highlights, a problem with empathy is its spotlight nature which can shine ‘most brightly on those we love and gets dim for those who are strange or

⁸³ See Frans de Waal, ‘Sentience’, in *Mama’s Last Hug*, pp. 239-74. For a discussion of ethical issues in sentience research, see Helen Proctor, ‘Animal Sentience: Where are We and Where are We Heading?’, *Animals*, 2, 4 (2012) 628-39 pp. 635-36.

⁸⁴ Alva Noë, *Out of Our Heads*, p. 36.

⁸⁵ Belinda Recio, *Inside Animal Hearts and Minds: Bears That Count, Goats That Surf and Other True Stories of Animal Intelligence and Emotion* (New York: Skyhorse Publishing, 2017).

⁸⁶ Henry Beston, *The Outermost House: A Year of Life on the Great Beach of Cape Cod* (New York: Henry Holt, 1992), quoted by Belinda Recio, *Inside Animal Hearts and Minds*, p. xv.

⁸⁷ Belinda Recio, *Inside Animal Hearts and Minds*, p. xv.

⁸⁸ *Ibid.* p. xv.

different or frightening'.⁸⁹ Humans tend to favour charismatic mammals over (say) crocodiles and spiders, however this is ecologically incoherent.⁹⁰ For example, protecting invertebrates is vital for ecosystem health, yet they receive less attention than mammals, and may be reviled.⁹¹ Chris Packham makes clear what is at stake: 'Extinguish insect life, and human life will follow'.⁹² Acampora argues that when it comes to fostering an ethical stance towards 'individuals, species, or systems with whom or which we do not carry on an association of somaesthetic conviviality', symphysis is necessary but not sufficient, and what he terms 'moral imagination' is required.⁹³

Answers to the question 'who can suffer?' often rest on prejudices based on degrees of perceived (dis)similarity to adult humans, and the capacity to express that suffering.⁹⁴ De Waal regards 'The importance we attach to language [as] just ridiculous. It has given us more than a century of agnosticism with regard to wordless pain and consciousness'.⁹⁵ The complexities involved in determining sentience, defined by de Waal as 'the capacity to experience, feel, or perceive', are illustrated by the question of whether fish feel pain.⁹⁶

Sentience benefits animals living in complex environments facing a range of challenges and

⁸⁹ Paul Bloom, *Against Empathy: The Case for Rational Compassion* (London: The Bodley Head, 2016) p. 34. For a critique of Bloom's position, see Frans de Waal, *Mama's Last Hug*, pp. 110-11. De Waal finds a morality grounded 'in logic and reason', 'positively terrifying in the light of recent history', p. 111.

⁹⁰ Frans de Waal discusses human prejudices against other living things, and the spurious grounds on which these are based, *Mama's Last Hug*, pp. 245-49.

⁹¹ Jeffrey A. Lockwood, *The Infested Mind: Why Humans Fear, Loathe, and Love Insects* (New York: Oxford University Press, 2013).

⁹² Chris Packham, 'My manifesto could save Britain's dying wildlife', *The Guardian*, Wed 19 Sep 2018. <https://www.theguardian.com/commentisfree/2018/sep/19/manifesto-for-wildlife-uk-countryside-species-biodiversity>

⁹³ Ralph Acampora, *Corporal Compassion*, p. 91.

⁹⁴ Frans de Waal, *Mama's Last Hug*, pp. 268-69; Stephanie Yue Cottee, 'Are fish the victims of 'speciesism'? A discussion about fear, pain and animal consciousness', *Fish Physiol Biochem*, 38 (2012) 5-15. See also Randy Malamud: '[Nagel] simply reiterates the course of enlightenment/rationalistic epistemology when it comes to consciousness of the other. When powerful white Christian Victorian men posed The Negro Question or The Woman Question or The Jewish Question, it was similarly inevitable that The Negro, The Woman, and The Jew would not receive satisfactory Answers.' Randy Malamud, *Poetic Animals and Animal Souls*, p. 10.

⁹⁵ Frans de Waal, *Mama's Last Hug*, p. 269.

⁹⁶ *Ibid.* pp. 246 & 268.

opportunities. Its appearance long predates the arrival of *Homo sapiens*, for example oceanographer Sylvia Earle states that:

Fish have had a few hundred million years to figure things out. We're newcomers. I find it astonishing that many people seem shocked at the idea that fish feel. The way I see it, some people have wondrous fish-like characteristics – they can think and feel!⁹⁷

There is an argument that plants and simple animals, including unicellular organisms, are, in the broadest sense, sentient.⁹⁸ Narrowly defined however, sentience means experiencing 'subjective feeling states, such as pain and pleasure'.⁹⁹ There is now a consensus that fish do feel pain, however, dissenters protest that even if they do, they do not experience it 'like us'.¹⁰⁰ It would, of course, be astonishing if they did, but such statements generally imply a hierarchy of suffering, serving the perceived interests of humans. Wolfe discusses Daniel Dennett's theorising on animal sentience, specifically the experience of pain, which Wolfe argues falls 'unwittingly' into a Cartesian stance.¹⁰¹ Dennett suggests that for pain sensations to matter to an animal 'there must be an enduring subject *to whom* they matter because they are a source of suffering'.¹⁰² Dennett draws seemingly troubling conclusions about the capacity of the 'dissociated child' to suffer, comparing such children with nonhumans.¹⁰³ Wolfe observes,

⁹⁷ Carl Safina, 'Are we wrong to assume fish can't feel pain?', *The Guardian*, Tue 30 Oct 2018, <https://www.theguardian.com/news/2018/oct/30/are-we-wrong-to-assume-fish-cant-feel-pain>

⁹⁸ Frans de Waal, *Mama's Last Hug*, pp. 246-47.

⁹⁹ *Ibid.* p. 248.

¹⁰⁰ See for example, J. D. Rose, R. Arlinghaus, S. J. Cooke, B. K. Diggles *et al.*, 'Can Fish Really Feel Pain?', *Fish and Fisheries* 15, 1 (2014) 97-133, quoted by Dinesh Joseph Wadiwel, 'Do Fish Resist?', *Cultural Studies Review*, 22, 1 (2016) 196-242 p. 199.

¹⁰¹ Daniel Dennett, *Kinds of Minds: Toward an Understanding of Consciousness* (New York: BasicBooks, 1996) pp. 161-68, cited by Cary Wolfe, *What is Posthumanism?* (Minneapolis: The University of Minnesota Press, 2010) p. 45.

¹⁰² Daniel Dennett, *Kinds of Minds*, p. 163, quoted by Cary Wolfe, *What is Posthumanism?* p. 45.

¹⁰³ Daniel Dennett, *Kinds of Minds*, pp. 163-64, in Cary Wolfe, *What is Posthumanism?* p. 45. Dennett does, however, make clear that dissociation does not 'in any way mitigate the atrocity of the vile behavior of [the dissociated child's] abusers', adding that 'such children may pay a severe price later in life in dealing with the aftereffects of their dissociation', p. 164.

And just as different forms of being human in the world are re-written, as they are here, in terms of a homogenous Cartesian ideal, so nonhuman beings, in all their diversity, are now rendered not as fully complete forms of life that are radically irreducible to such a thin, idealized account of what counts as subjectivity but rather as diminished or crippled versions of that fantasy figure called the human – the Cartesian *cogito* now rewritten as the user-illusion qua enduring subject. Nonhuman animals are now seen as “creatures that are *naturally* dissociated – that never achieve, or even attempt to achieve, the sort of complex internal organization that is standard in a normal child and disrupted in a dissociated child”.¹⁰⁴

Dennett might well ponder the question posed by Hans Ruesch in *Slaughter of the Innocent*, that if animals do not suffer from their pain, ‘why not whip the cart instead of the horse?’.¹⁰⁵

As Ruesch adds: ‘Descartes never troubled to explain that’.¹⁰⁶ No-one knows *how* a fish experiences pain but the fact that they become subdued, lose their appetite and respond to painkillers, suggests their feelings might not be entirely alien to humans.¹⁰⁷ That fish do not vocalise their distress has also been used to argue they do not suffer.¹⁰⁸ Recent research however, demonstrates that injured fish signal this chemically, alerting conspecifics.¹⁰⁹ Even if their experiences of pain were radically different to humans, this does not let the fisherman or fisherwoman off the hook:

Donald Broom [...] suggested the possibility that animals with more complex brains might deal more effectively with pain than animals with less complex brains because the former have more varied responses, more flexible behavior, to cope with aversive situations.

¹⁰⁴ Cary Wolfe, *What is Posthumanism?* pp. 45-46. Wolfe quotes Daniel Dennett, *Kinds of Minds*, p. 164.

¹⁰⁵ William Ruesch, *Slaughter of the Innocent: The use of animals in medical research* (London: Slingshot Publications, 2003) p. 12, quoted by William Johnson, *The Rose-Tinted Menagerie* (London: Heretic Books Ltd., 1990) p. 41.

¹⁰⁶ William Ruesch, *Slaughter of the Innocent*, p. 12, quoted by William Johnson, *The Rose-tinted Menagerie*, p. 41.

¹⁰⁷ Victoria Braithwaite, *Do Fish Feel Pain?* (Oxford: Oxford University Press, 2010) e.g., pp. 68-69 (pain relief). Jonathan Balcombe describes fish as physiologically similar to mammals in that they have ‘a backbone, a suite of senses, and a peripheral nervous system governed by a brain’. Jonathan Balcombe, *What a Fish Knows: The Inner Lives of Our Underwater Cousins* (London: Oneworld Publications, 2016) p. 72. That fish, like birds, lack a neocortex has been taken by some as evidence that they are ‘unconscious’, a prejudice that Balcombe dubs ‘corticocentrism’. However, fish have evolved a comparable organ, the pallium, ‘noted for its astonishing diversity and complexity’. Jonathan Balcombe, *What a Fish Knows*, pp. 74-75.

¹⁰⁸ Frans de Waal, *Mama’s Last Hug*, p. 266.

¹⁰⁹ *Ibid.* pp. 266-67.

Broom's intriguing hypothesis is that perhaps fish cannot deal with pain as effectively as animals with more complex brains, and because of this fish actually suffer more.¹¹⁰

Similarly, it has been argued that:

humans experience pain more acutely because we remember and anticipate it. *It is not apparent that an animal cannot do both.* But even if it could not, there is no reason to suppose that it suffers any less than a human, and some reason to suppose that some may suffer more. Brigid Brophy, for example, points out that 'pain is likely to fill the sheep's whole capacity for experience in a way it seldom does in us, whose intellect and imagination can create breaks for us in the immediacy of our sensations'.¹¹¹

Visits to the vet quickly dispel any doubts that animals can 'remember and anticipate' aversive experiences while Laura Braitman documents evidence that species from dogs to dolphins can suffer psychological distress.¹¹² Whether or not Broom and Brophy's hypotheses regarding animal suffering could ever be confirmed (there are ethical barriers to testing these), they must give us pause, opening up worlds of possibility beyond our anthropocentric limitations. As Coetzee's Elizabeth Costello argues, animals' lives and bodily integrity palpably matter to them:

Anyone who says that life matters less to animals than it does to us has not held in his hands an animal fighting for its life. The whole of the being of the animal is thrown into that fight, without reserve. When you say the fight lacks a dimension of intellectual or imaginative horror, I agree. It is not the mode of being of animals to have an intellectual horror: *their whole being is in the living flesh.*¹¹³

¹¹⁰ Marc Bekoff, *The Emotional Lives of Animals*, p. 22. Donald Broom's hypothesis, cited by Bekoff, was discussed by Broom at the World Society for the Protection of Animals conference in Rio de Janeiro, 2006, attended by Broom and Bekoff.

¹¹¹ Jeffrey M. Masson and Susan McCarthy, *When Elephants Weep*, p. 216. Masson and McCarthy quote Brigid Brophy, 'In Pursuit of a Fantasy', in *Animals, Men and Morals*, ed. by Stanley and Rosalind Godlovitch and John Harris (New York: Taplinger, 1972) 125-45 p. 129.

¹¹² Laurel Braitman, *Animal Madness: How anxious dogs, compulsive parrots, and elephants in recovery help us understand ourselves* (London: Scribe, 2014) p. 3.

¹¹³ J. M. Coetzee, *The Lives of Animals* (Woodstock, Oxfordshire: Princeton University Press, 1999) p. 65, emphasis added.

The poem ‘Rattlesnakes Hammered on the Wall’ by Ray Gonzalez, discussed by Aaron Moe, deals with animal suffering and epitomises Coetzee/Costello’s observations.¹¹⁴ The poem engages the reader viscerally by attending closely to the vulnerable physicality of the snakes, finding ‘a way to give the writhing bodies *voice*’.¹¹⁵ Gonzalez enacts the snakes’ suffering: ‘alive and writhing against the wood / their heaviness whipping the wall’.¹¹⁶ As well as attentiveness to the snakes’ bodily poiesis, central to Moe’s zoopoetics, Gonzalez employs empathetic imagination, not simply through intellectual projection but through shared bodiment – symphysis – which transmits the sensation of agonised entrapment from snakes to reader.

Denying nonhuman sentience has ethical implications for our treatment of other animals while also betokening deeper problems of disrespect and disregard for the more-than-human.¹¹⁷ Peter Wohlleben argues this is partly politically driven, coming principally from politicians lobbied by various vested interests including factory farming and proponents of hunting and fishing.¹¹⁸ Further motivation might derive from ‘a bit of fear that human beings could lose their special status’.¹¹⁹ Ironically, as humans strive to distinguish themselves from

¹¹⁴ Ray Gonzalez, ‘Rattlesnakes Hammered on the Wall’, in *Consideration of the Guitar: New and Selected Poems, 1986-2005* (Rochester: BOA Editions, 2005) p. 35. Discussed by Aaron Moe, *Zoopoetics: Animals and the Making of Poetry* (Lanham, Maryland: Lexington Books, 2014) pp. 5-6.

¹¹⁵ Aaron Moe, *Zoopoetics*, p. 6.

¹¹⁶ Ray Gonzalez, ‘Rattlesnakes Hammered on the Wall’, lines 3 and 4, reproduced in Aaron Moe, *Zoopoetics*, p. 6.

¹¹⁷ Eileen Crist terms this stance ‘mechanomorphic’, whereby animals are routinely treated as if they are ‘mindless robots.’ Eileen Crist, *Images of Animals: Anthropomorphism and Animal Mind* (Philadelphia: Temple University Press, 2000) p. 9, cited by Donald R. Griffin, *Animal Minds: Beyond Cognition to Consciousness* (Chicago: The University of Chicago Press, 2001) p. 29.

¹¹⁸ Peter Wohlleben, *The Inner Life of Animals*, trans. by Jane Billinghurst (London: The Bodley Head, 2017) p. 264. See also, Dinesh Joseph Wadiwel who states that, ‘fish suffering is shaped by a vast human investment – monetary, infrastructural, dietary, institutional – in precisely making fish suffer, and this has in turn shaped the high stakes of how we see fish and the meaning of the question ‘do fish feel pain?’’ Dinesh Joseph Wadiwel, ‘Do Fish Resist?’, p. 204.

¹¹⁹ Peter Wohlleben, *The Inner Life of Animals*, p. 266.

animals, evidenced by a ‘current endless stream of books on what makes humans different’, science increasingly reveals commonalities and continuities between us and other species.¹²⁰

Adverse consequences of this denial include allowing humans to act ‘as if we are the only animals who matter. [Making] huge and horrific global messes, impacting every environment and ecosystem and all other species, [...]’.¹²¹ This ‘unwilding’ harms humans existentially through ecological destruction, as well as through emotional alienation resulting in ‘a deep sense of loss for the connections to nature we are missing, even if the sense of what we’re missing is vague’.¹²² In *Rewilding Our Hearts*, Bekoff examines the origins and consequences of our dislocation, making the case for rewilding – of ourselves as well as environments – through radical shifts in individual mind-sets and a social movement centring on compassion and empathy.¹²³ Bekoff’s position is congruent with that of ‘deep ecologists’ who emphasise biodiversity. Wolfe argues that in recognising biodiversity’s centrality ‘we must affirm the *inherent value* of all forms of life that contribute to this ultimate good, and we must actively oppose all actions and processes by human beings and their societies that compromise these values’.¹²⁴ This position, rightly, renders cross-species comparisons regarding sentience, ‘intelligence’ or other qualities, moot; what matters are whole living systems.

¹²⁰ Frans de Waal, *Mama’s Last Hug*, p. 261, (books on human exceptionalism); Randy Malamud, *Poetic Animals and Animal Souls*, p. 7, (commonalities/continuities). However, caution is required here. As Matthew Calarco observes, a ‘premise about the shared subjectivity of humans and animals is that it excludes most animals from its scope’, for example, those lacking an as yet to be determined level of neural complexity, thereby risking that ‘those beings lacking subjectivity have a lower or nonexistent ethical status’. This is ecologically and ethically incoherent as protection should be afforded to all entities (including non-living geographical and climatic features) in interconnected, interdependent ecosystems, irrespective of ‘subjectivity’, a characteristic prized by humans, but to which the more-than-human world is probably indifferent. See Matthew Calarco, *Zoographies: The Question of the Animal from Heidegger to Derrida* (New York: Columbia University Press, 2008) p. 130.

¹²¹ Marc Bekoff, *Rewilding Our Hearts*, p. 3.

¹²² *Ibid.* p. 35.

¹²³ *Ibid.* p. 57.

¹²⁴ Cary Wolfe, *Animal Rites*, p. 24. In practice, conservation is fraught with ethical complexities and dilemmas. For example, ethical issues arise when ‘controlling’ ‘invasive’ species in the interests of protecting biodiversity; see Freya Mathews, ‘The Anguish of Wildlife Ethics’, *New Formations*, 76 (2012) 114-31, https://www.researchgate.net/publication/263463263_The_Anguish_of_Wildlife_Ethics

What does science contribute to our understanding of animal emotion?

As previously noted, the study of animal emotion was neglected until relatively recently. Further, animals' emotions can be minimised or even denied. Alternatively, animals are mis-cast as unreasoning beasts at the mercy of 'instincts' and 'passions'.¹²⁵ It seems that they cannot win. Further, while animal suffering is rightly considered a pressing issue, animals' capacity for positive emotion, which also carries ethical implications, has been neglected.¹²⁶ Accordingly, this chapter focuses on both suffering and joy.

For much of the twentieth century the 'off-limits' status of emotion was in part attributable to behaviourism with its strict focus on observable behaviour.¹²⁷ Antonio Damasio states that emotion was regarded as unworthy of scientific study, being 'too subjective' and 'too elusive and vague'.¹²⁸ It was considered antithetical to reason, vaunted as 'easily the finest human ability', while emotion and reason were assumed to be independent of one another.¹²⁹ Marian Stamp Dawkins regards animal sentience studies as riven with inconsistency and confusion

Additionally, in a world radically altered by human activity, how do we determine what is 'wild'? See Stephen Budiansky, *Nature's Keepers: The New Science of Nature Management* (London: Weidenfeld & Nicolson, 1995) p. 3. Radical solutions, such as that of Edward O. Wilson who argues that 50% of the world's land and ocean should be set aside to protect biodiversity, are potentially problematic given the practical challenges of so doing. Edward O. Wilson, *Half-Earth: Our Planet's Fight for Life* (New York: Liveright Publishing Corporation, 2016).

¹²⁵ Beth Dixon argues that "Animal emotion" is yet another metaphor we use to characterize the emotions as unruly, bodily and irrational', Beth Dixon, 'Animal emotions', p. 23. Mary Midgley addresses the issue of animals' 'beastly' natures, arguing that they were seen 'not as they were, but as projections of our own fears and desires', Mary Midgley, *Beast and Man: The Roots of Human Nature* (London: Routledge, 1995) p. 25. See also, Frans de Waal's discussion of free will, 'wantons' and the definition of personhood, Frans de Waal, *Mama's Last Hug*, pp. 221-23.

¹²⁶ Jonathan Balcombe, 'Animal pleasure and its moral significance', *Applied Animal Behaviour Science*, 118 (2009) 208-16 p. 208.

¹²⁷ Helen Proctor, 'Animal Sentience: Where are We and Where are We Heading?', p. 629. See also Frans de Waal, 'What is an animal emotion?', p. 191; Marc Bekoff, 'Animal Emotions: Exploring Passionate Natures', *BioScience*, 50, 10 (2000) 861-70 p. 862. For a brief overview of behaviourism, see Martha C. Nussbaum, *Upheavals of Thought: The Intelligence of Emotions* (Cambridge: Cambridge University Press, 2008) pp. 94-95. For a critique of behaviourism, see Frans de Waal, *Mama's Last Hug*, pp. 259-60.

¹²⁸ Antonio Damasio, *The Feeling of What Happens*, p. 39.

¹²⁹ *Ibid.* p. 39.

and finds scientific discourse around animal sentience incoherent or poorly evidenced.¹³⁰ More recently, Elizabeth Paul and Michael Mendl, while asserting the importance of addressing questions about animal emotions, similarly state that these have proved ‘extremely difficult to answer’.¹³¹ The field of ethology also ‘abandoned anything considered as sentimental and imprecise as the emotions [...]’.¹³² As de Waal notes, reference to emotion remains frowned upon, the *Oxford Companion to Animal Behaviour* stating that: “‘It does nothing to promote our understanding of behavior (*sic*) to attribute it to an emotion if our only evidence of the emotion is the very behaviour the emotion is supposed to explain.’”¹³³ Despite the challenges there is now a burgeoning literature on the subject of animal emotion. A notable pioneer of the subject was Jaak Panksepp.¹³⁴

The language around emotion is slippery. Terms such as ‘sentience’, ‘affect’, ‘feelings’ and ‘emotion’ are frequently used interchangeably. Bekoff highlights the difficulties inherent in establishing what exactly emotions are, despite the fact that most people feel able to recognise them, a point echoed more recently by de Waal.¹³⁵ The linguist Anna Wierzbicka regards the English language as ‘a conceptual prison for the science of emotion’.¹³⁶ When considering animal emotion, human language can also function as a ‘conceptual prison’, limiting our capacity to imagine affective states beyond our own.

¹³⁰ Marian Stamp Dawkins, *Why Animals Matter*, pp. 3-4.

¹³¹ Elizabeth S. Paul, and Michael T. Mendl, ‘Animal emotion: Descriptive and prescriptive definitions and their implications for a comparative perspective’, *Applied Animal Behaviour Science*, 205 (2018) 202-09 p. 202.

¹³² Frans de Waal, ‘What is an animal emotion?’, p. 191.

¹³³ D. McFarland, *The Oxford Companion to Animal Behaviour* (Oxford: Oxford University Press, 1987), quoted by Frans de Waal, ‘What is an animal emotion?’, p. 191. Consistent with this, the word ‘emotion’ does not appear in the index of John Alcock’s textbook *Animal Behaviour*; John Alcock, *Animal Behaviour: An Evolutionary Approach, Tenth Edition* (Sunderland, MA: Sinauer Associates, Inc., 2013). De Waal argues that McFarland’s claim is weakened when there are multiple behavioural indicators for an emotion, and when a range of situations provoke a particular emotion. Frans de Waal, ‘What is an animal emotion?’, p. 193.

¹³⁴ Frans de Waal, *Mama’s Last Hug*, p. 73.

¹³⁵ Marc Bekoff, *The Emotional Lives of Animals*, p. 5; Frans de Waal, *Mama’s Last Hug*, p. 8.

¹³⁶ Anna Wierzbicka, ‘Human Emotions: Universal or Culture-Specific?’, *American Anthropologist* 88, 3 (1986) 584-94, quoted by Lisa Feldman Barrett, *How Emotions Are Made: The Secret Life of the Brain* (London: Macmillan, 2017) p. 148.

That language matters in animal sentience studies is further highlighted by a comparative study of the language used in various fields, from natural history to sociobiology.¹³⁷ Eileen Crist identifies problems associated with the use of technical versus everyday language, the latter reflecting ‘a regard for animals as acting *subjects*; the immanent, experiential perspective of animals is treated as real, recoverable, and invaluable in the understanding of their actions and lives’.¹³⁸ Technical language, in contrast, distances us, paving ‘the way toward conceptualizing animals as natural *objects* [...] in an epistemological sense, through conceptions that are extrinsic to their phenomenal world of experience. [This] is agnostic and often inimical toward the idea that animals have an experiential perspective’.¹³⁹ While it is important to acknowledge the rationale, in scientific contexts, for language which strives for neutrality, Crist’s analysis reminds us that the language in which investigations of animal emotion are couched is often antithetical to the subject, introducing implicit bias. Despite these caveats I believe it is important for art to take account of animal emotion science.

For Bekoff and Pierce the question of animal sentience is settled, for example:

Animal sentience throughout vertebrate taxa is now a well-accepted fact, and the focus of discussion has shifted to just how far, taxonomically, sentience might reach, with the answer being much further than anyone would have guessed. For example, scientists have gathered evidence for sentience in octopuses, squids, crabs, reptiles, amphibians, and fishes.¹⁴⁰

¹³⁷ Eileen Crist, *Images of Animals*, p. 5.

¹³⁸ *Ibid.* p. 2.

¹³⁹ *Ibid.* p. 2.

¹⁴⁰ Marc Bekoff and Jessica Pierce, *The Animals’ Agenda*, p. 11. Bekoff and Pierce cite Helen S. Proctor, Gemma Carder, and Amelia R. Cornish, ‘Searching for Animal Sentience: A Systematic Review of the Scientific Literature’, *Animals*, 3 (2013) 886-906. Regarding, for example, the octopus, Hannah Devlin quotes David Nutt, a professor of neuropharmacology commenting on a study into octopuses: ‘This [the study’s findings] just proves that [emotion] is not some peculiar human characteristic, it’s not even a mammalian characteristic, it’s a characteristic of brains’. Hannah Devlin, ‘The undersea and the ecstasy: MDMA leaves octopuses loved up’, *The Guardian*, 20 Sep 2018, <https://www.theguardian.com/science/2018/sep/20/mdma-makes-octopuses-more-sociable>

But what is sentience? Peter Godfrey-Smith regards consciousness and sentience as different, sentience preceding consciousness.¹⁴¹ He treats subjective experience – what it feels like to be something (which he terms ‘sentience’) – ‘as a broad category and consciousness as a narrower category within it – not everything that an animal might *feel* has to be *conscious*’.¹⁴² However, this seems confusing – how can something be *felt* other than consciously?

Frans de Waal identifies three levels of sentience. The first concerns ‘sensitivity in a broad sense to the environment and one’s own internal state’.¹⁴³ It is concerned with the maintenance of homeostasis and self-preservation, may be ‘fully unconscious and automated’, and is found in all living things.¹⁴⁴ In a similar vein Godfrey-Smith states that sentience arises from ‘the evolution of sensing and acting; it involves being a living system with a point of view on the world around it’.¹⁴⁵ However, this does not necessarily involve conscious experience and occurs in the simplest organisms, for example, bacteria.¹⁴⁶ The second level is narrower, concerning the experience of ‘pleasure, pain, and other sensations to the point that they can be remembered’.¹⁴⁷ This second level, which affords learning and behaviour modification, should be ‘assumed in every animal with a brain, regardless of brain size’.¹⁴⁸ The final level is conscious sentience, involving evaluation, judgment, and making logical connections.¹⁴⁹ This level ‘serves both feelings and problem solving’ and is thought to have arisen ‘relatively early in evolution’.¹⁵⁰

¹⁴¹ Peter Godfrey-Smith, *Other Minds: The Octopus and the Evolution of Intelligent Life* (London: William Collins, 2017) pp. 78-79.

¹⁴² *Ibid.* p. 92.

¹⁴³ Frans de Waal, *Mama’s Last Hug*, p. 255.

¹⁴⁴ *Ibid.* p. 255.

¹⁴⁵ Peter Godfrey-Smith, *Other Minds*, p. 79.

¹⁴⁶ *Ibid.* p. 79.

¹⁴⁷ Frans de Waal, *Mama’s Last Hug*, p. 255.

¹⁴⁸ *Ibid.* p. 255.

¹⁴⁹ *Ibid.* p. 255.

¹⁵⁰ *Ibid.* p. 255.

At its most inclusive, then, sentience is a property of all organisms, including plants and single-celled animals. It is inextricably linked to homeostasis and can occur unconsciously, that is, it does not require the capacity to feel: ‘Reacting to environmental changes is not the same as experiencing them’.¹⁵¹ More narrowly defined, sentience involves the capacity to *consciously* experience states such as pleasure or pain. For the present, de Waal argues that this is only likely in animals meeting a threshold of neural complexity, thereby excluding plants and, say, bivalves.¹⁵² However, he adds the caveat that humans have a long history of underestimating nonhumans.¹⁵³

As previously noted Todd Feinberg and Jon Mallatt distinguish between different types of consciousness.¹⁵⁴ Their focus is on ‘sensory’ or ‘phenomenal’ consciousness, the most basic and yet inexplicable kind.¹⁵⁵ They define this as the aspect of consciousness ‘that comes closest to “something it is like to be”’, and therefore appears equivalent to the state that Godfrey-Smith terms ‘sentience’.¹⁵⁶ However, ‘consciousness’ consists in, by definition, consciously felt experience, while sentience for de Waal and Godfrey-Smith, includes processes which occur below the level of awareness. I therefore equate phenomenal consciousness with the second (experiential) level of sentience identified by de Waal.

How and when did the capacity to experience one’s subjective states, however fleetingly, emerge? Feinberg and Mallatt examine the origins of phenomenal consciousness,

¹⁵¹ Frans de Waal, *Mama’s Last Hug*, p. 248.

¹⁵² *Ibid.* p. 248.

¹⁵³ *Ibid.* p. 248. The underestimation of other species is addressed in Frans de Waal’s book, *Are We Smart Enough to Know How Smart Animals Are?*

¹⁵⁴ Todd E. Feinberg and Jon M. Mallatt, *The Ancient Origins of Consciousness: How the Brain Created Experience* (Cambridge, MA: The MIT Press, 2015) pp. 1-2. See earlier, p. 60.

¹⁵⁵ *Ibid.* pp. 1-2.

¹⁵⁶ *Ibid.* p. 1.

triangulating three approaches: the philosophical, neurobiological and neuroevolutionary.¹⁵⁷

They conclude that:

[...] consciousness evolved earlier, and exists in more animals and in more diverse neural architectures, than neuroscientists previously suspected. The exteroceptive, interoceptive, and *affective aspects* of consciousness can be traced not only to the cerebral cortex of humans and other mammals, but also to the optic tectum of fish and amphibians (the isomorphic sensory consciousness) and to the subcortical limbic structures of all vertebrates (the *affective consciousness*).¹⁵⁸

According to evolutionary theory, states such as sentience and consciousness emerged and persisted because they confer survival and reproductive advantages on those living things in possession of them. As Godfrey-Smith observes, when modulations in a system's state, whether arising internally or externally, give rise to subjective experience, they 'are tracked because they matter and require a response. Sentience has some *point* to it. It's not just a bathing in living activity'.¹⁵⁹

How do sentience and consciousness relate to emotion? As discussed previously, (p. 89) de Waal distinguishes between emotions and feelings; he argues that emotions are evident through bodily changes while associated feelings are experienced privately.¹⁶⁰ According to Damasio, *feelings* (in living things equipped to experience them) are linked to homeostasis and are fundamental to survival.¹⁶¹ Homeostasis is: 'the fundamental set of operations at the core of life, from the earliest and long-vanished point of its beginning in early biochemistry to the present'.¹⁶² It concerns regulation, i.e., 'physiological processes [...] in the body that

¹⁵⁷ Ibid. pp. 3-15.

¹⁵⁸ Ibid. p. 170, emphasis added.

¹⁵⁹ Peter Godfrey-Smith, *Other Minds*, p. 96.

¹⁶⁰ Frans de Waal, *Mama's Last Hug*, p. 127.

¹⁶¹ Antonio Damasio, *The Strange Order of Things: Life, Feeling, and the Making of Cultures* (New York: Pantheon Books, 2018) pp. 24-27.

¹⁶² Ibid. p. 25

[operate] to maintain – to regulate – body conditions within certain ranges’.¹⁶³ Homeostasis ensures an organism’s survival, its ‘enduring and prevailing’.¹⁶⁴ Although homeostasis frequently occurs unaccompanied by consciously experienced feelings, for Damasio, ‘Feelings are the subjective experiences of the state of life – that is, of homeostasis – in all creatures *endowed with a mind and a conscious point of view*. We can think of feelings as mental deputies of homeostasis’.¹⁶⁵ Further, ‘To deny mammals the feelings related to their emotionality is no longer a tenable position’.¹⁶⁶

Bekoff defines emotions as ‘psychological phenomena that help in behavioral management and control; they are phenomena that emote us, that make us move’.¹⁶⁷ For Jaak Panksepp the neural systems underpinning emotions ‘generate an animal’s egocentric sense of well-being [regarding] the most important natural dimensions of life’, offering solutions to survival challenges, ‘answered during the long course of neural evolution by the emergence of intrinsic emotional tendencies within the brain’.¹⁶⁸ Philosopher Martha Nussbaum’s account of emotions is consistent with those of Panksepp and Damasio.¹⁶⁹ Nussbaum argues that emotions ‘involve judgments about important things’, salient to well-being and survival.¹⁷⁰ Drawing on Aristotle’s concept of *eudaimonism*, Nussbaum understands emotions to be central to an organism’s flourishing.¹⁷¹ She proposes a ‘cognitive/evaluative theory of emotions’, wherein they are not distinct from ‘reason’, rather, ‘they are parts, highly complex

¹⁶³ Sean B. Carroll, *The Serengeti Rules: The Quest to Discover How Life Works and Why It Matters* (Princeton, New Jersey: Princeton University Press, 2016), p. 27. For an account of the principles of homeostasis, see Carroll, *The Serengeti Rules*, pp. 25-29.

¹⁶⁴ Antonio Damasio, *The Strange Order of Things*, p. 25. ‘Prevailing’ entails regulation ‘*conducive to flourishing, to a projection of life into the future of an organism or a species*’, p. 25, original italics.

¹⁶⁵ Antonio Damasio, *The Strange Order of Things*, p. 25, emphasis added.

¹⁶⁶ *Ibid.* p. 18.

¹⁶⁷ Marc Bekoff, *The Emotional Lives of Animals*, p. 6.

¹⁶⁸ Jaak Panksepp, *Affective Neuroscience*, p. 48.

¹⁶⁹ Martha C. Nussbaum, *Upheavals of Thought*, p. 19.

¹⁷⁰ *Ibid.* p. 19.

¹⁷¹ Martha C. Nussbaum, *Upheavals of Thought*, p. 31, cited by Frans de Waal, ‘What is an animal emotion?’, p. 194.

and messy parts, of [...] reasoning itself'.¹⁷² In *Descartes' Error* and subsequent works Damasio demonstrates the crucial and complementary role emotion plays in cognition.¹⁷³ A definition of emotion proposed by de Waal is inclusive, incorporating physiological, psychological and behavioural features.¹⁷⁴

In summary, sentience, broadly defined, is essential to homeostasis and is inherent, in some form, in all living things. While in simpler creatures and plants the processes involved in homeostatic regulation occur without conscious awareness, (this is also the case for much regulatory activity in complex animals, including humans), as behavioural and physiological complexity increase, animals are increasingly likely to benefit from being able to experience the feelings associated with their emotions. The level of complexity required for *experiencing* feelings (level two in de Waal's three level model), remains unclear. However, given our tendency to misunderstand other species, it is wise to keep an open mind.

Two ways to conceptualise emotion

In her book *How Emotions Are Made*, Lisa Feldman Barrett identifies two alternative theoretical approaches to emotion.¹⁷⁵ The 'classical view of emotion' (CVE) proposes that emotions are hard-wired, characterised by a series of neurological, physiological and

¹⁷² Martha C. Nussbaum, *Upheavals of Thought*, p. 3. See also, Frans de Waal, 'What is an animal emotion?', p. 194. By way of further illustration, de Waal quotes Blaise Pascal: 'The heart has reasons of which reason knows nothing'; Blaise Pascal, *Pensées* (1669); Frans de Waal, *Mama's Last Hug*, p. 85.

¹⁷³ Antonio Damasio, *Descartes' Error*. In a similar vein Ralph Acampora states that: 'embodied emotion is really more rational than we thought', Ralph Acampora, *Corporal Compassion*, p. 77.

¹⁷⁴ Frans de Waal defines emotion as follows: 'An emotion is a temporary state brought about by biologically relevant external stimuli, whether aversive or attractive. The emotion is marked by specific changes in the organism's body and mind – brain, hormones, muscles, viscera, heart, etcetera. Which emotion is triggered is often predictable by the situation in which the organism finds itself, and can be further inferred from behavioral changes and evolved communication signals. There exists no one-on-one relation between an emotion and ensuing behavior, however. Emotions combine with individual experience and cognitive assessment of the situation to prepare the organism for an optimal response'. Frans de Waal, 'What is an animal emotion?', p. 194.

¹⁷⁵ Lisa Feldman Barrett, *How Emotions Are Made*.

behavioural circuits, resulting in unique ‘fingerprints’ for sadness, say, or anger.¹⁷⁶ Panksepp was a modern proponent of this approach, represented historically by Darwin.¹⁷⁷ For Panksepp ‘the fundamental executive substrates for a large number of affective processes are coded into mammalian brains as a birthright [...]’.¹⁷⁸ Emotion circuits and their corresponding felt states evolved in response to ‘archetypal survival problems’ such as threat, the need to procreate and nurture young, hierarchy and affiliation in social species, and so on.¹⁷⁹ In contrast, Feldman Barrett’s thesis is that emotions are *constructed* (the ‘theory of constructed emotion’, or TCE) wherein interpretation of others’ (and one’s own) emotional states depends on context, prior experience, and other factors.¹⁸⁰ For Feldman Barrett, emotion is real in the way that the sound of a falling tree, ‘the experience of red, and the distinctions between flowers and weeds’, are real: ‘They are all constructed in the brain of a perceiver’.¹⁸¹ Cultural variations in emotional experience and perception, as well as the notion of *emotional granularity*, the ability to finely discriminate nuances of emotion, support her theory.¹⁸² The debate between proponents of CVE and TCE is addressed by de Waal.¹⁸³ He argues that these positions are not incompatible and that problems in reconciling them rest partly on Feldman Barrett’s conflation of emotion and feeling, in contrast to Panksepp and others, who regard them as distinct.¹⁸⁴ Further, there are differences between emotions and the linguistic labels humans apply to the feelings that accompany them. De Waal suggests that while cultural differences exist between different nationalities regarding how they talk about feelings (which supports Feldman Barrett’s thesis), these barriers melt away ‘when it

¹⁷⁶ Ibid. pp. x-xi.

¹⁷⁷ Charles Darwin, *The Expression of Emotion in Man and Animals*; Jaak Panksepp, *Affective Neuroscience*. Frans de Waal pays tribute to Panksepp’s contribution to the study of emotion in *Mama’s Last Hug*, pp. 255-56.

¹⁷⁸ Jaak Panksepp, *Affective Neuroscience*, p. 303.

¹⁷⁹ Ibid. p. 303.

¹⁸⁰ Lisa Feldman Barrett, *How Emotions Are Made*, p. xii-xiv. For a summary of TCE see Eliza Bliss-Moreau, ‘Constructing nonhuman animal emotion’, *Current Opinion in Psychology*, 17 (2017) 184-88.

¹⁸¹ Lisa Feldman Barrett, *How Emotions Are Made*, p. 132.

¹⁸² Ibid. pp. 146-148 (cultural variation); 2-3 (emotional granularity).

¹⁸³ Frans de Waal, *Mama’s Last Hug*, p. 256.

¹⁸⁴ Ibid. p. 256.

comes to our bodies, voices, and faces'.¹⁸⁵ According to de Waal, Panksepp's work begins 'so deeply inside the brain that labeling and linguistic concepts are barely relevant'.¹⁸⁶ De Waal argues that the labels we attach to emotions can obscure commonalities between people and other animals. This does not mean, however, that animals necessarily experience their emotions as humans do. Further, due to the varied physiologies, evolutionary histories and ecologies of different species, animals may experience emotions beyond the human range. As well as recognising continuities, Marc Bekoff argues that we should take account of *differences* in how species, and individuals within species, express and experience emotion.¹⁸⁷ He writes that 'even if joy and grief in dogs are not the same as joy and grief in chimpanzees, elephants, or humans, this does not mean that there is no such thing as dog joy, dog grief, chimpanzee joy, or elephant grief.'¹⁸⁸ Bekoff quotes elephant expert, Joyce Poole who wrote: "While I feel confident that elephants *feel some emotions that we do not*, and vice versa, I also believe that we experience many emotions in common."¹⁸⁹

The potential application of constructivist theories to nonhuman animals is explored by Eliza Bliss-Moreau.¹⁹⁰ She argues that TCE opens up the field, allowing for emotional states in nonhumans that go beyond what is experienced by humans.¹⁹¹ The TCE approach admits the possibility 'that animals may have unique capacities that far surpass our own', that they develop concepts based on species-specific experiences which,

¹⁸⁵ Ibid. p. 258.

¹⁸⁶ Ibid. p. 258.

¹⁸⁷ Marc Bekoff, 'Animal Emotions: Exploring Passionate Natures: Current interdisciplinary research provides compelling evidence that many animals experience such emotions as joy, fear, love, despair, and grief – we are not alone', *BioScience*, 50, 10 (2000) 861-70 p. 868.

¹⁸⁸ Ibid. p. 868.

¹⁸⁹ Joyce Poole, 'An exploration of a commonality between ourselves and elephants', *Etica & Animali*, 9 (1998) 85-110 p. 90, quoted by Marc Bekoff, 'Animal Emotions: Exploring Passionate Natures', p. 864, emphasis added.

¹⁹⁰ Eliza Bliss-Moreau, 'Constructing nonhuman animal emotion'.

¹⁹¹ Ibid. p. 187.

support the emergence of unique emotions that humans do not have. This idea is supported by the fact that many animals inhabit niches unlike those of humans, and thus face evolutionary challenges that humans will never experience. Constructing animal emotion leaves open the possibility that there is a discrete emotion associated with say, sensing the vibrations [of] a dying family member's voice hundreds of miles away (as might be the case for cetaceans and elephants), or an emotion that results from the physiological consequences of a 250 m deep dive that has turned up a favorite food (as may be the case for California sea lions). Constructing emotion recognizes that the human capacity for emotion does not carve nature at its joints, but rather that humans exist as part of a dynamic animal kingdom shaped by changing environments, experience, and evolution's ability to act on variation over time.¹⁹²

Marco Viola has reservations about TCE but acknowledges the value of Bliss-Moreau's approach, particularly its potential to countervail the anthropomorphic tendency to project human emotions onto other species, and its capacity to create space for reflection on 'genuinely non-human emotions [...]'.¹⁹³ Bliss-Moreau's thesis based on TCE also accords with Panksepp's view that despite the existence of affectively valenced emotional circuits, 'there are probably several distinct forms of each of these general types of affective experiences'.¹⁹⁴ Panksepp argues that alongside the evolutionary diversity resulting from species-specific specialisations 'in higher brain areas as well as lower sensory and motor systems', there is also a core of 'basic affective value systems' in evolutionarily older brain regions which are 'conserved across mammalian species'.¹⁹⁵ In summary therefore, both the 'classic view' of basic emotions as 'hard-wired', *and* constructivist approaches affording flexibility and variation within and between species, appear to be complementary.

¹⁹² Ibid. p. 187. Bliss-Moreau echoes Marc Bekoff's position: 'It's bad biology to argue against the existence of animal emotions. It's not important if dog joy or chimpanzee grief isn't the same as human joy or human grief. What is important is to allow that different species may experience their emotions in different ways and that humans shouldn't be the template against which we compare other animals. There's dog joy and dog grief and chimpanzee joy and chimpanzee grief and there are even differences among members of the same species'. Marc Bekoff, 'Animal emotions, wild justice and why they matter', p. 83.

¹⁹³ Marco Viola, 'Commentary: Constructing nonhuman animal emotion', *Frontiers in Psychology*, 8:2070 (2017) 1-2, p. 1.

¹⁹⁴ Jaak Panksepp, *Affective Neuroscience*, p. 303.

¹⁹⁵ Ibid. pp. 303-04.

Bliss-Moreau's interpretation of TCE is congruent with von Uexküll's concept of the *Umwelt*, as well as Frisch's 'magic wells', both of which allow us to slip the moorings of anthropocentrism to envisage a wealth of other sensory, conceptual and affective worlds. Additionally, the related notion of the 'affective niche' includes everything of relevance to an animal's well-being or 'body budget' at a given time, differing across species and individuals.¹⁹⁶ For von Uexküll, seeing animals '*as subjects whose essential activity consists of perceiving and acting*' unlocks

*the gates that lead to other realms [...]. Perceptual and effector worlds together form a closed unit, the Umwelt. These different worlds, which are as manifold as the animals themselves, present to all nature lovers new lands of such wealth and beauty that a walk through them is well worthwhile.*¹⁹⁷

Malay's description of 'seeing poetically', a process entailing 'a peculiar and powerful form of voyaging', bears comparison with von Uexküll's observations.¹⁹⁸

Embodied affect

As previously stated, cognition and emotion are closely entwined and instantiated in the body. The concept of *embodied cognition* describes:

the view that cognitive processes emanate from entire physical organisms and their interactions with the world, rather than just their brains. A particular emphasis of the

¹⁹⁶ Lisa Feldman Barrett, *How Emotions Are Made*, p. 73.

¹⁹⁷ Jakob von Uexküll, 'A Stroll Through the Worlds of Animals and Men', in *Instinctive Behavior: The Development of a Modern Concept*, trans. and ed. by C. H. Schiller (New York: International Universities Press, 1957), quoted in B. E. Rollin, *The Unheeded Cry: Animal Consciousness, Animal Pain and Science* (Oxford: Oxford University Press, 1981) and quoted by Ralph Acampora *Corporal Compassion*, pp. 20-21, emphasis added by Acampora.

¹⁹⁸ Michael Malay, *The Figure of the Animal in Modern and Contemporary Poetry*, p. 3.

embodied cognition movement is on how gross features like body plan and spatial experiences lead to ways of thinking and behaving.¹⁹⁹

Jasanoff illustrates embodied cognition with reference to beavers building a dam. The ‘design’ of a beaver’s body is perfectly suited to dam construction.²⁰⁰ I propose that the term ‘*embodied affect*’ usefully complements ‘embodied cognition’ to describe how an animal’s body and ways of being in the world connect intimately with its emotions and associated feelings. I have opted for the term ‘embodied affect’ to encompass both the physiological and psychological aspects of emotion. Damasio describes affect broadly as ‘the world of emotions and feelings’.²⁰¹ For Damasio, it is an umbrella term, ‘a wide tent under which I place not only all possible feelings but also the situations and mechanisms responsible for producing them, responsible, that is, for producing the actions whose experiences become feelings’.²⁰² Embodied affect dovetails with Bliss-Moreau’s application of TCE to imaginatively extend our understanding of animal emotion beyond the human.

The poetry and science of animal emotion

While this project’s principal focus is poetry, it is informed by science. Hal Whitehead observed that there is no obligation on artists and writers to abide by the constraints of the scientific method.²⁰³ Instead he envisages a reciprocal process whereby artists freely imagine animal worlds, perspectives and feelings, to which scientists might respond with fresh

¹⁹⁹ Alan Jasanoff, *The Biological Mind*, p. 105.

²⁰⁰ Ibid. pp. 105-06. N.B.: my use of the term ‘design’ does not imply any actual ‘design’, intelligent or otherwise; the characteristics of beavers are the product of evolution. For a discussion of the processes underpinning Darwinian evolution, see, for example, Richard Dawkins, *The Blind Watchmaker* (London: Penguin Books Ltd., 1988).

²⁰¹ Antonio Damasio, *The Strange Order of Things*, p. 3.

²⁰² Ibid. p. 100.

²⁰³ Philip Hoare and Hal Whitehead, ‘The Cultural Life of Whales’, *The Observer*, Sun 30 Jan 2011, <https://www.theguardian.com/science/2011/jan/30/whales-philip-hoare-hal-whitehead>, cited by Michael Malay, *The Figure of the Animal in Modern and Contemporary Poetry*, p. 192.

hypotheses which can be further investigated.²⁰⁴ The reciprocity between art and science can also work in the other direction, for example Bliss-Moreau's application of TCE offers a framework for radically imagining animals' emotional lives.

While respecting Whitehead's position, I do not regard it as giving artists *carte blanche* to ignore the constraints of established science. However, while art benefits from a secure anchorage in scientific fact, it is also open to scientists to 'see poetically'.²⁰⁵ A scientist who approaches his work in this way is Marc Bekoff. Bekoff terms his approach 'minding animals' which encapsulates both caring for them and accepting that they are 'minded', reacting 'to the world with awareness and emotion'.²⁰⁶ He describes his practice of 'deep ethology' in the following terms: '[...] as the "seer," I try to become the "seen." When I watch coyotes, I become coyote.'²⁰⁷ He continues:

I [...] try to step into their worlds to discover what it might be like to be a given individual – how they sense their surroundings, how they move about, and how they behave in myriad situations. This isn't just a flight of fancy. These intuitions can sometimes be the fodder for further scientific research and lead to verifiable information, to knowledge.²⁰⁸

Bekoff describes an almost shamanic process of 'becoming animal', the irony being that the human is always already animal.²⁰⁹ The desire to 'become-animal' is observable in children; is a requisite of hunting; essential to shamanic journeying, and, arguably, is vital for naturalists and ethologists. Both Charles Foster and Thomas Thwaites embraced the

²⁰⁴ Ibid. p. 192.

²⁰⁵ Michael Malay, *The Figure of the Animal in Modern and Contemporary Poetry*, p. 3. Elizabeth Bishop, described as the 'writer's writer', was determinedly precise in her observations; Randall Jarrell wrote of her: 'all her poems have written underneath – 'I have seen it''. <https://poetryarchive.org/poet/elizabeth-bishop/>

²⁰⁶ Marc Bekoff, *Rewilding Our Hearts*, p. 6.

²⁰⁷ Ibid. p. 7.

²⁰⁸ Ibid. p. 7.

²⁰⁹ This was demonstrated by Charles Darwin, however resistance to the idea continues. The 'Differential Imperative' encapsulating 'ideas of a human-nonhuman unbridgeable divide', persists – see Eileen Crist, *Abundant Earth: Toward an Ecological Civilization* (Chicago: The University of Chicago Press, 2019) p. 53.

challenges of ‘becoming-animal’, and in both their accounts the physicality of their identification with other animals is central.²¹⁰ As Charles Foster puts it: ‘Evolutionary biology is a numinous statement of the interconnectedness of things – a sort of scientific *advaita*: feel it as well as know it. Feel it to know it properly’.²¹¹ The Australian Aboriginal poet Bill Neidjie expressed this interconnection:

Listen carefully, careful
and this spirit e come in your feeling
and you will feel it . . . anyone that.
I feel it . . . my body same as you.
[...]
no-matter what sort of a animal, bird or snake . . .
*all that animal same like us. Our friend that.*²¹²

Acampora refers to Neidjie’s creative work as giving ‘perceptive witness to a bodily co-presencing (or *Mitsein*) between human, and among all, animals’.²¹³

As previously discussed, Coetzee’s Elizabeth Costello argues that to know what it is like to be a bat, one need only know what it is like to be ‘full of being’.²¹⁴ She suggests that the appropriate term for ‘the experience of full being is *joy*’.²¹⁵ Further, ‘to be full of being is to live as a body-soul’.²¹⁶ The term ‘body-soul’ encapsulates both the physical *and* psychological, suggesting the interpenetration of body and mind. It points to a fully realised life wherein the person, whether human or nonhuman, is enfolded into its ecological and affective niche. Costello’s analysis does not eradicate animal otherness but does suggest there are core shared experiences of being – joyously – alive. Acampora’s concept of symphysis

²¹⁰ Charles Foster, *Being A Beast*, and Thomas Thwaites, *GoatMan*.

²¹¹ Charles Foster, *Being A Beast*, p. 20.

²¹² Bill Neidjie *Story About Feeling*, ed. by Keith Taylor (Broome, Western Australia: Magabala Books, 2007) p. 19, emphasis added. Note: ‘E; e’ means ‘he, she or it’, p. 176.

²¹³ Ralph Acampora, *Corporal Compassion*, p. 20.

²¹⁴ J. M. Coetzee, *The Lives of Animals*, p. 33, and earlier, p. 63.

²¹⁵ *Ibid.* p. 33.

²¹⁶ *Ibid.* p. 33.

captures a capacity to tune into shared bodiment. Symphysis relates closely to Moe's zoopoetics, a key feature of which is the capacity to pay close attention.²¹⁷ Embodied affect encompasses the ways in which felt emotional states are in-corporated; as such, the psychological aspects of emotional experience cannot be disentangled from its physicality. Research on human emotion has identified the ways various emotions map onto the body.²¹⁸ It is reasonable to suggest this also obtains for animals of varied morphologies and physiologies, shared between species in accordance with evolutionary continuity, and also species-specific, as proposed by Bliss-Moreau.²¹⁹

While we can never know what another animal feels, multiple ways are available to engage poetically – and respectfully – with more-than-human sentience. A position encompassing Acampora's symphysical interconnection through shared bodiment; the evolutionary continuities between species; the critical anthropomorphism of de Waal and others; an appreciation of the whole unique animal (including morphology, sensory capacities and interests) within its environmental context, and an openness to thinking through alterity, as offered for example, by TCE, is consistent with Despret's additive empiricism.²²⁰

Coming alive to the realisation that we live in a world imbued with non-human presence facilitates our connection with the more-than-human. Poetry, a medium particularly suited to exploring and expressing emotional states, can play a part in this.

²¹⁷ Aaron Moe, *Zoopoetics: Animals and the Making of Poetry* (Lanham, Maryland: Lexington Books, 2014) p. 24.

²¹⁸ Frans de Waal, *Mama's Last Hug*, pp. 256-57.

²¹⁹ Eliza Bliss-Moreau, 'Constructing nonhuman animal emotion'.

²²⁰ Bruno Latour, 'Foreword: The Scientific Fables of an Empirical La Fontaine', in Vinciane Despret, *What Would Animals Say If We Asked the Right Questions?* (Minneapolis, Minnesota: University of Minnesota Press, 2016) p. ix.

The poetic enactment of animal emotion

The following poems were selected because they all engage with animal emotion and are variously relevant to this chapter's themes. Some focus on animal joy, others on suffering. Some suggest emotional states beyond the human, such as the joy of flight, allowing us to imaginatively, if incompletely, connect with such experiences. The majority resist placing labels on the affective states they depict. Rather, they enact, through symphical engagement, the lived emotional experiences of animals.

A sense of embodied vital joy weaves through Murray's 'Presence' collection. Malay observes that the poems are 'stamped with a Catholic affirmation of life, especially clear in the repetition of the word 'presence' [...].'²²¹ Noting Murray's repeated use of the word 'sprung', recalling Gerard Manley Hopkins' 'sprung rhythm', Malay observes: 'In this world things are continually disclosing their inscape, selving themselves in ways particular only to them'.²²²

'Inscap' and 'instress' were terms coined by Hopkins.²²³ Inscap 'constitutes the rich and revealing 'oneness' of the natural object', while instress refers to the energy or 'unifying force' within a living thing, giving rise to its particular inscape.²²⁴ W. H. Gardner put it thus: 'Instress, then, is often the *sensation* of inscape – a quasi-mystical illumination, a sudden perception of that deeper pattern, order, and unity which gives meaning to external forms, [...]'.²²⁵ For Hopkins, inscape's beauty was often 'unknown and buried away from simple

²²¹ Michael Malay, *The Figure of the Animal in Modern and Contemporary Poetry*, p. 182.

²²² *Ibid.* p. 183.

²²³ W. H. Gardner, 'Introduction' to Gerard Manley Hopkins, *Poems and Prose*, selected and edited by W. H. Gardner, (Harmondsworth: Penguin Books Ltd., 1967) xiii-xxxvi p. xx.

²²⁴ *Ibid.* pp. xx (inscape) & xxi (instress).

²²⁵ *Ibid.* p. xxi.

people’ and yet if only ‘they had eyes to see it’ it would be readily discernible.²²⁶ Perception of Hopkins’ inscape seems to demand a particular kind of seeing or attention, akin to the open, relational sharing of a ‘somaesthetic nexus’ inherent to symphysis, and to Moe’s zoopoetics, where the mind stretches towards the other.²²⁷

Murray’s ‘Cattle Egret’ evokes vitality.²²⁸ The poem takes the egrets’ perspective. Cattle, ‘Our sleep-slow compeers’, stir up insects: ‘whirring lives / shoal up, splintering, in skitters and dives’. Egrets catch

those crisps of winnow, fats of air,
the pick of chirrup – we haggle them down
full of plea, fizz, cark and stridulation,

The insects are sparky in their liveliness and resistance, and their electric being feeds the egrets’ life-joy:

but life feeds our life: fight is flavour,
stinging a spice. Bodies still electric play for
my crop’s gravel jitterbug.

The egrets are contrasted with ‘lives that eat things dead’, and the final line emphasises the energetic immediacy of birds who only dimly imagine that ‘Somewhere may be creatures that grow old’. The compressed sonnet form of ‘Cattle Egret’ embodies the energy of its subject matter, while an irregular meter suggests the fizzing unpredictability of the disturbed insects on which the egrets feed. There is a contrast between the slow-moving cattle, and the swift-rising bugs and the birds’ ‘quick beaks’. A shift from first person plural to first person

²²⁶ These observations are from Hopkins’ Journal, quoted by W. H. Gardner in his Introduction to Gerard Manley Hopkins, *Poems and Prose*, p. xxi.

²²⁷ Ralph Acampora, *Corporal Compassion*, p. 76 (somaesthetic nexus; symphysis), and Aaron Moe, *Zoopoetics*, p. 25 (zoopoetics).

²²⁸ Les Murray, ‘Cattle Egret’, in ‘Presence: Translations from the Natural World’, *Translations from the Natural World* (Manchester: Carcanet Press Limited, 1993) 13–54 p. 27.

singular in line twelve further narrows and concentrates the poem's energy. The phrase, 'I cross with sprung tread', invokes the tumbling energy of Hopkins' sonnets, barely contained by the form's discipline. In 'Cattle Egrets' Murray connects symphysically with the birds' embodied affect. Poetic devices such as assonance, for example, 'wade in their grazing', 'crisps of winnow' and 'pick of chirrup', and consonance: 'quick beaks', enact the egrets' ways of being.²²⁹ A slangy exuberance in Murray's language: 'cark', Australian vernacular for 'die', and 'scads' ('many'), enhances these effects.²³⁰ Murray does not tell us of the egret's joy in living, rather we experience it through the poem's creatureliness. Murray's poem extends 'deep into the lives of animals, giving voice and body to the most private realms of otherness'.²³¹ At the same time his attention to the egrets' bodily poesis mediated through symphysis, provides the human reader with a shared, if partial, insight into the animal other.

Murray's 'Pigs' begins with the line 'Us all on sore cement was we', directly conveying the pain and discomfort of a rough, comfortless surface.²³² This opening also sets the earthy tone of the poem, sprinkled with Anglo-Saxon inflected language – 'farrow-shit', 'god-shit', 'Us all fuckers then', and 'gutsed him wet'. The first line suggests domestication, even factory farming; animal lives regulated by human intervention. The pronouns 'us' and 'we' highlight pigs' sociable nature. The pigs look back to a wilder life. Instead of 'glutting mush', 'We ate crisp'. The sensuous pleasures of such a life are evident: 'We nosed up good rank in the tunnelled bush'; 'Us shoved down the soft cement of rivers. / Us snored the earth hollow,

²²⁹ Scott Knickerbocker, *Ecopoetics: The Language of Nature, the Nature of Language* (Amherst, Massachusetts: University of Massachusetts Press, 2012) p. 13.

²³⁰ Tom Dalzell and Terry Victor, eds., *The New Partridge Dictionary of Slang and Unconventional English: Vol II J-Z* (London and New York: Taylor and Francis, 2006) p. 396 (cark); p. 186 (scads).
https://www.google.co.uk/books/edition/The_New_Partridge_Dictionary_of_Slang_an/mAdUqLrKw4YC?hl

²³¹ Michael Malay, *The Figure of the Animal in Modern and Contemporary Poetry*, p. 163.

²³² Les Murray, 'Pigs', in 'Presence', p. 36.

filled farrow, grunted'. The final four lines, in contrast, invoke the horrors of slaughter, involving violence, electrocution and the fearful sounds of terrified others 'up ahead':

Us never knowed like slitting nor hose-biff then.
Not the terrible sheet-cutting screams up ahead.
The burnt water kicking. This gone-already feeling
here in no place with our heads on upside down.

In 'the terrible sheet-cutting screams' Murray conflates the squealing of frightened pigs with the metallic screech of mechanical cutters or saws. These final lines invoke the phenomenon of 'emotional contagion', a capacity demonstrated in many social species.²³³ Pigs and other animals respond to smells and the cries of their fellow creatures with fear and physiological changes associated with stress.²³⁴ Murray does not tell us of the pigs' fear, rather, he enacts it.

'The Fish' by Elizabeth Bishop has been the subject of much scholarly attention.²³⁵ My focus here is on the poem's engagement with pain, suffering, vulnerability and resistance. Bishop's poem begins with a violent intrusion into an animal's life. The fish is held

beside the boat
half out of water, with my hook
fast in a corner of his mouth.

This act of capture, after which the fish hangs from the line epitomising vulnerability, facilitates the narrator's close inspection resulting in the beautiful, detailed description comprising much of the poem. The reader's appreciation of Bishop's art depends on the

²³³ For a definition and discussion of 'emotional contagion', see Frans de Waal, *Mama's Last Hug*, p. 97. For a review of emotional contagion studies, see Ana Pérez-Manrique and Antoni Gomila, 'Emotional contagion in nonhuman animals: A review', *WIREs Cognitive Science* (2021) e1560 1-26
<https://onlinelibrary.wiley.com/doi/epdf/10.1002/wcs.1560>

²³⁴ See, for example, Inonge Reimerta, Stephanie Fonga, T. Bas Rodenburga and J. Elizabeth Bolhuis, 'Emotional states and emotional contagion in pigs after exposure to a positive and negative treatment', *Applied Animal Behaviour Science* 193 (2017) 37-42.

²³⁵ Elizabeth Bishop, 'The Fish', in *Complete Poems* (London: Chatto & Windus, 2004) pp. 42-44.

fish's lost liberty; arguably, by engaging with Bishop's poem, readers are complicit in a cruel act.²³⁶

Dinesh Wadiwel's discussion of fish suffering focuses on their *resistance*, exploring whether resistance facilitates the reframing of 'human violence towards sea animals, and whether it offers different tools for advocacy'.²³⁷ He draws on Foucault's understanding of resistance 'as always in relation to power [...]; power describes the existence of contestation'.²³⁸ Bishop's fish is oddly passive:

He didn't fight
He hadn't fought at all.
He hung a grunting weight,

This lack of resistance subverts the purpose of angling, functioning symbolically as refusal to engage.²³⁹ Wadiwel discusses the technologies involved in fishing and other animal use, many of which were developed in response to animals' resisting human exploitation.²⁴⁰ Hooks used in recreational fishing are an exception, designed as they are to maximise struggle.²⁴¹ For example, 'circle hooks' cause the 'hook to slide toward the point of resistance and embed itself into the jaw or in the corner of the fish's mouth', increasing the likelihood that fish will fight more vigorously than if the hook sticks in the gut.²⁴² In the poem the hook lodges in the fish's mouth, yet the fish does not struggle. Bishop's account of the poem's origin suggests this description is accurate. She wrote,

²³⁶ For a discussion of the literal and cultural capture of animals, 'taken captive through the violence of representation and in reality, [...]', see Melissa Boyde, ed., *Captured: The Animal Within Culture* (Basingstoke, Hampshire: Palgrave Macmillan, 2014), p. 3.

²³⁷ Dinesh Joseph Wadiwel, 'Do Fish Resist?', p. 201.

²³⁸ Michel Foucault, *The History of Sexuality Volume 1: The Will to Knowledge* (London: Penguin Books, 1998) p, 93, quoted by Dinesh Joseph Wadiwel, 'Do Fish Resist?', p. 201.

²³⁹ Dinesh Joseph Wadiwel, 'Do Fish Resist?', p. 215.

²⁴⁰ *Ibid.* p. 211.

²⁴¹ *Ibid.* p. 215.

²⁴² *Ibid.* p. 215.

[T]hat's exactly how it happened. It was in Key West and I did catch it just as the poem says. That was in 1938. Oh, but I did change one thing: the poem says he had five hooks hanging from his mouth, but actually he had only three. Sometimes a poem makes its own demands. But I always try [?] to stick as much as possible to what really happened when I describe something in a poem.²⁴³

Bishop later identified the fish as a 'jewfish', now known as the goliath grouper.²⁴⁴ According to Phillip Marcus these fish, which can weigh at least 600 pounds, 'typically put up little resistance compared to marlin, tuna [...]' and other species.²⁴⁵ Resistance allows anglers to frame encounters as battles where one or other 'protagonist' is eventually victorious.²⁴⁶ The absence of resistance exposes the fish's figurative and literal vulnerability, while subverting the angler's sport – a different sort of resistance.

There is no question here as to whether the fish feels pain. A 'five-haired beard of wisdom' trails 'from his aching jaw'. Through a detailed description of the hooks lodged in the fish's lower lip and 'grown firmly in his mouth', the reader experiences *symphysically* what this might feel like; the fish's suffering is literally embodied. The acute pain of a freshly embedded hook ('my hook / fast in a corner of his mouth'), contrasts with the dull ache of old injuries. The reader does not imagine intellectually what this might be like, she experiences it. Jonathan Ellis explores the visceral nature of Bishop's poetic practice, referring, for example, to her 'physical response to memory'.²⁴⁷ He relates this 'to what Bishop was trying

²⁴³ Brett Millier, *Elizabeth Bishop: Life and the Memory of It* (Berkeley: University of California Press, 1993) p. 196, quoted by Phillip L. Marcus, "'I Knew That Underneath Mr. H and I Were Really a Lot Alike": Reading Hemingway's *The Old Man and the Sea* with Elizabeth Bishop's "The Fish"', *The Hemingway Review*, 33, 1 (2013) 27-43, pp. 28-29.

²⁴⁴ *Ibid.* p. 29.

²⁴⁵ *Ibid.* p. 29.

²⁴⁶ For example, Ernest Hemingway, *The Old Man and the Sea* (New York: Scribner ebook edition, 2002, first published in 1952). 'The Fish', published in 1946, predates the publication of *The Old Man and the Sea* by six years.

²⁴⁷ Jonathan Ellis, *Art and Memory in the Work of Elizabeth Bishop* (Aldershot, Hampshire: Ashgate Publishing Limited, 2006) p. 58.

to ‘get into poetry’ from an early point in her career’, and quotes, by way of illustration, a letter written by Bishop in 1934:

Have you ever noticed that you can often learn more about other people – more about how they feel, how it would feel to be them – by hearing them cough or make one of the innumerable inner noises, than by watching them for hours? Sometimes if another person hiccups, particularly if you haven’t been paying much attention to him, why you get a sudden sensation as if you were inside him [...] that’s what I quite often want to get into poetry...²⁴⁸

Bishop’s account bears a striking similarity to Acampora’s symphysis experienced through a shared ‘somaesthetic nexus’.²⁴⁹ For Ellis,

Bishop focuses not so much on the literal experience being described as on the ‘sensation’ it evokes. She conveys emotion through a synaesthesia that combines the visual memory of past events with their tastes, tremors, sounds and even silences. It is precisely in these tonal slips that the imagination of space gives way to memory.²⁵⁰

‘The Fish’, in its visceral enactment of pain and suffering, exemplifies this, while illustrating the idea of embodied affect.

Simone Weil’s assertion regarding vulnerability’s inherent beauty as ‘a mark of existence’, is also relevant here.²⁵¹ The fish hooked on a line embodies vulnerability, affording Bishop’s exquisitely attentive examination which results in the poem’s unflinching beauty. Existence is also very much at stake here as ultimately the fish’s life and liberty are in human hands.

²⁴⁸ Elizabeth Bishop, letter to ‘To Donald E. Stanford’, March 5, 1934, in *One Art: The Selected Letters*, ed. and intro. by Robert Giroux (London: Pimlico, 1996) p. 18, quoted by Jonathan Ellis, *Art and Memory in the Work of Elizabeth Bishop*, pp. 58-59.

²⁴⁹ Ralph Acampora, *Corporal Compassion*, p. 76.

²⁵⁰ Jonathan Ellis, *Art and Memory in the Work of Elizabeth Bishop*, p. 59.

²⁵¹ Simone Weil, *Simone Weil, Gravity and Grace*, trans. by Emma Crawford and Mario von der Ruhr (London: Routledge, 2004) p. 108,

https://mercaba.org/SANLUIS/Filosofia/autores/Contempor%C3%A1nea/Weil%20%28Simone%29/Gravity%20and%20Grace.pdf?hc_location=ufi ; quoted by Anat Pick, *Creaturely Poetics*, p. 3, and Sarah Bouttier, ‘Creaturely Texts, Texts on Creatures’, p. 112. See earlier, p. 54.

Near the end of the poem, from the lines: ‘I stared and stared / and victory filled up / the little rented boat’, Bishop focuses on the human world of technology: ‘oil’, ‘engine’, ‘oarlocks’ and ‘gunnels’. To a 21st century reader, versed in the concept of the Anthropocene, these lines with their hints of damage and decay (‘rusted engine’, ‘rusted orange’, ‘sun-cracked thwarts’) suggest pollution and human interference in nature. In ‘The Last Animal’ Bishop’s environmental sensibility anticipates today’s concerns.²⁵² Here her use of the word ‘victory’ is challenging – is it the angler’s victory in catching such a fish or the fish’s victory in having repeatedly eluded capture, albeit with an array of hooks ‘grown firmly in his mouth’? Even when freed the fish cannot escape human impact. Or perhaps this is a different sort of victory, a refusal to engage? Through the fish’s lack of resistance, the nature of the angler’s sport is both subverted and exposed.

In the end, ‘everything / was rainbow, rainbow, rainbow!’. Rainbows are natural phenomena, yet this rainbow emanates from polluting spilled oil. Rainbows prevail in the penultimate line as if nature itself prevails, even in its entanglement with technology – and perhaps this is the ultimate victory of which Bishop writes. The poem ends: ‘And I let the fish go’. This might signify respect for nature or an act of compassion; however, it is also the case that the poem is predicated on human intrusion into nonhuman nature. The poem’s narrative is framed by our species’ dominance of the natural world; the fish’s freedom is in the gift of the human captor. Power matters in this poem. It appears to lie with the human and yet nature prevails in the rainbows and the implacable fish. Ultimately the narrator’s position is precarious and tenuous, all at sea in a ‘little rented boat’. The poem portrays a *shared* vulnerability between

²⁵² Elizabeth Bishop, ‘The Last Animal’, in Lloyd Schwartz ed., *Elizabeth Bishop: Prose* (London: Chatto & Windus, 2011) pp. 475-79.

humans and nonhumans. Humans do not own the Earth and are not separate from nature; we are literally and figuratively all in the same boat.

‘Bowland Beth’ by David Harsent is part paean to an individual hen harrier, part elegy for her death, emphasised by the repeated, rhetorical use of the word ‘That’ which begins each sentence.²⁵³ The poem evokes the harrier’s flight, invoking both her quiet joy and the reciprocal response of the human observer: ‘That her low drift over heather quartering home ground / might bring anyone to tears’. For Coetzee’s Costello, to know what it is like to be another animal one needs only to understand what it is to be ‘full of being’, and it is this quality Harsent conveys. The opening line, ‘That she made shapes in air’, suggests the bird revels in the artistry of accomplished flight. Harsent attends to the bird’s bodily poesis – she is, explicitly, a maker. His language is restrained, respectful of the bird’s alterity while hinting at commonalities with the human. For example, ‘the music of her slipstream’ invokes both human music – and poetry – and universal notions of harmony, rhythm, and timing which any being in tune with its environment must master. The invocation of ‘music’ economically allows the bird’s imagined experience to be translated into language accessible to readers, exemplifying what Malay terms ‘translation by analogy’.²⁵⁴

Moe addresses issues of agency and instinct in his discussion of the ‘*kairotic* moment’, the skilful judgment which athletes, predators or play partners deploy in deciding *when* to make a move.²⁵⁵ He characterises this knowledge as ‘*instinctual intuition*’ in both human and nonhuman animals but argues that this terminology should not be taken to deny the actor’s agency – the ‘runner has conscious intention’.²⁵⁶ He argues that ‘Kinaesthetic agency – the

²⁵³ David Harsent, ‘Bowland Beth’ in *Fire Songs* (London: Faber & Faber Ltd., 2014) p. 8.

²⁵⁴ Michael Malay, *The Figure of the Animal in Modern and Contemporary Poetry*, p. 164.

²⁵⁵ Aaron Moe, *Zoopoetics*, p. 19.

²⁵⁶ *Ibid.* pp. 19-20.

agency to navigate the *kairotic* moment in the space-time continuum – provides a foundation for other facets of agency’.²⁵⁷ The hen harrier knows the precise moment to tip a wing or dip her tail. Timing is everything; the bird plays the air, as the air plays on the bird. She is perfectly enfolded physically and emotionally into her environment, exemplifying both embodied affect and cognition, while the poet engages symphysically with her through what Kenneth Shapiro termed ‘kinaesthetic empathy’.²⁵⁸

The lines, ‘That her only dream was of flight forgotten / moment by moment as she dreamed it’, suggests what in humans is known as a ‘flow’ state.²⁵⁹ Conscious awareness of skilled performance is an impediment; instead, through a combination of repeated practice and innate capacity, performance appears effortless, unfolding moment-to-moment below the level of conscious direction. In animals this is often termed ‘instinct’; however, we do not refer to the skills of concert violinists or accomplished free climbers as instinctive. Moe, in his discussion of the *kairotic* moment, troubles ‘the shallow understanding of “instinct”’, specifically challenging the notion that it is ‘mindless’.²⁶⁰

Harsent avoids simplistic anthropomorphism. For example, in the line, ‘That weather was a kind of rapture’, he refrains from stating that the bird is enraptured by the weather, instead bird and weather intertwine, the harrier reacting to gusts and thermals in a dance of mutual engagement. Harsent writes empathically from the hen harrier’s imagined perspective, for example in the line, ‘That she saw the world as pattern and light’; however, he does not stray into unwarranted speculation about her viewpoint. That ‘Bowland Beth’ is a predator is not

²⁵⁷ Ibid. p. 20.

²⁵⁸ Kenneth Joel Shapiro, ‘Understanding Dogs Through Kinesthetic Empathy, Social Construction, and History’, *Anthrozoös*, 3, 3, 184-95, quoted by Ralph Acampora, *Corporal Compassion*, p. 77.

²⁵⁹ For a discussion of the automatization of skilled performance, and ‘flow’ states, see David Eagleman, *The Brain: The Story of You*, pp. 76-84.

²⁶⁰ Aaron Moe, *Zoopoetics*, p. 19.

sidestepped but Harsent's quiet language ('That she would open her prey in all innocence / there being nothing of anger and sorrow in it') emphasises the dispassionate nature of hunting to survive. In the final four stanzas Harsent shifts into another register. Beyond the bird is the hunter to whom her 'name is meaningless'. The hunter is faceless and nameless, their presence indicated only by the word 'gunshot', and its consequences – 'a judder' and the bird's ongoing flight until 'she bled out'. The hunter's blank indifference to the bird's meaning and beauty represents humanity's cold detachment from nature.

Rosemary Badcoe's poem, 'My Arguments', addresses the question of consciousness in cephalopods, an issue increasingly engaging scientists' attention.²⁶¹ The poem begins with an acknowledgment that however persuasively the narrator argues the case for cephalopod sentience, this 'won't prevent you from slicing and frying', exemplifying the cognitive dissonance associated with animal suffering.²⁶² The poem is intensely visceral, the narrator, watching

[...] as your fingers cram stuffing,
wonder[s] how you're not seeing the resemblance
of you to that squid –

The poem engages sympathetically with the creature, its '[...] boneless / writhing hastening escape'. The blurred boundary between human and squid is heightened in the final lines: 'I write you a note, and like the squid / use the ink to depart'. Badcoe pays attention to the squid's bodily poiesis; the squid makes its inky mark, as does the poet.

²⁶¹ Rosemary Badcoe, 'My Arguments', in *Drawing a Diagram* (American Fork, Utah: Kelsay Books, 2017) p. 34. For a discussion of cephalopod sentience see Peter Godfrey-Smith, *Other Minds*, and Sy Montgomery, *The Soul of an Octopus* (London: Simon and Schuster UK Ltd., 2015).

²⁶² Marc Bekoff, *Rewilding Our Hearts*, p. 53.

Zoo, jointly authored by John Kinsella and Coral Hull, explores the intersection and interaction of humans and animals across several spheres.²⁶³ Many of the poems focus on animal incarceration, particularly the ways in which zoo and circus animals are psychologically maimed by captivity.²⁶⁴ The collection comprises seventy-three poems varying in form and length. While the collection interrogates various facets of the relationship between humans and nonhumans my focus here will be on Kinsella and Hull's evocation of zoo animals' suffering.

Randy Malamud states that: 'The spectator does not see a zebra in a zoo – a zebra is something that exists on an African plain, not in an urban North American animal collection'.²⁶⁵ Animals cannot be properly understood except as whole living beings within their evolutionary environmental context. For Kenneth Shapiro an animal's natural habitat is not simply its home but the "substance of his or her species identification".²⁶⁶ One of the many problems associated with zoos is that abstracting animals from their natural settings – narrowing and distorting their affective and ecological niches – radically diminishes them. For Boyce Rensberger, "an animal in a zoo is not a whole animal... Every animal's existence is more than just flesh and blood contained within its skin; it is this, plus its natural environment, the two linked in a dynamic equilibrium".²⁶⁷ Rensberger's observations encompass both embodied affect and embodied cognition. As Acampora states:

²⁶³ John Kinsella and Coral Hull, *Zoo* (Sydney, NSW: Paper Bark Press, Australian Humanities Research Foundation, AHRF, 2000).

²⁶⁴ Laurel Braitman, *Animal Madness*, pp. 131-43.

²⁶⁵ Randy Malamud, *Reading Zoos: Representations of Animals and Captivity* (New York: New York University Press, 1998) p. 2.

²⁶⁶ Kenneth Joel Shapiro, 'The Death of the Animal: Ontological Vulnerability', *Between the Species: A Journal of Ethics* 5 (Fall, 1989) 183-93, quoted by Ralph Acampora, *Corporal Compassion*, p. 104.

²⁶⁷ Boyce Rensburger, *The Cult of the Wild* (Garden City, N.Y.: Anchor, 1977) p. 258, quoted by Randy Malamud, *Reading Zoos*, p. 3.

ex-hibiting an animal not only renders it homeless, but also – consequently – disembodies that creature of its world-flesh identity. This deconstruction of incarnate worldhood is given testimony by the encaged animal’s chronically bored monotony of bodily behavior; broadly stated, the distinctive way in which a particular animal lives her species-identity is existentially flattened out into conduct becoming of generic animality. Speciated individuality of living bodiment disappears from such a scene. An absence of this kind, for the moral vision of symphysical attunement, is to be deemed an ethical deficit.²⁶⁸

Zoos are metonymic for dominionist human-animal relationships.²⁶⁹ The perceived marginality and malleability of animals is addressed by Malamud who states that:

Our cognitive attempts to imagine and experience animals are, in the main, inaccurate: riven with the prejudices consequent upon our fierce determination to live inside the box we have constructed for ourselves and to reify the boundaries that separate us from the animal-other.²⁷⁰

As Malamud makes plain it is not only animals who are imprisoned by our ‘unwilding’.²⁷¹ Encountering captive animals paradoxically erodes our ancestral relationship with them, estranging us from our biological kin and the more-than-human world.

‘Taronga Park Zoo In Sydney’ is a prose poem functioning like a virtual tour of a zoo’s exhibits.²⁷² It begins: ‘The grizzly bear searches for wild honey in a rock’, invoking the behaviour of omnivorous wild bears. But while the bear’s enclosure might be furnished with a rock or facsimile rock, the presence of ‘wild honey’ seems improbable. The zoo context suggests the bear’s foraging is a fruitless stereotyped behaviour:

The slightly crazy
sway was checking out his cage front. He had that desperate painted
look of a dog bothered by heat.

²⁶⁸ Ralph Acampora, *Corporal Compassion*, p. 104.

²⁶⁹ Jim Mason, *An Unnatural Order*, p. 255.

²⁷⁰ Randy Malamud, *Poetic Animals and Animal Souls*, p. 5.

²⁷¹ See, for example, Marc Bekoff, *Rewilding Our Hearts*; George Monbiot, *Feral: Rewilding the land, sea and human life* (London: Penguin Books Ltd., 2014).

²⁷² John Kinsella and Coral Hull, ‘Taronga Park Zoo In Sydney’, in *Zoo*, pp. 12-13.

It is unclear how the animal came to be in captivity, however there are hints he was captured in the wild:

A billion black flies from a Canadian
Rocky summer, had entered his ears with their deep hum. This time of
the year was a bad life for the bear. A swarm streamed out from the
huge angry hive of his head.

These lines suggest disorientation, dislocation and rage – the bear’s head buzzes with hallucinatory flies displaced from the Rockies and confused with swarming bees. The poem evokes an animal deranged by confinement: ‘His old face was bitten by boredom and / stress. The brain of the bear is corrupted meat’. This vision of an animal maddened by heat and loss of freedom is created through layering and displacement; his brain is the ‘corrupted meat’ he perhaps must also eat; he is tormented by real or imagined flies or bees and confined to a cage instead of roaming an extensive territory. Zoo visitors experience something unwholesome and unedifying, ultimately frustrating biophilic needs for animal encounter. We may be drawn to zoos because of our ‘biophilic need [...] for interspecies animal encounters’, but this need may go largely unmet.²⁷³ Acampora suggests that ‘we are led either toward animal indifference and human disappointment or toward animal mistrust and human pity’.²⁷⁴ Kinsella and Hull engage sympathetically with the bear. Their attentive poetic engagement facilitates the reader’s encounter with a tormented, heat-struck creature.

In line nineteen ‘Two white tigers [asleep] inside an aquarium filled with light’ are introduced. That this is real, that Hull, the presumed narrator of the poem bears witness to the zoo alongside Kinsella, is implied by the lines:

²⁷³ Ralph Acampora, *Corporal Compassion*, p. 112.

²⁷⁴ *Ibid.* p. 108.

John said, “did you see her breath drawing the grass blade in and out?” His little finger bent like a stem. The sorrow was escaping the great sleep of the tiger.

Although wild tigers do sleep for around eighteen to twenty hours per day, these tigers seem to evade their reality through unconsciousness:

There is no wind to carry the tiger across her hunting landscapes. There is a sleeping tiger who must wake up, as a big cat in a glass tank.

John Berger wrote: ‘nowhere in a zoo can a stranger encounter the look of an animal. At the most, the animal’s gaze flickers and passes on. They look sideways. They look blindly beyond. They scan mechanically. They have been immunised to encounter [...]’.²⁷⁵ Here the tigers in their exposed tank withdraw their engagement. That the tiger is alive is only apparent through the delicacy of her breath. Berger’s observation is also illustrated by the poem ‘Bronx Zoo: wildlife will escape the zoo’, in which the zoo animal seems to dissociate:

the thing that was confined behind the bars was the physical body, it was what the animal had left behind, the best that the animal could do, was to float above its desire that had become a cell within a cell,²⁷⁶

Similarly, in ‘Fox In A Cage At The Zoo’, the narrator, a small girl, ‘confronted with this living red miracle’ is,

intent upon
making contact. Yet the red fox would have none of it. All the tantrums of my small plump legs couldn’t get that fox to stop and look.²⁷⁷

²⁷⁵ John Berger, *Why Look at Animals?* p. 37, quoted by Ralph Acampora, *Corporal Compassion*, p. 108.

²⁷⁶ John Kinsella and Coral Hull, ‘Bronx Zoo: wildlife will escape the zoo’, in *Zoo*, p. 29.

²⁷⁷ John Kinsella and Coral Hull, ‘Fox In A Cage At The Zoo’, in *Zoo*, p. 25.

The fox's 'eyes shone like rich liquor, unfocused and timeless, captured like an insect in amber'. Acampora argues that the 'typical zoo precludes most, if not all, forms of symphysical relationship'.²⁷⁸ Where symphysical connection does occur it is disquieting:

The ignorant crowds form the living bars, that keep me from the animal hearts. I'm breathing on the glass house of the deaf, their psyches locked onto the flesh of my throat.²⁷⁹

The shared embodiment of animal and (attentive) spectator is felt viscerally as a strangled cry; the experience of bearing witness literally sticks in the throat.

The next animal in 'Taronga Park Zoo' is the Australian sea lion, housed 'In a different / tank', her plight also consequent on confinement, her natural behaviours thwarted. Unlike the dissociated tigers her response borders on the manic, constructing

amazing
passageways like children using plastic track to zoom their matchbox cars along. She laid down her smooth grey freeways inside a watery space the size of a lift. A tragic optimist who came up to the front of the tank to check out humans.

The reader feels her frantic attempts to evade her situation through ceaseless stereotyped activity.

The poem culminates in the plight of the condor. The narrator states: 'I knew that he ['John'] would not forgive them for the / Andes Condor'. 'John's' reaction is visceral:

"It's a bird that SOARS in high altitudes!" he said,
words rising up inside his throat. The choke of tethered emotions,
and the damp finality of wings that would never meet clouds.

²⁷⁸ Ralph Acampora, *Corporal Compassion*, p. 108.

²⁷⁹ John Kinsella and Coral Hull, 'Taronga Park Zoo In Sydney', in *Zoo*, pp. 12-13.

The reader experiences this choking grief and the impotence of useless protest at the ‘tremendous, lonesome’ bird’s pitiful situation as it ‘sat hunched behind layers of mesh and / pipes, a wire cage six foot above its head’. Here, empathetic imagination is ‘enlisted to enhance the awareness of sentient, cognitive, ethical, and emotional *affinities between people and animals*, [...]’.²⁸⁰ Acampora’s symphysis brings an additional dimension; despite obvious differences between humans and birds, empathy is physically mediated through a shared bodily comprehension of confinement.

‘How Lydia Finally Makes Us Happy’ addresses the plight of an elderly female elephant who spends her days giving rides to children, ‘the miserable old spec- / tacle’.²⁸¹ William Johnson observes that elephants ‘are the very hallmark of the circus, the awesome size of the animal making its submission to *homo (sic) sapiens* a curious and compelling paradox’.²⁸² The poem describes the suffering involved both in ‘training’ the elephant and in her performance of this role.²⁸³ For example, ‘Elephants used in such enter- / tainment are violently trained, requiring enough beating and depriva- / tion to break their spirits’.²⁸⁴ The poem contrasts the terrible suffering of Lydia with a thin kind of human happiness, likened to ‘a blue balloon’ or a ‘silly paper / flower’. It lays out the elephant’s tormented life, the implicit question threading through the poem is ‘for what’? For example:

The tired legs that cannot speak as they
ache, the concrete in her psyche a pressure valve. We knew that as we
grew up and chose our life paths, that her torment and submission of
elephants in general, would be the thing to finally make us happy.

²⁸⁰ Randy Malamud, *Poetic Animals and Animal Souls*, p. 9, and earlier, p. 62.

²⁸¹ John Kinsella and Coral Hull, ‘How Lydia Finally Makes Us Happy’, in *Zoo*, pp. 16-17.

²⁸² William Johnson, *The Rose-Tinted Menagerie*, p. 57.

²⁸³ *Ibid.* p. 58.

²⁸⁴ John Kinsella and Coral Hull, ‘How Lydia Finally Makes Us Happy’, lines 5-7.

The juxtaposition of the elephant's plight with assertions that the narrator is 'not / just happy, I am finally happy', and that, 'As long as we are happy, it has all been worth it', demonstrates the exact opposite – not only is Lydia's suffering monstrous, its contribution to human happiness, the nature of which is questioned here, is specious. The shallowness of entertainments devised to amuse humans is contrasted with the natural life of elephants: 'You were just an elephant who / wanted to be quiet and bathe with your herd at the waterhole'. In later lines Lydia is addressed directly:

It

builds up inside you, Lydia. You are an old mother who has outgrown her children, growing weary beneath them. Inside a volcano is smouldering, whilst humanity reaches for more happiness, the silly paper flower.

and,

The faces of the crowds that attend these sad spectacles are lost to the worlds you inhabit, and now you are lost too, Lydia. You are insane, a killer of other elephants and can teach them nothing. The amusement park is bored behind the scenes.

That Lydia can teach her conspecifics 'nothing' alludes ironically to the role of matriarchs in elephant society. The matriarch amasses extensive knowledge and experience regarding territory, waterholes, food sources and other elephants.²⁸⁵ The poem's tone evokes suppressed rage, conveyed directly through Lydia's pitiful life, and indirectly through ironising human happiness. Through this the reader experiences Lydia's volcanic anger and the outrage that 'the power of elephants / is sacrificed for this'.

The opening line of 'The Zoo Ark' references the animated series *South Park*.²⁸⁶ The line 'Oh my god, they've killed Kenny!' was repeated each episode, and referred to the routinised

²⁸⁵ Carl Safina, *Beyond Words: What Animals Think and Feel* (New York: Henry Holt and Company, LLC, 2015) pp. 39-40.

²⁸⁶ John Kinsella and Coral Hull, 'The Zoo Ark', in *Zoo*, pp. 18-24.

death of one of the characters, effected through various outlandish means. The repeated demise and resurrection of Kenny was both comic and sinister, trivialising death. The ‘Kenny’ line occurs three times in the poem in a throwaway manner, suggesting careless management of zoo animals, and their disposability. For example, ‘four cheetah cubs died after ingesting a deadly chemical / commonly found in anti-freeze’. And,

“There’s going to be mistakes, but hopefully we will learn.”
He said, “they like to eat antifreeze because it’s nice and sweet,
we try not to give it to them normally.”

There are several other repeated lines including, ‘A tiger urinated after being shouted at’; ‘Scientists found it exciting but worrisome’, and ‘It’s something different,’ said Debbie Zuchelli, / who sat in the front row yesterday with her two children’. These repetitions evoke the hysterical boredom of captivity; zoo animals in their cramped enclosures repeatedly encounter barriers, as the reader encounters the repeated lines that cage the text. Many lines are a single sentence, blunt and factual, as if lifted from a report. For example: ‘Captives choke, plastic straws lodged in their throats’, and ‘There was not a hint of grass to be seen’. In these ways the poem’s form confronts readers experientially with the zoo’s brutal realities.

The title, ‘The Zoo Ark’, refers to the contested claim that zoos play a role in education and the conservation of endangered animals. Frans de Waal, for example, referring to Arnhem’s Burgers Zoo, argues that because wild populations of apes are ‘currently in sharp decline’, flourishing captive populations are ‘all the more valuable’.²⁸⁷ While de Waal’s position cannot be dismissed out of hand, it is an indictment of *Homo sapiens* that animals’ true homes are increasingly lost or places of peril. Scepticism regarding such arguments, as expressed in the poem, is clear:

²⁸⁷ Frans de Waal, *Mama’s Last Hug*, p. 20.

In Noah's Ark the flood was a disaster but only a temporary one.
There is no sign of regaining the destroyed habitat now.
This zoo is an Ark that will be afloat forever.

Acampora is similarly unconvinced by the 'whole salvific tone of zoo rhetoric'.²⁸⁸

The dream of the most "progressive" zoological conservators is to return future generations of their presently endangered keep into the circumstance of wilderness, "to take them back to the wild at some future, more relaxed and more enlightened time." Geopolitically, however, the near-term prospects for economic relaxation and ethical enlightenment are not very encouraging.²⁸⁹

For Acampora, the answer to mass extinction can only be '(human) self-limitation'.²⁹⁰

'The Zoo Ark' also addresses 'enrichment', from toys and apparatus to stage-managed 'hunts', as well as attempts to create more naturalistic environments. These, however, in their limitation and artificiality, are pitifully inadequate compared to animals' natural behavioural repertoires and habitats.²⁹¹ As Braitman observes: 'Environment matters. It is the backdrop upon which our lives are lived; we both form and are formed by it. When you are a captive animal living in a circumscribed space, it takes on even more importance'.²⁹² Absurdly, at a new orang-outang facility at Taronga Park Zoo 'funded by millions of public donations',

the orang-outangs are in fact separated
from 'their' rainforest by a water barrier
and the trees are 'hot-wired'
to prevent them from climbing at all.²⁹³

²⁸⁸ Ralph Acampora, *Corporal Compassion*, p. 106.

²⁸⁹ Ibid. p. 106. Acampora quotes Colin Tudge, *Last Animals at the Zoo: How Mass Extinction Can Be Stopped* (Washington, D.C.: Island Press, 1992) p. 255.

²⁹⁰ Ibid. p. 106.

²⁹¹ Ibid. p. 104-05.

²⁹² Laurel Braitman, *Animal Madness*, p. 133.

²⁹³ John Kinsella and Coral Hull, 'The Zoo Ark', in *Zoo*, pp. 18-24.

The poem plays with the upbeat, jokey language zoos employ to entice and entertain, to confect a thrilling sense of peril, and to veil the realities. The illusion constructed is that visitors, staff and even the animals themselves are complicit in, and co-creators of, the zoo experience. For example:

This afternoon, The Affection Section –
where you get to touch a baby goat but pay attention,
or you could become part of an elephant’s footprint!

To conclude, ‘The Zoo Ark’, both poem and institution, is, like its biblical equivalent, an inescapable vessel containing multiple animals; however, instead of zoos offering protection, the poem elucidates a catalogue of horrors. *Zoo*, in its totality, is an indictment of human treatment of nonhumans. It is also a work of art. The final poem, ‘The Zoo Poet’, reflects on what it is to be ‘a zoo poet’ and what ‘a zoo poem’ is.²⁹⁴ The poet lays bare her vulnerability by revealing uncertainty. Taken as a whole, this collection exposes and embraces the fragility we share with nonhumans. ‘The Zoo Poet’ grapples with the ethical issues involved in writing such a collection. For example:

Or should I write,
These animals are reduced
For zoos, poetry &
Our entertainment.

And:

Zoo poet,
You should lock yourself up,
With the crazy bears
Or the poor old lions,
That were forced to be
Your captive audience.

²⁹⁴ John Kinsella and Coral Hull, ‘The Zoo Poet’, in *Zoo*, pp. 154-59.

Animal confinement is at the heart of *Zoo*. This final poem confronts the fact that poetry can be another form of capture, as noted by Melissa Boyde.²⁹⁵ I would argue, however, that the poems in *Zoo* primarily enact rather than representing, not only the vulnerabilities of animals but our shared vulnerability. Through their openness to animal suffering these poems confront us with terrible realities, engaging our compassion.

Denise Levertov's poem 'The Cat as Cat' also addresses themes of literary capture, cross-species connection and conviviality, and the incontrovertible fact of animal otherness.²⁹⁶ In the opening stanza she places an extravagantly defamiliarizing metaphor between two phrases which invoke the familiar trope of cats being *both* affectionate lovers of comfort *and* predators:

The cat on my bosom
sleeping and purring
– fur-petalled chrysanthemum,
squirrel-killer –

Levertov's confounding metaphor unsettles our expectations of the cat; he is more than he seems and essentially unknowable. The second stanza begins with an awkward enjambment, the cat

is a metaphor only if I
force him to be one,
looking too long into his pale, fond,
dilating, contracting eyes

There is a touch of rueful humour here; anyone who knows cats recognises that they are not easily forced to do anything; the poet looking 'too long' into his eyes, whose 'dilating' and 'contracting' rhythmically echo the 'flex and reflex of claws' in stanza four, might be

²⁹⁵ Melissa Boyde, ed., *Captured*, p. 3.

²⁹⁶ Denise Levertov, 'The Cat as Cat', in *The Sorrow Dance* (New York: New Directions Books, 1966) p. 40.

‘capturing’ the cat in a poem, but he remains aloof, neither consenting nor resisting. That his eyes

[...] reject mirrors, refuse
to observe what bides
stockstill.

while apparently factual statements, have a deeper resonance; in rejecting mirrors the cat also rejects the mirror of metaphor, and is uninterested in the poem, to him, perhaps, a ‘stockstill’ artefact. Nevertheless, cat and narrator share a ‘cross-species conviviality’, both intimate and reliant on trust; the rhythmic flexion of the cat’s ‘gently’ kneading claws, ‘gently sustains their own tune, / not mine. I-Thou, cat, I-Thou’.

The repetition of ‘gently’ invokes the cat’s rhythmic kneading, also mirrored in the repetition of ‘I-Thou’. This phrase underscores the idea that the cat, whilst entering into a relationship of interconnection, does so according to his own ‘tune’, and does not conform to the (poetic) tune of the narrator. Inter-specific separateness *and* conviviality, together with the courtesy and delicacy of Levertov’s recognition of this, is echoed by Barry Lopez in his account of an association with feral wolves:

The appreciation of the separate realities enjoyed by other organisms is not only no threat to our own reality, but the root of a fundamental joy. I learned from River that I was a human being and that he was a wolf and that we were different. I valued him as a creature, but *he did not have to be what I imagined he was*. It is with this freedom from dogma, I think, that the meaning of the words “the celebration of life” becomes clear.²⁹⁷

²⁹⁷ Barry Holstun Lopez, *Of Wolves and Men* (New York: Charles Scribner’s Sons, 1978) p. 285, quoted by Ralph Acampora, *Corporal Compassion*, p. 90, emphasis added by Acampora.

In using the term ‘I-Thou’, Levertov recalls Martin Buber’s conceptualisation of ‘I-Thou’ as distinct from ‘I-It’ relationships, the former characterised by his assertion that: ‘All real living is meeting’.²⁹⁸ Here the cat is met ‘as cat’, unencumbered by human expectation.

Conclusion

This chapter addresses the subject of animal emotion and its poetic enactment. Animal emotion is, amongst other things, an ethical matter. However, while the recognition of nonhuman sentience has ethical implications it should not be the only criterion we apply when taking a compassionate stance towards the natural world of which we are a part and on which we depend. Our capacity for empathy must also extend beyond the bounds of those with whom we readily share a symphyical connection. As Acampora makes plain, this connection is important but not sufficient.²⁹⁹

In addressing the questions posed at the start of this chapter I have focused on the shared vulnerability and bodiment of living things, and particularly the role that Acampora’s concept of symphysis plays in creating compassionate connections with our fellow creatures. I have also drawn on the insights of science which offer various ways in which to explore animal emotion, including a framework for imagining emotional states in animals that differ radically from human experience.³⁰⁰ Scientific approaches to the subject are not without their difficulties; while many scientists accept animal sentience, others deny or downplay it. Crist suggests that these inconsistencies rest on: ‘A tension [which] is built into the pursuit of knowledge about animal life, for it is heir to both the Cartesian verdict of an unbridgeable

²⁹⁸ Martin Buber, *I And Thou*, trans. by Ronald Gregor Smith (Edinburgh: T. & T. Clark, 1958) p. 11; see earlier, p. 13.

²⁹⁹ Ralph Acampora, *Corporal Compassion*, p. 91.

³⁰⁰ Eliza Bliss-Moreau, ‘Constructing nonhuman animal emotion’.

gap between humans and animals and the Darwinian affirmation of evolutionary continuity'.³⁰¹ The concept of symphysis is, by definition, dependent on evolutionary continuity. Symphysis also assists poets and readers to navigate, albeit imperfectly, the fine ethical line between 'speaking for' animals, potentially an act of dominance and subjugation, and 'speaking with' them, from a position of shared bodiment.

A passage from George Eliot, quoted by Michael Malay, suggests that both challenges and risks are inherent in 'cross-species conviviality' with the more-than-human:

If we had a keen vision and feeling of all ordinary human life, it would be like hearing the grass grow and the squirrel's heart beat, and we should die of that roar which lies on the other side of silence.³⁰²

At this point in history however, the risk lies less in being overwhelmed by 'the roar', but in being deaf to it. The destruction of nature suggests that we have stopped listening, resulting in damage to both the human psyche and the natural world. Eliot continues: 'As it is, the quickest of us walk about well wadded with stupidity', a prescient-seeming observation if applied to our present condition of largely ignoring nature.³⁰³

What role can poetry play in our 'rewilding', in the forging of new connections with nature? Coetzee's Elizabeth Costello contends that poets 'return the living, electric being to language'.³⁰⁴ I would argue that the poets surveyed in this chapter connect readers viscerally with the emotional experiences of animals through poetic enactment of animal sentience.

³⁰¹ Eileen Crist, *Images of Animals*, p. 1.

³⁰² George Eliot, *Middlemarch* (Oxford: Oxford University Press, 2008) p. 182, quoted by Michael Malay, *The Figure of the Animal in Modern and Contemporary Poetry*, p. 1.

³⁰³ George Eliot, *Middlemarch*, p. 182.

³⁰⁴ J. M. Coetzee, *The Lives of Animals*, p. 65.

This begs a question, however: what are the qualities inherent in poetry that facilitate this?

One response involves poetry's 'creatureliness'. I conclude with a passage by Les Murray which captures the way in which poetry engages us sympathetically, enacting the viscerality of emotional experience:

If a poem is real, it is inexhaustible; it cannot be summarized or transposed into other words. Something intrinsic in it inhibits us from doing so, and makes us feel silly and frustrated if we try. It is marked by a strange simultaneity of stillness and racing excitement. Our mind wants to hurry on and have more and more of it, but at the same time it is held by an awe which yearns to prolong the moment and experience it as timeless. We only half-notice, consciously, that our breathing has tightened and altered, submitting to commands from beyond ourselves. It shifts in and out of this sympathetic obedience as the experience oscillates within us, coming and going in its successive small peaks of intensity. We may say that the poem is dancing us to its rhythm, even as we sit apparently still, reading it. *It is, discreetly, borrowing our body to embody itself.*³⁰⁵

Each of the poems discussed in this chapter have this quality of co-opting readers' capacity for visceral engagement, to feel-with the emotionality of other animals.

³⁰⁵ Les Murray, 'Embodiment and Incarnation', in *The Paperbark Tree: Selected Prose* (London: Minerva, 1993) 251-69, pp. 258-59, emphasis added.

Chapter 3

The nature of language, the language of nature - poetic enactments of animal communication

– *living things do all talk, I say, but they don't talk human language, or always speak with their mouth.* Les Murray¹

My starting point is that animals have language. Eva Meijer²

It is the animate earth that speaks; human speech is but a part of that vaster discourse. David Abram³

This final chapter explores Murray's assertion that 'living things do all talk'; investigates some of the myriad ways in which living beings communicate and considers how animal communication might be enacted through poetry. In examining Murray's claim I draw on the work of scientists who argue that information, and therefore communication, are fundamental and defining properties of life, from the simplest unicellular organism to the most complex plants and animals.⁴ The theme of embodiment also continues through exploration of the concept of embodied communication, questioning the notion that language is a distinguishing characteristic of the human, and re-positioning it as part of the vast discourse of earthly life. All communicative modalities vary in form and complexity, human language being no exception, therefore this chapter also explores how human language, the medium of poetry, compares and contrasts with communication in the more-than-human world. For example, is human language evolutionarily continuous with the 'talk' of other living things or does it, as some would argue, represent an abyssal difference between *Homo sapiens* and nonhuman species? These are salient questions given how language is often used, shibboleth-like, to

¹ Peter F. Alexander, *Les Murray: A Life in Progress* (South Melbourne, Victoria: Oxford University Press, 2000) p. 244.

² Eva Meijer, *Animal Languages: The Secret Conversations of the Living World*, trans. by Laura Watkinson (London: John Murray, 2019) p. 12.

³ David Abram, *The Spell of the Sensuous*, (New York: Vintage Books, 1997) p. 179, cited by Scott Knickerbocker, *Ecopoetics: The Language of Nature, the Nature of Language* (Amherst, Massachusetts: University of Massachusetts Press, 2012) p. 3.

⁴ Paul Davies, *The Demon in the Machine: How hidden webs of information are solving the mystery of life* (London: Allen Lane, 2019).

mark out humans as radically different from ‘animals’.⁵ Eileen Crist notes that humans’ taken-for-granted assumption of human-animal difference and human superiority ‘has fueled our self-importance and propped our thoughtless and destructive relationship with the natural world’.⁶ Poignantly, while human recognition of the complexity of life in all its marvellous variety grows apace, our shared world is being rapidly depleted. Despite our increased understanding of nonhuman sentience, the ‘Differential Imperative – the axiomatic status of human distinction [...]’, persists.⁷ As Crist argues, assumptions regarding human superiority over other life-forms, and a sense of entitlement to use them as we wish, are ‘only dimly perceived, if not completely undetected’, and therefore ‘difficult to dislodge from the human mind’, compared to overtly held beliefs, amenable to critical scrutiny.⁸

In a seminal paper exploring the evolutionary origins of human language, Marc Hauser, Noam Chomsky and W. Tecumseh Fitch pose the following question: ‘Why did humans, but no other animal, take the power of recursion to create an open-ended and limitless system of communication?’⁹ While recent research indicates that a capacity for recursion is not confined to humans, it appears to be the case that human language is unusually productive relative to other forms of animal communication.¹⁰ Frans de Waal, for example, argues that human language, as a flexible, symbolic communication system, is unique in the animal

⁵ Martin Heidegger, for example, regarded language as ‘the key separation between humans and animals, [and ...] central to the capacity to know, understand, and rationally interact with the world’, Margo DeMello, ed., *Speaking for Animals: Animal Autobiographical Writing* (New York: Routledge, 2015) p. 5.

⁶ Eileen Crist, *Images of Animals: Anthropomorphism and Animal Mind* (Philadelphia: Temple University Press, 2000) p. 222.

⁷ Eileen Crist, *Abundant Earth: Toward an Ecological Civilization* (Chicago: The University of Chicago Press, 2019) p. 74.

⁸ *Ibid.* p. 46.

⁹ Marc D. Hauser, Noam Chomsky and W. Tecumseh Fitch, ‘The Faculty of Language: What Is It, Who Has It, and How Did It Evolve?’, *Science*, New Series, 298, 5598 (2002) 1569-79 p. 1578.

¹⁰ David Shariatmadari, *Don’t Believe a Word: The Surprising Truth About Language* (London: Weidenfeld & Nicolson, 2019) p. 125 (productivity of human language). However, as Eva Meijer notes, there is evidence of recursion in some nonhuman animals, and the question of its occurrence in animal languages remains open. Eva Meijer, *Animal Languages*, p. 169.

kingdom, but points out that this does not mean other animals cannot also have complex communication systems.¹¹ David Shariatmadari celebrates human language as a ‘wheeling, dazzling display with a life of its own’.¹² He argues that animals lack ‘the higher efflorescences of communication in all their beautiful variety’.¹³ I would argue that it might be premature to make such a bold statement, given how little we understand about language in the more-than-human world. Second, celebrations of human linguistic virtuosity are jarring in light of the ecological collapse we continue to perpetrate. E. O. Wilson makes the sobering observation that: ‘If all mankind were to disappear, the world would regenerate back to the rich state of equilibrium that existed ten thousand years ago. If insects were to vanish, the environment would collapse into chaos’.¹⁴ All that humans achieve through their language skills comes to naught on a degraded planet. It is moreover the case, that while language augments human thought by facilitating categorisation and concept formation, ‘it is not the stuff of thought’.¹⁵ Pre-verbal children can think, as can ‘non-verbal organisms’.¹⁶ And, quite often, as Frans de Waal makes clear, words fail us.¹⁷

While humans are no more ‘special’ than any other species, insofar as being exceptional in nature is unexceptional, it is undeniable that only humans, primarily due to their linguistic abilities, have been able to ‘redecorate nature’ to an unprecedented degree, with calamitous consequences for other species, ecosystems, and ultimately themselves.¹⁸ A fundamental tenet

¹¹ Frans de Waal, ‘Animal Kingdom’, *Scientist*, 28 Apr 2016, <https://www.52-insights.com/frans-de-waal-animal-kingdom-science/>

¹² David Shariatmadari, *Don’t Believe a Word*, pp. 126-27.

¹³ *Ibid.* p. 127.

¹⁴ Edward O. Wilson, https://www.brainyquote.com/quotes/e_o_wilson_176373, quoted by Marc Bekoff, ed., *Ignoring Nature No More: The Case for Conservation* (Chicago: The University of Chicago Press, 2013) p. xxi.

¹⁵ Frans de Waal, *Are We Smart Enough to Know How Smart Animals Are?* (London: W.W. Norton & Company, Ltd., 2016) p. 102.

¹⁶ *Ibid.* p.102. De Waal quotes Jerry Fodor, *The Language of Thought* (New York: Crowell, 1975) p. 56 (‘non-verbal organisms’).

¹⁷ *Ibid.* p.101.

¹⁸ Marc Bekoff, *Ignoring Nature No More*, p. xix.

of compassionate conservation is ‘First do no harm’.¹⁹ To achieve this we must be open to the diverse communications of other living things, listening to and heeding their agendas.²⁰ Kate Rigby, discussing Martin Heidegger’s view that humans speak things ‘as it were, into Being’, argues instead that ‘we need poets not so much to draw things into Being through their song, *but rather to draw us forth into the polyphonic song of our nonhuman earth others*’.²¹

Drawing on recent developments in animal communication/language studies I will argue that while human language is exceptional, the differences between human and other types of communication are of degree rather than of kind, while communicative forms are evolutionarily connected within the living world.²² Further, as Rigby notes, it is an anthropocentric conceit to regard language as ‘an exclusively human prerogative’.²³ Rigby quotes Robert Corrington who argued that the “‘human process actualizes semiotic processes that it did not make and that it did not shape. Our cultural codes, no matter how sophisticated and multi-valued, are what they are by riding on the back of this self-recording nature’”.²⁴ Echoing David Abram I start from the premise that human language is just one element in the polyphonic discourse of earthly life.²⁵

¹⁹ Marc Bekoff, ‘Conservation and Compassion: First Do No Harm’, *New Scientist*, September 1 (2010) 24-25, cited by Bekoff, *Ignoring Nature No More*, p. xxi.

²⁰ Marc Bekoff and Jessica Pierce, *The Animals’ Agenda: Freedom, Compassion and Coexistence in the Human Age* (Boston, Massachusetts: Beacon Press, 2017).

²¹ Kate Rigby, ‘Earth, World, Text: On the (Im)possibility of Ecopoiesis’, *New Literary History* 35, 3 (2004) 427-42 pp. 433 & 434.

²² While I assume evolutionary connectedness, some modes of communication may have arisen through the process of convergent evolution, for example, communication through colour displays in cuttlefish. Convergence or convergent evolution is defined as ‘The increasing resemblance over time of distinct evolutionary lineages, in one or perhaps several phenotypic respects, increasing their *phenetic* similarity but generally without associated genetic convergence. [...]’, M. Thain and M. Hickman, *The Penguin Dictionary of Biology, Eleventh Edition* (London: Penguin Books, 2004) p. 174.

²³ Kate Rigby, ‘Earth, World, Text’, p. 434.

²⁴ Robert S. Corrington, *Ecstatic Naturalism: Signs of the World* (Bloomington: Indiana University Press, 1994) p. ix, quoted by Kate Rigby, ‘Earth, World, Text’, p. 434.

²⁵ David Abram, *The Spell of the Sensuous*, p. 179.

The challenge of studying language

In exploring human and nonhuman language and communication it should be borne in mind that studying language is challenging. One cannot step outside the frame of language; thinking about language takes place *in* language.²⁶ One result of this is that the perceived hard boundaries between human ‘language’ and animal ‘communication’ are consequent on how humans define these terms, despite being unjustified in the light of evolutionary principles and accumulating evidence.²⁷ A further problem is that linguistic ability is associated with intelligence, the term ‘dumb animal’ being doubly derogatory. Shariatmadari notes that ‘language and intelligence are so strongly linked in our imaginations [...] that sometimes we forget they aren’t necessarily the same thing’.²⁸ Eva Meijer makes the point that ‘In biology, intelligence is now understood as the ability to deal with species-specific challenges’.²⁹ In his book *Intelligence in the Flesh*, Guy Claxton argues that intelligence is not something that brains confer on lumps of flesh, rather intelligence is embodied: ‘I am smart precisely because I am a body. I don’t own it or inhabit it; from it, I arise’.³⁰ These principles apply to all living things and render meaningless *hierarchical* cross-species comparisons between nonhumans and humans regarding language, cognitive abilities and other traits.³¹ Further, it is, as Jacques Derrida observed, vacuous to lump ‘animals’ into one category.³² This seems even more absurd if one considers the evolutionary distance between spiders and whales which is far greater than that between elephants and whales, or either of these and a human. Inevitably, however, when humans are making the comparisons, human characteristics,

²⁶ Eva Meijer, *Animal Languages*, p. 6.

²⁷ *Ibid.* p. 88.

²⁸ David Shariatmadari, *Don’t Believe a Word*, p. 108.

²⁹ Eva Meijer, *Animal Languages*, p. 3.

³⁰ Guy Claxton, *Intelligence in the Flesh: Why your mind needs your body much more than it thinks* (New Haven and London: Yale University Press, 2016) p. 3.

³¹ Frans de Waal, *Are We Smart Enough to Know How Smart Animals Are?* p. 3.

³² Jacques Derrida, *The Animal That Therefore I Am*, ed. by Marie-Louise Mallet, trans. by David Wills (New York: Fordham University Press, 2008) p. 32.

including language, are the standard against which all others are measured.³³ Failing to take account of other species because they express themselves differently to humans is discriminatory, a manifestation of speciesism.³⁴ Similarly humans, as ‘large-brained, forward-planning, self-aware, numerate, linguistically gifted animals, [...] have a tendency to view each of these attributes as an unalloyed good[...].’³⁵ Louise Barrett regards this as both anthropomorphic and anthropocentric, implying that human-like qualities are universally beneficial (they aren’t) while blinding us to a proper appreciation of other species-specific adaptations.³⁶ She further notes that the remarkable abilities of many animals are achieved ‘with brains the size of a pinhead’.³⁷

George Lakoff and Mark Turner offer a means to make sense of humans’ habitually exceptionalist stance.³⁸ Of particular relevance is the ‘Great Chain of Being’ metaphor which persists as a ‘contemporary unconscious cultural model indispensable to our understanding of ourselves, our world and our language’.³⁹ This metaphor places humans at the top of a notional ladder of existence with animals below humans but above plants.⁴⁰ While scientifically and philosophically incoherent, it nevertheless persists, permitting human exploitation of the nonhuman world.⁴¹ Christopher Peterson invokes the Freudian notion of the ‘narcissism of minor differences’, arguing that we seek to distinguish ourselves from

³³ Frans de Waal, *Are We Smart Enough to Know How Smart Animals Are*, p. 275. Of course, if other animals were to make similar comparisons humans would be found wanting. In any event, ‘ranking cognition on a single dimension is a pointless exercise. Cognitive evolution is marked by many peaks of specialization’ and depends on each species’ ecology. *Ibid.* p. 12.

³⁴ Eva Meijer, *Animal Languages*, p. 13.

³⁵ Louise Barrett, *Beyond the Brain: How Body and Environment Shape Animal and Human Minds* (Woodstock, Oxfordshire: Princeton University Press, 2011) pp. 3-4.

³⁶ *Ibid.* p. 4.

³⁷ *Ibid.* p. 40.

³⁸ George Lakoff and Mark Turner, *More Than Cool Reason: A Field Guide to Poetic Metaphor* (Chicago: The University of Chicago Press, 1989) pp. 166-69.

³⁹ *Ibid.* p. 167.

⁴⁰ *Ibid.* p. 167.

⁴¹ Eileen Crist, *Abundant Earth*, p. 56.

those we most closely resemble, for example non-human primates, amplifying small differences in order to stand apart.⁴² While addressing the consequences of human hubris which has spawned ‘a general indifference to the myriad of nonhuman beings and entities that share “our” world’, Peterson also highlights the impossibility of sidelining the human.⁴³ For example, in the same way that the earth is *experienced* as the centre of the universe, Peterson suggests that ‘the human is likewise quasi-immobile insofar as it conditions all attempts to think what is other to it’.⁴⁴ Remaining mindful of this inexorable pull towards anthropocentrism is necessary in order to resist it, to maintain a properly decentred, non-hierarchical position relative to other species and ecosystems. Moreover, to challenge human destructiveness, we must face who we are, including those doubly valenced characteristics, such as linguistic prowess, which have enabled both our exploitation of the planet and our varied cultures including literature and poetry. Rigby makes a similar point:

An acknowledgement of the centrality of the human actant, however contingent, contextualized and decentered she might be in herself, is also a necessary condition for there to be such a thing as literature, as commonly understood, along with almost all other kinds of artistic endeavor.⁴⁵

My purpose here is not to disparage or downplay human language but instead to open up a space in which the languages of other life-forms can be afforded equal respect and attention.

⁴² Sigmund Freud, ‘The Taboo of Virginity’, in *On Sexuality: Three Essays on the Theory of Sexuality, and Other Works*, The Pelican Freud Library, Volume 7, trans. and ed. by Angela Richards (Harmondsworth, Middlesex: Penguin Books Ltd., 1977) 265-83 p. 272, cited by Christopher Peterson, *Monkey Trouble: The Scandal of Posthumanism* (New York: Fordham University Press, 2018) see p. 2.

⁴³ Christopher Peterson, *Monkey Trouble*, p. 2.

⁴⁴ *Ibid.* p. 4.

⁴⁵ Kate Rigby, ‘Earth, World, Text’, p. 427.

'Under the Net'

The slippery relationship between words and what they signify is discussed by Shariatmadari.⁴⁶ Concepts, he argues, 'are not naturally occurring, like apples'; rather, 'Words divide an analogue world into digital chunks'.⁴⁷ Referring to Iris Murdoch's novel, *Under the Net*, Shariatmadari describes Murdoch's character, the philosopher Hugo Belfounder, as viewing language as 'a kind of net over the world of experience [...]'.⁴⁸ Murdoch herself drew on Wittgenstein, specifically his insight that 'The meaning of a word is its use in the language'.⁴⁹ As Shariatmadari shows, languages evolve and the etymology of words need not determine their meanings in perpetuity.⁵⁰ Further, language can shape our understanding in ways that may obscure as well as reveal.⁵¹ Eileen Crist argues that language has the power to 'cast a dark net over the world'.⁵² For example, when fish are termed 'fisheries', human exploitation of the oceans is taken for granted: 'A universe of life fades and a facade of fisheries reigns'.⁵³

⁴⁶ David Shariatmadari, *Don't Believe a Word*, p. 52. Shariatmadari devotes a chapter to the relationship between words and what they signify. Titled – ironically – 'A word's origin is its true meaning', he argues that this is an 'etymological fallacy'; David Shariatmadari, *Don't Believe a Word*, pp. 41-70, p. 44.

⁴⁷ Ibid. p. 49. This approach can be usefully compared to the theory of constructed emotion (TCE), introduced in the previous chapter. See, Lisa Feldman Barrett, *How Emotions Are Made: The Secret Life of the Brain* (London: Macmillan, 2017).

⁴⁸ Iris Murdoch, *Under the Net*, (London: Vintage Classics, 2002, first published, 1954) p. 98, cited by David Shariatmadari, *Don't Believe a Word*, p. 52.

⁴⁹ David Shariatmadari, *Don't Believe a Word*, pp. 53 & 54.

⁵⁰ Ibid. p. 44.

⁵¹ Iain McGilchrist, *The Master and his Emissary: The Divided Brain and the Making of the Western World* (New Haven and London: Yale University Press, 2010) p. 72. An example of this is the removal of 'nature' words from the *Oxford Junior Dictionary*, as discussed by Robert Macfarlane. He argues that a 'basic literacy of landscape is falling away up and down the ages', with the loss of 'something precious: a kind of word magic, the power that certain terms possess to enchant our relations with nature and place', Robert Macfarlane, *Landmarks* (London: Hamish Hamilton, 2015) pp. 3-4.

⁵² Eileen Crist, *Abundant Earth: Toward an Ecological Civilization* (Chicago: The University of Chicago Press, 2019) p. 239.

⁵³ Ibid. p. 239.

According to Stanley Cavell ‘We begin to feel, or ought to, terrified that maybe language (and understanding and knowledge) rests upon very shaky foundations – a thin net over an abyss’.⁵⁴ While potentially unnerving, this insight also opens up space for humility, wonder and the exhilarating possibility that there are other perspectives, other ways of construing the world beyond the human. Poetry is an artform particularly suited to exploring alternative perspectives, including those beyond the human, for example, through its capacity, albeit imperfect, to capture that which lies beyond language, in language. Poetic language, through defamiliarization and other effects, creates ambiguity and disrupts expectation thereby dislodging us from well-worn habits of thought. This unsettled openness is as important in science as it is in art.⁵⁵ Malay summarises Les Murray’s view of poetry as reconciling ‘thought and dream, judgement and imagination, making of apparent opposites a synthetic unity’.⁵⁶ Murray stated that he was out to ‘destroy the Enlightenment’ in order to ‘find something bigger than it’.⁵⁷ He regarded the Enlightenment as ‘one-dimensional’, having put ‘all its eggs in the basket of the waking consciousness’.⁵⁸ Echoing Iain McGilchrist, Murray’s critique of the Enlightenment targets reductionist rationality shorn from imagination, emotion, intuition, metaphor and creative ambiguity.⁵⁹

In a similar vein to Cavell, Murray wrote, with poetic concision, that ‘Everything except language / knows the meaning of existence’.⁶⁰ This implies that human language, remarkable

⁵⁴ Stanley Cavell, *The Claim of Reason: Wittgenstein, Skepticism, Morality, and Tragedy* (Oxford: Oxford University Press, 1979) p. 178, quoted by Cary Wolfe, ‘In the Shadow of Wittgenstein’s Lion’, in *Zoontologies: The Question of the Animal*, ed. by Cary Wolfe (Minneapolis: University of Minnesota Press, 2003) 1-57 p. 4.

⁵⁵ See, for example, Lisa Otty and Andrew Michael Roberts, ‘“Dim-conceived glories of the brain”: On Ambiguity in Literature and Science’. *Culture, Theory and Critique*, 54, 1 (2013) 37-55 pp. 48-49.

⁵⁶ Michael Malay, *The Figure of the Animal in Modern and Contemporary Poetry* (Cham, Switzerland: Springer Nature, 2018) p. 169.

⁵⁷ Barbara Williams, ‘An Interview with Les A. Murray’, *Westerly*, 2 (1992) 45-56 p. 53. See earlier, p. 47.

⁵⁸ *Ibid.* pp. 52-53.

⁵⁹ Iain McGilchrist, *The Master and his Emissary*.

⁶⁰ Les Murray, ‘The Meaning of Existence’ in *Poems the Size of Photographs* (Manchester: Carcanet Press Limited, 2002) p. 101.

as it is, can be limited and limiting, representing existence rather than embodying it. Murray's 'everything' includes 'Trees, planets, rivers, time' and,

Even this fool of a body
lives it in part, and would
have full dignity within it
but for the ignorant freedom
of my talking mind.⁶¹

Existence, understood here as living fully in the body, sensing, and experiencing the whole body's intelligent engagement with its environment, goes beyond language. It is to live in the 'full dignity' of presence. The chatter of the 'talking mind' impedes a fully realised appreciation of existence. Werner Senn identifies one of Murray's 'enduring concerns' as 'the role that language plays in the division of man from himself, from nature, and from transcendence'.⁶²

Further, that which cannot be caught in the net of human language may carry a profound emotional and spiritual significance, transcending words.⁶³ Iain McGilchrist quotes V. S. Rotenberg and V. V. Arshavsky on the power of gesture compared to 'long monologue', the former being superior, 'Not because our speech is not accurate enough. Just the contrary. It is precisely its accuracy and definiteness that make speech unsuited to expressing what is too complex, changeful and ambiguous'.⁶⁴ A poem by Patrick Daly, titled 'Words', conveys how human language can outshine other perspectives.⁶⁵ The poem begins:

I know that when the words are clear and bright

⁶¹ Ibid. p. 101.

⁶² Werner Senn, 'Les Murray', in *A Companion to Australian Literature since 1900*, ed. by Nicholas Birns and Rebecca McNeer (Woodbridge, Suffolk: Camden House, 2010) 269-80 p. 269.

⁶³ This is beautifully expressed by the novelist Hisham Matar in an article titled, 'Our capacity to understand without words is amazing', *The Guardian*, G2, 16.12.19. Published online as 'How to be hopeful: Hisham Matar on the surprising lessons of silence', Tue 17 Dec 2019.
<https://www.theguardian.com/lifeandstyle/2019/dec/17/hisham-matar-surprising-lessons-silence-hopeful>

⁶⁴ Iain McGilchrist, *The Master and his Emissary*, p. 72.

⁶⁵ Patrick Daly, 'Words', *New Statesman*, 5-11 June 2015, p. 47.

<https://www.newstatesman.com/culture/2015/06/words-poem-patrick-daly>

nothing else is, as the milk of street lamps
dims out the stars, but I can only keep echoing my own footsteps
longing for brightness, for streets lit by the stars alone, dark and shining.

Here the poet longs for deeper truths beyond the constraints imposed by words, however brilliant they might be. Looking beyond human language we discover a wealth of more-than-human modes of communicating and conceptualising the world. It is this that Murray enacts in his 'Presence' poems through the medium of human language and poetic form. Daly's poem evokes what might lie beyond human language, yet without language, this poem could not exist.⁶⁶ Thinking through the limits of human language neither denigrates nor dismisses it, for, as Knickerbocker makes clear, it is a human trait to '[weave] word to world'.⁶⁷ But, while human language is important, so are other kinds of communication including body language and gesture as well as non-human talk in all its forms. Murray employed his considerable grasp of language(s) and the playful possibilities of poetic artifice, to attempt to convey what lies beyond human chatter.

Embodied communication

Human language is a remarkable product of natural selection, however my purpose here is to look beyond words to explore the eloquence of other living things. Samuel Butler observed 'the anthropocentrism of the very notion of language', a word derived from the French word *langue*, meaning 'tongue'.⁶⁸ Butler argued that 'when a dog looks at you, then looks at a door,

⁶⁶ This, however, raises questions about whether other (nonhuman) beings produce art and more specifically poetry. Perhaps it depends on how poetry is defined, for example, Moe's 'bodily poiesis' suggests a broader definition, independent of human language. Malamud entertains the possibility that 'animal poetry' might not be confined to poetry about animals; while he regards himself as 'insufficiently attuned to animals to appreciate the poetry they generate', he has 'no doubt that it's there'. Randy Malamud, *Poetic Animals and Animal Souls*, p. 19.

⁶⁷ Scott Knickerbocker, *Ecopoetics*, p. 1.

⁶⁸ Dorian Sagan cites Samuel Butler, *The Note-Books of Samuel Butler*, ed. by Henry Festing Jones (London: A. C. Fifield, 1912), in Dorian Sagan, 'Introduction: Umwelt After Uexküll', in Jakob von Uexküll, *A Foray into*

then looks at you in anticipation, he is also talking, not with his tongue but with his eyes'.⁶⁹ Human language limits as well as facilitates understanding, and is but one of many forms of communication in the more-than-human world. In light of this my focus will broaden to include the idea of *embodied communication* which conceptualises 'humans and nonhuman animals as "multiple beings in relationship"'.⁷⁰ Embodied communication 'takes place in entwined, semiotic, overlapping, somatic patterning over time' rather than consisting of discrete signals, emitted and received, and 'is more like a dance than a word'.⁷¹ It recalls Ralph Acampora's concept of '*intersomaticity*, [...] in which felt senses of bodiment are shared and potentially in dynamic relation'.⁷²

Embodied communication goes 'beyond the brain' and the organs of speech to encompass the multiplicity of communicative modalities in nature – scent; infra- and ultra-sound; visual signalling through colour, form and light; gesture, and even the construction of artefacts such as nests.⁷³ Barrett argues that a preoccupation with brains obscures 'the extent to which the structure of the environment and the physical shape of the animal's body play a highly active role in shaping its behavior'.⁷⁴ Some modalities, for example pheromones and body language, play essential, though often overlooked roles in human communication, while 'Emotions and

the Worlds of Animals and Humans with A Theory of Meaning (Minneapolis: The University of Minnesota Press, 2010) p. 13.

⁶⁹ According to Sagan, Samuel Butler termed this 'eyeage'. Ibid. p. 13.

⁷⁰ Amy D. Proven, *Visualizing Posthuman Conservation in the Age of the Anthropocene*, (Columbus: The Ohio State University Press, 2018) p. 28. Here Proven quotes Donna J. Haraway, *When Species Meet* (Minneapolis: University of Minnesota Press, 2008) p. 26.

⁷¹ Donna J. Haraway, *When Species Meet*, p. 26.

⁷² Ralph Acampora, *Corporal Compassion Corporal Compassion: Animal Ethics and Philosophy of Body* (Pittsburgh PA: University of Pittsburgh, 2006) p. 18.

⁷³ The male bower bird, for example, communicates fitness to potential mates through the construction of elaborate and ornately decorated bowers. See Jack W. Bradbury and Sandra L. Vehrencamp, *Principles of Animal Communication*, Second Edition (Sunderland, Massachusetts: Sinauer Associates, Inc., 2011) pp. 354-55.

⁷⁴ Louise Barrett, *Beyond the Brain*, p. 47.

feelings carry meaning at a prelinguistic or preverbal level in ways illuminated by a consideration of evolutionary history'.⁷⁵

Donna Haraway emphasises the principle that no living thing stands alone, instead we are always already 'becoming with' one another in dynamic entanglements ranging from the multispecies parties occurring in every human body (and other bodies), to our dependence on earth systems, for example as proposed by James Lovelock in his Gaia theory.⁷⁶ For Haraway, 'Species interdependence is the name of the worlding game on earth, and that game must be one of response and respect. That is the play of companion species learning to pay attention'.⁷⁷ Consistent with ecological principles emphasising webs of interconnection, Haraway treats the term 'companion species' inclusively, encompassing relationships between all living things.⁷⁸ Amy Proben similarly begins from a position of acknowledging and respecting

the ongoing relationships of all beings, matter, and bodies, [which] brings to the fore questions of what accountability and ethical responsibility might then look like when we acknowledge the entangled, embodied relationships of the Anthropocene – an age in which humans can no longer maintain the façade of privileged exceptionalism. When we let go of exceptionalism, our worlds open up in potentially productive ways. Our vantage points become partial, and multiple, and entangled. Blinders will not do any more, if they ever did.⁷⁹

Drawing on the work of phenomenologists Meijer argues that human language is itself embodied.⁸⁰ Maurice Merleau-Ponty, for example, characterised words as 'ways to sing the

⁷⁵ Dorian Sagan, 'Introduction: Umwelt After Uexküll', in Jakob von Uexküll, *A Foray into the Worlds of Animals and Humans*, p. 6.

⁷⁶ Donna J. Haraway, *When Species Meet*, pp. 3-4; James Lovelock, *Gaia: A New Look At Life On Earth* (Oxford: Oxford University Press, 2009, first published in 1979).

⁷⁷ Donna J. Haraway, *When Species Meet*, p. 19.

⁷⁸ *Ibid.* pp. 4, 16-19.

⁷⁹ Amy D. Proben, *Visualizing Posthuman Conservation in the Age of the Anthropocene*, pp. 4-5.

⁸⁰ Eva Meijer, *Animal Languages*, p. 146.

world'.⁸¹ Meijer observes that 'With our bodies we understand others, and language and speech connect subjects to one another and to the world'.⁸² Martin Heidegger and Merleau-Ponty illuminate our understanding of animals 'precisely because they emphasise physicality and being in the world'.⁸³

Meijer discusses the question of whether animal languages are grammatical, which in turn depends on how grammar is defined.⁸⁴ The concept of 'embodied grammar' rests on an expanded understanding of grammar encompassing gesture and other forms of body language.⁸⁵ Animals can 'obtain a lot of information from subtle physical clues, from the position of an ear to the angle of a tail'.⁸⁶ However, viewing nonhuman language through the lens of human grammar makes animal grammars harder to comprehend.⁸⁷ Meijer argues that, 'Wittgenstein's idea about grammar as a framework for meaningful interaction works better here, precisely because it is looser and open to other types of rules'.⁸⁸

To appreciate animal languages requires attention and sensitivity to body language and gesture. That this is possible across species boundaries was demonstrated by a horse, 'Clever Hans', around a century ago.⁸⁹ Hans appeared capable of solving mathematical problems. He would answer by tapping his hoof the requisite number of times, but only when he could see his owner. An investigation by psychologist Oskar Pfungst revealed Hans was perceiving subtle non-verbal cues, including postural shifts and relaxation of the facial muscles when the

⁸¹ Ibid. p. 147.

⁸² Ibid. p. 147.

⁸³ Ibid. p. 148.

⁸⁴ Ibid. p. 182.

⁸⁵ Ibid. pp. 182-84.

⁸⁶ Ibid. p. 183.

⁸⁷ Ibid. p. 183.

⁸⁸ Ibid. pp. 183-84.

⁸⁹ Frans de Waal, *Are We Smart Enough to Know How Smart Animals Are?* pp. 45-48.

right answer was reached.⁹⁰ Despite his owner's disappointment that Hans was not a mathematical prodigy, the horse displayed a remarkable ability to perceive non-verbal signals, to determine the significance of these across a species divide, and to act on them.

Part III of Les Murray's poem 'Walking to the Cattle-Place' includes the following lines in which the cattle's physicality and ways of being in the world, as well as the species' historical entanglement with humans, are enacted:⁹¹

Nose down for hours, ingesting grass, they breathe grass,
trefoil, particles, out of the soft-focus earth
dampened by nose-damp. They have breathed great plateaux to dust.

But a cow's mouth circling on feed, the steady radius
shifting (dry sun) as she shifts,
subsumes, say, two-thirds of mankind. Our cities, our circles.

They concede me a wide berth at first. I go on being harmless
and some graze closer, gradually. It is like watching
an emergence. Persons.⁹²

Through Murray's close, symphysical attentiveness to the cattle's bodily poiesis, they emerge into personhood as individuals with *presence*. George Kennedy, discussing rhetoric as an evolutionary precursor of human language, states that 'rhetoric is manifest in all animal life and existed long before the evolution of human beings'.⁹³ He argues that the sounds (and presumably marks and gestures) made by animals are expressions of 'presence', including both the animal's individuality, as well as its physical presence within a territory.⁹⁴ Animal sounds also signal the animal's 'internal state' which 'includes the animal's physical and

⁹⁰ Ibid. pp. 46-47.

⁹¹ Les Murray, 'The Names of the Humble', part 3 of 'Walking to the Cattle Place: A Meditation', from *The Weatherboard Cathedral* (1969) in Les Murray, *Collected Poems* (Manchester: Carcanet Press Limited, 1998) pp. 57-60; Michael Malay, *The Figure of the Animal in Modern and Contemporary Poetry*, p. 160.

⁹² Les Murray, 'The Names of the Humble', pp. 57-58.

⁹³ George A. Kennedy, 'A Hoot in the Dark: The Evolution of General Rhetoric', *Philosophy & Rhetoric*, 25, 1 (1992) 1-21 p. 4.

⁹⁴ Ibid. p. 15.

emotional reaction to the immediate environment and the message about it that may be of use to another animal'.⁹⁵

Murray implies that paying attention is dialogical; the cattle attend to the poet, as he attends to them. Murray's lines enact embodied communication through which beings 'become with' one another. It should be noted that the emergence of these cattle into personhood is not in the poet's gift; they were always already persons. Rosamund Young describes the various ways cattle communicate with conspecifics and humans through vocalisation, body language and eye contact.⁹⁶ Recent research demonstrates that cattle vocalisations convey information about individual identity beyond mother-offspring contact calls, important in a highly social species.⁹⁷

Haraway's concept of 'becoming with' others can be compared to Meijer's discussion of how we might 'think with' animals, to better understand them.⁹⁸ Like Aaron Moe, Meijer stresses the importance of paying attention to animals, arguing that to appreciate what they want it is insufficient merely to study them.⁹⁹ Instead, she argues that 'We need to talk with them', and in so doing recognise that language extends beyond narrow human conceptualisations.¹⁰⁰ She further asserts that this would expand our understanding of communicative modalities, as

⁹⁵ Ibid. p. 15.

⁹⁶ Rosamund Young, *The Secret Life of Cows* (London: Faber & Faber Limited, 2017) pp. 49-52.

⁹⁷ Alexandra Green, Cameron Clark, Livio Favaro, Sabrina Lomax and David Reby, 'Vocal individuality of Holstein-Friesian cattle is maintained across putatively positive and negative farming contexts', *Scientific Reports* 9: 18468 (2019) 1-9.

⁹⁸ Donna J. Haraway, *When Species Meet*, pp. 3-4; Eva Meijer, *Animal Languages*, pp. 230-32. Meijer, however, differs from Claude Lévi-Strauss who stated that 'animals are good to think (with)', as if they were aids to human thought. For Meijer, 'thinking with' animals is collaborative, a process of talking with, and listening to, other species. See also Marc Bekoff's concept of 'minding animals' and the process of engagement he terms 'deep ethology'. Marc Bekoff, *Rewilding Our Hearts: Building Pathways of Compassion and Coexistence* (Novato, California: New World Library, 2014) pp. 6-7.

⁹⁹ Eva Meijer, *Animal Languages*, p. 231; Aaron Moe, *Zoopoetics: Animals and the Making of Poetry* (Lanham, Maryland: Lexington Books, 2014) pp. 24-26.

¹⁰⁰ Eva Meijer, *Animal Languages*, p. 231.

well as learning about other animals' inner lives and the multiplicity of ways meaning can be made. In summary, 'For animal languages to be language, other animals do not have to learn anything new; humans just need to begin to see them differently. They have been speaking all along'.¹⁰¹

Murray's poem captures the importance of paying attention, of entering into dialogue with our fellow animals, and recognising their personhood. As Meijer states, animals 'have been speaking all along', but we, for the most part, have failed to listen.

So, do living things all talk?

The work of physicist Paul Davies is germane to Meijer's assertion that animals have 'been speaking all along', and Murray's claim that all living things talk. Davies explores the fundamental role information plays in addressing the vexed question 'what is life?' He states that 'the thing that separates life from non-life is *information*'.¹⁰² It is key to life processes at all levels, from metabolic activity within single celled organisms, through reproduction, to the organisation of social species including humans. This wealth and variety of information is communicated by various means on multiple levels. For example, during reproduction genetic information is replicated and passed on; information from the environment influences how the genotype is expressed in the phenotype (epigenetics); 'signalling' molecules share information between cells and between organs, while single cells gather and process information which influences subsequent responses.¹⁰³ Davies further states that:

¹⁰¹ Ibid. p. 232.

¹⁰² Paul Davies, *The Demon in the Machine*, p. 24.

¹⁰³ Ibid. p. 25.

[...] beyond individual organisms lie social structures and ecosystems. Social insects like ants and bees transfer information to help them coordinate group activities such as foraging and nest-site selection. Birds aggregate into flocks and fish into shoals: information exchange lies at the heart of their coordinated behaviour. Primates organize themselves into colonies with complex social norms maintained by many subtle forms of communication. Human society has spawned planet-wide information processing systems like the World Wide Web. It is thus no surprise that many scientists now choose to *define* life in terms of its informational properties: ‘a chemical system in which the flow and storage of energy are related to the flow and storage of information’ [...].¹⁰⁴

For Davies, information is at the heart of life’s variety and complexity while information exchange – ‘talk’ – defines living things and life processes. That information exchange is not confined to animals is demonstrated by research revealing the intricacies of plant communication. For example, trees under attack from browsing animals communicate through the production of pheromones which are sensed (smelt?) by other trees.¹⁰⁵ They also communicate via chemical signals transmitted through fungal hyphae connecting them at root level.¹⁰⁶ Kennedy argues that there is ‘even a kind of rhetoric among plants’.¹⁰⁷ He broadly identifies rhetoric ‘with the energy inherent in communication: [...]’.¹⁰⁸ In plants, ‘Coloration and scent are each a kind of rhetoric and the creation and perception of each involves the use of energy’.¹⁰⁹ This communicative connectivity has been dubbed the ‘wood wide web’, and the study of plant information exchange is burgeoning within biology.¹¹⁰

¹⁰⁴ Ibid. pp. 25-26. Here, Davies quotes biophysicist Eric Smith, ‘Chemical Carnot cycles, Landauer’s principle and the thermodynamics of natural selection’. Talk/Lecture, Bariloche Complex Systems Summer School (2008).

¹⁰⁵ Peter Wohlleben, *The Hidden Life of Trees* (London: William Collins, 2017) pp. 7-9; Richard Mabey, *The Cabaret of Plants: Botany and the Imagination* (London: Profile Books Ltd., 2015) p. 335.

¹⁰⁶ Peter Wohlleben, *The Hidden Life of Trees*, pp. 10-11; Richard Mabey, *The Cabaret of Plants*, pp. 335-36. See also Merlin Sheldrake, ‘Wood Wide Webs’, in *Entangled Life: How Fungi Make Our Worlds, Change Our Minds, and Shape Our Futures* (London: The Bodley Head, 2020) 165-93.

¹⁰⁷ George A. Kennedy, ‘A Hoot in the Dark: The Evolution of General Rhetoric’, p. 10.

¹⁰⁸ Ibid. p. 2.

¹⁰⁹ Ibid. p. 10.

¹¹⁰ Merlin Sheldrake, ‘Wood Wide Webs’, in *Entangled Life*, pp. 165-93.

That living things transmit, exchange and act upon information in multivocal conversations of unimaginable intricacy supports Murray's assertion that all living things talk. In light of this Alice Notley's statement: '[...] that good poets open themselves to all the voices in the air', is prescient.¹¹¹ Alice Oswald's poetry exemplifies this. For example, in *Dart* she is attuned to the sounds of the eponymous river, and to the voices of its denizens, alive and deceased.¹¹²

The importance of communication to life processes was key to the work of Jakob von Uexküll. In his introduction to von Uexküll's classic book, Sagan writes that,

meaning-making, or semiosis, evolves between organisms and their environments, among organisms of the same species and across species, and within individual organisms such as humans attempting to understand the symptoms of their bodies. *Signs are read in a language older than words.*¹¹³

Human language is just one of many strands in life's rich 'semiotic web'.¹¹⁴

Murray's poem 'Cell DNA' expresses how life and information are as entwined as the double helix.¹¹⁵ DNA is 'life's slim volume / spirally bound'. The role of errors resulting in mutations, a potentially creative as well as problematic process, is alluded to in the lines:

I teach it by rote

but its every command
was once a miscue
that something rose to.

¹¹¹ Adam Plunkett and Alice Notley, 'Talk to the Dead: Ruth Lilly Prize winner Alice Notley on the Voice and Spirits of her Poetry.' Interview by [Adam Plunkett](https://www.poetryfoundation.org/articles/70222/talk-to-the-dead). <https://www.poetryfoundation.org/articles/70222/talk-to-the-dead>

¹¹² Alice Oswald, *Dart* (London: Faber and Faber Ltd., Poetry Firsts edition, 2010).

¹¹³ Dorian Sagan, 'Introduction: Umwelt After Uexküll', in Jakob von Uexküll, *A Foray into the Worlds of Animals and Humans*, p. 6, emphasis added.

¹¹⁴ *Ibid.* p. 4.

¹¹⁵ Les Murray, 'Cell DNA', in 'Presence: Translations from the Natural World', *Translations from the Natural World* (Manchester: Carcanet Press Limited, 1993) 13–54 p. 41.

Presence and freedom

Re-wording, re-beading
strains on a strand
making I and I more different
than we could stand.

Once again Murray employs the word *presence*, reminding readers that the information contained in DNA translates into a fully realised organism – genotype expressed as phenotype. The poem’s form suggests a medieval riddle, albeit with the answer revealed in the title. The lines ‘Presence and hungers / imbue a sap mote’, initially seem opaque, however meaning emerges; it is the life-presence and bodily hunger of the coded-for organism, and that organism’s lineage that imbues ‘a sap mote’, the tiny spark of vitality. Here, information and life are tightly entwined.

The apparently simple form of the poem belies a deeper complexity, an enactment of the mutative workings of DNA. The poem has a regular rhyme scheme which binds the lines together, as do the nucleotides in DNA’s double helix. In stanzas one, two, three and five the second and fourth lines have end rhymes: fall, all; bound, around; mote, rote, and strand, stand. However, the fourth stanza breaks this pattern. Here the end rhymes fall on the second and third lines: miscue, rose to. The poem’s deviation from the established pattern introduces an apparent error – a ‘miscue’ – replicating the errors about which Murray writes. Clearly this is no error, rather it artfully mimics the sort of genetic ‘mistake’ which could be damaging – or lead to fruitful adaptation, a core process underpinning evolution. The poem’s form therefore enacts the very mechanisms which are its subject matter. Paradoxically the poem’s

artifice replicates an event that in nature happens by chance.¹¹⁶ Here, life's fundamental informational process 'talks' through Murray's poem.¹¹⁷

Understanding animal communication

While plant communications are vitally important, this project is primarily concerned with animals, therefore I will focus on the science of animal communication.¹¹⁸ As previously noted the study of animal senses and emotions was neglected until relatively recently. It is therefore unsurprising that the situation is similar regarding animal communication, not least because the ways animals sense the world, and their affective responses to it, are enmeshed with processes of communication. According to Marion Stamp Dawkins, writing in 1995, despite 'intensive study',

the whole subject [of animal communication] is extremely confused, largely because of the definitions of the various terms that have been used. [...] the confusions have now reached monumental proportions, with leading theorists even disagreeing as to what should properly be called 'a signal' or 'communication'.¹¹⁹

More recently, however, animal communication studies have flourished, for example, as described by Meijer and others.¹²⁰

¹¹⁶ For a discussion of the complexities of 'random' mutation, see Richard Dawkins, *The Blind Watchmaker* (London: Penguin Books Ltd., 1988) p. 306.

¹¹⁷ For further discussion of 'Cell DNA', see Bert Almon, 'Fullness of Being in Les Murray's "Presence: Translations from the Natural World"', *Antipodes* 8, 2 (1994) 123–30 pp. 125–26.

¹¹⁸ The division of living things into categories such as 'plants' and 'animals' and separate species is convenient for biologists and conservationists, but one should not lose sight of the fact that these categorisations are part of the linguistic 'net' humans place over the natural world. They reflect human processes rather than the interconnectedness of nature.

¹¹⁹ Marian Stamp Dawkins, *Unravelling Animal Behaviour* (Harlow: Longman, 1995) p. 72, quoted by Ulrich E. Stegmann, 'A primer on animal communication', in *Animal Communication Theory: Information and Influence* ed. by Ulrich E. Stegmann (Cambridge: Cambridge University Press, 2013) 1–39 p. 1.

¹²⁰ For example, see Jack W. Bradbury and Sandra L. Vehrencamp, *Principles of Animal Communication*, and Ulrich E. Stegmann, ed., *Animal Communication Theory*. For an overview of the field, see Eva Meijer, *Animal Languages*.

Ulrich Stegmann, discussing the functions of animal communication, uses the example of male fireflies emitting light, to explore the meaning and purpose of animal signals:

Signals are physical events, behaviours or structures to which receivers respond. Yet they are more than that, according to the standard view in ethology [...]. As the colloquial meaning of 'signal' suggests, animal signals are events that convey *information* to receivers, where information is the *content* of a signal, or what the signal is about. For instance, the light pulses of fireflies reveal information about location, motivational state and species identity; the light pulses of a male convey, "Here I am in time and space, a sexually mature male of species X that is ready to mate. Over."¹²¹

That animal signals have evolved to convey information has intuitive appeal however an alternative view was proposed by Richard Dawkins and John Krebs in 1978. According to Dawkins and Krebs, signals evolve to 'manipulate or persuade'.¹²² They later revised their view, conceding that the conveyance of information plays an important role in communication.¹²³ Jack Bradbury and Sarah Vehrencamp conclude that signals evolved primarily to provide information to other animals.¹²⁴ In practice, information invariably influences its recipient, for example in mating calls or threat signals. Ultimately communication, like any other evolved characteristic, should, on balance, increase the overall inclusive fitness of the communicator.

¹²¹ Ulrich E. Stegmann, 'A primer on animal communication', *Animal Communication Theory*, p. 2. Stegmann cites J. E. Lloyd, 'Studies on the flash communication system in Photinus fireflies', *Miscellaneous Publications, Museum of Zoology, University of Michigan*, 130 (1966) 1-95, p. 69.

¹²² Richard Dawkins and John R. Krebs, 'Animal signals: information or manipulation', in *Behavioural Ecology: An Evolutionary Approach*, ed. by J. R. Krebs and N. B. Davies (Oxford: Blackwell, 1978) pp. 282-309, cited by Ulrich E. Stegmann, 'A primer on animal communication', *Animal Communication Theory*, p. 15.

¹²³ Ulrich E. Stegmann, 'A primer on animal communication', *Animal Communication Theory*, p. 18.

¹²⁴ Jack W. Bradbury and Sandra L. Vehrencamp, *Principles of Animal Communication*, p. 4.

Signals have been defined as ‘stimuli produced by a **sender** and monitored by a **receiver**, to the average net benefit of both parties’.¹²⁵ Examples include the raising of the chelipeds in hermit crabs (a threat signal), the roaring of male stags allowing rivals to estimate an opponent’s strength, the pheromones emitted by a range of creatures from elephants to moths, and the expressions flickering across a human face.¹²⁶ Signals are distinguished from cues. While signals evolved to convey information, cues are defined as ‘behaviours or structures that convey information without having evolved for this purpose’.¹²⁷ Stegmann gives the example of a rattlesnake’s rattle, thought to have evolved to *signal* venomousness to potential predators.¹²⁸ Ground squirrels also pay attention to the rate and dominant frequency of clicks as these convey additional information regarding the temperature and size of snakes. Warmer, larger snakes are more dangerous, and ground squirrels are warier of them. Click rate and frequency are cues because they did not evolve to convey this information.¹²⁹ According to Bradbury and Vehrencamp, ‘monitoring the behavioral cues generated by other nearby animals (including predators and prey) is the dominant task for the sensory organs and brains of most animal species’.¹³⁰

Distinguishing between signals and cues is important in understanding animal communication, however, to treat them as discrete, isolated phenomena is misleading. The importance of context and complexity in animal communication is explored by Andrew Horn and Peter McGregor.¹³¹ Discussing the dawn chorus of chickadees they argue that their

¹²⁵ Ibid. p. 4.

¹²⁶ Ulrich E. Stegmann, ‘A primer on animal communication’, *Animal Communication Theory*, p. 13 (hermit crabs); Ibid. p. 5 (stags); Jack W. Bradbury and Sandra L. Vehrencamp, *Principles of Animal Communication*, p. 196 (pheromones); Eva Meijer, *Animal Languages*, p. 88 (human facial expressions).

¹²⁷ Ulrich E. Stegmann, ‘A primer on animal communication’, *Animal Communication Theory*, pp. 2 (signals) & 3 (cues).

¹²⁸ Ibid. p. 3.

¹²⁹ Ibid. p. 3.

¹³⁰ Jack W. Bradbury and Sandra L. Vehrencamp, *Principles of Animal Communication*, p. 4.

¹³¹ Andrew G. Horn and Peter K. McGregor, ‘Influence and information in communication networks’, in Ulrich E. Stegmann, ed., *Animal Communication Theory*, 43-61 p. 43.

performances, part territorial, part mating call, operating across both time and space within a forest, ‘illustrates the natural context in which most communication occurs: not in the bare-bones dyad of one signaller, one receiver, but rather in a network of communicators – signaller receivers that exchange signals all within receiving range of one another’.¹³² Horn and McGregor argue that embracing this complexity is essential to understanding animal communication.¹³³ Complexity is vital to flourishing ecosystems, and biodiversity is expressed not only in the physical presence of multiple species but in the nexus of their intercommunication. This interconnectivity is mirrored both in Murray’s ‘Presence’ collection wherein the poems dance and sing with one another across the pages, but within each poem where the interconnections and complexities of language and form enact creatureliness. Arguably, Murray’s collection forms a schematic sort of microcosmic whole-earth ecosystem, spanning continents, as well as land, ocean and air, reflecting a Gaian planet, the poems linked by overarching themes of presence, personhood and varieties of talk.

What is the relationship between human ‘language’ and animal ‘communication’?

Stegmann poses the question: ‘Is animal signalling a kind of language?’¹³⁴ He points out that language was previously considered to distinguish humans from nonhuman animals but notes the emergence of ‘a nuanced view about the relation between animal signals and human language [...]’.¹³⁵ Language is not monolithic, rather it is ‘composed of several partly independent subsystems with their own functions and neural implementations’.¹³⁶

¹³² Ibid. p. 43.

¹³³ Ibid. p. 43. This bears comparison with embodied communication as described by Donna Haraway as, ‘more like a dance than a word’, Donna J. Haraway, *When Species Meet*, p. 26.

¹³⁴ Ulrich E. Stegmann, ‘A primer on animal communication’, *Animal Communication Theory*, p. 21.

¹³⁵ Ibid. p. 21.

¹³⁶ Ibid. p. 22.

The mechanisms underpinning the evolution of human language are also far from settled. Hauser *et al.* observe that while life on earth is underpinned by ‘highly conserved developmental systems that read an (almost) universal language encoded in DNA base pairs’ capable of combining to produce an infinity of diverse forms, living things lack a ‘universal code of communication’.¹³⁷ Further,

the faculty mediating human communication appears remarkably different from that of other living creatures; [specifically] the human faculty of language appears to be organized like the genetic code – hierarchical, generative, recursive, and virtually limitless with respect to its scope of expression.¹³⁸

To address questions of language evolution in the absence of a fossil record Hauser *et al.* recommend a comparative approach using ‘empirical data from living species to draw detailed inferences about extinct ancestors’.¹³⁹ This paper is discussed by Shariatmadari who observes that the question of whether recursion is unique to humans has become hotly contested.¹⁴⁰

Meijer also discusses the difference between ‘communication’ and ‘language’.¹⁴¹ She cites Con Slobodchikoff who suggests that animal behaviourists regard communication as a closed, instinctive system ‘with three components: a sender, a recipient and a signal’.¹⁴² Language, by contrast, is ‘an open system that offers different options for the question and the response, both in terms of an animal’s inner world and the outside world. An animal can deal creatively with the situation and make a meaningful choice’.¹⁴³ There is an implicit

¹³⁷ Marc D. Hauser *et al.*, ‘The Faculty of Language’, p. 1569.

¹³⁸ *Ibid.* p. 1569.

¹³⁹ *Ibid.* p. 1572.

¹⁴⁰ David Shariatmadari, *Don’t Believe a Word*, pp. 122-23.

¹⁴¹ Eva Meijer, *Animal Languages*, pp. 86-87.

¹⁴² Con Slobodchikoff, *Chasing Doctor Dolittle: Learning the Language of Animals* (New York: St. Martin’s Press, 2012), cited by Eva Meijer, *Animal Languages*, p. 87.

¹⁴³ *Ibid.* p. 87.

assumption here that instinctive modalities of communication are inferior, however what we label ‘instincts’ are in fact highly efficient and sophisticated behavioural propensities forged over millions of years in the crucible of evolution.¹⁴⁴ Moreover, the presumption that instincts are inflexible and impervious to the effects of environment, learning and memory is false.¹⁴⁵ As Barrett puts it, referring to ‘imprinting’, the process by which a new-born animal follows the first thing it sees, ‘some “instincts” simply are a form of learning’.¹⁴⁶ Karsten Brensing finds the term ‘instinct’ meaningless, explaining nothing.¹⁴⁷ Like Barrett, he argues that humans tend to compare instinct unfavourably with rational behaviour, awarding themselves the gift of rationality.¹⁴⁸

Moe also challenges the notion that instinct is ‘mindless’, arguing that an animal’s inbuilt knowledge about how and when to act, termed ‘instinctual intuition’, does not preclude agency.¹⁴⁹ Sue Donaldson and Will Kymlicka recognise both the significance of animal agency and the challenges inherent in demonstrating it.¹⁵⁰ Donaldson and Kymlicka suggest that a significant barrier to recognising animal agency is the inability of humans to ‘respond [to animals] and to reciprocate’.¹⁵¹ They argue that an understanding of animal agency can only be brought about by engaging in a process “– expecting agency, looking for agency, and enabling agency”.¹⁵²

¹⁴⁴ For example, face-recognition in human infants, see Louise Barrett, *Beyond the Brain*, p. 30.

¹⁴⁵ *Ibid.* pp. 72-75.

¹⁴⁶ *Ibid.* p. 73.

¹⁴⁷ Karsten Brensing, *What do Animals Think and Feel?* trans. by Peter Lewis (London: Head of Zeus Ltd., 2019) p. 260.

¹⁴⁸ *Ibid.* p. 260.

¹⁴⁹ Aaron Moe, *Zoopoetics*, p. 19.

¹⁵⁰ Sue Donaldson and Will Kymlicka, *Zoopolis: A Political Theory of Animal Rights*, (Oxford: Oxford University Press, 2011) pp. 109-10, cited by Aaron Moe, *Zoopoetics*, p. 21.

¹⁵¹ Aaron Moe, *Zoopoetics*, p. 21.

¹⁵² Sue Donaldson and Will Kymlicka, *Zoopolis*, pp. 109-10, quoted by Aaron Moe, *Zoopoetics*, p. 21. This is comparable both to Meijer’s concept of ‘thinking with’ animals, Eva Meijer, *Animal Languages*, pp. 231-32, and Marc Bekoff’s concept of ‘minding animals’, Marc Bekoff, *Rewilding Our Hearts*, p. 6.

Moe considers the recognition of animal agency to be an ethical issue.¹⁵³ At the heart of his zoopoetics is an intention or attitude, wherein one pays close attention to the bodily poiesis of animals. I would add that it is also important to recognise reciprocity; animals pay attention to the bodily poiesis of other animals including humans. This attentiveness facilitates listening, in the broadest sense, to what animals have to say. The recognition of animal others as agents who respond and communicate within and across species boundaries has significantly influenced the work of scientists such as Barbara Smuts, Jane Goodall and others. Smuts, for example, began her PhD research into the behaviour of wild baboons with the conventional assumption that adopting a stance of neutral unavailability would ensure that the troop would soon ignore her, displaying their usual behaviour undisturbed.¹⁵⁴ Her attempt at *nonpresence* did not impress the baboons, however, and she became a distracting object of curiosity and concern. Eventually Smuts altered her approach:

I . . . in the process of gaining their trust, changed almost everything about me, including the way I walked and sat, the way I held my body, and the way I used my eyes and voice. I was learning a whole new way of being in the world – the way of the baboon. . . . I was responding to the cues the baboons used to indicate their emotions, motivations and intentions to one another, and I was gradually learning to send such signals back to them. As a result, instead of avoiding me when I got too close, they started giving me very deliberate dirty looks, which made me move away. This may sound like a small shift, but in fact it signaled a profound change from being treated like an *object* that elicited a unilateral response (avoidable), to being recognized as a *subject* with whom they could communicate.¹⁵⁵

Smuts' 'new way of being in the world' entailed embodied communication, paying respectful attention to the baboons as persons, with something to say and fully capable of 'minding' the

¹⁵³ Aaron Moe, *Zoopoetics*, p. 21.

¹⁵⁴ Donna J. Haraway, *When Species Meet*, pp. 23-24.

¹⁵⁵ Barbara Smuts, 'Encounters with Animal Minds', *Journal of Consciousness Studies*, 8, nos. 5-7 (2001) 293-309 p. 295, quoted by Donna, J. Haraway, *When Species Meet*, pp. 24-25.

human in their midst.¹⁵⁶ Key were Smuts' acknowledgement of the baboons' presence and her capacity to accord them respect. Stephen Eisenman argues for a type of 'participant-observation' in animal communication studies in which researcher and subjects 'become with' one another, in Haraway's terms, co-creating shared understanding.¹⁵⁷ Eisenman is sceptical of laboratory studies which inhibit 'the expression of the full range of animals' communicative and expressive abilities'.¹⁵⁸ He suggests that rather than being contaminated, human-animal interactions are 'one among many types of interspecies communication and exchange, each of which has its own particular dynamic'.¹⁵⁹

Smuts' initial attempt at neutrality was consequent on a (misplaced) insistence on scientific objectivity which can cloud rather than clarify research endeavours in ethology and related disciplines. For example, when Irene Pepperberg originally proposed her research into the vocal abilities of Alex, an African grey parrot, she played down any suggestion she was investigating 'language', confining herself to terms such as 'labels' and 'vocalisations'.¹⁶⁰ This caution resulted from hostility in the 1970s to any notion that nonhumans have language. Specifically, Herbert Terrace claimed that his research with the chimpanzee, 'Nim Chimpsky', failed to provide evidence for language in great apes.¹⁶¹ As Peterson observes, however, Terrace's work begs questions about the nature of language, for example, 'why grammatical ability ought to mark the gateway to language'.¹⁶² The fact that Nim could sign

¹⁵⁶ 'Minding', in this context, can be understood in both senses of the term, as used by Marc Bekoff, *Rewilding Our Hearts*, pp. 6-7. See earlier, p. 120.

¹⁵⁷ Stephen F. Eisenman, *The Cry of Nature: Art and the Making of Animal Rights* (London: Reaktion Books Ltd., 2013) pp. 28-29.

¹⁵⁸ *Ibid.* p. 28.

¹⁵⁹ *Ibid.* p. 29. See also Vinciane Despret, 'The Becomings of Subjectivity in Animal Worlds', *Subjectivity*, 23, (2008) 123-39.

¹⁶⁰ Christopher Peterson, *Monkey Trouble*, p. 36. The importance of the language used to describe what animals do is illustrated by Eileen Crist, *Images of Animals*, pp. 1-10.

¹⁶¹ *Ibid.* p. 36.

¹⁶² *Ibid.* p. 36.

‘banana’ was evidence of ‘a basic grasp of referentiality’.¹⁶³ Interviewed in 1999 Pepperberg stated: ‘I avoid the language issue... What little syntax he [Alex] has is very simplistic. Language is what you and I are doing, an incredibly complex form of communication’.¹⁶⁴ Peterson notes the ‘circularity of her assertion’ as she awards herself ‘the sovereign power to decide what does and does not count as language’, based on what Derrida termed “‘the reason of the strongest’”, which ‘exempts one from the duty to provide rationales’.¹⁶⁵ Notwithstanding Peterson’s critique, Pepperberg’s research provides remarkable insights into the linguistic capabilities of Alex and other parrots.¹⁶⁶ Perhaps more important, as discussed by Vinciane Despret, is Pepperberg’s methodology which ‘redistributes control’ so Alex ‘engages with, accepts and actively transforms what becomes a part of [his] world, translates an extension of this world and therefore an extension of [his] subjectivity as “parrot-with-human”’.¹⁶⁷

The criteria that must be met for communication systems to be considered ‘languages’ are varied and shifting – and (of course) determined by humans! Breusing focuses on two criteria: ‘the ability to learn vocally and to understand the pointing gesture’.¹⁶⁸ Linguist Charles Hockett came up with thirteen criteria, the first six of which apply to both animal and human languages:

a sensory system for receiving and sending information; the ability to broadcast and receive signals; the ability to make signals that disappear so that new signals can be sent; the capacity

¹⁶³ Ibid. p. 36.

¹⁶⁴ Dinitia Smith, ‘A Thinking Bird or Just Another Birdbrain?’, *New York Times*, October 9, 1999, <https://www.nytimes.com/1999/10/09/arts/a-thinking-bird-or-just-another-birdbrain.html> Interview with Irene Pepperberg, quoted by Christopher Peterson, *Monkey Trouble*, p. 36.

¹⁶⁵ Jacques Derrida, *Rogues: Two Essays on Reason*, trans. by Pascale-Anne Brault and Michael Naas (CA: Stanford University Press, 2005) p. 7, quoted by Christopher Peterson, *Monkey Trouble*, p. 37.

¹⁶⁶ Irene Maxine Pepperberg, *The Alex Studies: Cognitive and Communicative Abilities of Grey Parrots* (Cambridge, Massachusetts: Harvard University Press, 2000)

¹⁶⁷ Vinciane Despret, ‘The Becomings of Subjectivity in Animal Worlds’, pp. 125 & 128.

¹⁶⁸ Karsten Breusing, *What do Animals Think and Feel?* p. 75.

to understand the signals of others of your own species; the ability to hear your own signals; and a system that is specifically for transferring information.¹⁶⁹

Other criteria concern meaning and arbitrariness. Some animals, for example vervet monkeys, have alarm calls considered to be ‘referential’ or ‘semantic’.¹⁷⁰ Calls differ according to whether threats are from leopards, eagles or snakes, and listeners respond appropriately.¹⁷¹ Ground squirrels (prairie dogs) also have this capability.¹⁷² Con Slobodchikoff undertook detailed studies of ground squirrel communications, revealing that they use grammatical constructions to convey complex information such as intruder type (coyote, human, hawk etc.); adjectives referring to colour and size (Slobodchikoff’s collaborators wore different coloured shirts), and verbs and adverbs such as ‘running fast, walking slowly’.¹⁷³

Other criteria concern whether new words are created; whether discrete words (or other units) occur, and if these consist of smaller units such as syllables; whether language systems are transmitted culturally, and if systems convey information about events occurring elsewhere in space or time.¹⁷⁴ Cultural transmission has been demonstrated in some bird species and bats as well as cetaceans such as orcas, known to have distinct dialects according to the clan (comprising multiple pods) to which they belong.¹⁷⁵ Coal tits combine elements of their songs to produce sentences; further, in playback experiments the birds did not respond to jumbled

¹⁶⁹ Charles F. Hockett, ‘A system of descriptive phonology’, *Language*, 18.1 (1942) 3-21, cited by Eva Meijer, *Animal Languages*, p. 89. See also Con Slobodchikoff, *Chasing Doctor Dolittle*, pp. 20-25.

¹⁷⁰ Ulrich E. Stegmann, ‘A primer on animal communication’, *Animal Communication Theory*, p. 9.

¹⁷¹ *Ibid.* p. 9.

¹⁷² Karsten Breusing, *What do Animals Think and Feel?* p. 76.

¹⁷³ Recio, Belinda, *Inside Animal Hearts and Minds: Bears That Count, Goats That Surf and Other True Stories of Animal Intelligence and Emotion* (New York: Skyhorse Publishing, 2017) pp. 71-73. For further details see Con Slobodchikoff, *Chasing Doctor Dolittle*, pp. 52-62.

¹⁷⁴ Eva Meijer, *Animal Languages*, p. 90.

¹⁷⁵ Karsten Breusing, *What do Animals Think and Feel?* p. 87; Eva Meijer, *Animal Languages*, p. 90. For a discussion of culture in cetaceans, see Hal Whitehead and Luke Rendell, *The Cultural Lives of Whales and Dolphins* (Chicago: The University of Chicago Press, 2015).

and meaningless word orders.¹⁷⁶ This study has far-reaching implications: ‘We are talking here about the first proof obtained from the wild for the rudiments of a genuine language among animals [...]’.¹⁷⁷

‘Computational efficiency’, a recently added criterion, concerns an utterance’s parsimony or compression, advantageous as maximising informational content in the briefest form increases survival chances. Animals, Slobodchikoff asserts, ‘have it in spades’.¹⁷⁸ It has also been demonstrated that the capacity for recursion, emphasised by Chomsky and others as an important marker of human language, is not confined to humans. For example, it has been identified in starlings, blue-throated hummingbirds and chickadees, demonstrating an open communication system comparable to human language.¹⁷⁹ Finally, a recently published study demonstrates that African penguin vocalisations conform to Zipf’s law of brevity in which there is an inverse relationship between word frequency and word length, and the Menzerath-Altmann law (which states that as utterance length increases, the size of its constituents decreases), linguistic patterns typical of human language.¹⁸⁰ Previously, this has been demonstrated only in primate species.¹⁸¹ Taken as a whole these findings argue against hard borders between human and other languages.

During the last century the study of linguistic capabilities in other species focused principally on discovering whether and to what extent nonhumans such as apes and cetaceans could be taught human language.¹⁸² This was problematic for several reasons, not least because of the

¹⁷⁶ Karsten Brensing, *What do Animals Think and Feel?* p. 85.

¹⁷⁷ *Ibid.* p. 85.

¹⁷⁸ Con Slobodchikoff, *Chasing Doctor Dolittle*, pp. 24-25.

¹⁷⁹ Eva Meijer, *Animal Languages*, pp. 169-72.

¹⁸⁰ Livio Favaro, Marco Gamba, Eleonora Cresta, Elena Fumagalli, *et al.* ‘Do penguins’ vocal sequences conform to linguistic laws?’ *Biology Letters*, 16, 20190589 (2019) 1-6.

¹⁸¹ *Ibid.* p. 1.

¹⁸² See, for example, Eva Meijer, ‘Speaking in Human Language’, in *Animal Languages*, pp. 15-53; Christopher Peterson, *Monkey Trouble*, pp. 33-42, and Susan Casey, *Voices in the Ocean: A Journey into the Wild and*

anthropocentrism inherent in assuming human language is the gold-standard for understanding the communicative abilities of other beings.¹⁸³ This research was also conceptually flawed in that it was predicated on the idea ‘that humans are a species of super-evolved primates – the pinnacle of creation – and that other primates provide insight into our history’.¹⁸⁴ This is incorrect as both great apes and humans descend from a common ancestor. As Meijer observes ‘They [other primates] are not failed humans; they are beings with their own abilities’.¹⁸⁵ As she observes, the best way to understand other animals is to conduct research which explores nonhuman experience from the animals’ point of view.¹⁸⁶ As animal languages are studied, more is revealed about their variety and complexity. The term ‘magic well’, coined by Karl von Frisch to describe the inexhaustible sense of wonder derived from understanding other animals, is also applicable to the talk of living things.¹⁸⁷

Regarding language evolution, Meijer argues that it would be odd if there was a ‘hard border between language and instinct-based communication’, while Slobodchikoff regards language as an evolved biological system (which he terms the Discourse System), shared with other species.¹⁸⁸ Various approaches to the question of language evolution have been developed including genetic approaches. For example, the ‘language’ gene, FOXP2, has been found in all vertebrates, suggesting a shared underpinning of linguistic faculties.¹⁸⁹ The discovery of mirror neurons in macaques and other species including humans, has led to the hypothesis

Haunting World of Dolphins (New York: Anchor Books, 2016) pp. 47-52. For a fictional exploration of the issue, see Karen Joy Fowler, *We Are All Completely Beside Ourselves* (London: Serpent's Tail, 2014).

¹⁸³ Eva Meijer, *Animal Languages*, p. 50.

¹⁸⁴ *Ibid.* p. 30.

¹⁸⁵ *Ibid.* p. 30.

¹⁸⁶ *Ibid.* p. 31. See also the approach of Frans de Waal, in *Are We Smart Enough to Know How Smart Animals Are?*

¹⁸⁷ Frans de Waal, *Are We Smart Enough To Know How Smart Animals Are?* p. 11.

¹⁸⁸ Eva Meijer, *Animal Languages*, p. 88; Con Slobodchikoff, *Chasing Doctor Dolittle*, pp. 34-35.

¹⁸⁹ Eva Meijer, *Animal Languages*, p. 87.

that ‘embodied language’ has its origins as least partially in their activity.¹⁹⁰ Mirror neurons ‘fire’ both in individuals performing an action and in observers of that action, shedding light on empathy, imitation, social behaviour and language.¹⁹¹ Communication between individuals minimally involves a dyad comprising a sender and a receiver: ‘Crucially, both sender and receiver must share similar motor programs necessary to produce a message and similar pathways for accessing these programs’.¹⁹² Leonardo Fogassi and Pier Ferrari hypothesise that the mirror-neuron system underpins this process, providing an evolutionary link between species.¹⁹³

Kennedy, as previously discussed, proposed that rhetoric is widespread in the living world and underpins language evolution.¹⁹⁴ Debra Hawhee considers Sir Richard Paget’s theory of language evolution which argued that language has its origins in animal gestures and ‘begins with the body rather than the mind, with emotive force rather than reasoning ability [...]’.¹⁹⁵ Moe draws on these ideas in his development of zoopoetics, fundamental to which is attention to an animal’s bodily poiesis.¹⁹⁶ Finally, comparative approaches to the study of language evolution are proposed by Hauser *et al.*¹⁹⁷ In summary, the results of language evolution studies support the argument that language in its human form is an evolved, shared capability rather than ‘a completely new acquisition of the human species’.¹⁹⁸

¹⁹⁰ Leonardo Fogassi and Pier Francesco Ferrari, ‘Mirror Neurons and the Evolution of Embodied Language’, *Current Directions in Psychological Science*, 16 (2007) 136-41.

¹⁹¹ Frans de Waal, *Mama’s Last Hug*, pp. 94-95.

¹⁹² Leonardo Fogassi and Pier F. Ferrari, ‘Mirror Neurons and the Evolution of Embodied Language’, p. 137.

¹⁹³ *Ibid.* p. 137.

¹⁹⁴ George A. Kennedy, ‘A Hoot in the Dark: The Evolution of General Rhetoric’.

¹⁹⁵ Richard Paget, *Human Speech* (London: Routledge and Kegan Paul Ltd, 1930), cited by Debra Hawhee, ‘Language as Sensuous Action: Sir Richard Paget, Kenneth Burke, and Gesture-Speech Theory’, *Quarterly Journal of Speech*, 92, 4 (2006) 331-54 p. 334.

¹⁹⁶ Aaron M. Moe, *Zoopoetics: Animals and the Making of Poetry* (Lanham, Maryland: Lexington Books, 2014) p. 10.

¹⁹⁷ Marc D. Hauser *et al.*, ‘The Faculty of Language’, p. 1571.

¹⁹⁸ Leonardo Fogassi and Pier F. Ferrari, ‘Mirror Neurons and the Evolution of Embodied Language’, p. 136.

‘ – living things do all talk, I say [...]’: embodied communication in Murray’s ‘Presence’ poems

Embodiment was a key idea for Murray.¹⁹⁹ According to Malay it had significance on several levels.²⁰⁰ First, it exemplifies the emergent process through which creativity, uniting dream and thought, births an artwork ‘giving physical shape to what was formerly an idea or an intuition’.²⁰¹ It also alludes to the way an artist ‘infuses herself into the thing she creates’, offering another dimension to the metaphorical idea of a ‘body of work’.²⁰² Inevitably, for Murray, it had religious connotations, both in the fusion of an incorporeal idea and a material artefact, and by offering ‘an aesthetic-religious explanation for the natural world, in the sense that Murray understands nature as the ‘embodiment’ of God’s presence’.²⁰³ Crucially, presence is embodied in everything living and is therefore ubiquitous rather than a mark of privilege.²⁰⁴ Further, Murray suggested that the process of reading a poem is itself embodied, working directly on the autonomic nervous system to bring about a state of alertness in the reader balanced between fight or flight, and surrender.²⁰⁵ This observation illuminates the ‘creaturely’ ambiguity of poems; one engages with a poem viscerally, as one would engage with an (unpredictable) living thing. Murray further observed that the embodied effects of poetry are mediated through the breath: breathing ‘is the great chord upon which we must play if our other effects are to *come alive*’.²⁰⁶

¹⁹⁹ Les Murray, ‘Embodiment and Incarnation: Notes on preparing an anthology of Australian religious verse’, and ‘Poemes and the Mystery of Embodiment’, in *The Paperbark Tree: Selected Prose* (London: Minerva, 1993) pp. 251-69; 356-71; see also Michael Malay, *The Figure of the Animal in Modern and Contemporary Poetry*, pp. 170-71.

²⁰⁰ Michael Malay, *The Figure of the Animal in Modern and Contemporary Poetry*, pp. 170-71.

²⁰¹ Ibid. p. 170.

²⁰² Ibid. p. 171.

²⁰³ Ibid. p. 171.

²⁰⁴ Ibid. p. 171.

²⁰⁵ Les Murray, ‘Poemes and the Mystery of Embodiment’, in *The Paperbark Tree*, p. 357.

²⁰⁶ Ibid. p. 357, emphasis added.

In light of the centrality of embodiment to Murray's work, the concept of embodied communication is particularly relevant to a discussion of those of his poems which enact the talk of living things. Knickerbocker, referring to Rigby, discusses the 'well-worn deconstructionist claim about the "failure" of language – in this case the failure of language to capture or reproduce our immediate involvement in nature'.²⁰⁷ Following this line of thought Knickerbocker presumes that falling into language means to 'fall out of embodied experience of nature'.²⁰⁸ However, he rejects the notion that embodiment is counter to poetry, something with which Murray, with his focus on embodiment, would doubtless have concurred.²⁰⁹ Knickerbocker quotes Charles Bernstein who stated that:

Sound is language's flesh, its opacity as meaning marks its material embeddedness in the world of things . . . In sounding language we ground ourselves as sentient, material beings, obtruding into the world with the same obdurate thingness as rocks or soil or flesh. We sing the body of language, relishing the vowels and consonants in every possible sequence. We stutter tunes with no melodies, only words.²¹⁰

Murray's 'Yard Horse' evokes the ways horses sense the world, their corresponding emotional responses, and how they communicate.²¹¹ Murray uses various poetic techniques to bring into being the imagined sensory, affective and communicative world of horses, or, more precisely, of this individual stallion. The first lines are written from the horse's perspective, evoking the irritation caused by flies. Murray conflates two equine responses, the snorting exhalation and swishing tail: 'Ripple, pond, liftoff fly. Unlid the outswallowing snorter / to switch at fly. Ripples over day's gigantic peace'. That scent plays an important role in the

²⁰⁷ Kate Rigby, 'Earth, World, Text', cited by Scott Knickerbocker, *Ecopoetics*, p. 6.

²⁰⁸ Scott Knickerbocker, *Ecopoetics*, p. 7.

²⁰⁹ *Ibid.* p. 7.

²¹⁰ Charles Bernstein, ed., *Close Listening: Poetry and the Performed Word* (New York: Oxford University Press, 1998) p. 21, quoted by Scott Knickerbocker, *Ecopoetics*, p. 7.

²¹¹ Les Murray, 'Yard Horse', in 'Presence', p. 31.

horse's sensory world is demonstrated by lines three to five which focus on pheromones emitted by mares and other stallions, as well as the imagined unease induced by geldings: 'the unbearable pee-submissive ones who are not in instinct'. In the next lines Murray evokes the terrifying scent of smoke, albeit 'infinitesimal'. Line six switches to the third person singular as Murray addresses the embodied communication of horses: 'his dense standing now would alert all mares / for herded flight'. The stallion's body language alters in response to the threat of fire. He tenses, his muscles densely bunched. Mares would recognise this stance and respond by readying themselves for flight. The word 'would' implies that Murray's stallion is not wild and does not, in fact, lead a herd of mares. Instead, he recalls a once wild life:

In his mind, fragments of rehearsal: lowered snaking neck
like goose-speech, to hurry mares; bounced trot-gait of menace
oncoming, with whipping headshake; poses, then digestion.
Moment to moment, his coat is a climate of mirrorings
and his body is the word for every meaning in his universe.

Here Murray conjures the embodied communication of horses, suggesting a rich vocabulary of meaning conveyed by body language, for example, the 'snaking neck' used to chivvy mares, and muscular ripples: 'his coat is a climate of mirrorings'. In his final line Murray encapsulates embodied communication: the stallion's 'body is the word for every meaning in his universe'.

In 'The Octave of Elephants' Murray attends to the communicative differences between elephant bulls and cows.²¹² Adult bulls when not in *musth* and 'weeping need', are either solitary or live in hierarchically organised bachelor herds. *Musth* is associated with temporal gland secretions, high testosterone levels and aggressive behaviour. Males in this condition

²¹² Les Murray, 'The Octave of Elephants', in 'Presence', p. 32.

are attractive to females on heat but are otherwise avoided. *Musth* constitutes a range of bodily communications, for example a strutting walk, a strong scent and a characteristic low rumbling sound audible over long distances.²¹³ In contrast female elephants are social, forming family groups headed by a matriarch. Females:

[...] congregate and talk, in a seismic baritone:

Dawn and sundown we honour you, Jehovah Brahm,
who allow us to intone our ground bass in towering calm.

In these lines Murray evokes the sonorous sounds of elephant talk.

Elephant communication is complex. Carl Safina discusses the array of sounds elephants produce, for example, as two groups approach each other they utter contact calls which he translates as: “I am here; where are you?” Another elephant hears this and responds with a sudden, abrupt lift of her head, followed by an explosive rumble that says, “It’s me; I am over here”.²¹⁴ As elephants meet ‘the conversation explodes, and their vocabulary changes into a series of intense, overlapping greeting rumbles. Next, the conversation shifts again, to softer rumbles that are structurally quite different’.²¹⁵ Safina makes the point that the complexity of elephant talk, comprising ‘dozens and dozens of gestures and sounds and combinations’, mitigates against the idea that their communications lack meaning.²¹⁶ Elephants also communicate through infrasound across long distances, the sound partly detected through Pacinian corpuscles, special receptors in the soles of their feet.²¹⁷ Safina relates several stories which attest to the communicative capabilities of elephants including, for example, an ability to detect and react to the distress calls of a herd being ‘culled’ over ninety miles

²¹³ For a discussion of *musth* see <https://en.wikipedia.org/wiki/Musth>

²¹⁴ Carl Safina, *Beyond Words: What Animals Think and Feel* (New York: Henry Holt and Company, LLC, 2015) p. 91.

²¹⁵ *Ibid.* p. 91.

²¹⁶ *Ibid.* p. 91.

²¹⁷ *Ibid.* p. 92.

away.²¹⁸ Murray's poem addresses the complexity of elephant relationships and communication, and the diverse manifestations of presence:

We are two species, male and female. Bulls run to our call.
We converse. They weep, and announce, but rarely talk at all.

As presence resembles everything, our bulls reflect its solitude
and we, suckling, blaring, hotly loving, reflect its motherhood.

The following lines are Murray's more direct translations of elephant language:

Burnt-maize-smelling Death, who brings the collapse-sound *bum-bum*,
has embryos of us on its free limbs: four legs and a thumb.

Here, encounters with humans mean death. In all probability elephants do converse about human-posed threat, and other matters. Murray's poem takes for granted that elephant talk is full of meaning. The implication is that paying attention might eventually be repaid by comprehension, as, according to Safina, 'what elephants are saying and understanding is more sophisticated than is our understanding of what elephants are saying'.²¹⁹

Murray's use of wild translation in 'Cuttlefish' enacts the alterity of these cephalopods.²²⁰ They are 'Spacefarers past living planetfall / on our ever-dive in bloom crystal:', and 'jet / every way to posit some essential set / of life-streaks in the placeless'. In recent years scientific understanding of cephalopod sentience has advanced significantly so that they are now treated as 'honorary vertebrates', meaning their treatment, for example, in scientific experiments, is regulated under EU law.²²¹ Peter Godfrey-Smith addresses cephalopod

²¹⁸ Ibid. p. 92.

²¹⁹ Ibid. p. 94.

²²⁰ Les Murray, 'Cuttlefish', in 'Presence', p. 51. Michael Malay contrasts 'translation by analogy' and 'wild translation' in Murray's 'Presence' poems. Michael Malay, *The Figure of the Animal in Modern and Contemporary Poetry*, pp. 164-65.

²²¹ Peter Godfrey-Smith, *Other Minds: The Octopus and the Evolution of Intelligent Life* (London: William Collins, 2017) p. 59.

sentience in his book *Other Minds: The Octopus and the Evolution of Intelligent Life*. He notes that among these big-brained invertebrates, cuttlefish brains are particularly large relative to body size, compared, say, to octopuses.²²² Cephalopods, moreover, evolved complex nervous systems including eyes, independently from vertebrate species, through convergent evolution.²²³ As Godfrey-Smith observes:

If we can make *contact* with cephalopods as sentient beings, it is not because of a shared history, not because of kinship, but because evolution built minds twice over. This is probably the closest we will come to meeting an intelligent alien.²²⁴

In this sonnet Murray engages with the colour changes in cuttlefish which are thought to function as both camouflage and signalling; in the former the aim is concealment, in the latter, visibility.²²⁵ Cuttlefish also produce *deimatic* displays, dramatic changes of colour and patterning thought to confuse predators.²²⁶ Godfrey-Smith believes ‘that some cephalopods, especially cuttlefish, have an expressiveness’ that exceeds functionality.²²⁷ Cuttlefish produce kaleidoscopic colour changes without reference to external events, perhaps ‘an inadvertent expression of the electrochemical tumult *inside* them’; perhaps a kind of technicolour thinking aloud.²²⁸ Godfrey-Smith describes witnessing a cuttlefish change colour over a period of around forty minutes in a mesmerizing sequence reminiscent of both music and dance.²²⁹ As well as changing colour cuttlefish also communicate through bodily movement, for example during mating displays when rival males lie adjacent to each other.²³⁰ As well as

²²² Ibid. pp. 70-71.

²²³ For a definition of convergent evolution see M. Thain and M. Hickman, *The Penguin Dictionary of Biology, Eleventh Edition* (London: Penguin Books, 2004) p. 174, and earlier, p. 153.

²²⁴ Peter Godfrey-Smith, *Other Minds*, p. 9.

²²⁵ Ibid. pp. 124-25.

²²⁶ Ibid. p. 125.

²²⁷ Ibid. p. 126.

²²⁸ Ibid. pp. 126-27.

²²⁹ Peter Godfrey-Smith, *Other Minds*, pp. 133-35.

²³⁰ Ibid. p. 125.

performing competitive displays of colour and pattern they turn and stretch, their gestures suggesting, respectively, ‘a dance from the court of some civilized French king’ and ‘competitive yoga’.²³¹ Murray’s cuttlefish: ‘[...] commune parallel, rouge to cerulean / as odd proposals of shape and zip fluoresce’. If approached by a predator they resort to camouflage:

[...] a jag-maw apparition
spurts us apart into vague as our colours shrink,
leaving, of our culture, an ectoplasm of ink.

Murray enacts the alienness of a species markedly ‘other’ compared to the human, yet linked by the capacity for talk, an embodied communication which extends spectacularly beyond what we understand as ‘body language’. Further, Murray acknowledges the possibility of cephalopod culture; the cuttlefish, like the poet, signs off with a flourish of ink.

Murray’s ‘Lyre Bird’ celebrates the imitative virtuosity of the eponymous bird.²³² The Superb Lyrebird, *Menura novaehollandiae*, is a large ground dwelling passerine, native to Australia. Lyrebirds mimic animals, other bird species, and various sounds of human origin. Their capacity for imitation is partly due to the exceptionally complex musculature of their syrinx. In this poem Murray displays his poetic virtuosity through alliteration (‘Liar made of leaf-litter), assonance (‘quivering ribby in shim’), and rhyme (‘kink’, ‘link’; ‘shim’, ‘him’, ‘rim’, and so on). There is ‘wild translation’: ‘[...] simulate a triller like a rill mirrored lyrical to a rim’, and playful puns: ‘I alter nothing. Real to real only I sing,’ highlighting the accuracy of the birds’ reproduced sounds. According to Helen Lambert, these varied effects,

compound and transform poetic language into a soundscape full of ambiguity. This effect is what Robert Crawford aptly describes as otherness in language. Murray “rills” Australian

²³¹ Ibid. p. 125.

²³² Les Murray, ‘Lyre Bird’, in ‘Presence’, p. 21.

English with a different tone, that “sounds like a native speaker struggling to communicate a concept: it reads like *translatorese*.”

This cacophony of sound, which finds its emblem in the lyrebird, is also the task of the translator; where words take on a literality that is *almost creatural*.²³³

Murray’s poem enacts the lyrebird’s vocal dexterity:

I mew catbird, I saw crosscut, I howl she-dingo, I kink
forest hush distinct with bellbirds, warble magpie garble, link
cattlebell with kettle boil; I rank ducks’ cranky presidium
or simulate a triller like a rill mirrored lyrical to a rim.

Further layers of ambiguity are found in the poem’s double voice. Does the pronoun ‘I’ refer to the lyrebird’s voice, that of the poet, or both?²³⁴ And who, here, is the ‘liar’? A further source of ambiguity is Murray’s choice of the word ‘shim’, a contraction of ‘she/him’, defined as ‘a person whose sex is not easily guessed on the basis of their hair and clothing’.²³⁵ This seems an odd way to refer to a bird, one of whose most striking characteristics is its sexual dimorphism, the male possessing a spectacular lyre shaped tail which he flourishes during elaborate courtship displays. The next lines further exemplify Murray’s playfulness in this poem, which mimics the lyrebird’s flamboyance. The bird:

hen-sized under froufrou chinks in a quiff display him
or her, dancing in mating time, or out. And in any order.

The reference to ‘out’ might suggest ‘coming out’, hinted at by the bird’s ‘froufrou’ flamboyant plumage, a hint of cross-dressing. ‘And in any order’ adds to the impression of unconstrained boundary-breaching sexuality, perhaps a metaphor for linguistic promiscuity,

²³³ Helen Lambert, ‘The Australian Language Forest: Les Murray’s *Translations from the Natural World*’, *COLLOQUY text theory critique*, 19 (2010) 43-55 p. 51, emphasis added. Lambert cites Robert Crawford, ‘Les Murray’s ‘Presence Sequence’’, in *Counterbalancing Light: Essays on the Poetry of Les Murray*, ed. by Carmel Gaffney (Armidale: Kardoorair Press, 1997) p. 63.

²³⁴ *Ibid.* p. 51.

²³⁵ Tom Dalzell and Terry Victor, eds., *The New Partridge Dictionary of Slang and Unconventional English: Vol II J-Z* (London and New York: Taylor and Francis, 2006) p. 1716.
https://www.google.co.uk/books/edition/The_New_Partridge_Dictionary_of_Slang_an/mAdUqLrKw4YC?hl

something which Murray also employs in the poem. Given that Murray is mostly respectful of biological accuracy in this collection, this playing fast and loose with the bird's mating behaviour appears at odds with his usual practice. But despite Murray's language games the poem is disciplined by its form, that of a sonnet. In the same way that the lyrebird, like any lifeform including the human, is contained by its behavioural and physiological traits, the poem's form is constraining. At the same time, within the bounds of those constraints and perhaps facilitated by their discipline, bird, poet and poem have scope for creativity.

The poem ends:

The miming is all of I. Silent, they are a function
of wet forest, cometary lyrebirds. Their flight lifts them barely a
semitone.

Again, Murray could be referring to himself, the bird or both when he writes 'the miming is all of I'. Miming is a key characteristic of the lyrebird, though not all that defines it; for Murray, particularly in this collection, 'miming' (which suggests 'rhyming') is also significant. To mime is to imitate or mimic, as well as to act something out with gestures, a form of embodied communication. Arguably it is also a form of translation, requiring empathic imaginative engagement with another being. For Lambert:

If the lyrebird is the muse of poetry, then it is because poetry is an act of translation, of transforming and renewing language. The lyrebird symbolises an ambiguous or double-voice: authentic as inauthentic. While the lyrebird's authentic voice is one of mimicry, it is this mime that makes the sounds of the forest, or the bush, appear all the more original.²³⁶

²³⁶ Helen Lambert, 'The Australian Language Forest: Les Murray's *Translations from the Natural World*', p. 52.

Perhaps it is unsurprising that Murray, a poet-translator fascinated by the talk of life-forms beyond the human, should have identified with the lyrebird, a consummate mimic who conjures other voices into being.

Taken as a whole Murray's 'Presence' collection is predicated on the idea that translation from various nonhuman languages into human language is simultaneously both possible and impossible. Implicit is the assumption that nonhuman and human languages have a degree of equivalence, but at the same time animal alterity including communicative otherness, must be respected. The remainder of this chapter focuses on poems by Murray and one by Elizabeth Bishop which speak to the relationships between human and nonhuman talk.

In Murray's poem, 'Possum's Nocturnal Day', the possum dreams:

[...] a welling pictureless encouragement
that tides from far but is in arrival me
and my world, since nothing is apart enough for language.²³⁷

The sense of this poem is deliberately opaque. As Malay observes: 'What this translation underscores, in fact, is our out-of-depthness in this *particular* world: we cannot understand its meanings because we do not understand its conventions'.²³⁸ The meaning of the line 'nothing is apart enough for language' is far from obvious, yet there is an implication that the possum's world lies beyond human language and comprehension. Werner Senn suggests that the possum, centred in its own world achieves 'a presence and self-identity denied to human beings'.²³⁹

²³⁷ Les Murray, 'Possum's Nocturnal Day', in 'Presence', p. 54.

²³⁸ Michael Malay, *The Figure of the Animal in Modern and Contemporary Poetry*, p. 165.

²³⁹ Werner Senn, 'Les Murray', in *A Companion to Australian Literature since 1900*, p. 277.

‘From Where we Live on Presence’ is the penultimate poem in Murray’s collection.²⁴⁰ The poem’s title is syntactically awkward consisting of two apparently unrelated phrases bolted together. The first phrase, ‘From Where we Live’, implies a view from somewhere, echoing Nietzsche’s suggestion that each living thing feels ‘within itself the flying center of the world’.²⁴¹ The second phrase signals that the poem concerns ‘presence’, a significant concept for Murray.²⁴² For Murray poetry was presence, and also Catholic, while ‘prose is Protestant-agnostic, / story, discussion, significance.’²⁴³ Murray’s assertion relates in part, to his Catholic faith, specifically the doctrine of transubstantiation.²⁴⁴ In further clarification Murray stated that Catholicism ‘was the most poetical form of Christianity I’d struck’.²⁴⁵ He liked ‘the idea of a metaphor going all the way to being true, a person could be bread and wine and not just like bread and wine’.²⁴⁶ While, as Malay notes, Murray’s observations on poetry, prose and presence are not easily separable from his religious beliefs, they can nevertheless ‘be recast in much more general terms’.²⁴⁷ The presence inherent in poetry stems from the fact that it is ‘charged with the same currents of energy [Murray] detects in the world, and so is uniquely endowed with the ability to reflect and generate that energy in language’.²⁴⁸ Kennedy writes of rhetorical energy, including the rhetoric in the more-than-human world.²⁴⁹ For example, if an intruder is sighted an animal might give an alarm call. The others will

²⁴⁰ Les Murray, ‘From Where we Live on Presence’, in ‘Presence’, p. 53.

²⁴¹ Friedrich Nietzsche, ‘Truth and Lie in the Extra-Moral Sense’, in *The Portable Nietzsche*, trans. and ed. by Walter Kaufmann (New York: Penguin Books, 1997) pp. 42-46, quoted by Dorian Sagan, ‘Introduction: Umwelt After Uexküll’, in Jakob von Uexküll, *A Foray into the Worlds of Animals and Humans*, pp. 1-2.

²⁴² Michael Malay, *The Figure of the Animal in Modern and Contemporary Poetry*, pp. 166-71.

²⁴³ Ibid. p. 167. See also Missy Daniel, ‘Poetry is Presence: An Interview with Les Murray’, *Commonweal*, 22 May 1992, 9-12 p. 11; lines quoted from Murray’s quatrain, ‘Distinguo’, from Les Murray, *Dog Fox Field*, (1990) in Les Murray, *Collected Poems* (Manchester: Carcanet Press Limited, 1998), p. 348.

²⁴⁴ Michael Malay, *The Figure of the Animal in Modern and Contemporary Poetry*, p. 167.

²⁴⁵ Ibid. p. 167. Malay quotes from ‘Les Murray: The Poet Who Saved the Snowy’, interview with Julia Baird, *ABC Radio 4*, June 2006, ‘Sunday Profile’.

²⁴⁶ Ibid. pp. 167-68. Malay quotes from ‘a Conversation with Les Murray’, interview with J. Mark Smith, *Image* (Winter 2009/10) 63-75 p. 69.

²⁴⁷ Michael Malay, *The Figure of the Animal in Modern and Contemporary Poetry*, p. 168.

²⁴⁸ Ibid. p. 168.

²⁴⁹ George A. Kennedy, ‘A Hoot in the Dark: The Evolution of General Rhetoric’, pp. 2 & 3-4.

heed the message and act accordingly: ‘Energy has been transmitted by a sign’.²⁵⁰ Kennedy links rhetorical energy with poetry, observing that, ‘In metaphor, energy is expended by the author in defamiliarizing the language and by the reader in mentally experiencing the presence of a force affecting the meaning’.²⁵¹ For Murray poetry has the capacity to imbue its objects with presence, because it ‘models the fullness of life’.²⁵² Malay argues that ‘What is being cherished here is poetry’s wholeness, its ability to partake of (rather than simply represent) the world it describes’.²⁵³ This statement is reminiscent of Bouttier’s account of poetic texts as creaturely, and Hughes’ view of a poem as ‘a sort of animal.’²⁵⁴ It also recalls Knickerbocker’s “‘sensuous poesis,” the process of rematerializing language specifically as a response to nonhuman nature’.²⁵⁵

When juxtaposed then, the two phrases – ‘From Where we Live’ and ‘on Presence’ – intimate that the poem addresses issues of *presence* from various *points of view*. In so doing the poem is emblematic of Murray’s whole collection which brings into focus the unique perspectives of all manner of living beings. While these vary in scale and complexity, all are afforded attention and respect as Murray strives to enact each animal’s *Umwelt*. Murray’s poems bring forth the living presence of each subject, allowing them to, as it were and albeit imperfectly, speak through the artifice of his translations.

²⁵⁰ Ibid. p. 4.

²⁵¹ Ibid. p. 3.

²⁵² Les Murray, ‘Poems and Poesies’, in *The Paperbark Tree*, p. 348; Michael Malay, *The Figure of the Animal in Modern and Contemporary Poetry*, p. 168; see also McGilchrist’s concept of ‘presencing’, Iain McGilchrist, *The Master and his Emissary*, p. 244.

²⁵³ Michael Malay, *The Figure of the Animal in Modern and Contemporary Poetry*, p. 168.

²⁵⁴ Sarah Bouttier, ‘Creaturely Texts, Texts on Creatures’, *European Journal of English Studies*, 19, 1 (2015) 111-22; Ted Hughes, *Winter Pollen: Occasional Prose*, ed., William Scammell (London: Faber and Faber Limited, 1995) p. 10.

²⁵⁵ Scott Knickerbocker, *Ecopoetics*, p. 2.

The poem begins: ‘A human is a comet streamed in language far down time; no other / living is like it’. This reference to humans is noteworthy as they are otherwise mostly absent from Murray’s collection. References to human artefacts occur occasionally, for example in ‘Lyre Bird’ there is ‘kettle-boil’ and ‘chainsaw’, but these are peripheral, part of the lyrebird’s imitative soundscape.²⁵⁶

Murray’s opening line asserts human uniqueness – ‘no other / living is like it’. Moreover, this seems to rest at least in part on *Homo sapiens*’ linguistic capabilities. This could signal human exceptionalism, at odds with the rest of the collection in which humans are decentred. Writing about ‘Presence’ Murray explicitly wished to take ‘a rest from the human’, and yet, as Peterson points out, in any (post)human enterprise it is impossible to efface the human.²⁵⁷ The poet is present in every line; he chooses which aspects of the natural world to translate, and how to do this. Even as the poet engages with nature’s alterity, he cannot be other than a human ‘streamed in language’.

In this poem Murray employs a defamiliarizing metaphor to express ideas about humanity. Comets blaze spectacularly in the night sky but are essentially inert lumps of icy rock streaming gaseous tails. Orbiting the sun, they are remote from earthly life. Here Murray both valorises and diminishes humans as if they are simultaneously remarkable *and* marginal. The phrase ‘no other / living is like it’ suggests humans are exceptional yet lonely outliers alienated from their fellow earthlings. For Bert Almon: ‘To live as a comet streamed in language is spectacular but a little ominous as well: human beings are signs and portents, special and difficult cases’.²⁵⁸

²⁵⁶ Les Murray, ‘Lyre Bird’, in ‘Presence’, p. 21.

²⁵⁷ Peter F. Alexander, *Les Murray: A Life in Progress* (South Melbourne, Victoria: Oxford University Press, 2000) p. 244, see earlier, pp. 63-64; Christopher Peterson, *Monkey Trouble*, p. 4.

²⁵⁸ Bert Almon, ‘Fullness of Being in Les Murray’s “Presence: Translations from the Natural World”’, p. 130.

The second line of the poem discloses who is making this ambiguous assessment of the human. It is a beetle who contrasts human ways of being with its own: ‘Beetlehood itself was my expression’; the beetle’s ‘being is simply expressed by what it is’.²⁵⁹ Murray puts words into the beetle’s mouth, translating its unique embodied eloquence. But, as previously noted, claiming to speak for nonhumans is potentially problematic. It suggests they cannot speak for themselves and risks disseminating misinformation through anthropomorphic misunderstanding. Knickerbocker, however, takes a nuanced approach to the issue, contending that ‘such figurative devices as personification and apostrophe should not be dismissed as anthropocentric pathetic fallacies with which we merely project the human onto the nonhuman’.²⁶⁰ He argues that,

When David Gilcrest claims that the “attempt to recognize the nonhuman subject as linguistically competent” is “an essentially colonizing move,” he builds the “trope of speaking nature” out of straw. First, to represent a nonhuman subject as “linguistically competent” is not actually to *believe* it can talk.²⁶¹

Does Murray’s representation of the beetle as ‘linguistically competent’ mean that he believes it can talk? His statement that ‘living things do all talk’ suggests that his answer might be ‘yes’ and, based on available evidence, for example regarding the evolutionary continuities between nonhuman and human forms of communication and the ubiquity of communication in nature, this position would be hard to refute. However, Gilcrest’s argument that putting human words into nonhuman mouths is a ‘colonizing move’ deserves consideration with respect to Murray’s work. Bert Almon questions Murray’s ‘audacity’ in

²⁵⁹ Ibid. p. 130. Simon Barnes referred to this as the ‘Is-ness’ of living things; Simon Barnes, *Ten Million Aliens: A Journey Through the Entire Animal Kingdom* (London: Short Books, 2014) p. 249.

²⁶⁰ Scott Knickerbocker, *Ecopoetics*, p. 5.

²⁶¹ David W. Gilcrest, *Greening the Lyre: Environmental Poetics and Ethics* (Reno: University of Nevada, 2002) p. 53, cited by Scott Knickerbocker, *Ecopoetics*, p. 5.

believing ‘that language can speak of a world of beings outside of language [...]’.²⁶² But Almon’s assertion that nonhumans are ‘outside language’ depends on how language is defined and ignores the communicative and rhetorical virtuosity of living things. Malay asks (rhetorically): ‘On whose authority, [...], does [Murray] ‘speak’ for creatures who do not speak our language, and how can one trust him (and the English language) to perform that work?’²⁶³ While this is a valid question, I would argue that it does not undermine Murray’s approach. Murray takes it for granted that all living things talk, each in their own way. Thus, to translate from the natural world, from nonhuman language to human language, is not a mere conceit or flight of poetic fancy. Through symphysis, empathetic imagination and attention to bodily poesis Murray engages with all manner of nonhumans, offering his poems ‘in the spirit of earnest ‘translations’’.²⁶⁴

As previously noted, Malay identifies two types of translation employed by Murray.²⁶⁵ The first, ‘translation by analogy’ recognises both the interconnectedness of living things and their common interests. It works ‘through the discovery or forging of analogies, a process that renders what we do not know through the terms of what we do’.²⁶⁶ Malay illustrates this with reference to the poem ‘Spermaceti’ in which the whale’s use of sonar is translated through analogy with sight.²⁶⁷ The whale declares: ‘I sound my sight’, ‘And peer in long low tones’.

²⁶² Bert Almon, ‘Fullness of Being in Les Murray’s “Presence: Translations from the Natural World”’, p. 123, quoted by Michael Malay, *The Figure of the Animal in Modern and Contemporary Poetry*, p. 165.

²⁶³ Michael Malay, *The Figure of the Animal in Modern and Contemporary Poetry*, p. 165.

²⁶⁴ Ibid. p. 163.

²⁶⁵ Michael Malay *The Figure of the Animal in Modern and Contemporary Poetry*, pp. 164-65; see earlier, p. 90.

²⁶⁶ Ibid p. 164.

²⁶⁷ Ibid p. 164. Les Murray, ‘Spermaceti’, in ‘Presence’, p. 44. In fact, the apparently ‘alien’ (to humans) ability to echolocate has been demonstrated in some blind people who also ‘sound their sight’, albeit in less sophisticated ways than cetaceans. See ‘Echolocation Allows Blind Humans to ‘See’’, *Optometry Today*, October 8, 2009, <https://optometry-today.com/echolocation-allows-blind-humans-to-see/>

While ‘translation by analogy’ might seem like the simplistic anthropomorphic projection of human experience onto other animals, in fact it is more akin to the critical anthropomorphism endorsed by de Waal and others, which acknowledges evolutionary connectedness while respecting alterity.²⁶⁸ Malay observes that:

translation by analogy produces and sustains complex effects. Even as it bridges the gap between the human and the nonhuman, offering a form of access into another way of being, analogy can also open up gaps of its own, or at least make us newly conscious of existing gaps. Through analogy, we may recognise that the whale’s sensitivity to sound is not our sensitivity to sound, or that our capacity for vision is profoundly unlike the whale’s. A double movement occurs whereby ‘translating’ the nonhuman into English, through the creation or discovery of analogy, amplifies our sense of otherness.²⁶⁹

The other type of translation identified by Malay is ‘wild translation’.²⁷⁰ He questions whether translation by analogy risks distortion, trespassing ‘on the whale’s singularity’ by trying to imagine it as if viewed through a human lens.²⁷¹ He suggests that Murray, by way of acknowledging these concerns, ‘pursues a second strategy that acts as a kind of counterweight to the first’.²⁷² Wild translation makes no ‘attempt to enfold the other into what we know’, instead intimating alterity by bending and breeching grammatical conventions.²⁷³ Steven Matthews puts it thus: ‘there is a breaking with normative terms and syntax, in order to establish our distance from the subjects, and the fact that the various creatures’ ‘voices’ are received through the difficult process of translation’.²⁷⁴

²⁶⁸ Frans de Waal, *Are We Smart Enough to Know How Smart Animals Are?* p. 26.

²⁶⁹ Michael Malay, *The Figure of the Animal in Modern and Contemporary Poetry*, p. 164.

²⁷⁰ *Ibid.* p. 164.

²⁷¹ *Ibid.* p. 164.

²⁷² *Ibid.* p. 164.

²⁷³ *Ibid.* p. 164.

²⁷⁴ Steven Matthews, *Les Murray* (Manchester: Manchester University Press, 2001) p. 123.

Murray's wild translations rematerialize language, defamiliarizing it to the point that it resembles a foreign language. Two poems which exemplify this are 'Bat's Ultrasound' and 'Insect Mating Flight'.²⁷⁵ In these poems Murray creates playful translations of the imagined talk of bats and insects. In 'Bat's Ultrasound' he invokes a communicative mode inaccessible to human hearing.²⁷⁶ In this poem, Murray, 'By turns defamiliarizing and unabashedly anthropomorphic, serious and humorous', playfully twists the conventions of English to invoke bat communication while 'wryly' reminding readers of the poem's artifice: 'The poem offers a translation *and* disavows it, speaking wholeheartedly for the bats while qualifying its own pronouncements'.²⁷⁷ For example,

*ah, eyrie-ire, aero hour, eh?
O'er our ur-area (our era aye
ere your raw row) we air our array,
err, yaw, row wry – aura our orrery,
our eerie ü our ray, our arrow.*

A rare ear, our aery Yahweh.

The poem's sound effects are reminiscent of an old-fashioned radio, badly tuned, where snatches of meaningful content are perceived intermittently. 'Bat's Ultrasound' is scientifically prescient in that bat utterances have been discovered to be full of meaning.²⁷⁸ The poem exemplifies what Knickerbocker has described as 'poetry's natural artifice' in which the 'gap between word and world' is acknowledged, but rather than seeing this as a failure of language the figurative nature of language is explored and celebrated.²⁷⁹

²⁷⁵ Les Murray, 'Bats' Ultrasound', from *The Daylight Moon* (1987), in Les Murray, *Collected Poems* (Manchester: Carcanet Press Limited, 1991) p. 260; Les Murray, 'Insect Mating Flight', in 'Presence', p. 18.

²⁷⁶ Les Murray, 'Bats' Ultrasound', in Les Murray, *Collected Poems*, p. 260.

²⁷⁷ Michael Malay, *The Figure of the Animal in Modern and Contemporary Poetry*, pp. 163 & 164.

²⁷⁸ See, for example, Yosef Prat, Mor Taub and Yossi Yovel, 'Everyday bat vocalizations contain information about emitter, addressee, context and behavior', *Scientific Reports*, 6, 39419 (2016) 1-10 <https://www.nature.com/articles/srep39419>, and Virginia Morell, 'When the bat sings', *SCIENCE*, 344, 6190 (2014) 1334-37.

²⁷⁹ Scott Knickerbocker, *Ecopoetics*, pp. 8 & 9.

A similar approach characterises ‘Insect Mating Flight’, a poem which also plays with the – to human ears – unintelligible drone of an (unspecified) insect:

[...] Ee sings:
with our chew eyewords' whim
moth reed haze racing vane,
butts hum and buoy or, fairer moan,
ex pencil eye fits elf, is gain,
Microbes leap ova neither lung
disdances leery quid threw awed.
*Clewings eerie dissent inner cord.*²⁸⁰

Here we are confronted by something akin to the ‘word salad’ associated with severe mental health problems and some neurological disorders. For Murray, however, what appears nonsensical facilitates exploration of ways of being ‘that stand outside ostensive or descriptive frames of reference. By imagining different forms of life, his translations ‘get out into nonsense’ in order to retrieve, not so much clarity or comprehension but an apprehension of otherness’.²⁸¹ And yet, in this poem, as with ‘Bat’s Ultrasound’, readers are not entirely stranded on the far shores of otherness. Through close attention to the sound effects in Murray’s ‘nonsense’, meaning emerges like a developing photographic image, an experience akin to acquiring an ‘ear’ for a foreign tongue. For example, the lines ‘*with our chew eyewords' whim / moth reed haze racing vane*’ can be read as ‘without you I would swim / my three days race in vain’, suggesting risky mating flights come to nothing unless a mate is attracted by ‘*fairer moan*’ or ‘pheromone’.²⁸² Here we must pay attention to what the insect is saying, listening through the unintelligible drone or whine to the sense beneath. The artifice of Murray’s poem both estranges us from, and simultaneously reveals, truths about the ‘talk’ of living things; by paying attention to Murray’s sound effects we are guided to a deeper understanding and sense of commonality, in this case regarding the imperative to find a mate

²⁸⁰ Les Murray, ‘Insect Mating Flight’, in ‘Presence’, p. 18.

²⁸¹ Michael Malay, *The Figure of the Animal in Modern and Contemporary Poetry*, p. 197.

²⁸² Bert Almon, ‘Fullness of Being in Les Murray’s “Presence: Translations from the Natural World”’, p. 124.

and procreate, shared by all life forms engaging in sexual reproduction. It is this that Meijer insists on when she writes that animals ‘have been speaking all along’.²⁸³

Ludwig Wittgenstein’s concept of the ‘language-game’ is discussed by Meijer and is relevant to Murray’s work.²⁸⁴ Wittgenstein argued that the meaning of a word or utterance depends on context and use; meaning varies according to the rules of whichever ‘language-game’ is in play.²⁸⁵ Meijer argues that this idea aids thinking about animal communication because it is open, lacking a ‘fixed definition’ and consequently appropriate ‘for studying a variety of linguistic actions’.²⁸⁶ Further: ‘Language games extend beyond words alone to gestures, posture, movement and sound’.²⁸⁷ Wittgenstein’s broad understanding of ‘grammar as a framework for meaningful interaction’ is also applicable to the grammar of animal communication ‘because it is looser and open to other types of rules’.²⁸⁸ Meijer observes that ‘Within human language we also find different language games, that can create meaning in different ways. *Poetry can play with the rules of grammar, or question them, and yet it is still meaningful, sometimes precisely for that reason*’.²⁸⁹ Murray’s grammatically challenging ‘wild translations’ play with and question conventional linguistic structures, defamiliarizing language in ways that disrupts expectation to give glimpses of the more-than-human. Numerous examples of ‘wild translation’ occur in Murray’s ‘Presence’ collection, sometimes co-occurring with ‘translation by analogy’. Examples include: ‘By its nobship sailing upside down,’ (‘Mollusc’) and, from ‘Shoal’:

Eye-and-eye near no eye
is no I, though gill-pulse drinks

²⁸³ Eva Meijer, *Animal Languages*, pp. 231-32.

²⁸⁴ *Ibid.* p. 45.

²⁸⁵ *Ibid.* p. 45.

²⁸⁶ *Ibid.* p. 45.

²⁸⁷ *Ibid.* p. 45.

²⁸⁸ *Ibid.* pp. 183-84.

²⁸⁹ *Ibid.* p. 184, emphasis added.

and nery fins spacewalk. [...] ²⁹⁰

Returning to 'From Where we Live on Presence', what the beetle expresses for and through itself is *embodied*,

[...] said in fluted burnish, in jaw-tools, spanned running, lidded
shields
over an erectile motor. With no lungs to huff hah! or selah!

The beetle communicates with its entire being; through its appearance ('fluted burnish'), its 'jaw-tools', and its movements, whether running or in flight. Every attribute is eloquent. Unlike terrestrial vertebrates, insects lack lungs and therefore cannot make sounds as, say, mammals do. The beetle tells us that 'few sixwalkers converse'. Here, 'converse' implies human speech, or something like it, and yet this is immediately qualified by the next lines which address the communications of ants who do 'converse' on meeting: 'hinge back work-jaws, part their food-jaws, merge mouths in / communion / and taste their common being; any surplus is message and command'. Ants, as social insects, communicate about food sources and other matters in ways that solitary insects such as beetles, do not. The poem suggests an egalitarian approach to communication in the natural world. There is no hierarchy among communicative modes, each creature has its own means of expression.

In line eleven the insect succinctly narrates events in its adult stage, its 'capsule fourth life':

I mated once, escaped a spider, ate things cooked in wet fires of decay
but for the most part, *was*. I could not have put myself better,
with more lustre, *than my presence did*. I translate into segments,
laminates,
cachou eyes, pungent chemistry, cusps. But *I remain the true word for
me.*²⁹¹

²⁹⁰ Les Murray, 'Shoal' and 'Mollusc', in 'Presence', pp. 22 & 26.

²⁹¹ Emphasis added.

Compared to the human, an abstracted comet, the beetle is thoroughly grounded, down to earth and of the earth. It is content with itself: 'I could not have put myself better, / with more lustre, than my presence did'. Murray reiterates that presence is, in and of itself, eloquent. The last sentence of the poem: 'But I remain the true word for / me', conjures a creature authentically present and wholly itself living in 'full dignity' within an ecosystem.²⁹²

In 'From Where we Live on Presence', Murray evokes and enacts a way of being remote from human experience. That he does so in human language is unavoidable – this is, after all, a poem – however, while Murray could be criticised for presuming to speak for another creature, he frames his poems as 'translations'. A translation attempts to convey meaning from one language into another. The translator is a conduit for another's thoughts and experience; it is not the translator's role to speak for the other.

Bishop's moose and Wittgenstein's lion

Elizabeth Bishop's poem, 'The Moose', describes an encounter with the eponymous animal, in particular dwelling on the eloquence of the moose's quiet presence.²⁹³ I will discuss this encounter in light of Wittgenstein's statement that 'if a lion could speak, we could not understand him', as well as considering Bishop's use of poetic effects.²⁹⁴ The first part of the poem describes the journey of a bus travelling from late afternoon through the night, and westward through varied landscapes. It begins with a long recursive sentence over six, six-line stanzas. The sentence includes three clauses beginning 'where': 'where the bay leaves

²⁹² The term 'full dignity' originates in a poem by Les Murray. Les Murray, 'The Meaning of Existence', in *Poems the Size of Photographs* (Manchester: Carcanet Press Limited, 2002) p. 101, line 8. See earlier, pp. 29 & 157-158.

²⁹³ Elizabeth Bishop, 'The Moose', in *Complete Poems* (London: Chatto & Windus, 2004) pp. 169-73.

²⁹⁴ Eva Meijer, *Animal Languages*, pp. 149-50. See also, Vicki Hearne, *Animal Happiness: A Moving Exploration of Animals and Their Emotions* (New York: Skyhorse Publishing, 2007) pp. 167-68.

the sea'; 'where if the river / enters or retreats'; 'where, silted red, / sometimes the sun sets / facing a red sea,'. In theory it would be possible to extend the sentence indefinitely with further iterations of this kind. Recursion has been regarded as a defining feature of human language, and yet, as previously noted, has also been discovered in the languages of other animals.²⁹⁵ Bishop's use of recursion, together with other repetitions (for example, the word 'red') is reminiscent of lullabies and nursery rhymes. Allusions to childhood stories and songs are enhanced by rhyme, for example in stanza seven:

Goodbye to the elms,
to the farm, to the dog.
The bus starts. The light
grows richer; the fog,
shifting, salty, thin,
comes closing in.

The poem tells a story, but the poem's power derives not only from its content – the description of a journey, the journey's psychological effects, and the encounter with the moose – but from sound effects which, mostly, lull and soothe. These effects are achieved through rhyme, repetition, rhythm, lists, alliteration and assonance. Reading the poem, the reader also experiences herself as if on a journey, an effect conjured by the poem's prosody which, dream-like, carries its latent content, in counterpoint to the poem's manifest content.²⁹⁶

The poem also journeys through memory back to childhood, prompted by

an old conversation
– not concerning us,
but recognizable, somewhere,
back in the bus:

²⁹⁵ Marc D. Hauser, Noam Chomsky and W. Tecumseh Fitch, 'The Faculty of Language', p. 1578; see earlier, p. 151.

²⁹⁶ Sigmund Freud, 'The Dream-work', in *The Interpretation of Dreams*, The Pelican Freud Library, Volume 4, trans. by James Strachey (Harmondsworth, Middlesex: Penguin Books Ltd., 1978) pp. 381-382.

This 'dreamy divagation' which

begins in the night,
a gentle, auditory,
slow hallucination....

evokes memories of the voices of grandparents,

Talking the way they talked
in the old featherbed,
peacefully, on and on,

This talk signals that,

Now, it's all right now
even to fall asleep
just as on all those nights.

These reassuring murmurings, rather than the words themselves, convey a deep sense of peace. Despite the unsettling content ('deaths, deaths and sicknesses;'), this gloomy litany offers comfort through acceptance of life's realities and hardships, as well as the murmuring sounds:

"Yes . . ." that peculiar
affirmative. "Yes . . ."
A sharp, indrawn breath,
half-groan, half acceptance,
that means "Life's like that.
We know *it* (also death)."

This eloquent 'half-groan' of a 'Yes', uttered on an intake of breath is reminiscent of Wittgenstein's observations on aesthetic judgments, as discussed by Meijer: 'it is precisely in the non-verbal judgment that the connoisseur can be recognised: by a nod, a posture, the way someone hums their agreement, or the sound of a single word'.²⁹⁷ In discussing 'embodied

²⁹⁷ Eva Meijer, *Animal Languages*, p. 183.

grammar' Meijer observes that in both animals and humans the non-verbal aspects of language are far from 'primitive', evoking a volume of meaning with great concision.²⁹⁸

Bishop's inclusion of this 'Yes', and the accompanying 'sharp, indrawn breath' exemplifies her 'physical response to memory', the visceral nature of which she 'was trying to 'get into poetry'' from early on.²⁹⁹ The indrawn breath concisely conveys a volume of meaning.

The poem turns on an encounter with a wild creature. The progress of the cosy, enclosed, human world cut off from 'nature' and epitomised by the bus is abruptly halted:

– Suddenly the bus driver
stops with a jolt,
turns off his lights.

A moose has come out of
the impenetrable wood
and stands there, looms, rather,
in the middle of the road.

The appearance of the moose who is

Towering, antlerless;
high as a church,
homely as a house

draws everyone's attention. Conversations cease and some passengers

exclaim in whispers,
childishly, softly,
"Sure are big creatures."
"It's awful plain."
"Look! It's a she!"

The moose's presence has a powerful effect as 'she looks the bus over, / grand, otherworldly.' The poem's narrator asks:

²⁹⁸ Ibid. pp. 182-83.

²⁹⁹ Jonathan Ellis, *Art and Memory in the work of Elizabeth Bishop, Bishop* (Aldershot, Hampshire: Ashgate Publishing Limited, 2006) p. 58. See earlier, p. 129.

Why, why do we feel
(we all feel) this sweet
sensation of joy?

When Wittgenstein stated, ‘If a lion could speak, we could not understand him’, he was not commenting on animals, rather he was using the example of a lion to draw attention to how ‘humans can be a mystery to each other’.³⁰⁰ There have, nonetheless, been various challenges to Wittgenstein’s statement, based on the assumption that the lion was literal rather than figurative. I will focus here on the response of Vicki Hearne. Hearne argues that ‘lions do talk to some people’, notably lion trainers, and regards Wittgenstein’s statement as deriving from the misguided inclination of ‘bookish types [...] to mystify animals [she adds, ‘not, perhaps, in Wittgenstein’s case...’], as if they were, [...], more precious when uninterpretable’.³⁰¹ She writes: ‘The lovely thing about Wittgenstein’s lion is that Wittgenstein does not leap to say that his lion is languageless, only that he is not talking’.³⁰² Crucially for Hearne ‘[...] the reticence of this lion is not the reticence of absence, absence of consciousness, say, or knowledge, but rather of tremendous presence, [...], and so the reticence of all consciousness that is beyond ours, [...]’.³⁰³ Hearne’s observations regarding Wittgenstein’s lion hold for all living things. Bishop’s moose fills the bus passengers with joy, deriving in part from a sense that the moose is not ‘languageless’, its reticence betokening its ‘tremendous presence’. As the bus moves on leaving the moose behind on the ‘moonlit macadam’, the encounter has been profoundly affecting, disclosing worlds beyond the limits of human language.

³⁰⁰ Eva Meijer, *Animal Languages*, p. 149.

³⁰¹ Vicki Hearne, *Animal Happiness*, p. 167.

³⁰² *Ibid.* p. 169.

³⁰³ *Ibid.* p. 170.

Conclusion

A survey of communication within and between living things broadly supports Murray's statement that all living things 'talk'; information and communication are instantiated in the very business of being alive.³⁰⁴ Further, the variety of communicative modes within nature is dazzling, including the infrasound rumbles of whales and elephants, the lightshows of fireflies, the changing colours of cuttlefish, scent-marking in canids and numerous other species, as well as song, dance and bodily gestures. Returning to the question 'What Is It Like to Be a Bat?', one response is that it is to be a mammal 'with the most complex form of vocal communication after humans', an insight dependent on recording technology enabling humans to hear and begin to comprehend bats' ultrasound.³⁰⁵

Despite recent progress, a bias towards human exceptionalism has hampered and distorted the study of nonhuman communication and language. Moreover, much research has been motivated by the anthropocentric mission to shed light on the origins of human language, rather than to understand animal communication for its own sake, driven by a genuine curiosity about what animals have to say. Peterson suggests that:

Rather than avoid the question of language altogether, should we not insist instead that the question of where we draw the line between human language and nonhuman "vocalizations" is among the most pressing questions, a question that calls on us with considerable urgency, but that can *only remain unanswerable, a question that must be posed and reposed precisely so that it remain open, so that no final definition of language can be imposed?*³⁰⁶

³⁰⁴ Paul Davies, *The Demon in the Machine*, see for example, pp. 25-26.

³⁰⁵ Eva Meijer, *Animal Languages*, p. 179.

³⁰⁶ Christopher Peterson, *Monkey Trouble*, p. 37, emphasis added.

While it is debatable that the question of where the line should be drawn between human and nonhuman language is amongst ‘the most pressing’ we face, and debatable whether such a boundary even exists, nevertheless there is much to recommend in the idea of keeping this question open.

Discussion

How sad to think that nature speaks and mankind doesn't listen. Victor Hugo¹

It can, however, also come about, if I have both will and grace, that in considering the tree I become bound up in relation to it. The tree is no longer It. Martin Buber²

'Come into animal presence' Denise Levertov³

...those who are not with the animals are against them. Randy Malamud⁴

This project was shaped by several factors including my fascination with animal behaviour, particularly curiosity about how other beings experience the world, and an interest in the possibilities – and limitations – of ‘animal poetry’. I set out to explore poetry’s potential to enact animal being, and its role in re-connecting us with worlds beyond the human sphere.

My thesis developed organically, the completed text a distillation of a process characterised by false starts, serendipitous discoveries, flashes of insight, and dispiriting dead ends. Some of my early aims, for example to research the nature of animal consciousness, were overly ambitious; for me, the ‘hard problem of consciousness’ remains just that.⁵ But abandoning one line of enquiry opened up others.

My PhD draws on science and the humanities to investigate animal senses, emotions, and communication, exploring both evolutionary continuity between species, including humans, *and* alterity. Both the ‘magic well’ metaphor and the concept of the *Umwelt* were invaluable in illuminating life’s richness and diversity, and each species’ unique perspective, while

¹ Victor Hugo, 1840. <https://www.activesustainability.com/environment/green-philosophy-defending-planet-sustainable-future/>

² Martin Buber, *I And Thou*, trans. by Ronald Gregor Smith (Edinburgh: T. & T. Clark, 1958) p. 7.

³ Denise Levertov, ‘Come into Animal Presence’, in *Poetry*, 96, 1 (1960) pp. 1-2.

<https://www.poetryfoundation.org/poetrymagazine/browse?contentId=28331>

⁴ Randy Malamud, *Poetic Animals and Animal Souls* (New York: Palgrave Macmillan, 2003) p. 70.

⁵ Oliver Burkeman, ‘Why can't the world's greatest minds solve the mystery of consciousness?’ *The Guardian*, Wed 21 Jan 2015, <https://www.theguardian.com/science/2015/jan/21/-sp-why-cant-worlds-greatest-minds-solve-mystery-consciousness>

ecological and evolutionary principles highlight the essential interconnectedness of earth dwellers. When fully appreciated, these similarities, connections and differences give rise to empathy with, and respect for, living beings and living systems, facilitating a poetic vision of the natural world.

In writing my thesis I have drawn on multiple voices and approaches, bearing on questions of nonhuman sentience, the relationships humans have with the more-than-human world, and the nature of poetry, particularly poetry which strives to enact animal being so that readers might, albeit imperfectly, ‘Come into animal presence’, as invited by Denise Levertov.⁶ In this poem Levertov describes a world where an animal ‘mildly / disregards human approval’, and the

[...] joy when the insouciant
armadillo glances at us and doesn't
quicken his trotting
across the track into the palm brush.

This is a world of respect and co-existence.

*

The work of Scott Knickerbocker, Randy Malamud and Aaron Moe informed my project from early on, as did Michael Malay's concept of seeing poetically. Martin Buber's philosophical position regarding I-Thou relationships, further enriched and clarified my thinking, along with Ralph Acampora's concept of symphysis and Iain McGilchrist's wide-ranging exploration of hemispheric difference and its implications. As my project progressed, the theme of embodiment emerged as increasingly central: as a biological concept; as a means of facilitating empathic engagement with other living things through a ground of shared corporeality, and as a lens through which I could write and read poetry. Finally, it has

⁶ Denise Levertov, ‘Come into Animal Presence’.

been my aim from the outset to embrace complexity, guided by Vinciane Despret's additive empiricism, the watchword of which is 'and-and'.⁷ In writing this thesis I have found that various threads have interwoven, creating a sort of ecosystem of ideas. While, inevitably and necessarily, this textual ecosystem is far simpler than any living ecosystem with its uncountable interrelationships, I nevertheless hope both thesis and collection live up to – and embody – my chosen title, '*...the weave of presence*'.

*

My project has progressed against the backdrop of an escalating ecological crisis. While there are hopeful signs it is unclear whether meaningful change is achievable in the time available.⁸ Given this context it is not unreasonable to ask: what part, if any, can poetry play in altering our trajectory? Are poems mere distractions or can they help to heal our fractured relationships with nature? I would argue that poetry does have a role. As George Monbiot, Philip Pullman and others assert, bald facts and intellectual arguments are generally, on their own, insufficient to bring about change. Something more is required which appeals to the emotions, captures the imagination, causes us to pay attention, and invokes truths beyond taken-for-granted assumptions. Stories, poems, and other artforms all have the potential to change minds, however, as Ruth Padel argues, science too has its 'narrative magic'.⁹

Malamud draws on the work of Leonard Scigaj who makes the case for 'sustainable poetry'.¹⁰ Scigaj distinguishes between unsustainable, anthropocentric 'establishment poetry'

⁷ Bruno Latour, 'Foreword: The Scientific Fables of an Empirical La Fontaine', in Vinciane Despret, *What Would Animals Say If We Asked the Right Questions?* (Minneapolis, Minnesota: University of Minnesota Press, 2016) p. ix.

⁸ See, for example, Cameron Brick and Sander van der Linden, 'Yawning at the apocalypse', *The Psychologist*, September 2018, pp. 30-35.

⁹ Ruth Padel, 'The science of poetry, the poetry of science', *The Guardian*, Fri 9 Dec 2011 p. 1. <https://www.theguardian.com/books/2011/dec/09/ruth-padel-science-poetry>

¹⁰ Leonard M. Scigaj, *Sustainable Poetry: Four American Ecopoets* (Lexington: University Press of Kentucky, 1999), cited by Randy Malamud, *Poetic Animals and Animal Souls* (New York: Palgrave Macmillan, 2003) pp. 69-70.

which ‘stylizes and sanitizes’ humans’ damaging impact on nature.¹¹ In contrast, ‘sustainable’ poetry connects inner and outer worlds, ‘where the inner world refers to the realm of human art and the human mind, and the outer world consists of trees and animals and so forth’.¹² For Scigaj, sustainable poems are, ‘the verbal record of an interactive encounter in the world of our sensuous experience between the human psyche and nature, where nature retains its autonomy [...]’.¹³ In the face of the ecological damage inflicted on nature by humans, Malamud argues that artistic neutrality is unviable; poetry either helps or harms, and we must choose which it is to be.¹⁴

*

A key theme of my thesis is that art and science can inform one another, whether it be through the use of metaphor (Padel describes new metaphors as ‘new mapping[s] of the world’); the attention to detail which both spheres demand; a common willingness to question received wisdom and to imagine what lies beyond it, or through the acceptance of ambiguity and uncertainty embraced by both poets and scientists.¹⁵ It is also necessary for both poetry and science to be truthful and have integrity. To this end I have endeavoured to ensure, to the best of my ability, that my own creative work is factually grounded, however this should not mean that imagination and playfulness are off limits. For scientists as well as poets, questions such as ‘what if?’, and processes such as dreaming, and imaginative, metaphorical leaps are vital. I have aspired to be precise and detailed in my poetic observations – as Ruth Padel stated, ‘Vague poetry is bad poetry’, and the same applies to science.¹⁶ A poet who

¹¹ Randy Malamud, *Poetic Animals and Animal Souls*, pp. 69-70.

¹² *Ibid.* p. 70.

¹³ Leonard M. Scigaj, *Sustainable Poetry*, pp. 80-81, quoted by Randy Malamud, *Poetic Animals and Animal Souls*, p. 70.

¹⁴ Randy Malamud, *Poetic Animals and Animal Souls*, p. 70.

¹⁵ *Ibid.* p. 70.

¹⁵ Ruth Padel, ‘The science of poetry, the poetry of science’, p. 2. See also Iain McGilchrist, *The Master and his Emissary: The Divided Brain and the Making of the Western World* (New Haven and London: Yale University Press, 2010) p. 71.

¹⁶ Ruth Padel, ‘The science of poetry, the poetry of science’, p. 2.

exemplified this position was Elizabeth Bishop. She observed the world with a scientist's precision, while recognising the emergence of holistic truths from a mass of detail.¹⁷ Her poem 'Sandpiper' illustrates this.¹⁸ The eponymous bird focuses closely on grains of sand 'looking for something, something, something'. This 'something' might be Blake's 'World in a Grain of Sand', as Bishop implies, for the sandpiper is 'a student of Blake'.¹⁹

Metaphorically the poem suggests that vastness and wholeness coexist with and emerge from finely honed attention. Bishop was fascinated by Charles Darwin whose minute observations of the natural world led to the emergence of an overarching theory.²⁰ While Padel asserts the importance of metaphor, she also believes that 'deeper even than metaphor is the way poetry and science both get at a universal insight or law through the particular'.²¹

My own experience through undertaking this thesis is that writing and reading poetry can deepen engagement with the more-than-human world, drawing attention to its beauty, complexity, and vulnerability. This is mediated by paying close attention, for example, as Moe advocates, to animals' bodily poiesis. 'The Earth Worm', a poem by Levertov, exemplifies Moe's zoopoetic approach.²² Levertov attends to the worm's bodily poiesis; he is explicitly a maker, perhaps a poet:

The worm artist
out of soil, by passage
of himself
constructing.
Castles of metaphor!

¹⁷ Jonathan Ellis, 'Reading Bishop Reading Darwin', in John Holmes, ed., *Science in Modern Poetry: New Directions* (Liverpool: Liverpool University Press, 2012) 181-93 p. 185.

¹⁸ Elizabeth Bishop, 'Sandpiper', in *Complete Poems* (London: Chatto & Windus, 2004) p. 131.

¹⁹ William Blake, 'Auguries of Innocence', <https://www.poetryfoundation.org/poems/43650/auguries-of-innocence>

²⁰ Jonathan Ellis, 'Reading Bishop Reading Darwin', e.g., p. 185.

²¹ Ruth Padel, 'The science of poetry, the poetry of science', p. 2.

²² Denise Levertov, 'The Earth Worm', in *The Sorrow Dance* (New York: New Directions Books, 1966) p. 26.

Further:

He throws off
artifacts as he
contracts and expands the
muscle of his being,
ringed in himself,
tilling.

Levertov concisely evokes the earthworm's bodiment; he does not have a body, rather *he is his body*. Through the miracle of his muscularity, he 'aerates / the ground of his living'. The poem pays respectful attention to a creature without whom soil would be lifeless. Through the poem the earthworm becomes vitally present.

While one does not have to be a poet to pay attention to animal presence, poetry, as Levertov's earthworm demonstrates, can lead us to feel-with other creatures and ecosystems. Through the poet's voice, albeit imperfectly, we begin to recognise that all living things have a point of view and intuit what they might have to say. As a portal to worlds beyond our own, poetry facilitates the process of paying attention and engaging empathically. However, while this is a starting point, opening the way for change, it is only part of a wider environmental discourse which draws on science, philosophy, and ethics, and cannot be disentangled from politics and economics.

*

A key question running through this thesis concerns how poetry might *enact* the being of other living things empathically and imaginatively, while maintaining respect for otherness. Initially my title was: 'The weave of presence: a creative and critical exploration of the *representation* of animal subjectivity in poetry'. As the project progressed, however, I moved away from the idea of representation towards enactment. This is not to disparage representation which is fundamental to human thought and language (and important also in

nonhuman nature), however representation carries overtones of speaking-for, as well as a loss of immediacy ('the re-presenting of presence'), and I was increasingly interested in poetry *through which* animals might seem to speak for themselves, the creaturely body of the poem conjuring their presence. While there is nothing inherently wrong with speaking up on behalf of others, it implies a power imbalance. I wanted to minimise this, particularly given my conviction that human power over nature is a mirage, and that to pretend otherwise is a catastrophic error. I was also influenced by Marc Bekoff and Jessica Pierce's position which emphasises animal agency and argues for animals to be listened to.²³ That said, all the poems I have discussed and those I have written, were, self-evidently, written without the explicit consent or collaboration of animals and therefore the idea that they are somehow not at some level 'representations' is perhaps disingenuous. As previously argued however, artifice is essential to poetry and therefore, while enactment may ultimately be illusory – the animal subjects of poems live rich lives beyond, and indifferent to, poetry's achievements and limitations – nonetheless poems can, paradoxically, approach enactment through their artifice and by, as Sarah Bouttier argued, being 'both *openly textual and striving to express their objects' presence in the world*'.²⁴ I would also add that I have attempted to be mindful of animals as agents with something to say; this stance of openness, listening and paying attention, opens a space for a kind of co-creation.

Jonathan Bate, citing Paul Ricoeur, regards the problem of writing to be 'the gap between 'presence' and 'representation'[...]'.²⁵ Perhaps for this reason Joyce Kilmer began his poem

²³ Marc Bekoff and Jessica Pierce, *The Animals' Agenda: Freedom, Compassion, and Coexistence in the Human Age* (Boston, Massachusetts: Beacon Press, 2017).

²⁴ Sarah Bouttier, 'Creaturely Texts, Texts on Creatures', *European Journal of English Studies*, 19, 1 (2015) 111-22 p. 111, emphasis added. See earlier, p. 54.

²⁵ Paul Ricoeur, 'Writing as a Problem for Literary Criticism and Philosophical Hermeneutics', *Philosophic Exchange*, 2, 3 (Summer 1977) 3-15, repr. in *A Ricoeur Reader: Reflection and Imagination*, ed. Mario J. Valdés (New York and London: Harvester Wheatsheaf, 1991) 320-37 p. 320, cited by Jonathan Bate, *The Song of the Earth* (London: Picador, 2001) p. 248.

‘Trees’ with the lines: ‘I think that I shall never see / A poem lovely as a tree’.²⁶ As previously discussed, language can be regarded as ‘a kind of net over the world of experience [...]’; words and things are not the same.²⁷ Yet ‘the peculiar power’ of literature, particularly poetry, for Bate, quoting Ricoeur, is ‘[...] a power of reference to aspects of our being in the world which cannot be said in a direct descriptive way, but only alluded to, thanks to the referential values of metaphoric and, in general, symbolic expression’.²⁸ Murray, in his essay, ‘Poems and Poesies’, writes of poetry’s ‘odd quality of inexhaustibility’, of how it defies summary or analysis, and how, when you return to it ‘and quiet down in its presence, [...] we find it to be as mysterious and pregnant with elusive significance as ever’.²⁹

Alice Oswald writes about poetic enactment, and its opposite: ‘The knack of enervating nature (which starts in literature and quickly spreads to everything we touch) is an obstacle to ecology *which can only be countered by a kind of porousness or sorcery that brings living things unmediated into the text*’.³⁰ But what does Oswald mean by ‘porousness or sorcery’? I believe the answer lies partly in poetry’s ‘creatureliness’, the quality that repeatedly draws our attention, as it is drawn to a moving, living thing. Poetry’s defamiliarizing language can cause us to see the world anew, as can an encounter with another living being, as exemplified, for example, in Bishop’s poem ‘The Moose’.³¹ Successful poems are neither fixed nor static. Instead, they shimmer with ambiguities, uncertainties, and layers of meaning, while simultaneously having, as Ted Hughes suggested, a creaturely completeness.

²⁶ Joyce Kilmer, ‘Trees’, first published in *Poetry: A Magazine of Verse*, Vol II, No. 5, August 1913.

<https://www.poetryfoundation.org/poetrymagazine/poems/12744/trees>

²⁷ Iris Murdoch, *Under the Net*, (London: Vintage Classics, 2002, first published, 1954) p. 98, cited by David Shariatmadari, *Don’t Believe a Word*, p. 52; see earlier, p. 156.

²⁸ Paul Ricoeur, ‘Writing as a Problem’, p. 331, quoted by Jonathan Bate, *The Song of the Earth*, p. 250.

²⁹ Les Murray, ‘Poems and Poesies’, in *The Paperbark Tree: Selected Prose* (London: Minerva, 1993) 341-45, p. 343.

³⁰ Alice Oswald, ed., *The Thunder Mutters: 101 Poems for the Planet* (London: Faber and Faber Limited, 2006) p. x, emphasis added.

³¹ Elizabeth Bishop, ‘The Moose’, in *Complete Poems* (London: Chatto & Windus, 2004) pp. 169-73.

But what is it about poetic language that is the source of Oswald's 'sorcery'? And just how does poetry bend 'the bars of the prose cage'?³² Les Murray stated that 'poetry is presence', while contrasting prose's 'narrow-speak' with the 'whole-speak' of poetry.³³ Iain McGilchrist identifies poetry with the holistic, metaphor-attuned and emotionally adept right hemisphere.³⁴ Murray's poem, 'From the Other Hemisphere', anticipates McGilchrist's thesis.³⁵ Published at least two decades before McGilchrist's book, this poem contrasts the right and left hemispheres.³⁶ It is the right hemisphere, according to Murray, that embodies the implicit, wordless knowledge of a skill or, as he puts it, a 'knack': 'A knack is *embodied singing* / in the brain's right wing:'.³⁷ There is a mystery here; something alchemical or transformative emerges from the 'gap' between theoretical knowledge, and the 'sleight' (of hand) suggestive of a mastered skill, possessed by a human or nonhuman person:

That mystery you touched in
 a skid, and lived
 conjures worlds through the gap
 between theory and sleight.

In the final stanza, Murray contrasts the hemispheres; it is the rational left hemisphere which quashes the (by ironic implication 'irrational') belief in an afterlife, while the right has 'powerful if wordless / arguments against it', i.e., the left's denial. And here Murray, like McGilchrist, also seems to associate the right hemisphere with poetry and metaphor:

³² Jeremy Noel-Tod, *The Penguin Book of the Prose Poem: From Baudelaire to Anne Carson* (London: Penguin Books, 2018) p. xxi.

³³ Missy Daniel, 'Poetry is Presence: An Interview with Les Murray', *Commonweal*, 22 May 1992) 9-12, pp. 11 & 12.

³⁴ Iain McGilchrist, *The Master and his Emissary*, p. 71.

³⁵ Les Murray, 'From the Other Hemisphere', from *Dog Fox Field* (1990) in Les Murray, *Collected Poems* (Manchester: Carcanet Press Limited, 1998), pp. 320-21.

³⁶ As a southern hemisphere poet, it cannot be discounted that Murray is also alluding to the earth's hemispheric divisions, and the cultural associations of each of these.

³⁷ Les Murray, 'From the Other Hemisphere', emphasis added.

It's only the left mind
says before you die
you and all you love
will be obsolete —
our right mind, that shaped
this poem, paper, type-face,
has powerful if wordless
arguments against it.

As McGilchrist makes plain, the perspectives of both hemispheres are important, neither one being superior to the other, yet perhaps we all need to be more in our 'right minds'.

I would argue that Oswald's poetic sorcery lies partly in the difference between what has been described as 'propositional', as distinct from 'implicational' code.³⁸ According to psychologist John Teasdale, propositional language straightforwardly conveys facts, while implicational language conjures an aura of emotion, transcending individual words.³⁹

Implicational language is more than the sum of its parts and is the language of poetry.

Propositional code is reminiscent of Murray's 'narrow-speak' as well as McGilchrist's left-hemisphere perspective. In contrast, implicational code represents 'a more *generic, holistic* level of meaning', analogous to Murray's 'whole-speak', Ricoeur's 'symbolic expression', and right-hemisphere views of the world.⁴⁰ Teasdale argues that implicational meaning does not readily map onto language and is 'directly linked to emotion'.⁴¹ He considers the difference between these two levels of meaning as analogous to the difference 'between a sentence and a poem'.⁴² Crucially, 'The total meaning conveyed by a poem is qualitatively different from the sum of the separate specific meanings'; he illustrates the point with a stanza from John Keats' poem, 'La Belle Dame sans Merci: A Ballad', observing that the

³⁸ John Teasdale, Invited Essay: 'Emotion and Two Kinds of Meaning: Cognitive Therapy and Applied Cognitive Science', *Behaviour Research and Therapy*, 31, 4 (1993) 339-54 p. 345.

³⁹ Ibid. p. 345.

⁴⁰ Ibid. p. 345.

⁴¹ Ibid. p. 345.

⁴² Ibid. p. 345.

‘holistic meaning created by the poetry is marked by a ‘sense’ of melancholy and abandonment’, which emerges from Keats’ employment of a range of poetic effects.⁴³ A poem, like a living thing, is far more than its constituent parts; it moves us as a living being moves us, yet its capacity to do so can be difficult to fully articulate. In this way, poems are creaturely – and creatures are poetic.

Knickerbocker addresses the rematerializing of language, a form of defamiliarization. He quotes Charles Bernstein who argues that

Poetry creates something of the conditions of hearing [...] a foreign language – we hear it as language, not music or noise; yet we cannot immediately process its meaning. [Poetry] rematerializes language, returns it from ‘speech’ back to ‘sound’; or rather, the poetic mode synthesizes the speech mode of perception and the nonspeech mode of perception.⁴⁴

Rainer Maria Rilke aspired to a state which he called the ‘open’, in which ‘there is no division between nature and consciousness’.⁴⁵ This unity recalls Oswald’s ‘porousness’ bringing ‘*living things unmediated into the text*’.⁴⁶ Rilke, according to Jonathan Bate, wanted to reconcile ‘instrumental rationality with openness to ‘the open’’.⁴⁷ Rilke’s experience of the ‘open’ occurred in Schloss Duino in 1912, when he ‘seemed to become nature itself, to share his being with tree and singing bird as inner and outer were gathered together into a single ‘uninterrupted space’’.⁴⁸ This description of the ‘open’ seems akin to transcendent ‘awakening experiences’, characterised by a languageless state which can include a profound sense of connection, for example, with nature or the wider universe; alterations in time

⁴³ Ibid. p. 346.

⁴⁴ Charles Bernstein, ed., *Close Listening: Poetry and the Performed Word* (New York: Oxford University Press, 1998) p. 18, quoted by Scott Knickerbocker, *Ecopoetics: The Language of Nature, the Nature of Language* (Amherst, Massachusetts: University of Massachusetts Press, 2012) p. 2.

⁴⁵ Jonathan Bate, *The Song of the Earth* (London: Picador, 2001) p. 263.

⁴⁶ Alice Oswald, ed., *The Thunder Mutters: 101 Poems for the Planet*, p. x, emphasis added.

⁴⁷ Jonathan Bate, *The Song of the Earth*, p. 263.

⁴⁸ Ibid. p. 263.

perception, including a sense of immersion in the present moment; a feeling of peace; intensified perception, and intensely positive affect.⁴⁹ My own experiences of this state have been few, yet each profound and unforgettable.

Sometimes, for me, poems begin with a wordless impression or dream-like feeling, an echo of these ‘awakening’ states. For these to become poems they must be noted and later recalled, to be made manifest in language. Sometimes, this ends in failure, as whatever prompted the poem remains ineffable. The process of shifting from feeling, intuition, or impression, to words on the page, creating something that transcends fact to become more like wisdom, is an elusive one, with, as Ben Lerner, argues, failure at its core.⁵⁰

*

In conclusion, I would argue that poetry is one way in which humans might re-connect with the more-than-human, particularly poems which strive to enact the being of living things. Inevitably though, as Greg Garrard stated, with respect to Murray’s ‘Presence’ poems, failure might be inevitable, but nevertheless, such poems can ‘gesture towards a numinous unity underlying the breathtaking diversity of life’.⁵¹

For me, this project has been a personal journey of reconnection with nature, as well as an exploration of animal being and presence, and the expression of these in poetry. It is informed by both science and art, and by both holism and attention to detail. While much remains to be discovered about senses, emotions and language in the more-than-human

⁴⁹ Steve Taylor, ‘An awakening’, *The Psychologist*, September 2018, 42-47. Rilke writes that the animal ‘sees all, / and, in the all, itself, healed, for ever’, which could be read as a succinct account of the ‘awakening’ experience, seeming to suggest that such states may be normative for nonhuman animals. Rainer Maria Rilke, ‘Duino Elegies: The Eighth Elegy’ in *Selected Poems*, trans. by Susan Ranson and Marielle Sutherland, (Oxford: Oxford University Press, 2011) p. 167.

⁵⁰ Ben Lerner, *The Hatred of Poetry* (London: Fitzcarraldo Editions. 2016) pp. 12-15.

⁵¹ Greg Garrard, *Ecocriticism*, p. 169.

world, I am confident both that the human species is evolutionarily continuous with other living things, *and* that every creature is a ‘magic well’, remarkable in its otherness. I regard this project as a beginning, not an end, raising questions and possibilities for future creative and critical endeavour.

Part II:

Creative commentaries

Creative commentaries

In this section I discuss some of my own poems as they relate to the themes of each chapter.

1. Prologue: Imagining a world without animals: *The Last Animal* by Elizabeth Bishop

Like Michael McCarthy, I grew up during the 1950s and 1960s when wildlife was far more abundant than now.¹ Our modest house, which bordered open fields, had a large garden where hedgehogs, slow worms, and many birds and insects flourished. As a young child I was fascinated by nature, so my father gave me a nature study book from his teacher training days.² Dad was a keen gardener but part of our garden, an area bounded by hawthorn trees and abandoned railway sleepers, was left wild. I recalled those old tracks in my poem ‘Succession (after Beeching)’. This poem is a reminder that left undisturbed, nature flourishes; many railway lines decommissioned by Richard Beeching in the 1960s became wildlife corridors.³ The poem begins:

At the end of our garden under hawthorn scrub
I remember the remnants of an old railway track,
abandoned sleepers silvered with age.
It was quiet back then,
just fields beyond where horses grazed.

‘Succession’ consists of seven stanzas of varying length.⁴ The loose form evokes rambling growth, however the poem, like an ecosystem, is not chaotic. Poetic effects including alliteration, half-rhyme, assonance and consonance (for example, ‘long-tailed tits trapezed’);

¹ Michael McCarthy, *The Moth Snowstorm: Nature and Joy* (London: John Murray, 2015)

² *Teachers’ Notes on Nature Study: Plants and Animals* (London and Glasgow: Pedagogic Library, Blackie & Son Limited, first published in 1910; this copy is undated).

³ Key details in ‘Succession’ were taken from Christopher Somerville’s book, *Walking Old Railways* (Newton Abbot, Devon, David and Charles Limited, 1979) Ch. 6, ‘Flora and Fauna’, pp. 46-58.

⁴ ‘Succession’ is a scientific term which refers to the order in which species colonise an ecosystem. Each new species alters the environment creating biological niches into which new species move, leading to increased complexity and biodiversity.

‘noon, sun’; ‘age, grazed’; and ‘butterflies, tortoiseshells’), ensure the various elements cohere and interconnect, unforcedly.

*

Nature is fast vanishing consequent on human interference. A book, *The World Without Us*, imagines what would happen if humans disappeared from the planet.⁵ Unsurprisingly, nature would almost certainly thrive. My poem ‘Capital’ imagines an unpeopled world (inverting Elizabeth Bishop’s story), in which London’s Shard and its Shangri-la hotel, lie in ruins. London is repopulated by flora and fauna. The poem’s title refers both to London as a capital city and to accrued monetary wealth. ‘Capital’ was written before the coronavirus pandemic, yet it anticipates lockdown’s empty cities in which animals, tentatively, reappeared.⁶

The poem, a sonnet, references Percy Bysshe Shelley’s ‘Ozymandias’.⁷ In Shelley’s work a great statue lies broken and ‘Half sunk’ in the sand, highlighting the transience of human endeavour and how hubris comes to naught. My poem begins:

Wolves pace empty streets
cautiously approach the Shard
half-sunk ‘Shangri-La’, the faceless face
of the grandiose.

The poem details how wildlife might re-populate an abandoned city:

Saplings push through asphalt
mature trees sing with birds
deer roam the Isle of Dogs
rusting cars are dens for the russet fox.

⁵ Alan Weisman, *The World Without Us* (London: Virgin Books, 2008).

⁶ See, for example, Maanvi Singh, ‘Emboldened wild animals venture into locked-down cities worldwide’, *The Guardian*, Sun 22 Mar 2020 https://www.theguardian.com/world/2020/mar/22/animals-cities-coronavirus-lockdowns-deer-raccoons?fbclid=IwAR36Z0cPfav5npUHtwrU4KAdo2nVTokS48_bzhIHHkxJVG2xyZljX_-C1r0

⁷ Percy Bysshe Shelley, ‘Ozymandias’, in *The Penguin Book of English Verse*, ed. by Paul Keegan (London: Penguin Books, 2004) p. 611.

Amitav Ghosh addresses the problem that writing about climate change presents to novelists.⁸ Ghosh suggests that the challenge lies partly in fictionalising extreme weather events which can seem both improbable and overblown.⁹ Similar difficulties arise for poets. Poems carrying overt and moralising messages are rarely successful. Far preferable is work that engages the reader emotionally and empathetically, while inviting reflection on meaning and alternative perspectives. Emily Dickinson's poem, 'Tell all the Truth but tell it slant', seems resonant here.¹⁰ When it comes to environmental emergencies, the truth, at least as rendered in art, is best told slantwise. This does not imply concealment or obscurantism, however; instead, truths emerge gradually like developing photographic images mediated through a nexus of interwoven relationships within a text.¹¹ This is, perhaps, what poetry accomplishes, representing the difference between bald presentations of facts and a deeper, subtler, more holistic approach in which truth is experienced or felt. In 'Capital', I allude only obliquely to the folly of ignoring signs of environmental collapse:

A warning sign on a broken hinge,
faded letters unread.

*

The role that nature can play in recovery from illness became personally apparent to me in December 2016 when I was hospitalised with pneumonia. In the early days of my admission, I struggled to breathe and was afraid to sleep. Each day, as dawn approached, I would look for its earliest signs through a high narrow window visible from my bed. Distant trees could be seen against amber and blue sky as the sun rose, and sometimes geese flew past. These

⁸Amitav Ghosh, *The Great Derangement: Climate Change and the Unthinkable* (Chicago: The University of Chicago Press Ltd, 2016).

⁹ *Ibid.*, pp.15-17.

¹⁰ Emily Dickinson, 'Tell all the Truth but tell it slant', in *Emily Dickinson: The Complete Poems*, ed. by Thomas H. Johnson (London: Faber and Faber Limited, 1975), no. 1129, pp. 506-07.

¹¹ Ashby Bland Crowder, 'Emily Dickinson's Tell All the Truth but Tell it Slant -', *The Explicator*, 71, 4 (2013) 236-39 p. 236. <https://www.tandfonline.com/doi/abs/10.1080/00144940.2013.841632>

glimpses of nature marked another night of survival and offered hope. My poem ‘Acute ward’ was inspired by this experience:

Drips and tubes, incessant beeps
each hard-won breath.

You fear to sleep.
In electric half-light wait for dawn,

for distant glimpse
of dormant trees

branches drawn
on gold-brushed cloud

the rising sun
a skein of geese.

*

The extinction of species and the depletion of nature continues at an alarming pace. ‘*Ectopistes migratorius*’ addresses the salutary tale of the passenger pigeon, a bird that was once abundant in North America but extinct by the early twentieth century through the actions of white settlers. The story of the passenger pigeon’s demise is recorded in a book by Mark Avery. His title, *A Message from Martha*, highlights the importance of learning from the loss of this species.¹² Unfortunately the message goes largely unheeded. My poem was prompted by seeing a museum specimen of a passenger pigeon.¹³ This led to further research which furnished many of the details in the poem.¹⁴

¹² Mark Avery, *A Message from Martha: The extinction of the Passenger Pigeon and its relevance today* (London: Bloomsbury Natural History, 2015).

¹³ Leeds Discovery Centre, visited during the ‘Northern Animals #2: Animals & Borders’ workshop, 13/10/17. <https://museumsandgalleries.leeds.gov.uk/leeds-discovery-centre/>

¹⁴ For example, Aldo Leopold, ‘On a Monument to the Pigeon’, *A Sand County Almanac* (Oxford: Oxford University Press, 1953) http://faculty.fortlewis.edu/DOTT_C/Bio%20250-SWEcol/Activities/On%20a%20Monument%20to%20the%20Pigeon.pdf

I found the poem challenging to write for several reasons. First, it was difficult to compress a large amount of scientific and historical information into a short poetic form. While wanting to do justice to the story, my overarching aim was to write a successful poem, neither prosaic nor overburdened with detail. The second challenge was to bring the bird to life and to address the tragedy of its loss while avoiding sentiment. The third difficulty was comparable to that involved in writing ‘Capital’ and other poems referring to environmental crises; that is, to tell the truth, but ‘tell it slant’.¹⁵ Specifically, I did not want to write a ‘moralising’ poem, rather, I wanted to allow space for readers to draw their own inferences.

The poem is in three sections. The first three stanzas describe the dead passenger pigeon I encountered at Leeds Discovery Centre.¹⁶ The italicised phrases are quotes from a paper by Aldo Leopold and are included to highlight the contrast between the living creature and the dead object:¹⁷

The passenger pigeon
inert in a tissue nest

no longer dines *on blueberries in Canada*
feels *the kiss of sun,*
the lash of wind and weather.

A stuffed skin, breast rosy plush
head and wing slate blue
streamlined symmetry of long tail.

¹⁵ Emily Dickinson, ‘Tell all the Truth but tell it slant’, in *Emily Dickinson: The Complete Poems*, no. 1129, pp. 506-07.

¹⁶ Leeds Discovery Centre, visited during the ‘Northern Animals #2: Animals & Borders’ workshop, 13/10/17. <https://museumsandgalleries.leeds.gov.uk/leeds-discovery-centre/>

¹⁷ Aldo Leopold, ‘On a Monument to the Pigeon’.

The second section deals with the bird's former abundance (stanza four) and the fact that while hunted by Native American people they were 'harvested' in a sustainable way (stanzas six and seven):¹⁸

Tornadoes of pigeons
once blackened horizons
fledged the air, blotted the sky –
soaring crescendos of dissonant song.

And:

To the Seneca they were 'big bread',
harvested with bows and arrows, nets.

They took the fattened flightless squabs
in their hundreds, yet they were abundant.

These two stanzas are more prosaic than I would have liked but I felt it was important to convey the facts, as I understood them, succinctly and un sentimentally.

In the final section I again aimed for compression and understatement:

The railroad came.
Settlers cut down swathes of trees,
dead birds shipped east, packed in ice.

Greed smothers the ground,
a wing flutters

The form of the poem, in three parts curving approximately down the page, was chosen to suggest an arc of events starting and ending with death.

2. Introduction

¹⁸ David Scofield, 'We Will Never See the Like Again: The Passenger Pigeon in Western Pennsylvania', *Western Pennsylvania History*, Winter 2014-15, pp. 20-32.

As discussed in my introduction, this thesis explores several interlinked themes. I will consider three of these as they relate to my own practice. First, the relationship between science and poetry; second, the concept of embodiment, and third, the interconnection between living things.

Art and science

A key aim of my project was to integrate insights from both art and science. This aim originated in my own experience with both science and the humanities, as well as my long-held belief that while subject categories are convenient, they do not reflect the interconnected, interdependent world. It was my intention that both critical and creative elements of the thesis should be scientifically informed. I wanted both to draw on the insights offered by science about the lives of other animals, and to avoid inventing or perpetuating simplistic anthropomorphic fictions.

My poem 'To be a heron' exemplifies this, insofar as it is an attempt to integrate the scientific and the poetic. The poem began with an encounter during a walk along Sheffield's Rivelin valley. A series of pools punctuates the valley, a legacy of Sheffield's industrial past. Sometimes a heron can be seen standing statue-still on a pool's far bank or on a fallen tree.

The title 'To be a heron' framed my intention to think through what it might be like to be this bird, despite the challenges identified by Thomas Nagel.¹⁹ Les Murray's collection, 'Presence: Translations from the Natural World', was an influence, particularly his capacity

¹⁹ Thomas Nagel, 'What Is It Like to Be a Bat?', *The Philosophical Review*, 83, 4 (1974) 435-50, reprinted in Douglas R. Hofstadter and Daniel C. Dennett, eds., *The Mind's I: Fantasies and Reflections on Self and Soul* (New York: Basic Books Inc, 2000) 391-403.

to imaginatively empathise with other living things, bringing forth their essential presence.²⁰ Another influence was Patricia Debney's prose poem 'How to Be a Dragonfly'.²¹ It begins: 'Never tuck in your wings. They grow out from your shoulders / like two fingers, like hands. Learn to use them'. The poem continues in this vein, a 'how to' guide for dragonflies or those wishing to appreciate them. For example: 'Let them: plunge you into the water, let the egg slip out'. I liked the intimacy her direct address evokes, as if a conversation has been struck up with the animal. My poem also uses direct address, although, unlike Debney, I avoid second person pronouns. I chose to do this to increase distance; the heron stands separate from poet and reader, thereby, hopefully, minimising the potentially problematic aspects of poetic 'capture' while inviting identification with the creature.²²

The first line, 'hone the art of stillness', flows from the title and reflects the way herons wait unmoving until the optimum moment to strike. The next lines describe locations – rivers, streams, estuaries. The use of poetic effects such as alliteration and half-rhyme – 'margins of minnowed rivers'; 'whalebone struts of abandoned boats' – is intended to create a calming flow of sound, a sense of time passing, eddying around an essential stillness, at the heart of which stands the heron. The image of 'sun-sparked *Ephemera*', refers to a remembered sight of a heron haloed by sunlit mayflies.²³

The final four stanzas explore heron behaviour in more depth and combine observation and research. Herons, 'Shade-cloak water with outspread wings' making them less visible to fish.

²⁰ Les Murray, 'Presence: Translations from the Natural World', in *Translations from the Natural World* (Manchester: Carcanet Press Limited, 1993) 13-54.

²¹ Patricia Debney, 'How to Be a Dragonfly', in *How to Be a Dragonfly* (Huddersfield: Smith/Doorstop Books, 2005) p. 13.

²² Melissa Boyde, ed., *Captured: The Animal Within Culture* (Basingstoke, Hampshire: Palgrave Macmillan, 2014), p. 3.

²³ Mayflies belong to the Order Ephemeroptera because of their transient adult stage (in some cases, just a few hours). The Common or 'Green drake' mayfly has the scientific name *Ephemera danica*.

Particularly fascinating is the way herons compensate for the refraction resulting from the differing densities of water and air. Somehow the heron knows these refraction laws ‘by heart’. Whether learned or instinctive (though most probably an innate propensity shaped by experience) this is a remarkable capacity.²⁴ My challenge was to render this fact poetically, avoiding the prosaic while adhering to accuracy:

Focus gold and sloe eyes
on dart and glide in trailing weed

and having by heart the laws of refraction,
pierce surface deception with sabre beak.

Embodiment

A second theme concerns embodiment, specifically the idea that we (and other animals) do not *have* bodies, rather that we *are* our bodies, and that intelligence inheres in our physicality.²⁵ Several of my poems explore embodiment but ‘Equinus’ also imagines a metamorphic change. The idea developed after I became aware of a medical condition termed ‘equinus’, so-called because horses effectively bear weight on their toes and severely affected equinus sufferers compensate by ‘toe-walking’.²⁶ I pictured the condition spreading through a body, resulting in metamorphic change. I was also interested in this idea because it recalled the human-animal transformations in Ovid’s *Metamorphoses*.²⁷ A quote from Ovid’s work suggesting the affiliation and interconnectedness between species further shaped this poem: ‘the soul / Roams to and fro, now here, now there, and takes / What frame it will, passing from beast to man, / From our own form to beast and never dies’.²⁸ In writing the poem, I

²⁴ Gadi Katzir and Nathan Intrator, ‘Striking of underwater prey by a reef heron, *Egretta gularis schistacea*’, *Journal of Comparative Physiology A*, 160 (1987) 517-23.

²⁵ Guy Claxton, *Intelligence in the Flesh: Why your mind needs your body much more than it thinks* (New Haven and London: Yale University Press, 2016) p. 3.

²⁶ <http://www.footdoc.ca/www.FootDoc.ca/Website%20Equinus.htm>

²⁷ Ovid, *Metamorphoses*, trans. by A. D. Melville (Oxford: Oxford University Press, 2008).

²⁸ *Ibid.* p. 357.

imagined how it might feel to be re-embodied in an equine physique, and wanted to evoke the idea of becoming animal, suggesting shamanistic transformation. Appropriately, given the original source of the idea, the poem begins: ‘It was feet first’.

Acampora’s concept of symphysis was useful in writing this poem.²⁹ It was helpful too, perhaps, that I used to ride. To ride well means engaging in a dialogue with the horse, a two-way communication conducted through the media of touch, sound, and other senses. I was also aware that horses are social animals who form complex relationships.

In creating this poem, I was particularly interested in the ways horses sense the world and communicate.³⁰ They have excellent hearing and can rotate their ears through approximately 180°, facilitating an ability to pinpoint the source of a sound, a vital adaptation in a prey animal. A horse’s sense of touch is also acute – ‘Skin / felt everything’ – and is an important medium of communication between horses. A horse’s sense of smell is superior to that of humans but less acute than dogs. Their sense of sight differs from ours (for example, they have both monocular and binocular vision), and is crucial in detecting threat. Horses have poor colour vision but are adept at detecting movement: ‘I skittered at noise / shadows or shapes’. My intention was to evoke the experience of a prey animal, hypersensitive to her surroundings. As in other poems I was mindful of Malamud’s concept of empathetic imagination and Moe’s attention to animals’ bodily poiesis.

²⁹ Ralph Acampora, *Corporal Compassion*, (Pittsburgh PA: University of Pittsburgh, 2006) p. 76.

³⁰ See <https://horses.extension.org/horse-senses/>

The rhythms of the poem suggest horses' varied movements, from trot to leg-extending gallop, while the quatrain form mirrors a horse's quadrupedal gait. For example, some lines (italicised) might suggest a brisk trot:

Hands went the same way.
I tested long legs,
pasterns hocks and fetlocks,
revelled in their spring and flex.

Longer lines with elongated vowel sounds, such as in stanza four, evoke galloping:

Neck stretched and arched,
eyes transposed to the sides of my face.
As words dried I was gifted with sound,
ears that flattened or flicked.

Stanza five consists of short lines enacting the jittery movements of a nervous horse:

I skittered at noise,
shadows or shapes,
strange scents. Skin
felt everything.

Despite the differences between horses and humans, there are essential similarities. For example, both are mammals. In the final line, 'With a belly full of foal, kin', I invoke the shared mammalian experience of motherhood. The poem suggests that while profound differences exist between species, demanding both recognition and respect, there are also connections and similarities. This leads on to a third theme, that of the interconnected kinship between earth dwellers.

Interconnection

A story about life's essential unity was once told to photographer Frans Lanting and this story informs his work.³¹ Lanting re-tells the story in his Ted Talk:

Once upon a time, [...], all animals on Earth were one. Even though they look different on the outside, inside, they're all the same, and from time to time they would gather at a sacred cave deep inside the forest to celebrate their unity. When they arrived, they would all take off their skins. Raven shed his feathers, bear his fur, and salmon her scales, and then, they would dance. But one day, a human made it to the cave and laughed at what he saw because he did not understand. Embarrassed, the animals fled, and that was the last time they revealed themselves this way.³²

Lanting's account inspired my poem 'Cave dance' which re-imagines the scene, but with the human participating as an equal. It is central to Lanting's photographic practice to look past superficial differences to recognise the personhood of all animals to find ways to connect.³³

In the first seven stanzas of the poem the animals shed their various skins, for example in stanza one:

Leopards shrug their spots.
Turtles unshell.
Lizards peel cool skins.

And in stanzas four and five:

Here come parakeets in verdant green,
toucan, puffin, peacock, wren. An Arctic tern
scimitar sleek in black and white.

A blizzard of rainbow feathers
falls, interleaved with drab.
Dragonflies lose their filigree wings.

³¹ Frans Lanting, 'Photos that give voice to the animal kingdom', TED2014.

https://www.ted.com/talks/frans_lanting_photos_that_give_voice_to_the_animal_kingdom#t-18466

³² Ibid. Transcript, paragraph 3, 00:34.

³³ Ibid. Transcript, paragraphs 4, 01:24; 5, 01:52, & 6, 02:12.

In the final stanza I imagine being part of this joyous interspecies party:

A blur of souls carousels.
I creep inside, unskin,
join the dance.

3. Chapter 1: Perceiving the world in myriad ways: the poetic enactment of animal senses

Researching this chapter alerted me to the multiplicity of ways in which animals sense the world, and the significance of Jakob von Uexküll's *Umwelt*.³⁴ I realised that humans perceive only a fraction of available sensory information, and that the perspectives of humans, like other living things, are inevitably partial. This realisation brought both humility and curiosity about other modes of perception, and the knowledge that while I cannot know what it is like to be a bat, a bear or a butterfly, nevertheless through empathetic imagination I might begin to intuit other ways of sensing and being. I have also learned about paying attention to animals. Prior to starting this project, I regarded myself as attentive to nature, however I recognise that my capacity to observe was limited. I now notice animals more, for example the birds who visit our garden have become *persons*, individuals with presence.

To *become animal* and to translate that experience into poetry is challenging. It requires first and foremost, a self-forgetful attention to animals' bodily poiesis. In my experience the start of a poem is frequently an observation. My usual practice is to write a first draft capturing as far as possible the vital impressions that initially moved me. This is usually followed by research to ensure my poem is (where appropriate) scientifically grounded, and that

³⁴ Jakob von Uexküll, *A Foray into the Worlds of Animals and Humans with A Theory of Meaning* (Minneapolis: The University of Minnesota Press, 2010).

tendencies towards anthropomorphism are of the critical, rather than the simplistic kind. My aim is to maintain a light touch when including scientific detail; the process of drafting and re-drafting is important in achieving this.

Unusually, my poem ‘Tick’, did not begin with an encounter but drew instead on the writings of von Uexküll, specifically regarding the *Umwelt*.³⁵ There is a close reciprocal relationship between an animal’s sense organs and its *Umwelt*. For some creatures, such as the tick, the matter is relatively simple and unvarying. For more complex beings, there is greater flexibility, enabling adaptation to new opportunities and ecological niches.

‘Tick’ was inspired specifically by von Uexküll’s description of the tick’s life cycle.³⁶ In writing ‘Tick’ I researched the life cycle in more depth. For example, the line ‘harpoon mouth barbed and calcified’ was not in von Uexküll’s original account, but an additional detail which I felt enriched my work.

‘Tick’ consists of six stanzas of five lines each. I decided to avoid punctuation and to tell the story of the tick in the present tense to enhance immediacy. Unlike Murray’s ‘Shellback Tick’, I eschewed the first person singular, in recognition of the tick’s otherness. I focused particularly on the tick’s means of sensing the world, for example in stanzas four and five:

eyeless deaf perfect
harpoon mouth barbed and calcified
the whole a proto-eye
garnering photons from the bright

lumber inch by inch to low branch
above deer worn track
days or years open to warm-blood signs

³⁵ At the time of writing, I had not knowingly encountered the animal. This changed on holiday in France in 2019 when a country walk led to the attachment of several ticks. Aware of Lyme disease, my priority was to remove them but, nevertheless, I was glad to have had a personal experience of these tenacious creatures.

³⁶ Jakob von Uexküll, *A Foray into the Worlds of Animals and Humans*, pp. 44-45, and see earlier, p. 69.

heat vibration the pungency of skin

In contrast to 'Tick', my poem 'Urban fox' began with an encounter. In November 2015, late one frosty night, my husband and I were on the outskirts of Elsenham, a village in Essex. As we drove along the unlit road a fox shot out from the hedgerow to our left, crossed in front of us and vanished into the hedge on the opposite side. Before disappearing, the fox paused to glance at us, or more probably at the car. His russet coat glowed in our headlights; a moment of stillness then he was gone. The image of the startled fox stayed with me, and I wanted to re-create the scene from his imagined perspective. The poem begins:

sky's eyelid is shut
I scavenge pickings of light
pinpricks and thin shine
torn in the world's tarp

The image of the night sky as a torn tarpaulin admitting slivers of light suggests how differently a fox might perceive the night, given the reference points of a creature familiar with both wild and human worlds. This and other images in the poem, for example, the smell of the car's exhaust – a 'miasma of burn' – de-familiarise taken-for-granted human things to suggest an alternative perspective. A TV documentary about urban foxes included a sequence of a fox carrying a plastic bag of discarded food back to her den. This image also contributed to the poem:

manna of fried chicken
parcelled in plastic
carry home to den

While I cannot really know what might be salient to a fox, in imagining empathetically the fox's perspective I emphasise in this poem that these animals do have a viewpoint and a unique life, as important to them as our interests are to us.

My poem ‘*Anax imperator*’ was written after encountering blue emperor dragonflies during a holiday in France (July 2015). As well as being curious about their sensory worlds I was also interested in the strange myths and names attached to these creatures.³⁷ The first part of the poem references some of these:

winged viper Devil's coach-horse or darning needle
lit taper vivid against lichenous fountain
water-patter surface reforms without trace

she pays you no heed
will not stitch your eyes lips shut
nor weigh your soul's worth

In stanza four I refer to the dragonfly’s remarkable visual acuity, in particular the capacity to see parts of the spectrum invisible to the human eye:

helmet eyes mantle the head
drink the light wide bowl of visible world
the spectrum stretches into vibrant multiplicities

The form of the poem was designed to suggest the shape of dragonfly wings, as well as their darting flight.

Finally, in ‘Garden spider, September 2017, near Fleurac’, I focus on a spider’s ability to sense prey through its sense of touch transmitted through strands of silk, as well as its ability to detect and repair torn parts of the web. The idea of embodied cognition expressed through web construction also informs the poem:³⁸

A spider’s work is silk wrought
unspooled from herself.

³⁷ Peter Marren and Richard Mabey, *Bugs Britannica* (London: Chatto & Windus, 2010) pp. 131-135.

³⁸ Alan Jasanoff, *The Biological Mind: How Brain, Body, and Environment Collaborate to Make Us Who We Are* (New York: Basic Books, 2018), p. 105, and see earlier, pp. 118-119.

Unthought patterns
pour from spinnerets.

She makes her web
on a loom of hypericum,

rain-jewelled geometry
translucent filaments.

She waits for the rhythm of prey
which she feels in every cell.

Sensing brokenness
she mends.

4. Chapter 2: Joy and suffering: the poetic enactment of animal emotion

This chapter focuses on animal joy and suffering. It explores how the emotionality of nonhuman animals might relate to and differ from human experiences, and how symphyical connection with other beings facilitates empathic engagement with their embodied affect. In examining how these ideas have influenced my own practice I will discuss four examples from my collection. The first addresses animal suffering and concerns how animals have been, and continue to be, used and abused in the name of scientific enquiry. ‘An Experiment on a Bird in the Air Pump (Joseph Wright of Derby, 1768)’, was inspired by the famous painting.³⁹ I had wanted to write an ekphrastic poem since first encountering Wright’s art work, however I was initially unable to determine a suitable form for the poem. This altered after my experience of pneumonia in 2016. This frightening episode enabled me to empathise, at least partially, with the bird’s caged suffocation. It occurred to me then that the sestina form might appropriately enact this state as the poem itself is caged within a constraining series of repetitions. Selecting suitable end words was challenging – they needed

³⁹ Joseph Wright of Derby, ‘An Experiment on a Bird in the Air Pump’, 1768, The National Gallery, London.

to be both arresting and sufficiently flexible in meaning to allow the poem's development.

The words finally chosen were: air, light, lung, breath, blood and fear. The poem begins:

A blown-glass globe empties of air
the scene lit with lunar light.
Candle-bright vessel with lobes of lung
immersed beyond breath.
Demonstrator's robe like spilling blood,
two young girls feel fear

Keeping the lines short and direct, sometimes omitting definite and indefinite articles heightens the breathless effect. The poem refers to the reactions of various onlookers – the apparent obliviousness of the couple on the left; the distress of the girls; the old man lost in thought, and the avid attention of others. The focus throughout is on the breath, especially the visceral symphysis experienced when witnessing a suffocating other:

We feel the crush of struggling lungs.
We hold our breath
as our blood
pulses through our veins in fear.

The poem acknowledges that we, the viewers of the painting, remain in (breathless) suspense as to the outcome, for the bird's fate is forever unknown. This increases the drama and immediacy of the painting, which I aim to reflect in my poem. My intention was for the poem's form to enact the bird's suffering through the visceral experience of reading a 'breathless' poem. As Murray wrote, the poem 'discreetly [borrows] our body to embody itself'.⁴⁰ As Nagel would assert, I cannot know what the bird felt, because it is 'other', both as a different species and as an individual whose feelings I cannot experience, but nevertheless we are connected by evolutionary and physiological relatedness. Ultimately, the beautiful vulnerability of being a living, breathing creature is shared.

⁴⁰ Les Murray, 'Embodiment and Incarnation', in *The Paperbark Tree: Selected Prose* (London: Minerva, 1993) 251-69 p. 259.

The second poem I will discuss is ‘Swallows at Chanonry Point, June 2017’. I have included the poem in its entirety (below), as the form is key to my discussion. I wrote this poem after visiting Chanonry Point while on holiday in Scotland’s Black Isle. We were fortunate to see dolphins hunting fish on the rising tide but walking back along the pebbly beach offered another, quite different, wildlife encounter. I observed a small flock of swallows swooping and diving to catch flies that swarmed around clumps of washed-up kelp.⁴¹ On that day there was a stiff breeze, and I was mesmerised by the way in which the birds played skilfully with the wind, seeming to use it to accelerate and swoop. Watching them sky-dance partnered by invisible, yet tangible air currents inspired this poem:

Swallows at Chanonry Point, June 2017

wind flirts
 breeze braced
 zip
 unzip
 the air

glean the teeming wrack and weed
 skim stone and sand

surf the unseen
 careen
 on scimitar wings

flit
 are fleet
 swerve sudden gusts

wing it

dark dart
 scarlet spark
 buff flash

⁴¹ They were probably kelp flies or *Coelopa frigida*: https://en.wikipedia.org/wiki/Coelopa_frigida

exhilarate

almost

blow it

always

at last moment

call it

Although the poem consists of static words on the page, I wanted to impart kinetic effects, mirroring the swallows' movements, as well as what I experienced empathically as something akin to joy. Watching the birds evoked in me a physical sense reminiscent of being buoyed by a beat or responding to musical energy. There was also a recognition of the importance of *kairos*; the opportune moment when it is right to act. The birds' casual, unthought skill suggested hours of practice playing with the wind – in skilled human performance we call this 'flow'.⁴²

The poem introduces the birds, playfully, as:

wind flirts

breeze braced

The poem's form mimics darting flight while poetic effects such as rhyme and half rhyme serve to evoke sinuous flight movements, the sounds twisting like birds darting after prey, for example:

surf the unseen

careen

on scimitar wings

⁴² David Eagleman, *The Brain: The Story of You*, (Edinburgh: Canongate Books Ltd., 2015) pp. 76-84.

and,

flit

are fleet

The word ‘exhilerate’ suggests the near homophonic ‘accelerate’, combining both exhilaration and increasing velocity. The poem ends on a suggestion that the birds, literally, sail close to the wind and:

almost

blow it

but,

always

at last moment

call it

The casual slanginess of ‘blow it’ and ‘call it’ were deliberate choices to suggest lightly worn skill, while the central placement of the final three lines imply core strength and ability which keeps the swallows literally and figuratively centred, however erratic their flight appears.

My third poem is ‘The lioness’. The idea came from seeing circus animals caged and tethered near a French supermarket during the summer of 2015. Until recently the display of wild animals was permitted in English circuses, although, as of February 2018, only two were using them.⁴³ The situation in France is different; while a ban is under consideration the practice remains legal at the time of writing.⁴⁴ I was shocked by the dismal conditions in which the animals were kept, contrasted with the bright glamour of the painted vehicles and

⁴³ Lucy Pasha-Robinson, ‘Wild animals to be banned from circuses in England by 2020, says Government’, *The Independent*, Tuesday 27 February 2018 <https://www.independent.co.uk/news/uk/home-news/wild-animals-circus-ban-england-2020-defra-government-a8230691.html> ‘Wild Animals in Circuses Act 2019’

<https://www.legislation.gov.uk/ukpga/2019/24/enacted>

⁴⁴ <https://nykdaily.com/2020/09/france-to-ban-use-of-wild-animals-in-circuses-marine-parks/>

the claims of the advertising, designed to inspire awe and a frisson of fear in potential customers. I had read Randy Malamud's book *Reading Zoos* and wanted to convey that these caged and subdued animals were 'lions' and 'tigers' in only a superficial sense, abstracted as they were from their natural environments.⁴⁵ I focused particularly on one lioness who lay

[...] in a wagon, flanks heaving dust
exhaling monotony.

I assumed that she was born in captivity and that 'bars define her line of sight'. The poem focuses on the constraints of her life and the curtailment of her natural behaviour. For example:

No green-gold grass shaped her vision
nor taught the art of concealment.

and as,

Meat comes in lumps.
The instincts coiled within her wither.

In writing this poem I imagined that while her instincts were mostly 'withered', as one would expect given that the physical environment shapes behaviour, nevertheless vestiges of instinct might remain, for example:

At night she might dream the veldt
faint through the pads of her feet,

Here I drew on the observation that cats dream and while one cannot know the content of their dreams it seems likely they are processing the activities of their day – including stalking.⁴⁶ Whether a lioness who has never experienced a natural predatory life would have

⁴⁵ Randy Malamud, *Reading Zoos: Representations of Animals and Captivity* (New York: New York University Press, 1998) e.g., p. 2.

⁴⁶ 'Do Felines Dream? Find Out What They Dream About', *Sleep Advisor*, June 8 2020
<https://www.sleepadvisor.org/do-cats-dream/>

such dreams is unknowable, but I wanted to contrast her limited life with the one she was evolved to live – as a social animal with a wide territory, hunting for her food and raising cubs.

In this poem I wanted to convey the lioness's plight unsentimentally. For this reason, I eschewed references to emotion, instead allowing the details of her captive life and imagined free, wild, life to convey affect. The poem ends:

She wakes to puzzlement
as a child runs a stick against the bars.

Lastly, '*Jamón Ibérico de Bellota*', was prompted by the sight of this product displayed in a tapas bar. The arrangement of a pig's whole cured leg on its special stand seemed to celebrate, even fetishize meat-eating. There is no mistaking what is on offer: the product's origin as an animal part is evident. I had mixed feelings about this transparency. Though arguably more honest than an aesthetically sanitised supermarket product, it also seemed repellent, at least to a vegetarian. I was also struck by the peculiar, incongruous grace of the object and its rich colour, recalling, for me, a Velázquez painting. The poem begins:

Clamped to a bespoke stand, a slender leg
gold-skinned, fat-marbled, Velázquez red.

The poem was written with Murray's 'Pigs' in mind.⁴⁷ His animals seem to suffer an unnatural existence, meeting their end in terrifying mechanised slaughter. In contrast, my

⁴⁷ Les Murray, 'Pigs', in 'Presence: Translations from the Natural World', *Translations from the Natural World* (Manchester: Carcanet Press Limited, 1993) 13–54 p. 36.

research into the process of producing Iberian ham suggested that animals of this ancient breed lead relatively natural lives foraging sustainably for acorns in groves of oak:⁴⁸

Through the *montanera*
snuffle-grunt among grasses for acorns
which give the flesh its nut-sweet flavour.

I was reminded too, of John Berger's apparently contradictory statement: 'A peasant becomes fond of his pig and is glad to salt away its pork'.⁴⁹ The inevitable fate of animals farmed for human consumption is death. Whatever the means of slaughter (however 'humane' or otherwise), animals' lives are taken every day on an unimaginable scale, to feed human appetites. The animals have no choice in the matter. Through researching the production of Iberian ham, I learned that the adrenalin which floods the body of a frightened animal can affect the taste of its meat. Consequently, according to one account, during slaughter (the *matanza*), traditionally a family affair, the pig is laid on a table, unstunned. It is stroked and soothed with the intention of minimising distress while bleeding out through a severed artery.⁵⁰ The final stanza of my poem captures this, the last line casting doubt on what might seem a gentle process. When all is said and done, despite rhetoric suggesting that a 'partnership' exists between farmed animals and farmer, the pigs' lives are 'ungiven gifts', viscerally tainted by the trauma of their end:

A pig is chosen, hefted onto a table-altar.
Men soothe and stroke the prone creature,
fear taints ungiven gifts.

⁴⁸ Lauren Frayer, 'This Spanish Pig-Slaughtering Tradition Is Rooted In Sustainability', *The Salt: What's On Your Plate*, March 18, 2015. <https://www.npr.org/sections/thesalt/2015/03/18/392177526/this-spanish-pig-slaughtering-tradition-is-rooted-in-sustainability>

⁴⁹ John Berger, *Why Look at Animals?* (London: Penguin Books Ltd., 2009) p. 16.

⁵⁰ Ibid. This account of a (superficially) gentle end for Iberian pigs is contradicted by the following which does not flinch from the animal's indignity and distress: 'La Matanza: The Very Real Story Behind Jamon Iberico', *CataVino* <https://catavino.net/la-matanza-the-very-real-story-behind-jamon-iberico/>

This poem highlights the difference between welfare narratives, which, while seeking to minimise suffering, do not question taken-for-granted assumptions concerning exploitative transactions between humans and animals, and Marc Bekoff and Jessica Pierce's focus on 'well-being' which privileges animal agency, affect and choice.⁵¹

5. Chapter 3: The nature of language, the language of nature - poetic enactments of animal communication

Finally, I will discuss three of my poems in relation to the themes in Chapter 3. The first is titled 'The writing lark'. 'Writing lark' or 'Scribble lark' are old names for the yellowhammer, a bird whose eggs are marked with fine lines suggestive of text. My poem was influenced by John Clare's 'The Yellowhammer's Nest', which refers to the patterned eggs:

Five eggs, pen-scribbled o'er with ink their shells
Resembling writing scrawls which fancy reads
As nature's poesy and pastoral spells – ⁵²

Clare's poem opens with a chance encounter:

Just by the wooden brig a bird flew up,
Frit by the cowboy as he scrambled down

My poem begins similarly: 'I flushed a yellowhammer from her nest'. The second and third lines focus on her eggs: 'Five unhatched eggs were cupped inside – / on each her scribbled messages'. While these markings are likely to have evolved as camouflage, the conceit of my poem is that they carry a message:

I watched the nest till she returned

⁵¹ Marc Bekoff and Jessica Pierce, *The Animals' Agenda: Freedom, Compassion, and Coexistence in the Human Age* (Boston, Massachusetts: Beacon Press, 2017).

⁵² John Clare, 'The Yellowhammer's Nest', lines 13-15, p. 65 in *John Clare: Poems Selected by Paul Farley* (London: Faber and Faber Limited, 2007).

and then I quietly slipped away
to wonder what her writing meant.

Clare's poem consists of thirty lines with no stanza breaks while mine is in two parts; four, three-line stanzas precede three, four-line stanzas. The first part concerns the immediacy of the (fictional) yellowhammer sighting, the second part focuses on the imagined meaning of her 'writing'. In 'The Yellowhammer's Nest', Clare's 'fancy' reads the scribbled lines as potentially intelligible, 'nature's poesy and pastoral spells – '. These marks were once misconstrued as sinister, something to which I refer in my poem: 'Her scrawls once seen as evil things / her tongue thought dipped in the Devil's blood'.⁵³ In 'The writing lark' I suggest that the yellowhammer has an urgent message to convey, specifically of habitats and food sources lost through destructive farming practices.⁵⁴ The yellowhammer speaks through the eloquence of her absence:

Might she write of hedges rooted out,
of insects lost to pesticide,
meadows' margins pared away,
how harvests leave not a peck of grain.

The winter stubble's mostly gone,
this is why we seldom see
bursts of sun brushed yellow birds
in flight over a silvered field.

The final stanza draws on a beautiful image of a flock of yellowhammers flying over a cultivated field, reproduced in *Birds Britannica*.⁵⁵

In writing about the yellowhammer's plight, my poem echoes Clare's in that he refers to the perils faced by these birds. In Clare's poem, however, these perils are natural:

⁵³ Mark Cocker and Richard Mabey, *Birds Britannica* (London: Chatto & Windus, 2005) p. 461.

⁵⁴ Mark Cocker and Richard Mabey, *Birds Britannica*, p. 460. The yellowhammer has been assigned Red List status, reflecting its global decline. RSPB website, <https://www.rspb.org.uk/birds-and-wildlife/wildlife-guides/bird-a-z/yellowhammer/?mediacode=T15AFF0018#>

⁵⁵ Mark Cocker and Richard Mabey, *Birds Britannica*, p. 460.

For snakes are known with chill and deadly coil
To watch such nests and seize the helpless young,
And like as though the plague became a guest,
Leaving a houseless home, a ruined nest—
And mournful hath the little warblers sung
When such like woes hath rent its little breast.

In her plaintive song, Clare hears, empathically, the yellowhammer's grief at the loss of her young. Eva Meijer urges us to listen and pay attention to what animals say.⁵⁶ My poem suggests that we must attend to what is happening to these birds in our depleted countryside. Their very scarcity carries an important message. While their scribbled eggs cannot literally be read, these birds, like other living things, do speak, through their behaviour, their distinctive song, and their silence.⁵⁷

In 'Workshop jargon' I explore the relationship between the language of science and technology, and the language of nature and poetry. This poem was inspired by an information board at the National Railway Museum, York, which recorded railway terminology and accompanying definitions. Reading this recalled Henry Reed's 1942 poem, 'Naming of Parts', in which the inert technical language of rifle maintenance contrasts contrapuntally with language evoking nature's beauty.⁵⁸ In Reed's poem the phrase 'easing the spring' has two contrasting meanings; one concerns a rifle mechanism, the other relates to the activity of bees. In my poem I wanted to accomplish something similar, re-imagining each jargon term to refer to a natural phenomenon. For example, 'using feelers' became 'Bees' antennae scent out flowers, / intoxication of mating queen'. The contrast between the original definitions and

⁵⁶ Eva Meijer, *Animal Languages: The Secret Conversations of the Living World*, trans. by Laura Watkinson (London: John Murray, 2019) pp. 231-32.

⁵⁷ For a recording of the yellowhammer's song, see <https://www.rspb.org.uk/birds-and-wildlife/wildlife-guides/bird-a-z/yellowhammer/?mediacode=T15AFF0018#>

⁵⁸ Henry Reed, 'Naming of Parts', first published in *New Statesman and Nation*, August 1942. See also poetrybyheart.org.uk/poems/naming-of-parts/

my invented ones, arguably mirror the differences between a left hemisphere view which privileges things of human origin over nature, and a holistic, metaphorical and emotionally attuned right-hemisphere view.⁵⁹ While technical or scientific language avoids ambiguity, poetry in contrast, plays with it, layering meaning and evoking emotional states. A challenge throughout this thesis and the accompanying poems has been to creatively integrate, or sometimes contrast, these two linguistic registers.

The final poem I will consider is titled 'This'. My aim in writing the poem was to explore a core issue in ecopoetics, that is, the relationship between poetic text and the thing(s) which the poem represents (or enacts). For Jonathan Bate, a problem for environmentalists (and, by implication, poets), is that their 'loving gaze upon 'nature' entails a forgetting that 'nature' is a word, not a thing'.⁶⁰ Further, it is anthropocentric to suggest, as Heidegger once did, that "things need us in order to be named".⁶¹ Long before humans appeared and set about naming things, the earth was far from being inchoate, somehow requiring human language for its completion. Indeed, the development of informationally complex ecosystems preceded human evolution, while the ability to distinguish salient things within an *Umwelt* (a precursor to naming them) is vital to any living being navigating its environment. Moreover, as Murray stated, 'talk' of one sort or another is ubiquitous in nature. Self-evidently the earth did not require humans to speak it into being. The notion of language as a 'net' laid 'over the world of experience' highlights the difference between words and what they signify. As Patrick Daly's poem suggests, words can mask deeper truths, as streetlights obscure the stars.⁶²

⁵⁹ Iain McGilchrist, *The Master and his Emissary: The Divided Brain and the Making of the Western World* (New Haven and London: Yale University Press, 2010) pp. 55 & 79. See earlier, p. 20.

⁶⁰ Jonathan Bate, *The Song of the Earth* (London: Picador, 2001) p. 248.

⁶¹ Kate Rigby, 'Earth, World, Text: On the (Im)possibility of Ecopoiesis', *New Literary History* 35, 3, (2004) 427-42 p. 437.

⁶² Patrick Daly, 'Words', *New Statesman*, 5-11 June 2015, p. 47.

Addressing ‘The (Im)possibility of Ecopoiesis’, Kate Rigby asks, ‘How then does the work of art “save” the earth by disclosing it as unsayable?’⁶³ She argues that,

It does so [...] precisely to the extent that it draws attention to its own status as text and hence as a mode of enframing. In this sense, the literary text saves the earth by disclosing the nonequation of word and thing, poem and place.⁶⁴

The ways in which this might be accomplished ‘include explicit disavowals of sayability’, as well as the ‘formal qualities manifested by all texts, qualities that declare them to be artifacts, carefully crafted works of poietic techne rather than spontaneous self-disclosures of phusis’.⁶⁵ For Rigby, ‘Only to the extent that the work of art is self-canceling, acknowledging in some way its inevitable failure to adequately mediate the voice of nature, can it point us to that which lies beyond its own enframing’.⁶⁶ Rigby’s position might seem at odds with conceptualisations of poetry as ‘creaturely’ or, as Ted Hughes thought of poems, ‘as a sort of animal’, however in my view the two positions are complementary.⁶⁷ By definition a poetic text, however ‘creaturely’ it is, remains a text. If, however, the skilled poet can cause readers or listeners to experience something of creatureliness through the poem, then that poem is accomplishing something beyond mere aesthetic appeal. As Bate argues, drawing on the work of Paul Ricoeur, in responding to an artwork ‘we open ourselves to another person’s ‘project’, to an alternative way of being in the world’.⁶⁸ Bate suggests that this can have ecological implications in that we can, through encountering an artwork, begin to envision

⁶³ Kate Rigby, ‘Earth, World, Text: On the (Im)possibility of Ecopoiesis’, p. 437.

⁶⁴ Ibid. p. 437.

⁶⁵ Ibid. p. 437.

⁶⁶ Ibid. p. 437.

⁶⁷ Ted Hughes, *Winter Pollen: Occasional Prose*, ed. by William Scammell (London: Faber and Faber Limited, 1995), p. 10; see earlier, p. 55.

⁶⁸ Paul Ricoeur, ‘Writing as a Problem for Literary Criticism and Philosophical Hermeneutics’, *Philosophic Exchange*, 2, 3 (Summer 1977) 3-15, repr. in *A Ricoeur Reader: Reflection and Imagination*, ed. Mario J. Valdés (New York and London: Harvester Wheatsheaf, 1991) 320-37, cited by Jonathan Bate, *The Song of the Earth* (London: Picador, 2001) p. 250.

different ways of living upon the earth.⁶⁹ Murray's 'Presence' poems allow us to envision ways of being beyond the human. Importantly, the poetic artifice Murray employs both enacts creatureliness *and* points to what lies beyond the text's limitations by drawing attention to that artifice.

Arguably, all poetry, through its artifice, signals its status 'as a mode of enframing', however in writing 'This' I wanted, explicitly, to explore, heighten and highlight the differences between 'nature' as enacted in a poem, and the complex living earthly entities that defy art's enframing. 'Nature' cannot adequately be contained within the artefact that is a poem, but nonetheless, might be conjured, albeit palely compared to the real thing, through that medium, inviting the reader to look beyond.

'This' is a prose poem, its arrangement on the page designed to highlight its status as text, for example it is 'enframed' by wide white margins. The poem's title, 'This', is designed to further draw attention to the poem as artefact, as well as introducing ambiguity. The first line begs the question, what is 'this'? The title is followed by the lines: 'could put you in mind of thousands of rooks / lettering bare branches, [...]'.

The poem describes the roosting rooks, but additionally the black letters in lines on the white page function as a visual metaphor for them. Real rooks, meanwhile, are alive elsewhere, indifferent to and unconstrained by the poem's artifice. 'This ... could put you in mind of', is ambiguous, referring to both the patterning of the black and white text itself, and, also,

⁶⁹ Jonathan Bate, *The Song of the Earth*, pp. 250-251.

literally, the description of rooks. The poem goes on to allude to the rooks' communication and how they disperse and return to the roost at dawn and dusk.⁷⁰

The second stanza also draws attention to the disjuncture between a living thing and its poetic representation. The butterfly, *Aporia crataegi*, or 'black-veined white', is a species distinguished by fine black lines on white wings. I have often seen these butterflies in France, and they are widespread across most of Europe and Asia, though extinct in the UK. Again, by highlighting the superficial similarity between text and living thing, I intended to disclose both connection *and* radical difference. Again 'This', the poem or text, 'could put you in mind of [...] the black veins of white *Aporia* butterfly wings / flowering from ink stippled parchment to dry in / the sun'.

The name, *Aporia*, adds another level of (serendipitous) meaning to the poem. The etymology of the word 'aporia' is complex. An aporia can refer to a state of puzzlement, 'a difficulty, impasse, or point of doubt and indecision'.⁷¹ Further, and particularly apposite here, an aporia 'functions as an indicator of the limits of language in constructing knowledge'.⁷²

The final two stanzas continue the monochrome theme, further highlighting the differences and similarities between poetic text and the living things to which it refers: 'sleek guillemots clustered on cliffs, a blackbird / on a winter bough, delicate tracks of birds in snow,'. The final phrase: 'a / scribble of wrack on salt-white strand', again draws attention to the poem's

⁷⁰ It is hypothesised that communal roosting confers various benefits including reduced risk from predators, reduced risk from cold, access to potential mates and access to information about location and quality of food sources (the Information Centre Hypothesis). See, for example, Geir A. Sonerud, Christian A. Smedshaug and Øystein Bråthen, 'Ignorant hooded crows follow knowledgeable roost-mates to food: support for the information centre hypothesis', *Proc. R. Soc. Lond. (The Royal Society)* B (2001) 268, 827-31.

⁷¹ <https://en.wikipedia.org/wiki/Aporia>

⁷² *Ibid.*

artifice; 'scribble' suggests writing but also points to the difference between living seaweed, which is both food and habitat for various sea creatures, and lifeless lettering. I would argue, however, that despite the limitations of language, poems can bring about a transformation in readers, mediated through emotion, and attentiveness to that which the poem enframes and, imperfectly, enacts.

Bibliography

Primary sources:

Armitage, Simon and Tim Dee, eds., *The Poetry of Birds*, (London: Penguin Books, 2011)

Badcoe, Rosemary, *Drawing a Diagram* (American Fork, Utah: Kelsay Books, 2017)

Bishop, Elizabeth, *Complete Poems* (London: Chatto & Windus, 2004)

Bishop, Elizabeth, 'The Last Animal', in *Elizabeth Bishop: Prose*, ed. by Lloyd Schwartz (London: Chatto & Windus, 2011)

Chesterton, G. K., 'The Donkey', *The Collected Poems of G. K. Chesterton* (New York: Dodd, Mead and Company, 1927) <https://www.poetryfoundation.org/poems/47918/the-donkey>

Clare, John, *Poems selected by Paul Farley* (London: Faber and Faber Limited, 2007)

Coetzee, J. M., *The Lives of Animals* (Woodstock, Oxfordshire: Princeton University Press, 1999)

Daly, Patrick, 'Words', *New Statesman*, 5-11 June 2015
<https://www.newstatesman.com/culture/2015/06/words-poem-patrick-daly>

Debney, Patricia, *How to Be a Dragonfly* (Huddersfield: Smith/Doorstop Books, 2005)

Dickinson, Emily, *Emily Dickinson: The Complete Poems*, ed. by Thomas H. Johnson (London: Faber and Faber Limited, 1975)

Eliot, George, *Middlemarch* (Oxford: Oxford University Press, 2008)

Fowler, Karen Joy, *We Are All Completely Beside Ourselves* (London: Serpent's Tail, 2014)

Harsent, David, *Fire Songs* (London: Faber & Faber Ltd., 2014)

Hemingway, Ernest, *The Old Man and the Sea* (New York: Scribner ebook edition, 2002)

Hopkins, Gerard Manley, *Poems and Prose*, selected and edited by W. H. Gardner, (Harmondsworth: Penguin Books Ltd., 1967)

Hughes, Ted, *Collected Poems*, ed. by Paul Keegan (London: Faber and Faber Limited, 2003)

Keegan, Paul, ed., *The Penguin Book of English Verse* (London: Penguin Books, 2004)

Kinsella, John and Coral Hull, *Zoo* (Sydney, NSW: Paper Bark Press, Australian Humanities Research Foundation, AHRF, 2000)

Larkin, Peter, *Give Forest Its Next Portent* (Bristol: Shearsman Books, 2014)

- Levertov, Denise, 'Come into Animal Presence', in *Poetry*, 96, 1 (1960) pp. 1-2.
<https://www.poetryfoundation.org/poetrymagazine/browse?contentId=28331>
- Levertov, Denise, *The Sorrow Dance* (New York: New Directions Books, 1966)
- Murdoch, Iris, *Under the Net* (London: Vintage Classics, 2002)
- Murray, Les, *Collected Poems* (Manchester: Carcanet Press Limited, 1991)
- Murray, Les, 'Presence: Translations from the Natural World', in *Translations from the Natural World* (Manchester: Carcanet Press Limited, 1993) 13-54
- Murray, Les, *Collected Poems* (Manchester: Carcanet Press Limited, 1998)
- Murray, Les, *Poems the Size of Photographs* (Manchester: Carcanet Press Limited, 2002)
- Neidjie, Bill, *Story About Feeling*, ed. by Keith Taylor (Broome, Western Australia: Magabala Books, 2007)
- Oswald, Alice, ed., *The Thunder Mutters: 101 Poems for the Planet* (London: Faber and Faber Limited, 2006)
- Oswald, Alice, *Dart* (London: Faber and Faber Ltd., Poetry Firsts edition, 2010)
- Ovid, *Metamorphoses*, trans. by A. D. Melville (Oxford: Oxford University Press, 2008)
- Pacheco, José Emilio, *An Ark for the Next Millennium*, trans. by Margaret Sayers Peden, (Austin, Texas: University of Texas Press, 1993)
- Paterson, Don, *40 Sonnets* (London: Faber & Faber Ltd, 2015)
- Pullman, Philip, *The Secret Commonwealth* (London: David Fickling Books, 2019)
- Rilke, Rainer Maria, *Selected Poems*, trans. by Susan Ranson and Marielle Sutherland (Oxford: Oxford University Press, 2011)
- Simms, Colin, *Hen Harrier Poems* (Bristol: Shearsman Books, 2015)
- Symmons Roberts, Michael, *Drysalter* (London: Jonathan Cape, 2013)
- Whitman, Walt, *Song of Myself*, <https://www.poetryfoundation.org/poems/45477/song-of-myself-1892-version>

Books:

- Abram, David, *The Spell of the Sensuous* (New York: Vintage Books, 1997)
- Abram, David, *Becoming Animal: An Earthly Cosmology* (New York: Vintage Books, 2011)

Acampora, Ralph, *Corporal Compassion: Animal Ethics and Philosophy of Body* (Pittsburgh PA: University of Pittsburgh, 2006)

Alcock, John, *Animal Behaviour: An Evolutionary Approach, Tenth Edition* (Sunderland, MA: Sinauer Associates Inc., 2013)

Alexander, Peter F. *Les Murray: A Life in Progress* (South Melbourne, Victoria: Oxford University Press, 2000)

Al-Khalili, Jim and Johnjoe McFadden, *Life on the Edge: The Coming of Age of Quantum Biology* (London: Bantam Press, 2014)

Avery, Mark, *A Message from Martha: The extinction of the Passenger Pigeon and its relevance today* (London: Bloomsbury Natural History, 2015)

Baker, J. A., *The Peregrine; The Hill of Summer & Diaries in The Complete Works of J. A. Baker*, ed. by John Fanshawe (London: HarperCollins Publishers Ltd, 2011)

Balcombe, Jonathan, *What a Fish Knows: The Inner Lives of Our Underwater Cousins* (London: Oneworld Publications, 2016)

Barnes, Simon, *Ten Million Aliens: A Journey Through the Entire Animal Kingdom* (London: Short Books, 2014)

Barnes, Simon, *Rewild Yourself: 23 Spellbinding Ways to Make Nature More Visible* (London: Simon & Schuster UK Ltd., 2018)

Barrett, Louise, *Beyond the Brain: How Body and Environment Shape Animal and Human Minds* (Woodstock, Oxfordshire: Princeton University Press, 2011)

Barrett, Lisa Feldman, *How Emotions Are Made: The Secret Life of the Brain* (London: Macmillan, 2017)

Bate, Jonathan, *The Song of the Earth* (London: Picador, 2001)

Bate, Jonathan, *Ted Hughes: The Unauthorised Life* (London: William Collins, 2015)

Bekoff, Marc, *The Emotional Lives of Animals* (Novato, California: New World Library, 2007)

Bekoff, Marc, *The Animal Manifesto: Six Reasons for Expanding Our Compassion Footprint* (Novato, California: New World Library, 2010)

Bekoff, Marc, ed., *Ignoring Nature No More: The Case for Compassionate Conservation* (Chicago: The University of Chicago Press, 2013)

Bekoff, Marc, *Rewilding Our Hearts: Building Pathways of Compassion and Coexistence* (Novato, California: New World Library, 2014)

- Bekoff, Marc and Jessica Pierce, *The Animals' Agenda: Freedom, Compassion, and Coexistence in the Human Age* (Boston, Massachusetts: Beacon Press, 2017)
- Berger, John, *Why Look at Animals?* (London: Penguin Books Ltd., 2009)
- Birkhead, Tim, *Bird Sense: What It's Like to Be a Bird* (London: Bloomsbury, 2013)
- Birkhead, Tim, *The Most Perfect Thing: Inside (and Outside) a Bird's Egg* (London: Bloomsbury, 2017)
- Bishop, Elizabeth, *One Art: The Selected Letters*, ed. and intro. by Robert Giroux (London: Pimlico, 1996)
- Blackmore, Susan, *Consciousness: An Introduction* (Abingdon, Oxon: Routledge, 2013)
- Bloom, Paul, *Against Empathy: The Case for Rational Compassion* (London: The Bodley Head, 2016)
- Bourke, Lawrence, *A Vivid Steady State: Les Murray and Australian Poetry* (Kensington, NSW: New South Wales University Press, in association with Strawberry Hills, NSW: New Endeavour Press, 1992)
- Boyde, Melissa, ed., *Captured: The Animal Within Culture* (Basingstoke, Hampshire: Palgrave Macmillan, 2014)
- Bradbury, Jack W. and Sandra L. Vehrencamp, *Principles of Animal Communication*, Second Edition (Sunderland, Massachusetts: Sinauer Associates, Inc., 2011)
- Braithwaite, Victoria, *Do Fish Feel Pain?* (Oxford: Oxford University Press, 2010)
- Braitman, Laurel, *Animal Madness: How anxious dogs, compulsive parrots, and elephants in recovery help us understand ourselves* (London: Scribe, 2014)
- Breising, Karsten, *What do Animals Think and Feel?* trans. Peter Lewis (London: Head of Zeus Ltd., 2019)
- Buber, Martin, *I And Thou*, trans. by Ronald Gregor Smith (Edinburgh: T. & T. Clark, 1958)
- Budiansky, Stephen, *Nature's Keepers: The New Science of Nature Management* (London: Weidenfeld & Nicolson, 1995)
- Calarco, Matthew, *Zoographies: The Question of the Animal from Heidegger to Derrida* (New York: Columbia University Press, 2008)
- Carroll, Sean B., *The Serengeti Rules: The Quest to Discover How Life Works and Why It Matters* (Princeton, New Jersey: Princeton University Press, 2016)
- Casey, Susan, *Voices in the Ocean: A Journey into the Wild and Haunting World of Dolphins* (New York: Anchor Books, 2016)

- Clark, Timothy, *Ecocriticism on the Edge: The Anthropocene as a Threshold Concept* (London: Bloomsbury Academic, 2015)
- Claxton, Guy, *Intelligence in the Flesh: Why your mind needs your body much more than it thinks* (New Haven and London: Yale University Press, 2016)
- Cocker, Mark and Richard Mabey, *Birds Britannica* (London: Chatto & Windus, 2005)
- Crist, Eileen, *Images of Animals: Anthropomorphism and Animal Mind* (Philadelphia: Temple University Press, 2000)
- Crist, Eileen, *Abundant Earth: Toward an Ecological Civilization* (Chicago: The University of Chicago Press, 2019)
- Dalzell, Tom and Terry Victor, eds., *The New Partridge Dictionary of Slang and Unconventional English: Vol II J-Z* (London and New York: Taylor and Francis, 2006)
https://www.google.co.uk/books/edition/The_New_Partridge_Dictionary_of_Slang_an/mAdUqLrKw4YC?hl
- Damasio, Antonio, *Descartes' Error: Emotion, Reason and the Human Brain* (London: Papermac, 1996)
- Damasio, Antonio, *The Feeling of What Happens: Body, Emotion and the Making of Consciousness* (London: Vintage, 2000)
- Damasio, Antonio, *The Strange Order of Things: Life, Feeling, and the Making of Cultures* (New York: Pantheon Books, 2018)
- Darwin, Charles, *On the Origin of Species* (Oxford: Oxford University Press, 2008)
- Darwin, Charles, *The Expression of the Emotions in Man and Animals*, ed. by Joe Cain and Sharon Messenger (London: Penguin Classics, 2009)
- Davies, Paul, *The Demon in the Machine: How hidden webs of information are solving the mystery of life* (London: Allen Lane, 2019)
- Dawkins, Marion S., *Why Animals Matter: Animal consciousness, animal welfare and human well-being* (Oxford: Oxford University Press, 2012)
- Dawkins, Richard, *The Blind Watchmaker* (London: Penguin Books Ltd., 1988)
- Dawkins, Richard, *Unweaving the Rainbow: Science, Delusion and The Appetite For Wonder* (London: Penguin Books, 2006)
- Dee, Tim, *The Running Sky: A Birdwatching Life* (London: Vintage, 2010)
- DeMello, Margo, *Animals and Society: An Introduction to Human-Animal Studies* (New York: Columbia University Press, 2012)

- DeMello, Margo, ed., *Speaking for Animals: Animal Autobiographical Writing* (Abingdon: Routledge, 2015)
- Dennett, Daniel, *Kinds of Minds: Toward an Understanding of Consciousness* (New York: BasicBooks, 1996)
- Derrida, Jacques, *The Animal That Therefore I Am*, ed. by Marie-Louise Mallet, trans. by David Wills (New York: Fordham University Press, 2008)
- Despret, Vinciane, *What Would Animals Say If We Asked the Right Questions?* (Minneapolis, Minnesota: University of Minnesota Press, 2016)
- de Waal, Frans, *The Ape and the Sushi Master: Cultural Reflections of a Primatologist* (New York: Basic Books, 2001)
- de Waal, Frans, *The Age of Empathy: Nature's Lessons for a Kinder Society* (New York: Harmony Books, 2009)
- de Waal, Frans, *The Bonobo and the Atheist: In Search of Humanism Among the Primates* (New York: Norton, 2014)
- de Waal, Frans, *Are We Smart Enough to Know How Smart Animals Are?* (London: W.W. Norton & Company, Ltd., 2016)
- de Waal, Frans, *Mama's Last Hug: Animal Emotions and What They Teach Us about Ourselves* (London: Granta Publications, 2019)
- du Sautoy, Marcus, *What We Cannot Know* (London: 4th Estate, 2016)
- Eagleman, David, *The Brain: The Story of You* (Edinburgh: Canongate Books Ltd., 2015)
- Eisenman, Stephen F. *The Cry of Nature: Art and the Making of Animal Rights* (London: Reaktion Books Ltd., 2013)
- Eliade, Mircea, *Shamanism: Archaic Techniques of Ecstasy* (Princeton, New Jersey: Princeton University Press, 2004)
- Ellis, Jonathan, *Art and Memory in the Work of Elizabeth Bishop* (Aldershot, Hampshire: Ashgate Publishing Limited, 2006)
- Feinberg, Todd, E. and Jon M. Mallatt, *The Ancient Origins of Consciousness: How the Brain Created Experience* (Cambridge, MA: The MIT Press, 2015)
- Feinstein, Elaine, *Ted Hughes: The Life of a Poet* (London: Phoenix, 2002)
- Foster, Charles, *Being A Beast* (London: Profile Books, 2016)
- Freud, Sigmund, *The Interpretation of Dreams*, The Pelican Freud Library, Volume 4, trans. by James Strachey (Harmondsworth, Middlesex: Penguin Books Ltd., 1978)

Freud, Sigmund, *On Sexuality: Three Essays on the Theory of Sexuality and Other Works*, The Pelican Freud Library, Volume 7, trans. and ed. by Angela Richards (Harmondsworth, Middlesex: Penguin Books Ltd., 1977)

Fromm, Erich, *The Anatomy of Human Destructiveness* (Harmondsworth, Middlesex: Penguin Books, 1977)

Fürstenberg, Ulla, '*Les Murray Country*': *Development and Significance of an Australian Poetic Landscape* (Tübingen, Germany: Gunter Narr Verlag, 2004)

Gabriel, Markus, *Why the World Does Not Exist* (Cambridge: Polity Press, 2015)

Garrard, Greg, *Ecocriticism* (Abingdon, Oxon: Routledge, 2012)

Gerhardt, Sue, *Why Love Matters: How affection shapes a baby's brain* (Hove, East Sussex: Routledge, 2005)

Ghosh, Amitav, *The Great Derangement: Climate Change and the Unthinkable* (Chicago: The University of Chicago Press Ltd, 2016)

Glotfelty, Cheryll and Harold Fromm, eds., *The Ecocriticism Reader* (Athens, Georgia: The University of Georgia Press, 1996)

Godfrey-Smith, Peter, *Other Minds: The Octopus and the Evolution of Intelligent Life* (London: William Collins, 2017)

Goodall, Jane, *In the Shadow of Man* (London: Weidenfeld & Nicolson, 1999)

Gould, Stephen Jay, *Eight Little Piggies* (New York: W. W. Norton & Co., 1993)

Grandin, Temple and Catherine Johnson, *Animals in Translation: Using the Mysteries of Autism to Decode Animal Behavior* (Orlando, Florida: Harcourt Inc., 2006)

Griffin, Donald, R., *Animal Minds: Beyond Cognition to Consciousness* (Chicago: The University of Chicago Press, 2001)

Harari, Yuval, N., *Sapiens: A Brief History of Humankind* (London: Vintage, 2014)

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

Heaney, Seamus, *The Government of the Tongue: The 1986 T. S. Eliot Memorial Lectures and Other Critical Writings* (London: Faber, 1989)

Hearne, Vicki, *Adam's Task: Calling Animals by Name* (London: William Heinemann Ltd, 1987)

Hearne, Vicki, *Animal Happiness: A Moving Exploration of Animals and Their Emotions* (New York: Skyhorse Publishing, 2007)

- Holmes, John, ed., *Science in Modern Poetry: New Directions* (Liverpool: Liverpool University Press, 2012)
- Hughes, Ted, *Winter Pollen: Occasional Prose*, ed. William Scammell (London: Faber and Faber Limited, 1995)
- Jasanoff, Alan, *The Biological Mind: How Brain, Body, and Environment Collaborate to Make Us Who We Are* (New York: Basic Books, 2018)
- Johnson, William, *The Rose-Tinted Menagerie* (London: Heretic Books Ltd., 1990)
- Jones, Lucy, *Losing Eden: Why Our Minds Need the Wild* (London: Allen Lane, 2020)
- Juniper, Tony, *What Has Nature Ever Done for Us? How money really does grow on trees* (London: Profile Books, 2013)
- Kahn, Peter H., *Technological Nature: Adaptation and the Future of Human Life* (Cambridge M.A.: The MIT Press, 2011)
- Kalof, Linda and Amy Fitzgerald, eds., *The Animals Reader: The Essential Classic and Contemporary Writings* (Oxford: Berg, 2007)
- Kennedy, John S., *The New Anthropomorphism* (Cambridge: Cambridge University Press, 1992)
- Kolbert, Elizabeth, *The Sixth Extinction: An Unnatural History* (London: Bloomsbury, 2015)
- Knickerbocker, Scott, *Ecopoetics: The Language of Nature, the Nature of Language* (Amherst, Massachusetts: University of Massachusetts Press, 2012)
- Krznaric, Roman, *Empathy: Why it matters, and how to get it* (London: Rider Books, 2015)
- Lakoff, George and Mark Turner, *More Than Cool Reason: A Field Guide to Poetic Metaphor* (Chicago: The University of Chicago Press, 1989)
- Lakoff, George and Rafael E. Núñez, *Where Mathematics Comes From: How the Embodied Mind Brings Mathematics Into Being* (New York: Basic Books, 2000)
- Leopold, Aldo, 'On a Monument to the Pigeon', *A Sand County Almanac* (Oxford: Oxford University Press, 1953) http://faculty.fortlewis.edu/DOTT_C/Bio%20250-SWEcol/Activities/On%20a%20Monument%20to%20the%20Pigeon.pdf
- Lerner, Ben, *The Hatred of Poetry*, (London: Fitzcarraldo Editions. 2016)
- Lewis-Stempel, John, *Where Poppies Blow: The British Soldier, Nature, The Great War* (London: Weidenfeld & Nicolson, 2017)
- Lockwood, Jeffrey A., *The Infested Mind: Why Humans Fear, Loathe, and Love Insects* (New York: Oxford University Press, 2013)

- Lorenz, Konrad Z., *King Solomon's Ring: New Light on Animal Ways*, trans. by Marjorie Kerr Wilson (London: The Reprint Society Ltd., 1953)
- Lovelock, James, *Gaia: A New Look At Life On Earth* (Oxford: Oxford University Press, 2009, first published in 1979)
- Mabey, Richard, *The Cabaret of Plants: Botany and the Imagination* (London: Profile Books Ltd., 2015)
- McCarthy, Michael, *The Moth Snowstorm: Nature and Joy* (London: John Murray, 2015)
- Macdonald, Helen, *H is for Hawk* (London: Vintage, 2014)
- Macdonald, Benedict, *Rebirding: Rewilding Britain and its Birds* (Exeter: Pelagic Publishing, 2019)
- Macfarlane, Robert, *Landmarks* (London: Hamish Hamilton, 2015)
- McGilchrist, Iain, *The Master and his Emissary: The Divided Brain and the Making of the Western World* (New Haven and London: Yale University Press, 2010)
- Malamud, Randy, *Reading Zoos: Representations of Animals and Captivity* (New York: New York University Press, 1998)
- Malamud, Randy, *Poetic Animals and Animal Souls* (New York: Palgrave Macmillan, 2003)
- Malay, Michael, *The Figure of the Animal in Modern and Contemporary Poetry* (Cham, Switzerland: Springer Nature, 2018)
- Marren, Peter and Richard Mabey, *Bugs Britannica* (London: Chatto & Windus, 2010)
- Mason, Jim, *An Unnatural Order: The Roots of Our Destruction of Nature* (New York: Lantern Books, 2005),
- Masson, Jeffrey M. and Susan McCarthy, *When Elephants Weep: The Emotional Lives of Animals* (London: Vintage, 1996)
- Matthews, Steven, *Les Murray* (Manchester: Manchester University Press, 2001)
- Meijer, Eva, *Animal Languages: The Secret Conversations of the Living World*, trans. by Laura Watkinson (London: John Murray, 2019)
- Midgley, Mary, *Beast and Man: The Roots of Human Nature* (London: Routledge, 1995)
- Midgley, Mary, *Science and Poetry* (Abingdon, Oxfordshire: Routledge Classics, 2006)
- Moe, Aaron M., *Zoopoetics: Animals and the Making of Poetry* (Lanham, Maryland: Lexington Books, 2014)

- Monbiot, George, *Feral: Rewilding the land, sea and human life* (London: Penguin Books Ltd., 2014)
- Monbiot, George, *Out of the Wreckage: A New Politics for an Age of Crisis* (London: Verso, 2017)
- Montgomery, Sy, *The Soul of an Octopus* (London: Simon & Schuster UK Ltd., 2015)
- Morton, Timothy, *Ecology Without Nature: Rethinking Environmental Aesthetics* (Cambridge M.A.: Harvard University Press, 2009)
- Murray, Les, *The Paperbark Tree: Selected Prose* (London: Minerva, 1993)
- Noë, Alva, *Out of Our Heads: Why You Are Not Your Brain and Other Lessons from the Biology of Consciousness* (New York: Hill and Wang, 2010)
- Noel-Tod, Jeremy, *The Penguin Book of the Prose Poem: From Baudelaire to Anne Carson* (London: Penguin Books, 2018)
- Nussbaum, Martha C., *Upheavals of Thought: The Intelligence of Emotions* (Cambridge: Cambridge University Press, 2008)
- Odell, Jenny, *How to Do Nothing: Resisting the Attention Economy* (London: Melville House Publishing, 2019)
- Ó Maoilearca, John, *All Thoughts Are Equal: Laruelle and Nonhuman Philosophy* (Minneapolis: University of Minnesota Press, 2015)
- Ou, Li, *Keats and Negative Capability* (London: Continuum International Publishing Group, 2009)
- Packham, Chris, *Fingers in the Sparkle Jar: A Memoir* (London: Ebury Press, 2016)
- Panksepp, Jaak, *Affective Neuroscience: The Foundations of Human and Animal Emotions* (New York: Oxford University Press, 2005)
- Pepperberg, Irene, Maxine, *The Alex Studies: Cognitive and Communicative Abilities of Grey Parrots* (Cambridge, Massachusetts: Harvard University Press, 2000)
- Peterson, Christopher, *Monkey Trouble: The Scandal of Posthumanism* (New York: Fordham University Press, 2018)
- Pick, Anat, *Creaturely Poetics: Animality and Vulnerability in Literature and Film* (New York: Columbia University Press, 2011)
- Pinker, Steven, *The Better Angels of Our Nature: The Decline of Violence In History and Its Causes* (London: Allen Lane, 2011)
- Pinker, Steven, *Enlightenment Now: The Case for Reason, Science, Humanism and Progress* (London: Allen Lane, 2018)

- Propen, Amy, D., *Visualizing Posthuman Conservation in the Age of the Anthropocene* (Columbus: The Ohio State University Press, 2018)
- Recio, Belinda, *Inside Animal Hearts and Minds: Bears That Count, Goats That Surf and Other True Stories of Animal Intelligence and Emotion* (New York: Skyhorse Publishing, 2017)
- Rich, Nathaniel, *Losing Earth: A Recent History* (New York: Farrar, Straus and Giroux, 2019)
- Ridley, Matt, *Nature via Nurture: Genes, experience and what makes us human* (London: Fourth Estate, 2011)
- Roberts, Callum, *The Unnatural History of the Sea: The past and future of humanity and fishing* (London: Gaia Publishing, 2007)
- Ruesch, Hans, *Slaughter of the Innocent: The use of animals in medical research* (London: Slingshot Publications, 2003)
- Safina, Carl, *Beyond Words: What Animals Think and Feel* (New York: Henry Holt and Company, LLC, 2015)
- Sagar, Keith, *Ted Hughes and Nature: Terror and Exultation* (Clitheroe, Lancs: self-published by Keith Sagar, 2009)
- Sells, A. Lytton, *Animal Poetry in French and English literature and the Greek tradition* (London: Thames and Hudson, 1957)
- Shariatmadari, David, *Don't Believe a Word: The Surprising Truth About Language* (London: Weidenfeld & Nicolson, 2019)
- Sheldrake, Merlin, *Entangled Life: How Fungi Make Our Worlds, Change Our Minds, and Shape Our Futures* (London: The Bodley Head, 2020)
- Shepard, Paul, *Thinking Animals: Animals and the Development of Human Intelligence* (Athens, Georgia: The University of Georgia Press, 1998)
- Shepard, Paul, *The Others: How Animals Made Us Human* (Washington, D. C.: Shearwater, 1996)
- Slobodchikoff, Con, *Chasing Doctor Dolittle: Learning the Language of Animals* (New York: St. Martin's Press, 2012)
- Somerville, Christopher, *Walking Old Railways* (Newton Abbot, Devon, David and Charles Limited, 1979)
- Stegmann, Ulrich E., ed., *Animal Communication Theory: Information and Influence* (Cambridge: Cambridge University Press, 2013)

- Thain, M. and M. Hickman, *The Penguin Dictionary of Biology, Eleventh Edition* (London: Penguin Books, 2004)
- Thwaites, Thomas, *GoatMan: How I Took a Holiday from Being Human* (New York: Princeton Architectural Press, 2016)
- Tree, Isabella, *Wilding: The return of nature to a British farm* (London: Picador, 2019)
- Vince, Gaia, *Adventures in the Anthropocene: A Journey to the Heart of the Planet We Made* (London: Chatto & Windus, 2014)
- von Uexküll, Jakob, *A Foray into the Worlds of Animals and Humans with A Theory of Meaning* (Minneapolis: The University of Minnesota Press, 2010)
- Wallace-Wells, David, *The Uninhabitable Earth: A Story of the Future* (London: Allen Lane, 2019)
- Weil, Simone, *Gravity and Grace*, translated by Emma Crawford and Mario von der Ruhr (London: Routledge, 2004)
https://mercaba.org/SANLUIS/Filosofia/autores/Contempor%C3%A1nea/Weil%20%28Simone%29/Gravity%20and%20Grace.pdf?hc_location=ufi
- Weisman, Alan, *The World Without Us* (London: Virgin Books, 2008)
- Whitehead, Hal and Luke Rendell, *The Cultural Lives of Whales and Dolphins* (Chicago: The University of Chicago Press, 2015)
- Wilson, Edward, O., *Biophilia: The human bond with other species* (Cambridge, Massachusetts: Harvard University Press, 1984)
- Wilson, Edward O., *Half-Earth: Our Planet's Fight for Life* (New York: Liveright Publishing Corporation, 2016)
- Wilson, Timothy, D., *Strangers to Ourselves: Discovering the Adaptive Unconscious* (Cambridge, Massachusetts: The Belknap Press of Harvard University Press, 2002)
- Wolfe, Cary, ed., *Zoontologies: The Question of the Animal* (Minneapolis: The University of Minnesota Press, 2003)
- Wolfe, Cary, *Animal Rites: American Culture, the Discourse of Species, and Posthumanist Theory* (Chicago: The University of Chicago Press, 2003)
- Wolfe, Cary, *What Is Posthumanism?* (Minneapolis: The University of Minnesota Press, 2010)
- Wohlleben, Peter, *The Hidden Life of Trees*, trans. by Jane Billinghurst (London: William Collins, 2017)
- Wohlleben, Peter, *The Inner Life of Animals*, trans. by Jane Billinghurst (London: The Bodley Head, 2017)

Yallop, Jacqueline, *Big Pig, Little Pig: A Tale of Two Pigs in France* (London: Fig Tree, 2017)

Young, Rosamund, *The Secret Life of Cows* (London: Faber & Faber Limited, 2017)

Journal Articles

Almon, Bert, 'Fullness of Being in Les Murray's "Presence: Translations from the Natural World"', *Antipodes* 8, 2 (1994) 123–30

Atkins, Elizabeth, 'Man and Animals in Recent Poetry', *PMLA*, 51, 1 (1936) 263-83

Balcombe, Jonathan, 'Animal pleasure and its moral significance', *Applied Animal Behaviour Science*, 118 (2009) 208-16

Bekoff, Marc, 'Animal Emotions: Exploring Passionate Natures', *BioScience*, 50, 10 (2000) 861-70

Bekoff, Marc, 'Animal emotions, wild justice and why they matter: Grieving magpies, a pissy baboon, and empathic elephants', *Emotion, Space and Society*, 2 (2009) 82-85

Bekoff, Marc, 'Do Elephants Weep as an Emotional response? (Op-Ed)', *Live Science: Expert Voices*, September 28, 2013 <https://www.livescience.com/40029-do-elephants-weep-as-an-emotional-response.html>

Bliss-Moreau, Eliza, 'Constructing nonhuman animal emotion', *Current Opinion in Psychology*, 17 (2017) 184-88

Bouttier, Sarah, 'Creaturely Texts, Texts on Creatures', *European Journal of English Studies*, 19, 1 (2015) 111-22

Brick, Cameron and Sander van der Linden, 'Yawning at the apocalypse', *The Psychologist*, September 2018, 30-35

Brüggemann, Tirza, 'Animal Poetry and Empathy', *Humanities*, 6, 18 (2017) 1-14

Cottee, Stephanie Yue, 'Are fish the victims of 'speciesism'? A discussion about fear, pain and animal consciousness', *Fish Physiol Biochem*, 38 (2012) 5-15

Crowder, Ashby Bland, 'Emily Dickinson's Tell All the Truth but Tell it Slant –', *The Explicator*, 71, 4 (2013) 236-239
<https://www.tandfonline.com/doi/abs/10.1080/00144940.2013.841632>

Crutzen, Paul J., 'Geology of Mankind', *Nature* 415 (3 January 2002) 23
<https://www.nature.com/articles/415023a>

Daniel, Missy, 'Poetry is Presence: An Interview with Les Murray', *Commonweal*, 22 May 1992) 9-12

de Waal, Frans, 'What is an animal emotion?', *Ann. N. Y. Acad. Sci.*, 1224 (2011) 191-206

de Waal, Frans, 'Animal Kingdom', *Scientist*, 28 Apr 2016, <https://www.52-insights.com/frans-de-waal-animal-kingdom-science/>

Despret, Vinciane, 'The Becomings of Subjectivity in Animal Worlds', *Subjectivity*, 23, (2008) 123-39

Dixon, Beth, 'Animal Emotions', *Ethics and the Environment*, 6, 2 (2001) 22-30

Dreckmann, Frank, 'Animal Beliefs and Their Contents', *Erkenntnis*, 51, 1, 'Animal Mind' (1999) 93-111

Favaro, Livio, Marco Gamba, Eleonora Cresta, Elena Fumagalli, Francesca Bandoli, Cristina Pilenga, Valentina Isaja, Nicolas Mathevon and David Reby, 'Do penguins' vocal sequences conform to linguistic laws?' *Biology Letters*, 16, 20190589 (2019) 1-6

Fogassi, Leonardo and Pier F. Ferrari, 'Mirror Neurons and the Evolution of Embodied Language', *Current Directions in Psychological Science*, 16 (2007) 136-41

Galvin, Brendan, 'The Contemporary Poet and the Natural World', *The Georgia Review*, 47, 1 (1993) 130-44

Green, Alexandra, Cameron Clark, Livio Favaro, Sabrina Lomax and David Reby, 'Vocal individuality of Holstein-Friesian cattle is maintained across putatively positive and negative farming contexts', *Scientific Reports* 9: 18468 (2019) 1-9

Grewe-Volpp, Christa, 'How to Speak the Unspeakable: The Aesthetics of the Voice of Nature', *Anglia: Journal of English Philology*, 124, 1, (2006) 122-43

Hallmann, Caspar A., Martin Sorg, Eelke Jongejans, Henk Siepel, Nick Hofland, Heinz Schwan, Werner Stenmans, Andreas Müller, Hubert Sumser, Thomas Hörrén, Dave Goulson and Hans de Kroon, 'More than 75 percent decline over 27 years in total flying insect biomass in protected areas', *PLOS ONE*, October 18 (2017) 1-21
<https://journals.plos.org/plosone/article?id=10.1371/journal.pone.0185809>

Hauser, Marc D., Noam Chomsky and W. Tecumseh Fitch, 'The Faculty of Language: What Is It, Who Has It, and How Did It Evolve?', *Science*, New Series, 298, 5598 (2002) 1569-79

Hawhee, Debra, 'Language as Sensuous Action: Sir Richard Paget, Kenneth Burke, and Gesture-Speech Theory', *Quarterly Journal of Speech*, 92, 4 (2006) 331-54

IPBES (2019): Summary for policymakers of the global assessment report on biodiversity and ecosystem services of the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services. S. Díaz, J. Settele, E. S. Brondízio E.S., H. T. Ngo, M. Guèze, J. Agard, A. Arneth, P. Balvanera, K. A. Brauman, S. H. M. Butchart, K. M. A. Chan, L. A. Garibaldi, K. Ichii, J. Liu, S. M. Subramanian, G. F. Midgley, P. Miloslavich, Z. Molnár, D. Obura, A. Pfaff, S. Polasky, A. Purvis, J. Razzaque, B. Reyers, R. Roy Chowdhury, Y. J. Shin, I. J. Visseren-Hamakers, K. J. Willis, and C. N. Zayas (eds.). IPBES secretariat, Bonn,

Germany. 56

pages. https://www.researchgate.net/publication/348845184_Summary_for_policymakers_of_the_global_assessment_report_on_biodiversity_and_ecosystem_services_of_the_Intergovernmental_Science-Policy_Platform_on_Biodiversity_and_Ecosystem_Services

Jacobs, Gerald H., 'Evolution of Colour Vision in Mammals', *Phil. Trans. R. Soc. B*, 364 (2009) 2957–67

Katzir, Gadi and Nathan Intrator, 'Striking of underwater prey by a reef heron, *Egretta gularis schistacea*', *Journal of Comparative Physiology A*, 160 (1987) 517-23

Kennedy, George A., 'A Hoot in the Dark: The Evolution of General Rhetoric', *Philosophy & Rhetoric*, 25, 1 (1992) 1-21

Lambert, Helen, 'The Australian Language Forest: Les Murray's *Translations from the Natural World*', *COLLOQUY text theory critique*, 19 (2010) 43-55

McElligott, Alan G., Kristine H. O’Keeffe and Alexandra C. Green, 'Kangaroos display gazing and gaze alternations during an unsolvable problem task', *Biology Letters*, 16 December 2020

Marcus, Phillip L., "‘I Knew That Underneath Mr. H and I Were Really a Lot Alike’": Reading Hemingway’s *The Old Man and the Sea* with Elizabeth Bishop’s “The Fish”", *The Hemingway Review*, 33, 1 (2013) 27-43

Mathews, Freya, 'The Anguish of Wildlife Ethics', *New Formations*, 76 (2012) 114-31
https://www.researchgate.net/publication/263463263_The_Anguish_of_Wildlife_Ethics

Morrell, Virginia, 'When the bat sings', *SCIENCE*, 344, 6190 (2014) 1334-37

Nagel, Thomas, 'What Is It Like to Be a Bat?', *The Philosophical Review*, 83, 4 (1974) 435-50, reprinted in Douglas R. Hofstadter and Daniel C. Dennett, eds., *The Mind's I: Fantasies and Reflections on Self and Soul* (New York: Basic Books, 2000) 391-403

Otty, Lisa and Andrew Michael Roberts, "‘Dim-conceived glories of the brain’: On Ambiguity in Literature and Science", *Culture, Theory and Critique*, 54, 1 (2013) 37-55

Paul, Elizabeth S. and Michael T. Mendl, 'Animal emotion: Descriptive and prescriptive definitions and their implications for a comparative perspective', *Applied Animal Behaviour Science*, 205 (2018) 202-09

Pérez-Manrique, Ana and Antoni Gomila, 'Emotional contagion in nonhuman animals: A review', *WIREs Cognitive Science* (2021) e1560 1-26
<https://onlinelibrary.wiley.com/doi/epdf/10.1002/wcs.1560>

Pierotti, Raymond and Cynthia Annett, 'We Probably Thought That Would Be True: Perceiving Complex Emotional States in Nonhumans', *Ethnobiology Letters*, 5 (2014) 15-21

Plunkett, Adam and Alice Notley, 'Talk to the Dead: Ruth Lilly Prize winner Alice Notley on the voice and spirits of her poetry.' Interview by [Adam Plunkett](#).
<https://www.poetryfoundation.org/articles/70222/talk-to-the-dead>

Prat, Yosef, Mor Taub and Yossi Yovel, 'Everyday bat vocalizations contain information about emitter, addressee, context, and behavior', *Scientific Reports*, 6, 39419 (2016) 1-10
<https://www.nature.com/articles/srep39419>

Proctor, Helen, 'Animal Sentience: Where are We and Where are We Heading?', *Animals*, 2, 4 (2012) 628-39

Proops, Leanne, Kate Grounds, Amy Victoria Smith and Karen McComb, 'Animals Remember Previous Facial Expressions that Specific Humans Have Exhibited', *Current Biology*, 28 (2018) 1428-32

Ramp, Daniel and Marc Bekoff, 'Compassion as a Practical and Evolved Ethic for Conservation', *BioScience*, 65, 3 (2015) 323-27

Reimerta, Inonge, Stephanie Fonga, T. Bas Rodenburga and J. Elizabeth Bolhuis, 'Emotional states and emotional contagion in pigs after exposure to a positive and negative treatment', *Applied Animal Behaviour Science* 193 (2017) 37-42

Rigby, Kate, 'Earth, World, Text: On the (Im)possibility of Ecopoiesis', *New Literary History*, 35, 3, Critical Inquiries, Explorations, and Explanations (2004) 427-42

Robinson, Vanessa, 'Poetry's Language of Animals: Towards a New Understanding of the Animal Other', *The Modern Language Review*, 110, 1 (2015) 28-46

Scofield, David, 'We Will Never See The Like Again: The Passenger Pigeon in Western Pennsylvania', *Western Pennsylvania History*, Winter 2014-15, 20-32

Smith, Amy Victoria, Clara Wilson, Karen McComb and Leanne Proops, 'Domestic horses (*Equus caballus*) prefer to approach humans displaying a submissive body posture rather than a dominant body posture', *Animal Cognition* 21 (2018) 307-12

Snow, C. P., 'The Two Cultures', *The Rede Lecture, 1959*, Cambridge University Press
<https://metode.cat/wp-content/uploads/2014/07/Rede-lecture-2-cultures.pdf>

Stone, Louise, 'Trying to carve nature at its joints: Respecting the complexity of psychiatric diagnosis', *British Journal of General Practice*, 70, 699 (2020) 504.
<https://bjgp.org/content/bjgp/70/699/504.full.pdf>

Taylor, Steve, 'An awakening', *The Psychologist*, September 2018, 42-47

Teasdale, John, Invited Essay: 'Emotion and Two Kinds of Meaning: Cognitive Therapy and Applied Cognitive Science', *Behaviour Research and Therapy*, 31, 4 (1993) 339-54

Viola, Marco, 'Commentary: Constructing nonhuman animal emotion', *Frontiers in Psychology*, 8 (2017) 1-2

von Bartheld, Christopher, S. and Francesco Gionessi, 'The paratympanic organ: a barometer and altimeter in the middle ear of birds?' *Exp Zool B Mol Dev Evol.* 316, 6 (2011) 402–08

Wadiwel, Dinesh, Joseph, 'Do Fish Resist?'. *Cultural Studies Review*, 22, 1 (2016) 196-242

Westling, Louise, 'Heidegger, Merleau-Ponty and The Question Of Biological Continuism' *New Formations*, 76 (2012) 38-52

Williams, Barbara, 'An Interview with Les A. Murray', *Westerly*, 2 (1992) 45-56

World Economic Forum, *Nature Risk Rising: Why the Crisis Engulfing Nature Matters for Business and the Economy*, (Geneva, Switzerland: World Economic Forum in collaboration with PwC, 2020)

http://www3.weforum.org/docs/WEF_New_Nature_Economy_Report_2020.pdf

Book chapters:

Derrida, Jacques, "'Che cos'è la poesia?'" , in *A Derrida Reader: Between the Blinds*, ed. and trans. by Peggy Kamuf (New York: Columbia University Press, 1991) 221-37

Ellis, Jonathan, 'Reading Bishop Reading Darwin', in John Holmes, ed., *Science in Modern Poetry: New Directions* (Liverpool: Liverpool University Press, 2012) 181-93

Evernden, Neil, 'Beyond Ecology: Self, Place, and the Pathetic Fallacy', in *The Ecocriticism Reader*, ed. by Cheryll Glotfelty and Harold Fromm, (Athens, Georgia: The University of Georgia Press, 1996) 92-104

Horn, Andrew G. and Peter K. McGregor, 'Influence and information in communication networks', in *Animal Communication Theory: Information and Influence*, ed. by Ulrich E. Stegmann (Cambridge: Cambridge University Press, 2013) 43-61

Manes, Christopher, 'Nature and Silence', in *The Ecocriticism Reader*, ed. by Cheryll Glotfelty and Harold Fromm (Athens, Georgia: The University of Georgia Press, 1996) 15-29

Nagel, Thomas, 'What Is It Like to Be a Bat?' in *The Mind's I: Fantasies and Reflections on Self and Soul*, ed. by Douglas R. Hofstadter and Daniel C. Dennett (New York: Basic Books, 2000) 391-403

Rueckert, William, 'Literature and Ecology: An Experiment in Ecocriticism', in *The Ecocriticism Reader*, ed. by Cheryll Glotfelty and Harold Fromm (Athens, Georgia: The University of Georgia Press, 1996) 105-23

Senn, Werner, 'Les Murray', in *A Companion to Australian Literature since 1900*, ed. by Nicholas Birns and Rebecca McNeer (Woodbridge, Suffolk: Camden House, 2010) 269-80

Stegmann, Ulrich E., 'Introduction: A primer on information and influence in animal communication', in *Animal Communication Theory: Information and Influence*, ed. by Ulrich E. Stegmann (Cambridge: Cambridge University Press, 2013) 1-39

Newspaper, magazine and online articles

Bekoff, Marc, 'My Beef With Temple Grandin: Seemingly Humane Isn't Enough', *Psychology Today*, April 14, 2013 <https://www.psychologytoday.com/us/blog/animal-emotions/201304/my-beef-temple-grandin-seemingly-humane-isnt-enough>

Boseley, Matilda, '“What’s that Skip?” Researchers say kangaroos can communicate with People', *The Guardian*, Wed 16 Dec 2020 <https://www.theguardian.com/science/2020/dec/16/whats-that-skip-researchers-kangaroos-communicate-talk-people>

Burkeman, Oliver, 'Why can't the world's greatest minds solve the mystery of consciousness?' *The Guardian*, Wed 21 Jan 2015 <https://www.theguardian.com/science/2015/jan/21/-sp-why-cant-worlds-greatest-minds-solve-mystery-consciousness>

Carrington, Damian, 'Car ‘splatometer’ tests reveal huge decline in number of insects', *The Guardian*, Wed 12 Feb 2020 <https://www.theguardian.com/environment/2020/feb/12/car-splatometer-tests-reveal-huge-decline-number-insects>

Davies, William, 'How the humanities became the new enemy within', *The Guardian*, Fri 28 Feb 2020 <https://www.theguardian.com/commentisfree/2020/feb/28/humanities-british-government-culture>

Devlin, Hannah 'The undersea and the ecstasy: MDMA leaves octopuses loved up', *The Guardian*, Thu 20 Sep 2018 <https://www.theguardian.com/science/2018/sep/20/mdma-makes-octopuses-more-social>

Feynman, Richard, *The Feynman Lectures on Physics: Volume 1, Chapter 3, The Relation of Physics to Other Sciences*, 'Introduction', footnote 1 <https://www.feynmanlectures.caltech.edu/>

Freyer, Lauren, 'This Spanish Pig-Slaughtering Tradition Is Rooted In Sustainability', *The Salt: What's On Your Plate*, March 18, 2015. <https://www.npr.org/sections/thesalt/2015/03/18/392177526/this-spanish-pig-slaughtering-tradition-is-rooted-in-sustainability>

Gee, Henry, 'Brian Cox's Human Universe presents a fatally flawed view of evolution', *The Guardian*, Tue 14 Oct 2014 <https://www.theguardian.com/science/blog/2014/oct/14/brian-coxs-human-universe-presents-a-fatally-flawed-view-of-evolution>

Heaney, Seamus, '“Walk on air against your better judgment”: Heaney on life, poetry, God and Ireland', *The Irish Times*, Fri, Aug 30, 2013 <https://www.irishtimes.com/news/ireland/irish-news/walk-on-air-against-your-better-judgment-heaney-on-life-poetry-god-and-ireland-1.1510774>

Hoare, Philip and Hal Whitehead, 'The Cultural Life of Whales', *The Observer*, Sun 30 Jan 2011 <https://www.theguardian.com/science/2011/jan/30/whales-philip-hoare-hal-whitehead>

Hugo, Victor, 1840 <https://www.activesustainability.com/environment/green-philosophy-defending-planet-sustainable-future/>

Jones, Owen, 'Why don't we treat the climate crisis with the same urgency as coronavirus?' *The Guardian*, Thu 5 Mar 2020

<https://www.theguardian.com/commentisfree/2020/mar/05/governments-coronavirus-urgent-climate-crisis>

Matar, Hisham, 'Our capacity to understand without words is amazing', *The Guardian*, G2, 16.12.19. Published online as 'How to be hopeful: Hisham Matar on the surprising lessons of silence', Tue 17 Dec 2019 <https://www.theguardian.com/lifeandstyle/2019/dec/17/hisham-matar-surprising-lessons-silence-hopeful>

Optometry Today [no named author]: 'Echolocation Allows Blind Humans to 'See'', *Optometry Today*, October 8, 2009 <https://optometry-today.com/echolocation-allows-blind-humans-to-see/>

O'Reilly, Kaite, 'Words from the Singapore Writer's (*sic*) Festival 2014' <https://kaiteoreilly.wordpress.com/tag/karen-joy-fowler/>

Packham, Chris, 'My manifesto could save Britain's dying wildlife', *The Guardian*, Wed 19 Sep 2018 <https://www.theguardian.com/commentisfree/2018/sep/19/manifesto-for-wildlife-uk-countryside-species-biodiversity>

Padel, Ruth, 'The science of poetry, the poetry of science', *The Guardian*, Fri 9 Dec 2011 <https://www.theguardian.com/books/2011/dec/09/ruth-padel-science-poetry>

Pick, Anat, 'Interview with Anat Pick, author of *Creaturely Poetics*', *Columbia University Press Blog*, Animal Studies, July 19, 2011 <https://www.cupblog.org/2011/07/19/interview-with-anat-pick-author-of-creaturely-poetics/>

Pullman, Philip, '25 years of His Dark Materials: Philip Pullman on the journey of a lifetime', *The Guardian Review*, Sat 10 Oct 2020, Issue no. 143, pp. 6-8 <https://www.theguardian.com/books/2020/oct/10/25-years-of-his-dark-materials-philip-pullman-on-the-journey-of-a-lifetime>

Safina, Carl 'Are we wrong to assume fish can't feel pain?', *The Guardian*, Tue 30 Oct 2018, <https://www.theguardian.com/news/2018/oct/30/are-we-wrong-to-assume-fish-cant-feel-pain>

Sethi, Anita, 'Roger Robinson: 'Poets can translate trauma'', interview in *The Guardian*, Sat 13 June 2020 <https://www.theguardian.com/books/2020/jun/13/roger-robinson-poets-can-translate-trauma>

Singh, Maanvi, 'Emboldened wild animals venture into locked-down cities worldwide', *The Guardian*, Sun 22 Mar 2020 https://www.theguardian.com/world/2020/mar/22/animals-cities-coronavirus-lockdowns-deer-raccoons?fbclid=IwAR36Z0cPfav5npUHTwrU4KAdo2nVTokS48_bzhIHHkxJVG2xyZljX_-C1r0

Online videos

Lanting, Frans, 'Photos that give voice to the animal kingdom', TED2014.

https://www.ted.com/talks/frans_lanting_photos_that_give_voice_to_the_animal_kingdom#t-18466

McGilchrist, Iain, 'The Divided Brain and the Making of the Western World', RSA Animate

https://www.ted.com/talks/iain_mcgilchrist_the_divided_brain

Part III:

...the weave of presence

...the weave of presence



Jenny Donnison

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‘...the reticence of this lion is not the reticence of absence, absence of consciousness, say, or knowledge, but rather of tremendous presence...’

Vicki Hearne, *Animal Happiness: A Moving Exploration of Animals and Their Emotions*

Image © Amy Donnison, 2013

...the weave of presence

Cave dance

*Leopards shrug their spots.
Turtles unshell.
Lizards peel cool skins.*

*Pelts pile up –
mink, fox, ermine, ocelot.
A python unslithers her scales.*

*Lions shed rough gold coats,
sheep unfleece,
cattle shake free from honey-coloured hide.*

*Here come parakeets in verdant green,
toucan, puffin, peacock, wren. An Arctic tern
scimitar sleek in black and white.*

*A blizzard of rainbow feathers
falls, interleaved with drab.
Dragonflies lose their filigree wings.*

*Polar bears slough fur which folds
in heaps like soft-spun glass.
Horses clatter stone,*

*release from grey, roan, chestnut, black.
Enamel-bright casings in shimmering drifts.
Motes of butterfly colours cloud the air.*

*A blur of souls carousels.
I creep inside, unskin,
join the dance.*

I
Encounters

Halcyon

It can't be that only the righteous see them.
We count six strung out on a twelve mile stretch.
Each orange-blue lucifer
sparks the trout brown river, the dipping trees.
They weave invisible skeins
from bank to bank,
mark their domain with piping calls.

Barely bigger than a sparrow,
squat with outsized head, a spear of beak.
Once hung by a thread to foretell the weather
or used by fishermen in feathery lures.

Each feather alone is dull.
Brilliance flares
as light plays on the living whole.

London garden

A flock of parakeets
bursts from a sunlit tree,
pyrotechnic against blue sky.

Applause of wings in chilled air,
they vanish amongst leaves,
cherry beaks against the green.

Gaudy acrobats
sway inverted on feeders,
greedy for seed.

They are here and thriving –
native species
drowned by squawks.

Rumours are rife of aviaries
with broken latches,
escapees from the *African Queen*

Hendrix in Carnaby Street
flares and a rainbow jacket
releasing birds into London grey:

yellow-green feathers
riff the breeze.

Toads

The spring I turned nine
they took me to the toad pool
a quiet place, queasy with life.

Fresh reeds at the margins
meniscus quilted with skaters
a stream of bubbles beneath the surface.

We had jars and nets for alien nymphs.
The sun was a blind eye
misted like a cataract.

He found one drowned
pale and swollen against the silt
skin peeled in loosed petals,

dared me to touch rosaries of black spawn
festooning the weed.
I reached into cool water then drew back.

A revolving frenzy, a ball of toads,
at the heart a female, gravid with eggs,
a cluster of males clasping her tight.

Skylark, June 2017, the Black Isle, Scotland

Over swaying grass
a lark lifts
borne on song.

He lalts ever higher
until he hovers,
a speck aloft
on flickering wings.

A shower of notes
rains across the land
and we, our faces turned
towards the cloudless blue,
close our eyes,
drink the sound.

Squab

Two thumped to the ground
dropped by a crow.

We buried the big one after it died,
the smaller we took in to raise as our own.

Days old, his eyes still fused shut,
his body a grey sac sprigged with yellow down.

Warm to the touch, splinter bones were fragile glass,
tending him our hands grew soft.

When he first stood on scaly outsized feet
we felt such pride.

His feathers grew, each cased in a sheath,
untaught, he preened a keratin snow.

Soon he was flexing his wings,
stirring the air.

We were all he knew.
We took him to a place

with others of his kind,
left him there.

Bombycilla garrulus

Three preen high in a bare tree
prepare to plunder urban fruit.

Migrants from Arctic tundra
slim pickings on the taiga.

Swoop to rowan
in arrow flight

to feast on berries
pink tinted pearls.

Yellow tail tips
scarlet flash of wax-dipped wing.

Dull afternoon, late January –
you showed me these jewel birds.

Fledgling blackbird, near Fleurac, September 2017

Maybe she wasn't abandoned.
We waited and watched but no parent came.

On her head like embedded pins
a cluster of four fat ticks, her left eye almost shut.

Shaded by leaves she huddled on bare earth
between stone wall and red geraniums.

Next day we walked to the meadow,
found her nestled in a grassy tangle.

You lifted her up, felt her frailty,
airy bones skinned over

cradled her in soft cloth,
a makeshift nest.

She was still. We saw the wry angle
of her neck, the lifeless eye.

You gently unfurled her untried wing.
More thorny ticks had crowned her head.

Close up, the drops of blood.

At Donna Nook, December 2018

The unborn swim in briny wombs
coiling, uncoiling weed-rope cord

We haul ashore in winter's freeze
the land running deep in our bones

Forsake our sea home
where agile among fronds of kelp
avian grace in water-flight
weightless weight
whiskers sense fleet fish
through murk

We breed in estuarial silt
birth cream furred black eyed young
inhale her sweet pelt scent
learn his insistent plaint

They guzzle down the fat rich milk
unfed lose flesh as pups plump out

White coat sheds to moth-mottled grey
then sleek

Through slow days of low sun and sleet
we perfect
the art of waiting

*From Somercotes Haven to Saltfleet
blurred edges of beach marsh sky
liminal spaces in the mind's eye*

*The double fence keeps us back
from grey beached bodies
still as rocks*

*Eerie wails are warnings.
Sudden skirmish
undulating bursts of speed*

*Signs remind that they are wild,
mothers must bond with pups in peace,
how attachment's fragile chain can break*

*Too far south for selchies but imagine anyway
seven tears shed at high tide.
Nine months on a seal faced son*

*We photograph the curious young
pressed against the wire,
their fathomless obsidian gaze*

The morning cat

Outside it's icy dark
the hour ungodly.

A sprung weight
on my pillow.

His purr
whispers in my ear.

He extends a paw,
claws almost sheathed,

taps to tell me
my presence is required.

Ignore him –
he touches my face

insistent talon tips
snag my skin.

I surrender.
He leads the way downstairs.

Acute ward

Drips and tubes, incessant beeps
each hard-won breath.

You fear to sleep.
In electric half-light wait for dawn,

for distant glimpse
of dormant trees

branches drawn
on gold-brushed cloud

the rising sun
a skein of geese.

Soundings

They invite you to recline
to helmet your head in white plastic
which cups and cushions.

Your knees are raised
it is almost restful.
Silicon earplugs then headphones.

They explain in muffled voices
about the fearful noise inside the machine.
A periscopic mirror connects you to the world.

Imagine the magnetism deep in your core
each cell rendered visible
your body found out.

Close your eyes. Float.
Think of that tale you were told
about the diver and the whale

how they hung in the ocean face to face
her pulsing song scanning his fragile frame.

Succession (after Beeching)¹

At the end of our garden under hawthorn scrub
I remember the remnants of an old railway track,
abandoned sleepers silvered with age.
It was quiet back then,
just fields beyond where horses grazed.

Before, the railway map was a dense lace of lines;
later, like thinning hair,
but they did not disappear.

As tracks lapsed into silence
plants and animals slipped
into hollow spaces:
silverweed and coltsfoot,
creeping thistle, yellow groundsel,
white stars of chickweed.

Toadflax next, orange on pale yellow
and goatsbeard or 'Jack-go-to-bed-at-noon'
bursting open in the morning sun;
mulleins and figwort
and on the embankment cowslips, pale primroses.

Invertebrates too: spiders, beetles and butterflies;
brimstones and blues, red admirals, tortoiseshells,
the green-veined white -
and buddleias cloaked in rich hued peacocks.

There were birds:
long-tailed tits trapezed in hazel thickets
alongside tiny goldcrests.
Larks took flight and thrushes created
cream, orange and black mosaics
of emptied shells.

Last year we walked a track in summer's heat
in perfect quiet
but for birdsong and the hum of bees.

¹ After Dr Richard Beeching published two reports in 1963 and 1965, the UK rail network was radically pruned. Some 8000 miles of railway line fell into disuse, however much of this was reclaimed by nature, providing a network of wildlife corridors across the country accessible to walkers and cyclists to this day. Some of the details in this poem are taken from Chapter 6, 'Flora and Fauna', in Christopher Somerville's book, *Walking Old Railways*, published in 1979 by David and Charles Limited, Newton Abbot, Devon.

St. Francis at the mist net
(after Karl Riordan)

A fine mesh stretched across the field.
We wait quiet, out of sight.

One is caught, then many.
small bodies dotted like notes on a stave.

A brambling, feathers soft in cream, copper, black
a loop of net holds the wing.

In misty cold my hands grow numb,
my heart is a trapped bird.

He is beside me.
In his warm clasp fingers unfreeze.

Swift and sure, untangle.
Measurements, a ring.

Released into dawn-bright air.
She alights to preen then feed.

'Three Boys and a Pigeon', 1974, Daniel Meadows

Framed by the grey of low-rise flats,
a bird cupped in the nest of your hands.
Who taught you to hold it safe and still,
love its graceful wing and racing heart?

You gently cradle its apple-round breast
two fingers secure the scaly feet
fan-tail circled by index and thumb
poised on the cusp of the wild.

Released an odyssey away,
snow of feathers softly falls
as birds lift in a flurry of flight
heading for the home loft.

Your steady gaze into the lens
a way of life light in your palms.

Adlestrop
(after *Edward Thomas*)

Yes. I remember Adlestrop –
the station is long gone now
but we found the name – Adlestrop – the sign
and lines engraved on a metal plaque.

Late February, 2019. The sun shone
unwontedly. Warm and still, the sky enamel blue.
Snowdrops everywhere, crocuses and daffodils.
Bees fumbled dead-nettle flowers.

No-one came and no-one left.
The trees were mostly bare, some blurred
with faint green buds. White contrails overhead,
the churchyard with its yellow-lichen graves.

And for that while a blackbird sang close by
and other birds too. Descended echoes
of that far off summer day, all the birds
of Oxfordshire and Gloucestershire.

II
Animals themselves

Anax imperator

wing slivers of condensed air veined glass
chitinous distillate of aeons blue against dark green
acid green against copper depths of pool

winged viper Devil's coach-horse or darning needle
lit taper vivid against lichenous fountain
water-patter surface reforms without trace

she pays you no heed
will not stitch your eyes lips shut
nor weigh your soul's worth

helmet eyes mantle the head
drink the light wide bowl of visible world
the spectrum stretches into vibrant multiplicities

wings are elongated tears strengthened by fine trceries
each slight weight senses vibration of birdsong
earth's faint tremors transmitted element to element

dart soar reverse hover stall
pause time
all else blurs

dragonfly cleaves the air
defying awareness of air's thickness
defining its substance

penetrate loop back leave traceless threads

flight

a joy

a patterning

making

remaking

meaning

Tick
(after Jakob von Uexküll)

A new-hatched larva is drawn to light
ascends a blade of grass
grips tight to the tip – wavers
forelimbs questing empty space

taste the air inquire after exhaled breath
or faint drum of scurrying mouse
the flurry of bird wings
a sunning lizard's still life

first feed full-swell
fall unmake reform
through moults and instar stages
to shield-shelled bride

eyeless deaf perfect
harpoon mouth barbed and calcified
the whole a proto-eye
garnering photons from the bright

lumber inch by inch to low branch
above deer worn track
days or years open to warm-blood signs
heat vibration the pungency of skin

the fall to flesh is an act of faith
crawl through fur-forest
surgeon an incision and drink
red purse body inflates

Garden spider, September 2017, near Fleurac

A spider's work is silk wrought
unspooled from herself.

Unthought patterns
pour from spinnerets.

She makes her web
on a loom of hypericum,

rain-jewelled geometry
translucent filaments.

She waits for the rhythm of prey
which she feels in every cell.

Sensing brokenness
she mends.

Swallows at Chanonry Point, June 2017

wind flirts

breeze braced

zip

unzip

the air

glean the teeming wrack and weed

skim stone and sand

surf the unseen

careen

on scimitar wings

dark dart

scarlet spark

buff flash

flit

are fleet

swerve sudden gusts

wing it

exhilarate

almost

blow it

always

at last moment

call it

Vampire bats

All darkness we are,
through darkness we flit.
We light on warm-bloods asleep.

Pierce skin to unstop
ferrous scented stream which we unclot.
We are blood-sipping.

We drink and drink rusty brew,
warm in mouth.
Red-stained tongues lap, lap.

At the roost we are, oh generous.
Sense a fellow's hunger,
are moved

to donate to the unfed. Regurgitate.
Unswallow flood from gut.

Phengaris alcon

Silver blue wings
arced in ocelli, chalk-rimmed black.

They mate in meadows,
lay pearl eggs on marsh gentian.

Caterpillars hatch to feed on flowers
then fall to earth.

Each one is a pink translucence
masked in the scent of larval ants.

Solicitous carers carry them home
in gentle jaws.

They sing the ant queen's song,
are nurtured while ants neglect their own.

Larvae grow fat, pupate.
One early morning, late summer

blue butterflies emerge
to flee the quiescent nest.

Overlooking a valley near Fleurac, September 2017

After rain air is alive with swifts

lit by slant rays of evening sun

Few at first, they accumulate

drawn to insect glut

Each weaves a path

in delirium of plenty

Feathers twist the breeze

fold air's fluidity

Two mirrored for moments

rise in concert on unseen zephyrs

All that swifts do

is done on the wing

If one falls to earth lift her up

launch her into the wind

Eagle

in flight I am breath

my lungs their lobes
life flows in continuous loop

hollowness of bone
airy fretwork spare fleshed

the orbs of my eyes fix

on a

bobbing white

skeltering flight-fall
talons splay

grasp ratchet shut
squirming flesh-fur gripped

wings beat I lift

it is meet

Urban fox

sky's eyelid is shut
I scavenge pickings of light
pinpricks and thin shine
torn in the world's tarp

swift lope over glitter cold clods
wiggle through hedge roots to hard black
white startle
metallic animal roars past
trails miasma of burn

brisk trot along grass path
ignore swoop of flat-faced owl
out back all quiet
nose through heady stink
mould and rot
bread and fruit
manna of fried chicken
parcelled in plastic
carry home to den

To be a heron

hone the art of stillness,
balance on limb-stem in green shallows,

at the margins of minnowed rivers,
silvered estuaries, stickleback streams.

Stand in timeless pose on stone
or on whalebone struts of abandoned boats,

a ghost the colour of cut flint
clouded in sun-sparked *Ephemera*.

Shade-cloak water with outspread wings.
Reprise primeval origins in kink-necked flight.

Stir silt with splayed feet
panning for invertebrate glints.

Focus gold and sloe eyes
on dart and glide in trailing weed

and having by heart the laws of refraction,
pierce surface deception with sabre beak.

Hare

wheels over field and moor
spring quickening in long bones.
Past solstice hinge
she is revealed.

Courtship starts in winter's dark
with slick young bucks
close and hopeful
alert for danger.

Tail-waft fertility.
Grown males draw near.
Box hard to ward them off
till good and ready.

Dig a shallow form on windswept earth
alongside birds who scrape a nest.
Leverets know
they must be still.

At night the lampers dazzle her.
She trembles in the long grass,
skitters away.

III
Capture

At 'Floral World'

a lone flamingo beside a tainted pool
still but for faint tremors
of her slender leg

head beneath wing
pale coral feathers unreal
sculpted from soft stone

close to
diminished
naked to our gaze

she stretches her neck
pinprick eyes unsee us as she preens
at pains to oil each pink quill

blank to where
 she is
 elsewhere

The lioness

lies in a wagon, flanks heaving dust
exhaling monotony.

Born into a menagerie
bars define her line of sight.

No green-gold grass shaped her vision
nor taught the art of concealment.

She does not know heat-smudged horizons,
signs of buffalo, zebra, wildebeest.

Miles of savannah
shrunk to a cage little larger than herself.

No acacias for her to sprawl beneath.
Her pride prowls at the margins of her mind.

Meat comes in lumps.
The instincts coiled within her wither.

At night she might dream the veldt
faint through the pads of her feet,

or conjure the scent
of a watering hole.

She wakes to puzzlement
as a child runs a stick against the bars.

Aquarium

The Giant Japanese Spider Crab
tests the limits of its tank.

Reaches a wall of facsimile rock,
journeys back.

Alien familiar
legs *en pointe*.

Music dreams and drifts
mirroring the moves of fish.

The crab in orange and cream
seems to dance in sync.

Zoo villanelles

Wallabies

The wallaby enclosure is spacious but it's all relative.
I take a photo: still life with boulders and wallabies.
In the shelter a wallaby is sleeping.

'In the wild, wallabies reach speeds
up to thirty miles per hour!'
The wallaby enclosure is spacious but it's all relative.

'It looks cosy in there', a woman says.
The sign says: 'Wallabies are excellent swimmers!'
In the shelter a wallaby sleeps.

They eat grasses, herbs and roots.
Wallabies want for nothing in the zoo!
The wallaby enclosure is spacious but it's all relative.

I wait for a while, but the wallabies do not move.
They are like a picture in a book.
In the shelter a wallaby is asleep.

'Wallabies deliver powerful kicks with their back legs!'
There are probably worse things than being a wallaby in this zoo.
The wallaby enclosure is spacious but it's all relative.
The wallaby sleeps.

Komodo dragon

The Komodo dragon stares at the glass.
A cluster of children crowd around.
The dragon's tongue tastes the air.

His forelegs rest on a rock
as an old timer leans on a bar.
The Komodo dragon stares at the glass.

His elbows, if you call them elbows, are akimbo.
'He's cute', says a little girl.
The dragon's tongue tastes the air.

'He looks like he's made of plastic', says a boy.
He turns away, asks for sweets.
The Komodo dragon stares at the glass.

'Daddy, where are his wings?'
'Komodo dragons aren't real dragons', explains Daddy.
The dragon's tongue tastes the air.

In the wild a Komodo could eat a child.
His bite is poison.
He stares through the glass.
His tongue tastes the air.

Nocturnal house

Creatures invisible to my night-weak sight
are shades of themselves.
Lustrous eyes blink in the gloom.

I am out of my depth in the dark.
The slow loris
is invisible to my night-weak sight.

Aye ayes are not evil.
If one points at you, you are not cursed.
Lustrous eyes blink in the gloom.

In the wild aye ayes knock on wood.
Insert a blameless finger to extract a grub.
They are invisible to my night-weak sight.

Bat wings flutter in strobe lit flight.
Their fake cave flickers with life.
Lustrous eyes blink in the gloom.

The nocturnal house is hushed.
Shy animals hide from prying gaze.
They are invisible to my night-weak sight.
Lustrous eyes blink in the gloom.

Tiger

Sumatran tigers' territories are vast.
Tigers need height and space.
A sinuous undulation of sienna and black.

The tiger sleeps on its platform.
This is not 'an Indonesian habitat'.
Sumatran tigers' territories are vast.

Everyone wants to see the tiger
but he conceals himself.
Glimpse sinuous undulation of sienna and black.

The tiger brushes the deep double fence.
He paces for fifteen minutes without pause.
Sumatran tigers' territories are vast.

I count his steps – eight there, eight back.
He pauses briefly to stare at us.
Muscles undulate under sienna and black.

Trapped in his gaze,
I look away first.
Sumatran tigers' territories are vast.
He is sinuous, muscled, sienna, black.

At the falconry centre

1.

Some sleep through long days
hidden among sapless branches, crisp leaves.

A frisson, their puffs of perfect feathers
palettes of cream, fawn, grey revealed.

The confines of daylight's cage go unnoticed,
quietude decreed.

By night they are moon-called
to whisper-glide over vole-filled fields.

Barred wings rustle in the restless dark.

2.

Tethered birds wear jesses, creances.
Later some will be flown
as if flight was in the keeper's gift.

They are close enough to touch
but even if respect did not make you mind your distance
those amber stares would give you pause.

The golden eagle, huge up close
cannot comprehend his predicament,
rises from the ground,

reaches the roof of the shelter,
flails, falls back.

3.

A keeper appears on the dot. Perched on his gauntlet is a young
Bataleur named for the eagle's aerial dance. The bird lifts into the air,
slow beats of long wings, a lure whirls.

The raptor perches some distance away in a tall pine. As we wait we
are told 'birds are lazy', preferring to float high on thermals rather than
beat their wings. 'These captive birds don't know they're born', he
says.

Someone points skywards. Circling high and free are a pair of
buzzards, a red kite. All eyes are on them.

IV
Dominion

*Ectopistes migratorius*²

*There will always be pigeons in books and in museums, but these are effigies and images, dead to all hardships and to all delights. [...] They live forever by not living at all. Aldo Leopold, 1947*³

The passenger pigeon
inert in a tissue nest

no longer dines *on blueberries in Canada*
feels *the kiss of sun,*
the *lash of wind and weather.*

A stuffed skin, breast rosy plush
head and wing slate blue
streamlined symmetry of long tail.

Tornadoes of pigeons
once blackened horizons
fledged the air, blotted the sky –
soaring crescendos of dissonant song.

They roosted in forests, fed on mast.
Branches buckled under weight of birds.

To the Seneca they were ‘big bread’,
harvested with bows and arrows, nets.

They took the fattened flightless squabs
in their hundreds, yet they were abundant.

The railroad came.
Settlers cut down swathes of trees,
dead birds shipped east, packed in ice.

Greed smothers the ground,
a wing flutters

² This poem was written after seeing a specimen of a passenger pigeon at Leeds Discovery Centre, during the ‘Northern Animals #2: Animals & Borders’ workshop, 13/10/17.

³ Aldo Leopold, ‘On a Monument to the Pigeon’, *A Sand County Almanac* (Oxford: Oxford University Press, 1953).

Wasps

Last year wasps were absent from picnics
from garden meals in summer drowse

did not gate-crash in their tiger garb
nor stare at us with ink dark eyes.

They did not crawl our floral plates
sip sweet wine from the brimming glass.

No weaving flights or stumbling gaits,
drunk on gluts of fallen plums.

The pollinators of Maoxian, Sìchuān Province, China

*When the ruler wants a plank, his ministers cut down a tree,
When the ruler wants a fish, his ministers dry up a valley.*

Huainanzi 淮南子 (second century BC).⁴

The pear and apple orchards blossom.
Diligent pollinators move

among the slender boughs,
their fine brushes dipped in harvested pollen

from earlier blooms, a mix of pistils, stamens,
dusty yellow grains.

Delicately they stroke each flower,
the process painstaking, an art

that human hands now master,
thousands labouring so trees may bear fruit.

Spring orchards are silent. Breezes shiver branches
but air no longer

hums and buzzes. Gone the whirr of wings;
butterflies, bees, all the insects

eradicated, a triumph of efficiency.
Cameras capture

happy farmers perched in trees in drifts of flowers.
Here a smiling girl

her national dress carnelian red,
richly embroidered, her cap

a shade of azure. Her timeless pose implies
it was always this way.

⁴ My thanks to Professor Roel Sterckx of Cambridge University for supplying this quote.

The Stag's Head

is shut, its windows closed lids.

Snow falls white and wet
a perimeter fence keeps us out.

Broken stools, a leatherette bench,
unblinking gaze from the yellow skip.

We clamber over for a closer look.

A 'Glenfiddich' bar towel drapes a tine
coarse hair damp with melt, a whiff of musk.

We heave him free, heft him home.
Now he hangs above the wood-burner

glass eyes follow us.

Jamón Ibérico de Bellota

A peasant becomes fond of his pig and is glad to salt away its pork. John Berger⁵

Clamped to a bespoke stand, a slender leg
gold-skinned, fat-marbled, Velázquez red.

Black-hooved hogs flickered
on fire-lit walls of ancient caves,
still forage fragrant herbs
among holm oaks on the *dehesa*.

Through the *montanera*
snuffle-grunt among grasses for acorns
which give the flesh its nut-sweet flavour.

Winter is the time of sacrifice:
pack meat in salt, stir hot blood for *morcillo*,
wash guts in vinegar and lemon.

A pig is chosen, hefted onto a table-altar.
Men soothe and stroke the prone creature,
fear taints ungiven gifts.

⁵ John Berger, *Why Look at Animals?* (London: Penguin Books Ltd., 2009), p. 16.

Shark

ocean-glide-slice-elemental-sea-element-sea-slip-
streams-slipstreaming-
muscular-fintail-
skin-all-scale-toothed-
teeth-teeth-teeth-
tailfin-swift-swifter-sinuous-spurt-fast-faster-
dull-eyed-glaze-deadgaze-
a-shoal-fin flickers-shiver-soundscape-
faraway-prey-listen-through-vastness-

scentferrous-cellscatter-dilution-molecular-
bloodcall-sealmeats-swiftslicing-pursuant-
furred-flesh-leap-snap-
jaws-fursoft-flesh-ragged-
flesh-frayed-bite-bitten-merciless-waterflight-
deep-surface-airleap-fleshslice-blubberfat-
cream-pink-innards-

gill-caught-fin-tangle-mesh-nets

hackfin-thresh/thrash

waterchurn-pinkfoam

others-come-killfrenzy-writhe-death

restless

ancients

going

gone

Aevum

They scalpel pink skin
delve into the split.
One by one fetch out
sow's unripe fruit.

Disturbed miniatures, still becoming:
translucent ears,
blood vessel trceries,
oversized heads, foreshortened faces.

Eyes tight shut,
they grimace and writhe,
utter squealing cries which we
imitate to empathise.

This one is failing.
At start of night shift I'm told:
"take care of him
like he's your own child."

Sliced into slivers microns thin
light pours through a slide
lucent as an angel's wing.

Reports from Chiquitano forest fire, Bolivia, 2019

*The politicians exclaim that
“the fire was an accident”.*⁶

It starts
with sulphur-stink
stubble-rasp of struck match
lucifer wings waver blue and gold
over blackening sticks.

*A fire of these dimensions is not
the product of one or one hundred accidents;
it is the product
of thousands of fires all started in recent days.*⁷

Dropped into parched glade
tinder-dry through austral winter
it flickers and flowers,
crackles through twigs,
dwindles then blossoms to catch the brush.

*Environmental experts say
the fires are threatening about 500 types of animals,
including jaguars, tapirs, and 35 endangered species,
some of which are found nowhere else.*⁸

Puma, jaguar, ocelot
scent far off smoke.

*Runy Callaú can't remember how many nights
he has been fighting the blaze
which has engulfed huge swathes of forest.
Nor can he stop thinking about
his encounter with a fleeing jaguar a few nights before.*⁹

*“It was running for its life,”
said the firefighter captain,
peering out from under his yellow hard hat.
“It was in a state of sheer terror.”*¹⁰

Moths and butterflies are ash
Shining beetles char and dull.

Birds alight with fire colours
take flight and fall
failed by smoke-clogged lungs,
their cries melt in the roaring air.

⁶ Pablo Solon, ‘The sloth and the bonfire’, *The Ecologist: the journal for the pos-industrial age*, 28th August 2019 <https://theecologist.org/2019/aug/28/sloth-and-bonfire>

⁷ Ibid.

⁸ Anatoly Kurmanaev and Monica Machicao, ‘As Amazon Burns, Fires in Next-Door Bolivia Also Wreak Havoc’, *The New York Times*, published Aug. 25, 2019; updated Sept. 9, 2019 <https://www.nytimes.com/2019/08/25/world/americas/bolivia-fires-amazon.html>

⁹ Dan Collyns. “Murderer of nature: Evo Morales blamed as Bolivia battles devastating fires”, *The Guardian*, Mon 2 Sep 2019 <https://www.theguardian.com/world/2019/sep/02/bolivia-evo-morales-wildfires-chiquitano>

¹⁰ Ibid.

*“This is the biggest ever catastrophe for biodiversity in Bolivia,”
said Fernando Vargas.¹¹*

The sloth digests her meal of leaves,
slumbers cradled by branch and trunk,
slowly wakes to a smoke stink.
She cannot hasten her ascent.

*Of all the ways to die,
the most painful is by fire.¹²*

She smiles
as her green-tinged fur catches fire.
The stench of burnt hair
puzzles her nostrils.
She smiles as pain
fries the nerves of her smouldering skin.
Stupefied with smoke
she relinquishes her three-toed grip.
She is a fireball falling
through blazing canopy.

*All the volunteer firefighters report
seeing terrified and burned animals:
pacas, wild pigs, armadillos, tapirs
and many bird species.¹³*

A blinded armadillo panics and tumbles
over cindered ground.

A rattlesnake slithers up a firefighter’s leg
he kicks it away then

*“I caught my breath and realised
it thought my leg was a tree,” [Callaú] said.
“It was just trying to get away.”¹⁴*

¹¹ Dan Collens, ‘Bolivia: catastrophic wildfires devastate forest in echo of Brazil’s Amazon crisis’, *The Guardian*, Tue 27 Aug 2019 <https://www.theguardian.com/world/2019/aug/26/bolivia-wildfires-brazil-amazon>

¹² Pablo Salon, op. cit.

¹³ Dan Collens. <https://www.theguardian.com/world/2019/sep/02/bolivia-evo-morales-wildfires-chiquitano> op. cit.

¹⁴ Ibid.

An Experiment on a Bird in the Air Pump (Joseph Wright of Derby, 1768)

A blown-glass globe empties of air
the scene lit with lunar light.
Candle-bright vessel with lobes of lung
immersed beyond breath.
Demonstrator's robe like spilling blood,
two young girls feel fear

a bird's fear
as she starves of air.
Reflex flutters at fading light.
Vacuum crushes her lungs
deprives her of breath,
dulls the crimson of her blood.

Feel thickening blood
look on in fear.
Essence of life - air.
Some see the light,
breath caught in their lungs
an old man dwells on his last breath.

Hold your breath
your blood congeals,
the bird's afraid,
she gasps for air.
Cloud obscures the moon's light
sorrow heaves from the girls' lungs.

White outstretched wing and laboured lungs
lovers breathe each other's breath.
Some observe as if their blood
were cold. Unmoved, without fear.
The bird in her airless cage
closes her eyes against the light.

It's in his gift to restore her light.
We feel the crush of struggling lungs.
We hold our breath
as our blood
pulses through our veins in fear.
Open the valve, restore her air.

Will the air return life's light?
Will her lungs heave another breath?
Still we wait - blood cold as fear.

Scarecrows
(from photographs by Peter Mitchell)

i.

squat figure beside fraying union flag / gazes out over wooded hills /
guards a crop of tender wheat

how green England is / how pleasant

ii.

black boiler suit stuffed with straw / a plastic head / yellowish-cream like frozen milk /
left arm raised to rally or warn.

human features conjure from nothing / barcode, kitemark, biohazard sign /
eyes, a quirky mouth.

iii.

a face on a stick / yellow disc, red circles / black pupils, hostile brows

like eyespots on butterflies and moths / it glares a warning, swivels in the wind /
minding the early kale

iv.

frozen in mid-leap / clothed in an old blue suit / head a rose coloured carrier bag

ribbons of frayed twine / flutter at the wrists / in weird grace

v.

tattered rags hang from a cross / arms dip in mid dance / yellow plastic sacks /
semaphore in shifting air

vi.

bean pole thin in motley garb / he gestures wildly to the birds

she in ripped red coat / over tartan skirt / slumps against him for support

locked together in frozen grace / who choreographed this stilted dance?

vii.

old brown fleece on a broomstick frame / high white brow / prominent nose /
eyes deep-set dents.

his baton raised in readiness / to conduct the woodwind breeze / the rustling leaves /
the cawing crows.

viii.

an empty threat / hollow beneath a cast off coat / mute among the cabbages

he stands against a dawn sky / roselight tints hedgerows / an ancient oak

a bottle swings from a string / on his right arm

ix.

who is this spot-lit in the blue-black night / with green tinsel hair / red tinsel at her wrists /
silver hula skirt over chic pink dress?

she strikes a pose on the grassy carpet / but what will become of her in the wind and rain?

x.

why does this armoured figure / gaze at the distant trees?

robed in a metal rectangle / painted cream, scarlet, gold / head a pointed white hood /
splashed with red

around him fears rustle / like crow wings

xi.

a grey figure fallen amongst the stubble / blank blue eyes stare at the stars /
arc lights illuminate details / crime scene

xii.

snow recalls the old seasons / fears of warming dormant under a glittering crust

bulked out snowsuit / perched alert on a plastic chair / hooded, his face a featureless mask

he stares out over white fields / a stick or rifle rests in his lap

At the Natural History Museum

Caged in an ornate cabinet
artfully placed by human hand

a hundred brilliant birds
posed on a long-dead branch

A breeze streams in from summer streets
 heady scented, nectar-sweet

Faint at first the humming wings
 the rapid tap of rapier beaks

shattering the fragile glass
 the air alive with jewelled darts

rainbow slivers shimmer bright
 dip and weave
 through ancient bones

 racing on toward the light

V

The nature of language, the art of nature

Workshop jargon¹⁵

Using feelers

To use thin pieces of metal to measure bearing clearances

Bees' antennae scent out flowers,
intoxication of mating queen

Measuring the bumps

To establish accurately the piston stroke
in a locomotive's cylinder

Bat senses moth through uneven echoes,
vespertine skyscape of ultrasound

Floating on the thrusts

A railway vehicle at the state of perfect lubrication

Wind-wafted dandelion seed,
thistledown drift

Steaming the carlines

Bending the roof supports on a railway carriage

A horse exhales a cloud of breath into icy air,
hauls a wagon along the rutted lane

Grinding the horns

Preparing axlebox guides to the exact
tolerance to take the axlebox

In autumn stags battle for does,
antlers clash

Metalling the crowns

Putting the white metal core into an axlebox

The sun rises,
treetops are gilded with light

Scragging the springs

Testing and calibrating springs before use

Hares in moonlight leap
in abandoned dance

¹⁵ Details of 'Workshop jargon' taken from an information board at the National Railway Museum, York.

The writing lark

*Five eggs, pen-scribbled o'er with ink their shells
Resembling writing scrawls which fancy reads
As nature's poesy and pastoral spells –¹⁶*

I flushed a yellowhammer from her nest.
Five unhatched eggs were cupped inside –
on each her scribbled messages.

I quickly backed away and hid.
She perched nearby on a hawthorn branch
her call insistent, piercing, sweet.

The gorse bright feathers of her head and breast,
brilliant in the leaf patched light
her wings a brown and russet cape.

I watched the nest till she returned
and then I quietly slipped away
to wonder what her writing meant.

Her scrawls once seen as evil things
her tongue thought dipped in the Devil's blood.
Maybe she rhymes her fragile life
in language we can't understand.

Might she write of hedges rooted out,
of insects lost to pesticide,
meadows' margins pared away,
how harvests leave not a peck of grain.

The winter stubble's mostly gone,
this is why we seldom see
bursts of sun brushed yellow birds
in flight over a silvered field.

¹⁶ John Clare, 'The Yellowhammer's Nest', lines 13-15, p. 65 in *John Clare: Poems Selected by Paul Farley* (London: Faber and Faber Limited, 2007).

Wren¹⁷

Mouse bird flits among winter twigs,
tail a thumbs up to the world.

His song has no truck with sorrow,
proclaims 'Wren' for half a mile on a still day.

He is oblivious to his slight weight,
flags his falcon-banded quills.

He toils over stone,
gleaning spiders from nooks and cracks.

Springtime he works on nests in the crevices of walls,
trees, scarecrows' pockets; once, a human skull.

His mate inspects the work, chooses one to feather
for her clutch of speckled eggs.

A king of birds, wren once bested an eagle,
hitched a ride among gilded feathers.

At the limit wren crept out,
ascended that bit further to the sun.

Brass nameplate proclaims 'WREN',
a mouse of an engine, 18 inch gauge.

Liveried in gleaming black,
banded in red and white paint.

Chimney looks almost overlong,
a thumbs up to the world.

Ceaseless toil
over seven miles of track at Horwich.

In service almost eighty years,
WREN fetched and carried

castings, machine parts, coal,
workers' wages.

Someone must've loved it
to save it from being scrapped.

¹⁷ Lancashire & Yorkshire Railway locomotive, Wren; foyer of National Railway Museum, York. Wren: a small brownish passerine bird; family, Troglodytidae.

This

could put you in mind of thousands of rooks
lettering bare branches, turning cables to black
tinsel against whitening skies. Cacophony of
conversation, feathers rouse and ruffle, effortless
balance on twigs, high wires. Synchronous lift as if
at a signal, a scatter across the compass points. At
dusk reassemble, collapse into density, expansion
contraction, endless

or the black veins of white *Aporia* butterfly wings
blossoming from ink stippled parchment to dry in
the sun. Alighting on clover, daisies, myriad
wildflowers in French or Swiss meadows. Extinct
on these islands, no-one knows why

or sleek guillemots clustered on cliffs, a blackbird
on a winter bough, delicate tracks of birds in snow,
the soot-dark point of a ptarmigan's eye

a flight-shoal of knots dipping estuarine waters, a
scribble of wrack on salt-white strand

Glancing Light: Three poems inspired by the art of Alison Tyldesley

Moorland reflection and pink sky

Wade naked into cloud
immerse in peat-pure water
slow descent

Liquid air rushes over like rain
encounter softness of silt

Dark stems, angled reflections
precise geometry wavers
fractured black silk

Surface beats back light
conceals what is beneath

Circling crows, golden field

Crows triangulate the blue

mark the hidden

Quivering leverets

strive for stillness

in tangled grass

A lapwing broods,

there will be chicks

Grasshoppers stridulate

narrow repertoire

notes on repeat

A young deer

her carcass fresh

Blue stream, purple hills

Futures tremble in fractured light
poised on cusp of possibility
gaze to vanishing point

Stream flows
its narrowing illusory
limit of human sightlines

Flash of presence
kingfisher colours intimate
sparkbright birds

Damselflies in pulsing blue
emerge from pupal husks
wing shimmer near invisible

Minnow glints
beneath imagined surface
silver the riverbed

Almost glimpse
grassy sling of warbler's nest
water vole slips away

Breeze swayed reeds
in arrested moment

VI
Imaginings

Equinus

*The spirit wanders, comes now here, now there, and occupies whatever frame it pleases.
From beasts it passes into human bodies, and from our bodies into beasts, but never perishes.*
Ovid, *Metamorphoses*¹⁸

It was feet first.
Bones lengthened, toes fused,
keratin of nails
thickened into hooves.

Hands went the same way.
I tested long legs,
pasterns hocks and fetlocks,
revelled in their spring and flex.

My gut an intricate machine
for hay and grass,
slung like a full hammock,
hung between shoulders, hips.

Neck stretched and arched,
eyes transposed to the sides of my face.
As words dried I was gifted with sound,
ears that flattened or flicked.

I skittered at noise,
shadows or shapes,
strange scents. Skin
felt everything.

A boy tried to mount,
gripped my withers like I was meat.
Shucked him off, flourished my tail,
kicked up dust like a colt.

One day I leapt the gate,
galloped the green-arched lanes
in search of moors.
Mares glanced up from grazing.

Summer I was still for the stallion.
With a belly full of foal, kin.

¹⁸ Ovid, *Metamorphoses*, Book XV, quoted by Belinda Recio, *Inside Animal Hearts and Minds: Bears That Count, Goats That Surf and Other True Stories of Animal Intelligence and Emotion* (New York: Skyhorse Publishing, 2017) p. vii.

Human-swan
(for Sacha Dench)

Gorged on Arctic vegetation
dense-muscled and fat for the long haul
snow wings flex.

Restless in concert
it is a calling
Russia our starting point.

Swans follow stars in night's vast sweep
landmarks, coastlines,
time and the sun,
mysteries of magnetite.

I perch on a frail contraption
a single gaudy sail.
Can't match their altitude,
their rhythmic heart-strong beats.

Down-padded quilted, frozen
I fly under cloud.

Beneath bone blades
muscles bunch like buds of wings.

Bewicks seek shrinking wetlands.

Far below, kite strut bones
engraved on barren earth.

Capital

Wolves pace empty streets
cautiously approach the Shard
half-sunk 'Shangri-La', the faceless face
of the grandiose.

Saplings push through asphalt
mature trees sing with birds
deer roam the Isle of Dogs
rusting cars are dens for the russet fox.

Beavers dam the Thames.
Brownfields fecund with bees and moths,
buddleia, nettles, fairy flax.
Waders fish in Hackney's flooded fields.

A warning sign on a broken hinge,
faded letters unread.

My granddaughter's granddaughter

opens the door of her forest-city home, steps out into birdsong and insect hum. She greets her neighbour who harvests fruit from her roof garden.

My great-great-granddaughter will spend her morning teaching history. She will introduce arcane concepts like 'profit', 'fossil fuels', and 'meat'. Today she will talk about the 'Anthropocene'.

She follows the river path. Just there is a beaver lodge. Though she passes close the beavers pay her no heed. They are constructing dams, creating pools where fish, and other creatures, flourish. Beavers keep the city safe from flood.

It is autumn. Leaves turn yellow, red and gold, and start to fall. Once it was feared the seasons were lost but then the human world woke up. Greenhouse gases are no more. Against all odds the Arctic is mantled in deep ice. Polar bears thrive on fat seals. The rainforests are swiftly swamping barren land once cleared for cattle. In the oceans, whales, corals, and all manner of fish thrive. Once it was feared there would be more plastic than fish.

Beyond the forest-city it is wild. Lynx and wolves hunt deer. They rarely worry farm animals for farm animals are no more, though in places you can glimpse rare cattle and wild ponies who help keep meadows green and pleasant for butterflies and birds.

My granddaughter's granddaughter will return home at midday to care for her child while the child's father (who might be an artist, a poet, a healer or a gardener) goes to work.

My great-great-granddaughter feels the movement of new life. She is one of the lucky ones.

Notes

‘Cave dance’, first published in *Riggwelter* # 13, Sep 1 2018,
https://issuu.com/riggwelter/docs/issue_13/27

‘Halcyon’, in *Route 57, Issue 11* (2015)

‘Toads’, in *Route 57, Issue 12* (2016)
http://www.route57.group.shef.ac.uk/issue12/00_index/poetry.php

‘Acute ward’, in *Cicatrice: Iso-Poetics* (2020) ed. by Samuel Kendall, Rebecca Sandeman, Ashley Bullen-Cutting and Loma Jones
<http://www.cicatricemoon.wixite.com/journal/iso-poetics>

‘Soundings’, in *Cicatrice: Iso-Poetics* (2020) ed. by Samuel Kendall, Rebecca Sandeman, Ashley Bullen-Cutting and Loma Jones
<http://www.cicatricemoon.wixite.com/journal/iso-poetics>

‘Succession (after Beeching)’, in *Route 57: Loco-Motion, Issue 14* (2018) ed. by Dan Eltringham

‘Three Boys and a Pigeon’, 1974, Daniel Meadows’, in *Route 57, Environs: Modern Natures, Issue 15* (2019) ed. by Dan Eltringham and Vera Fibisan

‘*Anax imperator*’, in *Route 57, Issue 12* (2016)
http://www.route57.group.shef.ac.uk/issue12/00_index/poetry.php

‘Tick (after Jakob von Uexküll)’, in *Route 57, Issue 12* (2016)
http://www.route57.group.shef.ac.uk/issue12/00_index/poetry.php

‘Urban fox’, in *Route 57, Issue 11* (2015)

‘To be a heron’, in *Route 57, Issue 13* (2017)
http://www.route57.group.shef.ac.uk/issue13/00_index/poetry.php

‘At 'Floral World'’, in *Zoomorphic*, Issue 6.1 September 18, 2016
<http://zoomorphic.net/2016/09/poetry-part-one-4/>

‘The pollinators of Maoxian, Sìchuān Province, China’, in *Route 57, Issue 11* (2015)

‘*Jamón Ibérico de Bellota*’, in *Route 57, Issue 13* (2017)
http://www.route57.group.shef.ac.uk/issue13/00_index/poetry.php

‘Reports from Chiquitano forest fire, Bolivia, 2019’, in *Route 57, Traces, Issue 16* (2020) ed. by Laura Joyce and Vera Fibisan

‘Scarecrows’ (from photographs by Peter Mitchell), in *Route 57, Environs: Modern Natures, Issue 15* (2019) ed. by Dan Eltringham and Vera Fibisan

‘At the Natural History Museum’, in *Route 57, Issue 14* (2018) online edition
http://www.route57.group.shef.ac.uk/issue14/00_index/poetry.php

‘Workshop jargon’, in *Route 57: Loco-Motion, Issue 14* (2018) ed. by Dan Eltringham

‘Wren’, in *Route 57: Loco-Motion, Issue 14* (2018) ed. by Dan Eltringham

‘Moorland reflection and pink sky’; ‘Circling crows, golden field’, and ‘Blue stream, purple hills’, in Alison Tyldesley, *Glancing Light* (2018)

‘Equinus’, in *Route 57, Issue 14* (2018) online edition

http://www.route57.group.shef.ac.uk/issue14/00_index/poetry.php

‘Capital’, in *Route 57, Environs: Modern Natures, Issue 15* (2019) ed. by Dan Eltringham and Vera Fibisan

‘St Francis at the mist net’ was inspired by Karl Riordan’s poem ‘St Francis in a Sheffield Pet Shop’, in Karl Riordan, *The Tattooist’s Chair* (Ripon: Smokestack Books, 2017) p. 20.

‘Aevum’ was inspired by a talk titled ‘Life with a View: Worth, Temporality and Substitution across Species and Dissimilar Spaces’, by Professor Mette Nordahl Svendsen, University of Copenhagen, on 30/3/2017 at the ICOSS Conference Room, University of Sheffield.