

RUSSELL SMITH

*Global Modernity, Anthropogenic Extinction, and the Future
of Sexual Difference: From Mary Shelley's Frankenstein
to Julia Leigh's The Hunter*

...to relate to animals as animals ourselves, the way hunters do...

Rosi Braidotti¹

"I shall be with you on your wedding night"

Extinction is a vector of transnational modernity. Through destruction of habitats, introduction of predators, competitor species and diseases, and direct extermination, the expansion of modernity across the globe has been inseparable from a wave of extinctions, not just of animal and plant species, but also of humans, their cultures and their languages. Such a statement already threatens the highly contested boundary between biology and politics, and it is well known that, after Darwin, biological arguments were routinely advanced in justification for, or mitigation of, the ravages of so-called progress. As Patrick Brantlinger notes, in its broader application "extinctions discourse" is a product of the "dual ideologies of imperialism and racism."²

Mary Shelley's *Frankenstein* remains remarkable today, among many other reasons, for the way in which, at the height of imperialism and the beginning of the epoch we have come to know as the Anthropocene,³ it imagines the potential

¹ Rosi Braidotti, "Animals, Anomalies, and Inorganic Others," *PMLA* 124.2 (2009): 526.

² *Dark Vanishings* (Ithaca, NY: Cornell University Press, 2003): 1. As we shall see, in some settler societies, such as Newfoundland and Tasmania, the fiction of the extinction of the indigenous population and its associated historical guilt continue to serve as a more historically and psychologically convenient foundation narrative than indigenous survival and its capacity to undermine settler legitimacy; see Fiona Polack, "Memory Against History: Figuring the Past in *Cloud of Bone*," *English Studies in Canada* 35.4 (2009): 53-69; 53-4.

³ Defined as the period, generally taken to begin in the late eighteenth century, when human activity impacts global atmospheric systems to an extent sufficient to leave a

extinction of the entire human race as a result of human actions. The concept of extinction was a new one in Shelley's time, but she would have been up-to-date on the topic through her and Percy's discussions with their physician William Lawrence, whose "Introductory Lectures on Comparative Anatomy and Physiology" were delivered at the Royal College of Surgeons on 21 and 25 March 1816; that is, a few months before Mary began the composition of *Frankenstein*. In the published version of these lectures, Lawrence cites Georges Cuvier, whose exhaustive comparative examination of fossilized dinosaur bones and those of living species sought to demonstrate conclusively that "they belonged to races of animals that have disappeared from our globe; or at least of whose existence in the living state neither history nor tradition afford any traces."⁴ Cuvier's proof of extinction put an end (in scientific circles at least) to the doctrine of a "great chain of being," a static order of morphologically constant beings in which it was thought impossible for a species either to mutate or to go extinct.⁵

Thereafter, if it was scientifically conceivable for existing species to go extinct, it was possible to imagine new species coming into being. As Claire Colebrook affirms, "Well before Darwin put forward the scientific concept of evolution, Mary Shelley's novels, *Frankenstein* and *The Last Man*, imagined life as a process from which humanity emerged, a life which also might extend beyond humans."⁶ In *The Last Man* (1826), the human race is wiped out by plague, but in *Frankenstein* (1818), the anticipated human extinction is entirely anthropogenic. The key moment comes when Victor Frankenstein, having

permanent trace in the geological record of deep time, thus meriting its designation as a distinct geological epoch succeeding the Holocene.

⁴ William Lawrence, *An Introduction to Comparative Anatomy and Physiology, being the Two Introductory Lectures delivered at the Royal College of Surgeons on the 21st and 25th of March, 1816* (London: J. Callow, 1816), 80, quoting Georges Cuvier, *Sur les Ossements Fossiles* (1812).

⁵ Edward Larson, *Evolution: The Remarkable History of a Scientific Theory* (New York: Modern Library, 2004): 7.

⁶ Claire Colebrook, "Introduction: Extinction. Framing the End of the Species," in *Extinction* (Ann Arbor, MI: Open Humanities Press, 2012), http://www.livingbooksaboutlife.org/books/Extinction#Introduction:Framing_the_End_of_the_Species.

agreed to his creature's request for "a creature of another sex, but as hideous as myself,"⁷ starts to have misgivings:

Even if they were to leave Europe, and inhabit the deserts of the new world, yet one of the first results of those sympathies for which the daemon thirsted would be children, and a race of devils would be propagated upon the earth, who might make the very existence of the species of man a condition precarious and full of terror. [...] For the first time, the wickedness of my promise burst upon me. I shuddered to think that future ages might curse me as their pest, whose selfishness had not hesitated to buy its own peace at the price perhaps of the existence of the whole human race. (174)

At that moment, catching sight of the creature watching from the window with a "ghastly grin" (174), Victor tears to pieces the female creature he has been making, an act that sets the creature on his mission of revenge: "Shall each man," cried he, "find a wife for his bosom, and each beast have his mate, and I be alone? [...] Man, you shall repent of the injuries you inflict" (176). The creature's revenge is directed, fittingly enough, not against Victor himself, but against his reproductive futurity, as exemplified in the creature's memorable threat, uttered at the conclusion of this scene and recalled by Victor several times through the novel: "I shall be with you on your wedding night" (176).⁸ It is a threat, in other words, against the binary sexual mode of reproduction and the social systems of gendered difference that support and maintain it.

In this essay I wish to use *Frankenstein* as a lens through which to read a notable recent novel, Julia Leigh's *The Hunter*, which raises similar questions about the relation between modernity, extinction and sexual difference.⁹ In *The Hunter* a

⁷ Mary Shelley, *Frankenstein: The Original 1818 Text*, 3rd edn, ed. D. L. Macdonald and Kathleen Scherf (Peterborough: Broadview, 2012), 157.

⁸ See Mladen Dolar, "'I Shall Be with You on Your Wedding Night': Lacan and the Uncanny," *October* 58 (1991): 5-23.

⁹ Julia Leigh, *The Hunter* (London: Faber & Faber, 2000). In this essay, for reasons of space, I do not discuss the film adaptation *The Hunter* (2011), directed by Daniel Nettheim, in which significant changes to the storyline remove some of the ambiguities and ambivalences of Leigh's novel. The link between *Frankenstein* and *The Hunter* was first raised by Leigh Dale: "'Even if they were to leave Europe': Frankenstein in

professional bounty-hunter, known only as M, is employed by a shadowy multinational biotech company to venture into the wilderness of Tasmania's central plateau to track down and kill the last surviving Tasmanian tiger,¹⁰ an animal long thought to be extinct, in order to harvest its genetic material for biological weapons. Using a cover identity as "Martin David, naturalist," he lodges with the grieving widow and children of Jarrah Armstrong, a conservationist and author of *Bioethics for the New Millennium*, who disappeared after a journey up onto the plateau a year earlier and is presumed dead. As M settles into a rhythm of "twelve days up, two days down" between his time tracking the thylacine up on the plateau, and his time resting and recuperating with the Armstrongs, Leigh teases the reader with the expectation that M's growing attraction to Lucy Armstrong and attachment to her children will bring moral redemption and persuade him to abandon his cynical mission. At the hinge point of the novel, however, shortly after M has fired his first unsuccessful shot at the tiger, the company calls him back to headquarters for an urgent mission. When he returns eight weeks later, he finds devastation: the house, evidently damaged by fire, has been abandoned, and he hears from a neighbour that the girl was severely burned and is now in intensive care; the mother, having been too heavily drugged by sleeping tablets to protect her daughter, is now in a psychiatric institution; and the boy has been put into foster care. Devastated by loss, M returns to the plateau, where, unmoored from the rhythm of "twelve days up, two days down," he abandons himself entirely to the hunt, becoming increasingly detached from the human world and a human sense of time, barely sleeping, barely eating, more and more involved in the creaturely life of his prey. After an unspecified period of time, clearly several months, having followed the thylacine deep into the wilderness, he finds her and shoots her. What follows is a macabre ritual of biotech harvesting: M dissects the

Tasmania," *Kunapipi* 34.2 (2014): 93-101. Dale's emphasis, however, is on reading *The Hunter* as a feminist critique of scientific capitalist modernity.

¹⁰ Initially termed the "marsupial wolf" by Europeans, the thylacine was popularly known as the Tasmanian tiger, despite being neither a tiger nor confined exclusively to the island of Tasmania. Nevertheless, it was *as* the Tasmanian tiger that the thylacine was hunted to extinction. See Kylie Crane, "Tracking the Tassie Tiger: Extinction and Ethics in Julia Leigh's *The Hunter*," in *Local Natures, Global Responsibilities: Ecocritical Perspectives on the New English Literatures*, ed. Laurenz Volkman *et al.* (Amsterdam: Rodopi, 2010): 105-119.

corpse, collects the uterus, ovaries, hair and tissue-samples in custom-built liquid nitrogen containers, burns the remains and begins the long hike back to civilisation.

However, just as Shelley's presentation of the creature as a sympathetic figure complicates any didactic reading of *Frankenstein* as cautionary tale against scientific hubris, so too, *The Hunter* studiously avoids reduction to a straightforward ecological fable. Indeed, the most compelling aspect of Leigh's novel is not the human drama of M's interactions with the Armstrong family, but its vivid depiction of his relinquishment of human attachments in a kind of becoming-animal that is an intrinsic element of his success as a hunter. Indeed, his deepening imaginative and corporeal involvement in the life of the thylacine is figured in queerly erotic terms—at one point he imagines himself “romancing his prey” (90)—clearly positioning the hunt as a kind of libidinal and moral counterpoint to his sentimental involvement with the Armstrong family and an anthropocentric ethics of conservation.

In perhaps the seminal essay of post-humanist futurity, “The Cyborg Manifesto,” Donna Haraway is surprisingly dismissive of *Frankenstein* as a potential proto-cyborgian feminist text, reading the creature's demand for a female companion as an expression of heteronormative reproductive futurity:

Unlike the hopes of Frankenstein's monster, the cyborg does not expect its father to save it through a restoration of the garden; that is, through the fabrication of a heterosexual mate. [...] The cyborg does not dream of community on the model of the organic family.¹¹

Though is it certainly true, as Anne Mellor's biographical study illustrates,¹² that not just *Frankenstein* but Mary Shelley's entire fictional *oeuvre* is haunted by the “dream of community on the model of the organic family,” a family that she never experienced in real life, this fantasy exists in tension with a violent

¹¹ Donna Haraway, “A Cyborg Manifesto: Science, Technology and Socialist-Feminism in the Late Twentieth Century,” in *Simians, Cyborgs, and Women: The Reinvention of Nature* (New York: Routledge, 1991), 149-82 (151).

¹² Anne Mellor, *Mary Shelley, her Life, her Fiction, her Monsters* (New York: Routledge, 1989).

ambivalence about childbirth and motherhood, prompted not only by the death of Mary Shelley's mother Mary Wollstonecraft in giving birth to her, but in her own experiences of the difficult births and early deaths of all but one of her children.

Given the degree of sympathy with which Frankenstein's creature has been presented to us, not only should we take seriously his declaration of war on reproductive futurity, we should also appreciate fully the intense ambivalence the novel directs against the traditional family and normative sexual reproductive relations: Victor's father, in lieu of adopting his best friend's orphaned daughter, marries her; this girl, Elizabeth, Victor's stepsister, becomes his fiancée; and Victor himself repeatedly postpones his wedding night to work on his experiments, clearly preferring to experiment with asexual reproduction. "A new species would bless me as its creator and source," (80) he rhapsodises, suggesting that the creature's desire for a mate is part of Victor's plan.

However, when Victor claims that "the first results of those sympathies for which the daemon thirsted would be children," (174) it is not self-evident that by "sympathies" he means sexual reproduction on the conventional model of the "organic family." Rather, "sympathy" in Shelley's time has a capacious scientific meaning that encompasses all kinds of reciprocal relationships extending even to chemical and physical processes. William Lawrence opens his second 1816 lecture "On Life" by insisting that a complete science of life (two years later he would introduce the word "biology" into the English language) should "not disjoin anatomy and physiology," and uses the word "sympathies" to indicate what we would now call fundamental metabolic processes:

It would be quite possible to describe an animal body, to enumerate all its organs, to detail the size, figure, connexions, and various sensible properties of each, without saying one word of the living powers with which they are endowed, the uses to which they are subservient, or the sympathies and mutual influences by which they are bound together for the great purposes of their creation.¹³

¹³ Lawrence, *An Introduction to Comparative Anatomy and Physiology*, 115-16.

We must remember that both Frankenstein's creature and his would-be mate are products of asexual reproduction, and given the creature's prodigious intelligence and the fact that he has retained Victor's notes, theoretically he might fabricate a "race of demons" simply by repeating Victor's experiments. That is to say, in its displacement of the scene of childbirth by the "workshop of filthy creation,"¹⁴ Shelley's novel can be seen to imagine a queer future beyond the human sexual dyad, as envisaged by Haraway's cyborg:

cyborgs have more to do with regeneration and are suspicious of the reproductive matrix and of most birthing. [...] We require regeneration, not rebirth, and the possibilities for our reconstitution include the utopian dream of the hope for a monstrous world without gender.¹⁵

Although it is decidedly not utopian, in foregrounding the technological replication of a monstrous life independent of sexual reproduction, and in queering traditional social structures of the "reproductive matrix," *Frankenstein* implicitly offers the resources to contemplate the extinction of sexual difference. So too, as I shall argue, *The Hunter*, in its unsentimental figuring of extinction, confronts the limits of anthropocentric thinking insofar as it takes mammalian binary sexual reproduction as the figure of life *tout court*. Both novels, that is, suggest queer models of survival and futurity beyond an anthropocentric ethics grounded in sexual difference.

Forms of life, forms of extinction

Early reviews of *The Hunter* focussed on two main themes: its bleak depiction of Tasmania as an economically depressed backwater; and its absence of a redemptive narrative arc in which M would experience an epiphany that would lead him to question the mercenary ethics of his profession.¹⁶ Scholarly critical readings, however, have tended to focus on it as a parable about extinction.¹⁷

¹⁴ Shelley, *Frankenstein*, 81.

¹⁵ Haraway, "A Cyborg Manifesto," 181.

¹⁶ For a good summary of critical responses, see Tony Hughes d'Aeth, "Australian Writing, Deep Ecology and Julia Leigh's *The Hunter*," *JASAL* 1 (2002): 19-31 (19-20).

¹⁷ See Crane, "Tracking the Tassie Tiger"; Dale: "Even if they were to leave Europe"; Hughes d'Aeth, "Australian Writing"; Sally Borrell, "Small Areas of Ground: Writing

In the case of the thylacine, the multiple causes of its extinction are deftly summarised in the novel: “habitat fragmentation, competition with wild dogs, disease and intensive hunting” (*The Hunter* 37). The demise of the thylacine through these four interpenetrating extinction vectors is an exemplary, even overdetermined product of transnational modernity. But in the macabre context of Tasmanian history, the extinction of the thylacine is of course shadowed by the genocide of Tasmania’s indigenous population, an inevitable parallel glancingly acknowledged in the novel when M muses on the traces left by “the local Aboriginal people, in the years before they, the full-bloods, were almost driven to extinction” (57). The “almost” is the key word here, indicating Leigh’s acknowledgement of the revisionist account of Tasmanian history that has sought to overturn the myth of the extinction of the Tasmanian Aborigines, a myth that has been propagated not only by defenders of colonialism but also by those wishing to indict it.¹⁸ It is now accepted that descendants of Tasmania’s indigenous peoples flourished in various locations outside of Tasmania, and that although Aboriginal Tasmanians suffered genocide they did not suffer extinction.¹⁹ Though Leigh keeps this parallel very much in the background, her narrative inevitably raises difficult questions about extinction and survival in both human and animal terms.

Animals in Globalisation,” *Animal Studies Journal* 1.1 (2012): 53-66; Scott Brewer, “‘A Peculiar Aesthetic’: Julia Leigh’s *The Hunter* and Sublime Loss,” *JASAL: Special Issue: Australian Literature in a Globalised World* (2009), <http://www.nla.gov.au/openpublish/index.php/jasal/article/view/860/1768> 1 Dec. 2014.

¹⁸ See Rebe Taylor, “The National Confessional,” *Meanjin* 71.3 (2012), <https://meanjin.com.au/essays/the-national-confessional/> Taylor cites as the pivotal revisionist history Lyndall Ryan’s *The Aboriginal Tasmanians* (Sydney: Allen & Unwin, 1981). More recent examples of indictments that perpetuate the extinction narrative are Tom Haydon’s film *The Last Tasmanian* (1978) and Midnight Oil’s popular song “Truganini” (1993).

¹⁹ For accounts from contemporary indigenous Tasmanian voices, see Greg Lehman, “The Palawa of Tasmania,” in Göran Burenhult, ed., *Traditional Peoples Today: Continuity and Change in the Modern World* (St. Lucia: University of Queensland Press, 1994), 85; Jim Everett, “Aboriginality in Tasmania,” *Siglo* 12 (2000), 2-6. For the distinction between genocide and extinction, see Ann Curthoys, “Genocide in Tasmania, the History of an Idea,” in Dirk A. Moses, ed., *Empire, Colony, Genocide: Conquest, Occupation and Subaltern Resistance in World History* (New York: Berghahn, 2009), 229-52 (239).

The key thing in the locution quoted above is that the two terms mediated by that “almost” are mutually constitutive: that is, the notion of extinction is dependent on the term “full-blood,” the latter a full-blown product of colonialist scientific racism. Scepticism about the ethical and ecological implications of the conventional notion of extinction is voiced in the novel as M, having returned from twelve days up on the plateau, finds the Armstrong house has in the meantime become a crashpad for a busload of radical environmentalist ferals and hippies. Gathered around the fire, one of them remarks philosophically:

“Everything is about energy [...] it’s all about transformation of energy, I mean, everything is transformed. Jarrah Armstrong had it right: energy and matter, that’s what it’s all about. No beginnings and no ends.” [...]

M does not talk. If everything is transformed, then what is extinction?
(107)

Although the intended import of M’s musing is unclear, what it raises is a significant tension between two forms of environmental ethics: one focussed on the preservation of species in the face of anthropogenic extinctions, and one which embraces a broader systemic model of ecology in which the inevitable environmental impacts of humans are part of a modernity shared by humans, animals, plants and ecosystems alike, and in which the extinction of individual species (especially the mammals and birds favoured by high profile conservation campaigns) is of secondary concern to the broader functioning of healthy ecosystems.

There is a deep perversity about the conventional anthropocentric notion of extinction—centred, as it is, on the death of the last individual of its kind—that reduces complex and far-reaching processes, involving innumerable interspecies entanglements, to the dimensions of a singular narratable death, virtually a trope of the sentimental novel. In the case of the thylacine, the last known and confirmed individual, “Benjamin” (a female, apparently), died in captivity in Hobart Zoo on 7 September 1936, 59 days after the species had been declared protected.²⁰ So too, the death of the so-called “last Tasmanian” Trukanini on 8

²⁰ Robert Paddle, *The Last Tasmanian Tiger: The History and Extinction of the Thylacine* (Cambridge: Cambridge University Press, 2000), 164.

May 1876 functions as what Brantlinger calls a “symbolic extinctions moment,” a kind of “proleptic elegy” which “even in its most humane versions, [expresses] the confidence of a self-fulfilling prophecy, according to which new, white colonies and nations arise as savagery and wilderness recede.”²¹

Such “extinction stories” are macabre sentimental fictions, products of a colonial melancholy that serves a number of (sometimes conflicting) ideological purposes. In the Tasmanian context, the example of Trukanini, whose bones were exhumed after her death (against her expressed final wishes) and exhibited in the Hobart Museum for over 40 years, not only provided a fetish object for colonial melancholy, but also enabled the denial of the continued survival of Tasmanian Aboriginal people and cultures by displaying the remains of “the last full-blood.” That is, if “the death of the last individual” enables extinction to be narrated as a precise historical moment, a melancholic sub-plot in the broader story of modernity, it also enables the cultivation of museum cultures (of both the living and the dead; animals and humans; bodies, artefacts, rituals, languages), processes of preservation that prioritise the organism over the ecosystem, purity over hybridity, meaning over function, pre-modern authenticity over modern adaptation.

As a counter to this “extinctions discourse,” it is important to insist that extinction is not the same as death, and that the narration of extinction through a simple analogy with death is a profound denial of the slowly unfolding and complex entanglements of loss, survival and adaptation that extinctions involve. As Thom van Dooren writes:

extinction is never a sharp, singular event—something that begins, rapidly takes place, and then is over and done with. Rather, the edge of extinction is more often a “dull” one: a slow unravelling of intimately entangled ways of life that begins long before the death of the last individual and continues to ripple forward long afterward, drawing in living beings in a range of different ways.²²

²¹ Brantlinger, *Dark Vanishings*, 4.

²² Thom Van Dooren, *Flight Ways: Life and Loss at the Edge of Extinction* (New York: Columbia University Press, 2014), 12.

Conservation biologists, geneticists and ecologists seek to understand the dynamics of extinction through the interaction of four “extinction vortices” that undermine the viability of populations: two deal with environmental factors (habitat destruction; pollution, etc.) that impact on ecosystems and communities (fragmentation of populations; distortion of sex ratios, etc.), and two deal with genetic factors (population decreases leading to inbreeding depression; biological invasions resulting in hybridization and outbreeding depression).²³ But as John Dupré argues, key biological concepts such as “species,” “organism,” and “gene” are far from being coherent or natural kinds, but instead are “static abstractions from life processes” that “stubbornly resist unitary definitions.”²⁴ In recent years the “New Synthesis” of Darwinian natural selection with Mendelian genetics that underpins contemporary “neo-Darwinian” evolutionary biology, though still the dominant paradigm, has definitively begun to fray at the edges.²⁵

Nevertheless, in contemporary biotechnology, the focus on “the death of the last individual” is mirrored by the fantasy of restoring extinct species to life, a process theoretically achievable by cloning, transferring genetic material from well-preserved DNA samples into the eggs of a compatible species and implanting these in a surrogate mother. For example, tissue samples from the “last” Pyrenean Ibex were frozen in liquid nitrogen immediately after it died in 2000, and several years later a cloned ibex was successfully born to a goat surrogate mother; it died after seven minutes due to lung defects.²⁶ Though prospects of reviving the thylacine by similar means are repeatedly mooted in the popular media, it is regarded as scientifically unfeasible due to the decay of the DNA samples.²⁷ It is difficult to conceive any value in such projects beyond

²³ M. E. Gilpin and M. E. Soulé, “Minimum viable populations: processes of species extinction,” in *Conservation Biology: The Science of Scarcity and Diversity*, ed. M. E. Soulé (Sunderland, MA: Sinauer, 1986), 19-34.

²⁴ John Dupré, *Processes of Life: Essays in the Philosophy of Biology* (Oxford: Oxford University Press, 2014), 85.

²⁵ Dupré, *Processes of Life*, 144.

²⁶ “Extinct ibex is resurrected by cloning,” *Telegraph*, 31 January 2009, <http://www.telegraph.co.uk/news/science/science-news/4409958/Extinct-ibex-is-resurrected-by-cloning.html>.

²⁷ See, for example, “Cloning the Thylacine: Fact or Fantasy?”, <http://museumvictoria.com.au/scidiscovery/dna/cloning.asp>.

the indulgence of scientific fantasies of biotechnical mastery or the gratification of neo-colonialist desires for moral redemption.

To take a final example, van Dooren examines the way reductive genetic models of extinction and survival are embedded in international conservation agreements, especially in the practice of “gene banking.” He describes the Svalbard Global Seed Vault in Norway, opened in February 2008 and housing seed samples provided by governments and organizations all over the world:

The vault is located in the Svalbard Archipelago, and has been dug into a mountainside. The project’s architects hope that the location’s remoteness—alongside a thick layer of rock and permafrost—will ensure the survival of the seed samples in the face of any political conflict or environmental catastrophes that may occur elsewhere in the world. In short, the facility aims to provide seed insurance in a time of uncertainty, instability and change.²⁸

As van Dooren notes, the Seed Vault throws into sharp relief the question of exactly *what* survival might mean in these circumstances. He turns to the two relevant international conservation agreements, the 1992 Convention on Biological Diversity (CBD) and the 2001 International Treaty on Plant Genetic Resources for Food and Agriculture (Treaty):

The first thing to note about the Treaty is that what it explicitly aims to conserve are not real embodied organisms involved in processes of growth and evolution (called “biological diversity” in the CBD (Art. 2)). Instead, the focus of the Treaty is on conserving and providing access to the *genetic materials* found in organisms. In both the CBD and the Treaty, genetic materials are clearly distinguished from the biological components of the organisms within which they are found.²⁹

²⁸ Thom van Dooren, “Genetic Conservation in a Climate of Loss: Thinking with Val Plumwood,” *Australian Humanities Review* 46 (May 2009), <http://www.australianhumanitiesreview.org/archive/Issue-May-2009/vandooren.html>.

²⁹ Van Dooren, *Flight Ways*.

He notes that biodiversity is generally held to involve three levels: diversity *within* species, diversity *between* species and diversity of *ecosystems*. The latter two levels can only be maintained *in situ*, where diversity is conceived as “a relational concept that captures co-evolutionary interactions within a field of biosocial complexity”; for *ex situ* conservation projects such as seed vaults, “the biological components of organisms and their environments [...] are completely unimportant.”³⁰ There are, however, significant problems with such an approach, especially the fact that “plant varieties whose genetic material is banked are in some sense “frozen” and so not able to adapt to changing climatic and other conditions.”³¹ Similarly, though *ex situ* conservation programs involving attempts to rebuild populations of endangered species in captivity may succeed in preserving species as both living beings and bearers of “genetic materials,” they tend to obscure the more significantly reality of “functional extinction,” the ways in which, once a species had ceased to play a role in a living ecosystem, the ecosystem absorbs the damage caused by its absence from the “trophic cascade” of predators and prey, closing over its absence like a scar forming over a wound.

In other words, just as there are many kinds of extinction, so there are many kinds of survival. Just as some forms of “preservation,” such as gene banks, may no longer involve living organisms growing and reproducing within a multispecies ecosystem, so too some forms of “extinction,” such as the morbid colonialist fetishism attached to “the last full-blood,” may serve to obscure forms of survival that operate by alternative modes of transmission than those sanctioned by genealogy and genetics. The “extinctions discourse” of colonial modernity is preoccupied both with neo-Darwinian theories of race-as-blood and species-as-gene, and with a moralistic privileging of the sexual dyad as the reductive “socio-biological” core of normative human reproduction. That Aboriginality survives—despite the forced separation of families, dispersal of communities, and dismantling of the primary structures of cultural transmission—in effect renders Aboriginality a “queerly modern” form of identity, one grounded less in the “DNA” of race and lineage than in the

³⁰ Van Dooren, *Flight Ways*.

³¹ See J. G. Hawkes, N. Maxted, and B. V. Ford-Lloyd, *The Ex Situ Conservation of Plant Genetic Resources* (Dordrecht: Kluwer, 2000), 13.

hybridities, opportunistic alliances and improvised adaptations that characterise how complex multispecies ecosystems respond to large-scale damage.

Becoming-animal

On one level, Julia Leigh clearly frames her novel as a gendered critique of the capitalist-militarist mindset that motivates M, an emotionally detached hyper-rationalist man who is “anchored by neither wife nor home, nor by a lover nor even a single friend” (*The Hunter* 15). Analysis of the novel has understandably tended to follow this line, focussing on the extreme emotional guardedness of his relations with the Armstrong family, and the sparse details of his military background and his mercenary role in the transnational biotech industry. This is the basis of Leigh Dale’s reading, associating *The Hunter* with *Frankenstein* “as a narrative model for those writing of science and ambition.”³² For Dale, “*The Hunter* makes a fairly uncomplicated equation between modern bio-industrial capitalism, the destruction of species, and masculinity, whilst echoing the story of genocide.”³³

While this reading is certainly supported by the novel, the conflicting energies of Julia Leigh’s text, like Mary Shelley’s, strain in many different directions, such that reading it simply as a cautionary tale against scientific hubris obscures some of its deeper tensions. Other critics have noted, for instance, how the novel carefully evades melodrama, with its would-be villain, the biotech company, and its would-be hero, the environmentalist Jarrah Armstrong, both kept on the edges of the narrative.³⁴ At the same time, by presenting the “conservationists” hired by the National Parks to tag the thylacine as lazy and incompetent suburbanites content to sit around their campfire getting stoned, the novel refuses to provide a positive ethical counterbalance to M’s supposed exploitative detachment. As Tony Hughes-d’Aeth argues, “the effect of these reversals is to cast doubt on anthropocentric ethical systems *per se*. What makes *The Hunter* intriguing is that it uses the humanist machinery of the novel to expose the limits of human-centred values.”³⁵ It is this challenge to anthropocentric ethical systems that

³² Dale: ““Even if they were to leave Europe,”” 93.

³³ Dale: ““Even if they were to leave Europe,”” 98.

³⁴ Borrell, “Small Areas of Ground,” 61; Hughes d’Aeth, “Australian Writing,” 22.

³⁵ Hughes d’Aeth, “Australian Writing,” 28.

constitutes, I think, both the novel's most powerful affinity with *Frankenstein*, and the most significant way in which it rethinks the Frankenstein story for a new time and place. In particular, and like *Frankenstein*, it is important not to underestimate *The Hunter*'s degree of ambivalence concerning sexual reproduction and the gender roles that support it, an ambivalence that is deeply embedded in its narrative structure.

For what is most memorable about *The Hunter* is not the story of M's awkward and thwarted relationship with the Armstong family, but its vivid depiction of his intense and passionate involvement in the hunt. A large proportion of the novel is dedicated to description of M's painstaking efforts to track and trap the tiger, and in particular of the need for him to divest himself of the various physiological and psychological residues of his humanness. Once on the plateau he smears himself with wallaby droppings in order to disguise his smell, making himself "not quite human" (30). He does not light fires—the paradigmatic Promethean differentiation of humans from animals—but subsists on uncooked food. He relies on a heightened attentiveness to tiny signs, not just searching patches of soft earth for prints, but noticing broken twigs, flattened patches of grass, barely discernible animal pads that weave through the landscape. What makes the novel tick, in short, is M's abandonment to the inhuman temporality of the hunt itself, the "deep patience" alluded to in Leigh's epigraph that denotes a prolonged readiness, a kind of relaxed hyper-attentiveness: "he persists, as he knows the tiger persists, without expectation" (114).

After a certain time out in the wild he senses "the alchemical change which seeps through the bones and leaves a man with faculties so attuned that he is no longer a man, is more than man. Now M is the natural man, the man who can see and hear and smell what other men cannot" (58). This process culminates in what Greg Garrard calls a "zoomorphic shamanistic transformation scene":³⁶

Lying there on the hard ground inside his tent he performs his favourite trick: he changes shape, swallows the beast. The eyes in his head are no longer his own, short thick fur runs along the back of his neck, and his spine grows thick and strong, right out of his back, out into a long stiff

³⁶ Greg Garrard, *Ecocriticism* (London: Routledge, 2011): 178.

tail. He hangs his body off this strong spine, hollows out his belly, shrinks his gangly limbs. His arm is bent at the elbow, and a paw, not a hand, rests against his bony convex chest. He sleeps and hopes to dream. (91)

But, as Hughes d'Aeth reminds us, "M is not a natural man and nor can he become one through—to use the common organic metaphor—personal growth."³⁷ Where readerly expectations demand a "novelistic" character, psychologically preoccupied and morally confused by his all-too-human entanglements, Leigh's insistence on the centrality of the hunt both to M and to the novel's narrative reduces him to a cipher, a resolutely impersonal "professional," an "agent," to use the words he uses to characterise himself. For Hughes d'Aeth,

this leads to the most daring of the novel's conclusions, which is that M's hyperrationality *is* natural. It is destructive, of course, but many things in nature destroy. M's singular logic, unimpeded by conscience, is as natural as a virus. In predatory mode, M is not alienated, he is utterly connected to his environment through his task.³⁸

What is equally significant is that this "becoming animal" is libidinally invested, and in fact takes place in queer counterpoint to his perverse resistance to the offered human intimacy of the Armstrong family. To some extent, this is presented as of a piece with the hypermasculinity of the soldier, the mercenary, and the capitalist extraction of profit from the biological commons.³⁹ But in hunting mode, M's affective involvement with his quarry leads him into detachment not only from the apparently redemptive human-centred values of the Armstrong family, but even the cynical value systems of his employers, and indeed the two are directly conflated in his contempt for "the middleman, the company representative who oversaw all clandestine operations, the besuited ballast, the family man" (27). That is, M's involvement in the hunt ultimately becomes a matter between him and the thylacine, an animal-animal relation expressed through the fundamental interspecies entanglement of predator-prey.

³⁷ Hughes d'Aeth, "Australian Writing," 25.

³⁸ Hughes d'Aeth, "Australian Writing," 26.

³⁹ See Stefan Helmreich, "Species of Biocapital," *Science as Culture* 17.4 (2008): 463-78.

Just as Victor Frankenstein's attempt to transcend human sexual reproduction of human beings in his "workshop of filthy creation" is carried out in direct counterpoint to, and indeed as a postponement of, his engagement to his step-sister (not just an avoidance of sexual intimacy *per se* but an avoidance of a quasi-incestuous relation), so too M's increasingly intense libidinal investment in the life of his quarry occurs in direct counterpoint to the growing sexual tension in his relations with Lucy Armstrong, and his increasing fondness for her children, both developments that are represented as occurring *à contre cœur*. By contrast, his slippage into imaginative and bodily involvement in the life of the thylacine is represented as a pleasurable abandonment.

From the beginning, M's imaginative interactions with the tiger are tinged with a confusedly erotic dimension: "reputedly the last of her kind, what does she dream of? The scent of a mate?" (45) Tracking her involves not only searching for traces of her past presence, but also trying to anticipate her future movements, an exercise in an imaginative becoming-tiger: "my imagination is my companion, my man who does the hard yards and reports back what he has seen" (55). He remembers briefly and with bitterness a former girlfriend, his only girlfriend, who had got pregnant, and how he had had to borrow money to pay for an abortion (69). Himself tormented by the mystery of sexual longing, entertaining the thought of "romancing his prey" (90), he projects this feeling on the tiger: "Perhaps, he thinks, the lonely years have soured in her, soured her sense of smell so that now she madly wanders through the scrub, pulled one way by one scent, one way by another" (93). As the hunt intensifies, M is forced to make increasingly deliberate efforts to become "the natural man: ready, alert and unencumbered (111), finding his emotional preoccupation with the Armstrong family an impediment: "Other hunters, men he'd once met, used to think this mood gave off a human scent and to avoid its onset they would forbid all talk of matters human" (112). After the family's tragedy, he comes to believe that he has been "seduced" away from his "true purpose," which is "to be a hunter, to harvest the tiger" (148).

The hunt, like Frankenstein's science, is pursued in explicit opposition to conventional human sexual intimacy: initially as evasion, and then as grieving. But the situation is complicated by the fact that in both narratives the prospect of asexual reproduction plays such a significant part. Indeed, at the end of *The*

Hunter, M knows that, in a queerly modern way, his mission of harvesting the thylacine's "genetic material" is her only chance of survival. As he removes her reproductive organs to pack them into liquid nitrogen containers, he muses that an egg "can be fertilised with the sperm of a semi-compatible organism like a lynx or a wolf" or that "sperm could be fashioned from the thylacine's own blood. Self-impregnation" (166). In a perverse way—crossing boundaries of human and animal, natural and technological—M *is* the thylacine's longed-for mate.

A monstrous world without gender

To conclude, I want to bring together three key moments in thinking the relation between sexual difference and futurity.

First, in a classic essay that anticipates much of queer theory, Gayle Rubin argues that, whereas for structuralist anthropology, sexual difference structures difference as such, the anthropological record shows that different cultures allow a staggering variety of sexual practices to be organised, intelligible and normatively regulated within their allegedly universal systems of sexually dyadic meaning (examples include women being able to take on the roles of husband to other women and father to other women's children, and young boys being transformed from girls into men by socially-sanctioned homosexual acts with older men). This suggests that sex/gender systems are not built on an underlying universal biological foundation (since the sexual dyad and even the "facts of life" concerning sexual reproduction are understood so differently in different cultures), but that the sex/gender system itself is a means by which social systems emphasise and stabilise difference as gendered: as Rubin puts it, "Men and women are different. But they are not as different as day and night, earth and sky, yin and yang, life and death."⁴⁰ Taking this a step further, men and women, in so far as they are subjects and objects of sexual practices, might be viewed, less as occupying opposite poles of a binary social organization of biological sexual difference, than as essentially *similar* objects located quite close together towards the centre of a staggeringly broad spectrum of objects and practices that may become libidinally invested. That is, the anthropological record shows

⁴⁰ Gayle Rubin, "The Traffic in Women," in *Literary Theory: An Anthology*, 2nd edition, ed. Julie Rivkin and Michael Ryan (London: Blackwell, 2010): 782.

polymorphous perversity, not sexual reproduction, to be the grounding of human sexuality. In these terms, the libidinal investments of Victor Frankenstein or M. merely push the queer relation between sexuality and reproduction to its technologically mediated non-heterosexual limit.

Second, Lee Edelman's classic essay "The Future Is Kid Stuff: Queer Theory, Disidentification, and the Death Drive" critiques the notion of "reproductive futurism" and its "compulsory identification both of and with the child as the culturally pervasive emblem of the motivating end, albeit endlessly postponed, of every political vision *as a vision of futurity*."⁴¹ For Edelman, the "figural burden of queerness"—in its structural opposition to the reproductive logic of political futurity—is to signify the death drive, as "the gap or wound of the real," an "unsymbolizable remainder" within the symbolic order.⁴² But, rather than refuse the identification of queers with the death drive, Edelman argues that

only by making the ethical choice of acceding to that position, only by assuming the truth of our queer capacity to figure the undoing of the symbolic and the subject of the symbolic can we undertake the impossible project of imagining an oppositional political position exempt from the repetitive necessity of reproducing the politics of the signifier, which can only return us, by way of the child, to the politics of reproduction.⁴³

For Edelman, then, "queer politics" is an oxymoron insofar as "politics" itself rests upon sexual reproduction as its model of futurity. By the same token, "environmental politics" is also oxymoronic insofar as biological futurity is in no way dependent on the survival of human sexual difference. M's refusal of an anthropocentric environmental ethics of care is thus not a refusal of futurity *per se*, but merely of the "political" model of futurity grounded in sexual difference.

Third, in her essay "Sexual Indifference" Claire Colebrook summarizes a number of different scenarios for the "post-human" extinction of sexual

⁴¹ Lee Edelman, "The Future Is Kid Stuff: Queer Theory, Disidentification, and the Death Drive," *Narrative* 6.1 (1998): 18-30.

⁴² Edelman, "The Future Is Kid Stuff," 26, 27.

⁴³ Edelman, "The Future Is Kid Stuff," 28.

difference: in the short term, the prospect of generation of sperm from stem cells, so that women can act as sperm donors; in the longer term, the prospect suggested by evolutionary modelling that the Y-chromosome (and therefore human males) will become extinct in the relatively short evolutionary time span of a few hundred thousand years; and, seven billion years into the future, the annihilation of all planetary organic life as the sun expands into a red giant.⁴⁴ Colebrook argues that it is not only the problem of time scale that prevents thinking from loosening itself from anthropocentrism, but the grounding of the life concept in sexual complementarity: if organic sexual reproduction has hitherto dominated the ways in which humans conceive of life as such, the thought of the future extinction of sexual difference “might provoke us to think beyond the lures and laziness that the sexual dyad as a figure has offered for thinking” (167).

Sexually reproducing species tend to devote extraordinary amounts of time and energy to mating strategies. In the case of mammals, and especially humans, the protracted dependence of offspring also requires complex social systems, meaning that humans are exceptionally self-focussed as a species. As a result, models of coupling and nurturance grounded in mammalian sexual reproduction tend to provide a powerfully normative figure for human ethical relations with non-human others, figuring the earth itself as a “home” to be maintained through an ethics of care and nurturance that is in fact a form of “suicidal self-enclosure.”⁴⁵ As Colebrook argues, viewing the environment as a bounded enclosure that complements and shelters the bounded being of humanity has precluded a full awareness of the environment’s radical openness as “a play of annihilating and dominating forces” (171). Among these forces, “Sexual indifference—or the forces of life, mutation, generation and exchange *without* any sense of ongoing identity or temporal synthesis—have always been warded off as evil and unthinkable, usually associated with a monstrous inhumanity” (171).

⁴⁴ Claire Colebrook, “Sexual Indifference,” in *Telemorphosis: Theory in the Era of Climate Change*, vol. 1, ed. Tom Cohen (Ann Arbor: Open Humanities Press, 2012): 167-82; 168-9.

⁴⁵ Colebrook, “Sexual Indifference,” 172.

It is these twin limits of anthropocentric thinking—sexual indifference and the prospect of human extinction—that Mary Shelley’s novel broaches, in its margins, as it were, and perhaps in spite of itself. Leigh’s novel, too, in refusing both the humanist redemption of the hero through “love and coupling,” and a melodramatic “eco-political” confrontation of locally situated lifeways with transnational corporate capital, shifts its focus onto M’s becoming-animal as both a vector of extinction and a profound challenge to anthropocentric futurity grounded in an ethics of care. *Frankenstein* and *The Hunter* each reveal an intimate relation between the prospect of sexual indifference—scenarios of reproduction outside the complementary sexual dyad—and the imagining of human extinction. But for living entities that reproduce asexually—that is, the vast majority of life forms throughout the history of the planet—life goes on. What these fictions imagine, in their ambivalent pre-emptive mourning of the sexual dyad, is what Haraway’s cyborg imagines: “the utopian dream of the hope for a monstrous world without gender.”