

Practising the Posthumanities:
Evolutionary Animals, Machines and the Posthuman in the Fiction of
J.G. Ballard and Kurt Vonnegut

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11 November 2011

Submitted in partial fulfilment of the requirements for the degree of
PhD in English Literature

Summary

This thesis demonstrates how selected texts by J.G. Ballard—*Crash* (1973), *Concrete Island* (1974) and *High-Rise* (1975)—and Kurt Vonnegut—*Player Piano* (1952), *Slaughterhouse-Five* (1969) and *Galápagos* (1985)—can be considered in terms of theoretical stances derived from posthumanism. By analysing representations of the ‘human’ in relation to both the ‘machine’ and the ‘evolutionary human animal’, this thesis illustrates the emergence of the posthuman subject. In addition, by recognising the intersection between posthumanism and evolutionary theory, a wider project of this thesis involves demonstrating how the use of various theoretical approaches, from the ‘humanities’ and the ‘sciences’, contributes to the formation of a ‘posthumanities’ approach to literature.

J.G. Ballard and Kurt Vonnegut consistently present fictional scenarios in which the lines between ‘human’, ‘machine’ and ‘evolutionary animal’ are disrupted and blurred. Depictions assume various triangulations and configurations: from the protagonist Ballard’s auto-eroticism, to the characters of *High-Rise* conflating boundaries between the ‘human’ and the evolutionary animal that is conveyed as a constituent of human identity, as well as between the machinic environment and the human inhabitant. Further, comparable configurations characterise Vonnegut’s texts: *Player Piano*’s Paul Proteus’ war against the machine is superimposed by human affiliation with the machine, and the castaway characters of *Galápagos* are stranded by evolutionary forces that displace human authority and control to the uttermost limit.

Each of these instances contributes to the effective intervention of posthumanist thinking when reading the texts. In addition, the utilisation of evolutionary concepts derived from contemporaneous publications circulating in the cultural and scientific sphere highlights the usefulness of acknowledging sources from beyond the remit of traditional literary studies’ methodologies when reading texts. The triangulation between literature, posthumanism and evolutionary theory results in a reconfigured methodological approach to fictional texts: the *posthumanities*.

Acknowledgements

This thesis owes thanks to many and various individuals and institutions. First of all, I would like to thank Dr Neil Badmington and Dr Paul Crosthwaite for their efficiency, intellectual rigour, inspiration, and for serving as impeccable role models throughout the process. Second, I would like to thank others in the department of English, Communication and Philosophy at Cardiff University, including Professor Martin Coyle for supervising my MA dissertation which led to my doctoral research, as well as for being a source of reliability, encouragement and support; Dr Heather Worthington for inspiring improved pedagogical practice; Dr Carl Plasa for serving as annual monitor for my PhD progress reports; and, finally, the extended academic and administrative staff of ENCAP. Thank you also to Professor Martin Kayman and the finance office for enabling the numerous conference papers and research trips undertaken during the past three years.

I would like also to acknowledge those who have been with me throughout this arduous and challenging process: my colleagues in the PhD offices. Thanks especially to Christopher Müller for offering feedback on sections of the thesis.

Immense gratitude is owed to Bruce R. Moore for funding my studies and being a source of inspiration.

Finally, thank you to my partner, Jonathan Tigwell, for constant support, advice, friendship, humour, encouragement and patience.

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Introduction

Posthumanism and the Posthumanities

A complex interrelationship between the 'human', the 'machine' and the 'evolutionary animal' is present in the literary oeuvres of J.G. Ballard and Kurt Vonnegut. Ballard's *Crash* (1973), *Concrete Island* (1974) and *High-Rise* (1975), and Vonnegut's *Player Piano* (1952), *Slaughterhouse-Five* (1969) and *Galápagos* (1985) represent posthumanist thinking, as well as potential pathways for connecting posthumanism and evolution-derived theories.

The narrator of *Crash* comments that:

Faced with this junction of the crashed car, the dismembered mannequins and Vaughan's exposed sexuality, I found myself moving through a terrain whose contours led inside my skull towards an ambiguous realm.¹

The perspective offered in this extract raises key issues constituting the dialogue constructed in this thesis. First, the narrator is presented in a confrontation with a variety of concepts: the machine, violence, sexuality, the body and the inward-looking reaction of the 'human'.² Faced with a violent altercation between the human body and the machine, the protagonist seeks to assemble a new method of comprehending the seemingly incomprehensible images that appear before him. When the protagonist of *Crash* comes across Vaughan's collection of photographs of crashed cars and crash victims, he comments that this 'summed up the possibilities of a new logic created by these multiplying artefacts, the codes of a new marriage of sensation and possibility' (p. 85). At the foundation of this

¹ J.G. Ballard, *Crash* (1973; London Harper Perennial, 2008), p. 101. All further references to this text are to this edition and will be given parenthetically.

² From this point forward, inverted commas will not be used for this term; ongoing probing of the category of the human is implicit in the argument.

'new logic' lies the conjunction of the human and the machine: an 'ambiguous realm' that relates to the posthuman in its illumination of problematic divisions between the human and 'the other' of the machine. A new language is sought, and it is within this space that a discussion of the posthuman begins.

Posthumanism exists as a frequently used, less frequently agreed upon, and even less frequently comprehended term within the academic sphere. It is a complicated and slippery term that, appropriately, highlights the complications and slippages associated with interpretations of the human. Posthumanism offers a language beyond that which is already understood, that which has already been defined. With the arrival of new relationships between the human and its technology, such as those outlined in *Crash*, a revised definition of objects, organic and inert, is called for. Also inaugurated through this revised definition is an interrelationship between the posthuman and the evolutionary. Depictions of the machine in Ballard and Vonnegut have a similar function to illustrations of what I refer to as the 'evolutionary animal',³ a term identifying moments when the human is perceived as an 'animal' resulting from and subject to evolutionary forces. Both the machine and the evolutionary animal call attention to the terms and conditions of the spaces between 'species' and, as a result, complicated relationships are recognised and investigated in the selected fictions. When speaking of Charles Darwin's publication of *The Origin of Species*, Jeff Wallace mentions how

³ As with the human, the terms evolutionary animal and machine are constantly interrogated in this thesis, and while inverted commas will henceforth be excluded, the terms should nonetheless implicitly be understood as complicated.

While perhaps bearing himself the physical and psychological scars of an “irritable reaching after fact and reason” for much of his mature life, Darwin’s work is positively impelled by a “negative culpability” which produced, in the *Origin*, a critical and creative state of doubt and uncertainty.⁴

Correspondingly, fluctuation and inconclusiveness regarding the dominant Western definition of the human underpin the discussions of this thesis.

The shifting relationship between human and machine translates and interacts with the changing configurations of the human and the evolutionary animal. An example of this interrelationship can be taken from Vonnegut’s *Galápagos*, when the narrator comments:

Even at this late date, I am still full of rage at a natural order which would have permitted the evolution of something as distracting and irrelevant and disruptive as those great big brains of a million years ago.⁵

In Vonnegut’s texts, the idea of the human as an evolutionary animal is always implicit in his discussions of the human, a feature which, itself, implies a posthumanist outlook. In addition, what is also indicated is the concept of an unavoidable ‘evolutionary machine’ that influences human subjects and draws attention to the permeable lines that apparently separate human from animal and machine. Triangulations occurring throughout the novels of Ballard and Vonnegut vary from affiliations between human and machine that tend to exclude the animal, to connections between human and animal that eliminate the complicity of the machine. Notions of the posthuman are complicated by these varying presentations of the human because, while the presence of the evolutionary animal gains influence, the affiliation between human and machine is temporarily derailed, and vice

⁴ Jeff Wallace, ‘Introduction: difficulty and defamiliarization—language and process in *The Origin of Species*’, in *Charles Darwin’s The Origin of Species: New Interdisciplinary Essays*, ed. Jeff Wallace and David Amigoni (Manchester: Manchester University Press, 1995), pp. 1-46 (p. 42).

⁵ Kurt Vonnegut, *Galápagos* (1985; London: Flamingo, 1994), p. 141. All further references to this text are to this edition and will be provided parenthetically.

versa. The problematic constructed by ongoing, complex interstices, however, is precisely the space where posthumanist thinking can offer assistance.

Neil Badmington discusses such an idea in terms of posthumanism: 'As I see it, the task of posthumanism is to uncover those uncanny moments at which things start to drift, of rereading humanism *in a certain way*, against itself and the grain'.⁶ Posthumanism does not offer a neat, conclusive reading of any terms investigated in the analyses that follow. Instead, further questioning and debate is opened up by these discussions. Posthumanism unsettles rather than settles ongoing questions and debates about the 'human', machine and evolutionary animal. This is its function. The selected fictions by Ballard and Vonnegut contribute to this process, serving as a source and guide for investigating potential trajectories of the posthuman. In Ballard and Vonnegut, the posthuman is already present in the characters' reactions; what is required is a theoretical realignment that takes into consideration the possibilities of a variable 'human' definition. This thesis draws attention to the fluidity of the human, but also to the questioning space provided by the elements within Ballard's texts that can be interpreted as relating to the generic interests of 'posthuman science fiction'.⁷

The aspects of posthumanist theory that are relevant to this argument involve a re-evaluation of the human as defined by the philosophy originating from Renaissance

⁶ Neil Badmington, *Alien Chic: Posthumanism and the Other Within* (Abingdon; New York: Routledge, 2004), p. 118. Emphasis in original.

⁷ There exists a website listing texts that might be considered posthumanist: <<http://io9.com/5530409/the-essential-posthuman-science-fiction-reading-list>>. Other than this, the term is often used in reference to cyberpunk and science fiction literature that illustrates a shift towards the technological. As this thesis will demonstrate, however, the term 'posthuman' has implications beyond the technological. In addition, application of the term 'posthuman science fiction' to the selected texts has not yet been attempted.

Humanism. Drawing from existing scholarship—most prominently including Neil Badmington's *Posthumanism* (2000) and *Alien Chic: Posthumanism and the Other Within* (2004), and Cary Wolfe's *Animal Rites: American Culture, the Discourse of Species, and Posthumanist Theory* (2003) and *What is Posthumanism?* (2010)—this thesis discusses how the posthuman emerges within the selected narratives. A series of close textual analyses, investigating fictional depictions of the human, form the focus of each of the six chapters. Throughout this investigation, questioning and debate regarding human origin and definition occurs. Consequently, this thesis posits that, as specific and connected features of the narratives become apparent, a reformed category emerges: 'posthuman science fiction'.

The increasingly visibility of the human as an evolutionary figure is one of the dominant modes via which posthumanist themes structure the narratives of J.G. Ballard and Kurt Vonnegut. The tenets of posthumanism upheld throughout this thesis correspond to the notion of the human as an evolutionary animal, a status which impacts upon the human's relationship to both the machine and the animal. In both scenarios, a transmutable human is contrasted with any notion of fixed definitions or identities. Hence, as will be demonstrated, evolutionary principles become the primary means of comprehending the posthuman in Vonnegut and Ballard. For this reason, in addition to posthumanist perspectives, viewpoints on the human derived from evolutionary theory, including ethology and sociobiology, are utilised to discuss the texts. As a result, the human is perceived in terms of theories informed by both the 'humanities' and 'sciences'. It is at the intersection between the 'two cultures' that posthumanism is capable of providing

a bridge across the divide that C.P. Snow identified in 1959.⁸ Taking into consideration the way in which various theories can be mapped onto the thematic concerns of texts by Ballard and Vonnegut, this thesis argues that the narratives call for and necessitate an integrative approach that incorporates concepts originating from beyond the humanities. In making the shift from textual analysis to inclusion of theoretical frameworks supplied by both the humanities and the sciences, this thesis interacts with what I will refer to as the ‘posthumanities’.⁹ Comprehensive claims and concepts regarding the posthumanities form the framework amidst which the more specific and narrowly engaged arguments regarding ‘posthuman science fiction’ operate. In short, the aims and objectives of this thesis can be seen as threefold:

- a) To show how representations of the machine and the evolutionary animal, when conveyed in conjunction with the human, result in a contribution to posthumanism. In the fictions in question, this is repeatedly established via the portrayal of a decentred, non-superior human.
- b) To show how the transmutable human—shifting towards an integration of the machine and/or the evolutionary animal—contributes to the necessity of utilising evolutionary interpretations of texts.
- c) To show how the use of the various theoretical approaches contained herein contributes to the formation of a ‘posthumanities’ approach to literature.

⁸ See C.P. Snow, *The Two Cultures and the Scientific Revolution* (Cambridge: Cambridge University Press, 1959). Further discussion of this text is included in this introduction.

⁹ The ‘posthumanities’ is a methodological approach that encourages incorporation of research from both the sciences and the humanities in order to investigate theoretical questions, in this case concerning the human. Further elaboration of the term is provided in the final section of this Introduction.

The texts under scrutiny have been overlooked as indicative of posthumanism. The majority were written and published prior to the concrete emergence of posthumanism in the academic sphere., yet this does not discount the texts from harboring posthumanist stances. In his interpretation of D.H. Lawrence as a posthumanist, Wallace encounters a similar quandary, for which he provides the following explanation: ‘I maintain that posthumanism is a theoretical construct, a way of *thinking* the human, whose emergence in the latter half of the twentieth and the beginning of the twenty-first centuries does not disallow its application to earlier periods’.¹⁰ This thesis adopts a similar stance: the texts in question represent posthumanist thinking and should not be overlooked due to lack of contemporaneity. In addition, the majority have been discounted as containing a recurrent theme within the science fiction genre—evolution.¹¹ These two theoretical constructs—posthumanism and evolution—work together in the fiction of Ballard and Vonnegut to form a revised version of the human. Wallace, too, forges a connection between the evolutionary and the posthuman in his discussion of Lawrence, maintaining that: ‘there are significant connections to be made between the moment of the posthuman, with its debates around the relationship between humans, creatures and machines, and the moment of post-

¹⁰ Jeff Wallace, *D.H. Lawrence, Science and the Posthuman* (Basingstoke: Palgrave Macmillan, 2005), p. 6. Emphasis in original.

¹¹ Gary Westfahl includes ‘evolution’ as a section in his anthology, stating that ‘If theories of evolution had not been hypothesized, there could hardly be science fiction and fantasy as we know them [...] The topic remains a key symbiosis of science and literature’ (Gary Westfahl, ed. *The Greenwood Encyclopedia of Science Fiction and Fantasy: Themes, Works, and Wonders, Volume I* (Westport: Greenwood Press, 2005), p. 265. Though, as noted above, the chosen texts have not been discussed in terms of evolution, Kurt Vonnegut’s *Galápagos*, which has overt links to evolutionary themes, in terms of both title and content, has been critically assessed in terms of its evolutionary themes.

Darwinian evolutionary materialism with which I associate Lawrence'.¹² A similar statement can be applied to how the evolutionary and the posthuman are represented and interact within the fiction of Ballard and Vonnegut. In terms of both of these topics, this thesis offers an original contribution to existing scholarship by demonstrating how posthumanism, as well as the posthumanities, provides a viable methodology that can be utilised effectively to read selected narratives by Ballard and Vonnegut.

The conjoining of these two writers in a sustained theoretical analysis is unprecedented. Though the two have often been mentioned in the same breath,¹³ this has largely been due to their contemporaneity, while an explicit acknowledgement of their thematic intersections has been overlooked. This thesis can therefore be viewed as an original contribution to comparative trans-Atlantic literary studies. Selection of the two authors was determined by their intersecting thematic concerns, but also by their similar status in terms of the science fiction genre. Both authors have, at one point or another, denied their connection to the genre; and both have contributed to constructing a self-reflexive writing style that is aware of its own tropes and interaction with and influence on the genre of science fiction. The texts of both authors have also fluctuated between being identified as 'science fiction' and 'postmodern fiction', between 'sci-fi', or 'SF', and

¹² D.H. Lawrence, *Science and the Posthuman*, p. 6.

¹³ For example, in his comments on the influence of H.G. Wells' on the devolutionary visions that characterise SF, Darko Suvin comments that 'Having adopted such horizons, modern Anglophone SF from Stapledon to Heinlein or Orwell, Pohl or Aldiss, Vonnegut or Ballard had to concentrate on filling in Wells's paradigm and varying its surface' [Darko Suvin, *Metamorphoses of Science Fiction: On the Poetics and History of a Literary Genre* (New Haven: Yale University Press, 1979), p. 242]. Another example can be found in David Samuelson's chapter entitled 'Hard SF', in which he comments that 'Poetic license even permits wholesale abrogation of contemporary scientific laws and theories. J.G. Ballard, Philip K. Dick, Ray Bradbury, Harlan Ellison, and Kurt Vonnegut Jr often have disregarded the science of their day' [in *The Routledge Companion to Science Fiction*, ed. Mark Bould, Andrew M. Butler, Adam Roberts, and Sherryl Vint (London and New York: Routledge, 2009), pp. 494-499 (p. 496).].

'mainstream literature'. Roger Luckhurst considers indeterminacy a defining feature of

Ballard's work:

Ballard renders visible the space *between* frames, exposes the hidden assumptions behind the secure categorizations of literature and literary judgment. These, operating dualistically (science fiction/mainstream, popular/serious, low/high, modernist/postmodernist, literature/theory, autobiography/fiction, and so on), all tend to find their mechanisms troubled when confronting a Ballard text.¹⁴

In a similar timbre, Edward Fox notes that Ballard 'occupies the turbulent void between science fiction and the literary avant-garde, a dim region also inhabited by his mentor, William Burroughs'.¹⁵ Inhabiting an uncomfortable region of shadowy underbellies and questions unresolved, *Crash*, *Concrete Island* and *High-Rise* glance at issues one might rather avoid, possibilities that are painful to ponder, hypotheses that seem unfathomable until addressed. Such statements could also be applied to Vonnegut's texts. Striking a similar note to Luckhurst's thesis on Ballard, Kevin A. Boon notes how 'Vonnegut's fiction itself challenges conventional boundaries by traversing categories of popular and literary fiction'.¹⁶ Vonnegut operates on the margin between realism and science fiction, but also between popular interests and 'literary' questions of form and narrative technique. Jerome Klinkowitz speculates that '[t]he "effect" of his work has been unique in that he is the single American author to have won and sustained a great popular

¹⁴ Roger Luckhurst, *The Angle Between Two Walls: The Fiction of J.G. Ballard* (Liverpool: Liverpool University Press, 1997), p. xiii. Emphasis in original.

¹⁵ Edward Fox, 'Empire of the Sun', *The Nation*, 240 (1985), 89-90 (p. 89).

¹⁶ Kevin A. Boon, *Chaos Theory and the Interpretation of Literary Texts: The Case of Kurt Vonnegut* (Lampeter: Edwin Mellen Press, 1997), p. 22.

acceptance while embracing the more radical forms and themes of postmodern literature',¹⁷ Boon meanwhile concurs that 'Vonnegut's appeal dissolves elitist intellectual boundaries'.¹⁸ The tentative placement of each author in a specific genre contributes to the adjoining of these figures in the sustained analyses that follow. Finally, both authors derive from a background in scientific thinking, and, as a result, participate in furthering the impact of the 'two cultures' debate within their fiction.¹⁹ Evolution and posthumanism intersect in the texts at Snow's pivotal juncture, highlighting the problematic postures implicit in academic practice.

Posthumanism

Three distinct aspects of posthumanism inform the literary and theoretical analyses to follow: a) the human as decentred, as no longer the centerpiece of consideration and the origin of knowledge and speculation; b) the human as no longer capable of presuming implicit dominance or superiority; and, c) the human category as reconfigured in terms of the machine and the evolutionary animal.²⁰ Here, reference is to the human category as outlined in Cartesian terms and as adopted as the standard mode of perceiving the human in Western societies, what is often referred to as the 'liberal humanist subject'. For

¹⁷ Jerome Klinkowitz, 'Preface', in *The Vonnegut Effect* (Columbia, SC: University of South Carolina Press, 2004), pp. ix-xi (p. ix).

¹⁸ Kevin A. Boon, 'Introduction', in *At Millennium's End: New Essays on the Work of Kurt Vonnegut*, ed. Kevin A. Boon (Albany: State University of New York Press, 2001), (p. x).

¹⁹ More detailed discussions of the relationship between science and science fiction are provided in Chapters One and Four of this thesis.

²⁰ A detailed section explaining the use of these terms in this thesis comprises the following section.

derivation of these conceptions of the posthuman, this thesis refers to Neil Badmington's definitive statement on 'humanism':

[...] humanism is a discourse which claims that the figure of "Man" naturally stands at the centre of things; is the origin of meaning and history; is entirely distinct from animals, machines and other non-human entities; is absolutely known and knowable to "himself"; is in control of "himself"; and shares with all other human beings a unique essence.²¹

As will be demonstrated throughout this thesis, the narratives of Ballard and Vonnegut display a complication of humanist discourse. Hence, posthumanism provides a viable means of analysing and comprehending representations of the human within the narratives.²² By adopting posthumanism as a methodological lens, the human can be viewed as more transmutable than is traditionally assumed; consequently, how evolutionary themes are presented in the texts intersects with posthumanist interpretations. The texts serve as conduits through which debates regarding the human—its constitution and construction—can be enacted.

Neil Badmington's edited text entitled *Posthumanism* (2000) offers a particularly applicable position in terms of the concerns of this thesis. Castree and Nash comment on Badmington's contribution to the development of a critical posthumanist field, noting that: 'Specifically, he identifies a scission within the literature on posthumanism and affirms the value of a "critical posthumanism" that is endlessly vigilant about the ineluctable power

²¹ Neil Badmington, '... "a drowning of the human in the physical": Jonathan Franzen and the corrections of humanism', in *Subject Matters*, Special Edition: Posthuman Conditions, ed. Neil Badmington, Vol. 3, No. 2/Vol. 4, No. 1, London Metropolitan University, 2007, pp. 1-14 (p. 4).

²² It is also important to note that this thesis does not purport to be an exhaustive theorization of the posthuman, nor an attempt to track its origins and implications. Rather, this thesis is a sustained literary analysis that seeks to demonstrate an emerging posthumanist thrust in six science fiction texts written between 1959 and 1985.

but constitutive inadequacy of the signifier “human”²³ Andy Miah identifies Badmington as a ‘cultural posthumanist’,²⁴ and notes that, within the remit of this category, ‘posthumanism is the study of the collapse of ontological boundaries’.²⁵ The posthumanist features on which this thesis relies deal precisely with an investigation of what it means to be human, and of the boundaries between the human, the machine and the evolutionary animal, and the question of what happens when these limits are breached. Several other theorists focus on this aspect of the posthuman. In her seminal contribution to the discourse of posthumanism, N. Katherine Hayles notes that ‘The posthuman subject is an amalgam, a collection of heterogeneous components, a material-informational entity whose boundaries undergo continuous construction and reconstruction’.²⁶ Similarly, Elaine L. Graham comments that

Western culture may be confronting a technologically mediated “crisis” of human uniqueness, but a more satisfactory way of framing the situation might be in terms of the blurring of boundaries, a dissolution of the “ontological hygiene” by which for the past three hundred years Western culture has drawn the fault-lines that separate humans, nature and machines. Definitive accounts of human nature may be better arrived at not through a description of essences, but via the delineation of boundaries.²⁷

²³ Noel Castree and Catherine Nash, ‘Introduction: Posthumanism in Question’, in ‘Mapping Posthumanism: An Exchange’, *Environment and Planning A*, 36 (2004), 1341-1343 (p. 1342), <www.environment-and-planning.com/epa/fulltext/a36/a37127.pdf>. This collection consists of a series of discussion forums that focus on how posthumanist ideas can be incorporated into the discipline and practice of geography.

²⁴ Andy Miah, ‘Posthumanism: A Critical History’, in *Medical Enhancements and Posthumanity*, ed. B. Gordijn and Ruth Chadwick (New York: Routledge, 2007), pp. 1-28 (p. 7). Miah divides contributions to the field of posthumanism into three categories: ‘political’ (including Fukuyama, Stock and Pepperell); ‘cultural’ (Halberstrom and Livingstone, Badmington, Graham, Hayles, Haraway and Hassan); and philosophical (Ansell Pearson, Gray, Beck and Furedi).

²⁵ ‘Posthumanism: A Critical History’, p. 21.

²⁶ N. Katherine Hayles, *How We Became Posthuman: Virtual Bodies in Cybernetics, Literature, and Informatics* (Chicago: University of Chicago Press, 1999), p. 3.

²⁷ Elaine Graham, *Representations of the Post/Human: Monsters, Aliens and Others in Popular Culture* (Manchester: Manchester University Press, 2002), p. 11.

Focussing on a reassessment of boundaries implies that, even if no physical change is perceived regarding the human, an acknowledgement of what is at stake theoretically, surfaces in a discussion of how images of the evolutionary animal and the machine interact with and make an impact on posthumanism. In such versions of posthumanism, a reconsideration of the borders that define the human is called for, as well as, and in implicit conjunction with, a re-addressing of hierarchical notions, and concepts of fixity. This restructuring of approaches to the human must begin, argues Badmington, with a consideration of how such ideals have been established in Western philosophy, and, in turn, Western societies.

Badmington's approach commences with a critique of René Descartes, whom Badmington identifies as 'one of the principal architects of humanism, for, in the seventeenth century, he arrived at a new and remarkably influential account of what it means to be human'.²⁸ Descartes' *Discourse on Method* identifies the human as both non-machinic and non-animal, conclusions based upon the conceit that 'reason' is solely possessed by the human and, therefore, not accessible to the machine or the animal. Badmington explains how Descartes establishes this distinguishing human quality in a summary of the work:

Descartes asserts that if there were a machine with the organs and appearance of a monkey, "we" would not be able to distinguish between the real monkey and the fake—at the level of essence—precisely because, as far as Descartes is concerned, the

²⁸ Neil Badmington, 'Introduction: Approaching Posthumanism', in *Posthumanism*, ed. Neil Badmington (Basingstoke: Macmillan, 2000), pp. 1-10 (p. 3).

fact that neither animal nor machine could ever possess reason means that *there would be no essential difference*.²⁹

It is precisely this human-centric attitude, and this tendency to discriminate between the human and other entities, that Badmington's version of posthumanism seeks to redress.

Badmington continues:

I want to suggest, however, that the basic model articulated by Descartes—a model which might be called *humanist*, precisely because, to return to [Kate] Soper's words, it "appeals (positively) to the notion of a core humanity or common essential feature in terms of which human beings can be defined and understood"—continues to enjoy the status of "common sense" in contemporary Western culture.³⁰

The idea that the Cartesian version of what it means to be human has constructed 'humanist' philosophy, and survives and penetrates understandings of the human to this day, serves to underpin the critique that Badmington builds in the collection of essays that comprise his reader in posthumanism. Badmington, however, is not alone in recognising the impact of Cartesian philosophy on Western approaches to the human. In his book *Enlightenment Contested*, for example, Jonathan Israel comments that 'Reason and mind, for both Descartes and Poulain, are what give men their superior status to animals and define their ultimate spiritual status; reason is also what ensures a person's capacity for moral action and understanding religious doctrines'.³¹ In addition, Erica Fudge sustains a discussion of Descartes in relation to the animal:

²⁹ 'Introduction: Approaching Posthumanism', p. 3. Emphasis in original. This point is also mentioned in different terms in Neil Badmington, 'Theorizing Posthumanism', *Cultural Critique*, 53 (2003), 10-27 (p. 17). Emphasis in original.

³⁰ 'Introduction: Approaching Posthumanism', p. 4. Emphasis in original.

³¹ Jonathan Israel, *Enlightenment Contested: Philosophy, Modernity, and the Emancipation of Man, 1670-1752* (Oxford: Oxford University Press, 2006), p. 573.

Put simply, for Descartes, animals were machines. They lacked the thing that made a human distinct from an automaton: they lacked mind, and because mind and soul were absolutely inseparable in his thought, animals did not possess souls. Language is evidence of a rational soul, whereas an animal's bark, moo, mew or roar was mere instinct, signifying nothing.³²

The impact of Descartes' philosophy plays a role in discussions of the evolutionary animal included in Chapters Three and Six of this thesis. For the moment, it is worth noting that such instances help construct the relationship between humanism and posthumanism.

Cartesian humanism is the point of departure for Badmington's critique, and also an important marker to acknowledge, especially in terms of how this thesis refers to the posthuman in relation to the texts under scrutiny. If, as Badmington reminds us about Descartes, 'Reason belongs solely to the human and, as such, serves to unite the human race',³³ then what happens when the machine and/or the animal exhibits some semblance of 'reason', or, conversely, what happens when the human can be considered in terms of the evolutionary animal and/or the machine? Such queries and paradoxes plague the fictive plots to be analysed in this thesis. Posthumanism, therefore, provides a viable starting point by offering a revised method of viewing the human subject in twentieth-century science fiction. This thesis focuses on how depictions of the machine and the evolutionary animal in Ballard and Vonnegut disrupt the Cartesian model of the human.

Badmington critiques a precise trajectory, a moment in which the human is established in early-modern Western culture in a manner that continues to influence society,

³² Erica Fudge, *Animal* (London: Reaktion Books, 2002), p. 98.

³³ 'Introduction: Approaching Posthumanism', p. 4.

culture and politics in the twentieth-century societies in which the fictions to be analysed were composed. Yet, when discussing the posthuman, Badmington often reminds his readers that humanism remains an influence and cannot be completely ignored or obliterated just yet. Badmington comments that

From a perspective informed by their [Lyotard's and Derrida's] thought, the 'post-' of posthumanism does not (and, moreover, cannot) mark or make an absolute break from the legacy of humanism. 'Post-'s speak (to) ghosts, and cultural criticism must not forget that it cannot simply forget the past. The writing of the posthumanist condition should not seek to fashion 'scriptural tombs' for humanism, but must, rather, take the form of a critical practice that occurs *inside* humanism, consisting not of the wake but the working-through of humanist discourse. Humanism has happened and continues to happen to 'us' (it is the very 'Thing' that makes 'us' 'us,' in fact), and the experience—however traumatic, however unpleasant—cannot be erased without trace in an instant. The present moment may well be one in which the hegemony and heredity of humanism feel a little less certain, a little less inevitable, but there is, I think, a real sense in which the crisis, as Gramsci once put it, 'consists precisely in the fact that the old is dying and the new cannot be born' (1971, 276). The scene is changing but the guard is not. Not yet, not now. A working-through remains underway, and this coming to terms is, of course, a gradual and difficult process that lacks sudden breaks.³⁴

This lengthy excerpt draws attention to the idea that posthumanism must continue to interact with its predecessor if it has any hope at all of enacting impact, or even surviving as a theoretical discourse. In addition to relying on the established work of Badmington, the version of posthumanism posited by this thesis aligns with Cary Wolfe's recent thoughts on the subject:

[W]hen we talk about posthumanism, we are not just talking about a thematic of the decentring of the human in relation to either evolutionary, ecological, or technological coordinates (though that is where the conversation usually begins and,

³⁴ 'Theorizing Posthumanism', pp. 21-22. Emphasis in original.

all too often, ends); rather, I will insist that we are also talking about how thinking confronts that thematic, what thought has to become in the face of those challenges.³⁵

Analyses of the posthuman in Ballard and Vonnegut constituting this thesis would fit into Wolfe's discussion of a decentring of the human via evolutionary perspectives. Yet the conversation does not, in this case, 'end' with this observation. Instead of confronting thematics and the thoughts that constitute them, as Wolfe proposes to do, the version of posthumanism presented herein confronts the construction of the human as posthuman. The formation of a reconfigured human is implicit in the literature of Ballard and Vonnegut, as well as in the evolutionary viewpoints that can be read from and into the texts in question. Wolfe continues the above definition in the following manner:

[T]he point is not to reject humanism *tout court*—indeed, there are many values and aspirations to admire in humanism—but rather to show how those aspirations are undercut by the philosophical and ethical frameworks used to conceptualize them.³⁶

Wolfe's comment relates closely to Badmington's reminder that 'the glorious moment of Herculean victory cannot yet come, for humanism continues to raise its head(s)'.³⁷ In a similar sense, this thesis does not purport to commit to the Herculean effort of completely severing the many-headed 'humanist' hydra, but rather attempts an integrative approach that addresses and reaffirms the posthumanist aspects of certain scientific theories, while also acknowledging the significance and influence of such theories as emanating from a distinctively humanist foundation. It is at this juncture that this thesis interacts with the

³⁵ Cary Wolfe, *What is Posthumanism?* (Minneapolis: University of Minnesota Press, 2010), p. xvi.

³⁶ *What is Posthumanism?*, p. xvi. Emphasis in original.

³⁷ 'Theorizing Posthumanism', p. 11. A reiteration of this notion can also be found in Neil Badmington, *Alien Chic: Posthumanism and the Other Within* (London; New York: Routledge, 2004), p. 110.

possibility of constructing a ‘consilience’³⁸ between the sciences and the humanities, in terms of theory and/or approach. This, in part, is what is meant by the term posthumanities.

As Badmington remarks: ‘posthumanism marks the recognition that humanism, always already in disharmony with itself, forever sounds of other airs, other heirs’.³⁹ Offering a related sentiment, Iain Chambers comments on the shifting parameters that constitute posthumanism, noting that ‘Such a prospect does not inaugurate an anti-human universe, or announce the end of the subject, but rather, in seeking to displace the hegemonic ratio, proposes a *differing* subject, and a diverse ethics of understanding’.⁴⁰ By drawing attention to the differing subjects depicted in the selected fictions, the way in which the machine and the evolutionary animal interact with and define concepts inherent within posthumanism can be detected.

The Machine and the Evolutionary Animal

As mentioned above, this thesis interprets posthumanism via three separate, yet interrelated, distinguishing characteristics. The third of these, listed above as (c), involves separating the disintegration of the liberal humanist subject into two concepts: the ‘machine’ and the ‘evolutionary animal’, terms which thereby necessitate clear definitions

³⁸ I am using this term in direct reference to E.O. Wilson’s call to construct a bridge between the knowledges generated in diverse sectors of intellectual endeavour. See E.O. Wilson, *Consilience: The Unity of Knowledge* (London: Little, Brown, 1998).

³⁹ ‘Theorizing Posthumanism’, p. 22.

⁴⁰ Iain Chambers, *Culture After Humanism: History, Culture, Subjectivity* (London; New York: Routledge, 2001), p. 3. Emphasis in original.

within this thesis.⁴¹ By deriving definitions of the terms in question from the standard source for British English language usage—*The Oxford English Dictionary*—this thesis aligns with the ubiquitous uses of machine and animal.⁴² Referring to the *OED*, however, also gives a sense of the extensive and varied connotations of the terms, so that a relationship between everyday usage and specific definitional idiosyncrasies can be noted. In general, the definitional function of the terms ‘machine’ and ‘animal’ within this thesis is not necessarily testing or unconventional; it is, rather, the application of the terms, in relation to the human that constructs a confrontation with the quotidian. It is not, in other words,

⁴¹ By dividing the chapters of this thesis into ‘machine’ and ‘animal’, I am aware that I am redrawing attention precisely to the binary opposition that this thesis, in part, seeks to unravel. If I am operating amongst theories of the posthuman—a theoretical standpoint that attempts to negate the distinct overuse of binaristic logic in Western philosophy—then it seems contrary to my discussion to divide my thesis along such lines. Yet, while these theoretical discourses inform and guide my research in various ways, my methodology not only extends beyond any parameters such frameworks might impose, but also the main focus of my argument actually revolves around an analysis of these distinct aspects of ‘the human’ and how they are being assimilated into a definition that is post-‘human’. So, in order to analyse binary divisions, I have had to delve into binary logic. I would also add that Neil Badmington’s discussion of posthumanism entails a similar acknowledgement of paradox. In *Alien Chic*, Badmington states that

Apocalyptic accounts of the end of “Man”, it seems to me, ignore humanism’s hydra-like capacity for regeneration and, quite literally, recapitulation. In the approach to Posthumanism upon which I want to insist, the glorious moment of Herculean victory cannot yet come, for humanism continues to raise its head(s).

[Neil Badmington, *Alien Chic*, p. 110]

The duplicitous double-barrelled binary perpetuates and propagates itself, even in the midst of an attempt to theorize its transcendence. C.P. Snow addressed the same paradox in his lecture on the ‘two cultures’ debate:

The number 2 is a very dangerous number: that is why the dialectic is a dangerous process. Attempts to divide anything into two ought to be regarded with much suspicion. I have thought a long time about going in for further refinements: but in the end I have decided against [...] the two cultures is about right, and subtilising any more would bring more disadvantages than it’s worth.

[*The Two Cultures and the Scientific Revolution*, p. 9]

As Snow realized, existing systems of language and comprehension must be utilized in order to theorize emergent systems.

⁴² This is due, in part, to the fact that this thesis does not claim to thoroughly investigate the terms ‘machine’ or ‘animal’, but rather interrogates the term ‘human’, and how the relationship of the above terms interact with the human as it is illustrated in the selected narratives, thus propelling the texts into a posthumanist realm.

strictly the 'machine' or the 'evolutionary animal' that enacts a challenge, but rather the association between 'machine', 'evolutionary animal' and 'human' that invades traditional notions and accepted definitions. It is precisely these invasions and challenges that circulate within the texts of Ballard and Vonnegut, thus necessitating a theoretical engagement with representations of the human as presented in the narratives.

Machine

With reference to the machine, three main definitions are provided by the *Oxford English Dictionary*. Firstly, the machine can be defined as 'A material structure designed for a specific purpose, and related uses'⁴³; this would include items such as a building (*High-Rise*), equipment utilised in a factory (*Player Piano*) a computer (*Player Piano*), or even a car (*Crash*, *Concrete Island*). The *OED*, however, provides a more specific notion of the machine in the following definition: 'A mechanical or other structure used for transportation or conveyance',⁴⁴ which would incorporate the automobile or a spaceship (*Crash*, *Concrete Island* and *Slaughterhouse-Five*). Secondly, the *OED* offers another relevant definition for the machine: 'A material or immaterial structure, *esp.* the fabric of the world or of the universe; a construction or edifice'.⁴⁵ From this angle, the term machine can imply the immaterial

⁴³ *Oxford English Dictionary (OED) Online*, definition II, <<http://www.oed.com/view/Entry/111850?rskey=IV0KAS&result=1&isAdvanced=false#eid>> [Accessed 10 May 2011].

⁴⁴ *OED*, definition III.

<http://www.oed.com/view/Entry/111850?rskey=IV0KAS&result=1&isAdvanced=false#eid> [Accessed 10 May 2011].

⁴⁵ *OED*, definition I.a.

<http://www.oed.com/view/Entry/111850?rskey=IV0KAS&result=1&isAdvanced=false#eid>. [Accessed 10 May 2011].

structures of society, politics or government. Here, the machine has systemic and systematic implications. It is in this sense, too, that each of the texts engages with the machine as a pervasive, prevailing system. Specifically in the case of *Crash*, *High-Rise* and *Galápagos*, the machine in question assumes various forms. First, it is possible to interpret the societal system, with its technological infrastructure and concrete and steel habitats, as a machine that operates according to laws beyond human control and/or comprehension. The parameters of the human constantly shift, as the plots varyingly convey a human versus machine scenario, while also depicting an unprecedented assimilation between human and machine. In addition, the idea of a systemic machine can be equated with the concept and process of evolution. Change through adaptation can be viewed as a ‘machinic’ system over which the human has little control, but that nonetheless shapes and affects characters in an undeniable manner. Evolutionary changes are at once counter to and inseparable from the human and its actions. In this sense, the concept of an ‘evolutionary machine’ frequently emerges within the texts of Ballard and Vonnegut.

In a similar sense, the machine, as depicted by Ballard and Vonnegut, plays a role in demonstrating evolutionary themes. Bruce Mazlish outlines that, in order to more fully understand the human, ‘we must understand this complex new way in which Man’s evolution has been proceeding’.⁴⁶ The machine is often portrayed as the next evolutionary step for the human, while the animal is conveyed as either a former evolutionary prototype, or, conversely, as the subsequent evolutionary—or de-evolutionary—phase for the human.

⁴⁶ Bruce Mazlish, *The Fourth Discontinuity: The Co-evolution of Humans and Machines* (New Haven and London: Yale University Press, 1993), p. 7.

In both cases, what is typically decried as a threat to the sanctity of the human is, in Ballard and Vonnegut, consistently conveyed as a potential shift for the human. Andy Miah comments on this aspect of posthumanism:

In sum, the philosophical project of posthumanism can be marked by a set of boundaries and our cultural relationship to them. To this extent, posthumanism is a philosophical stance about what might be termed a perpetual becoming. It is also a cultural stance on the embeddedness of change within social processes. Posthumanism is indicative of a struggle of perspectives, perhaps analogous to the struggle of humanity's shedding of its biological limitations. It exhibits moments of concern about the fragility of biological decision making, which might be more broadly conceived of as a postmodern anxiety.⁴⁷

Here, Miah touches upon how posthumanism operates on the complicated divide between an anticipated process of 'becoming', and an anxiety about what such transmutations might entail. The fictions selected exhibit the parameters of such anxieties. Although theorists of the posthuman, such as Elaine Graham, for instance, tend to centre discussions of the posthuman on technoscience, digitalization of subjectivity, or the merger of the human with the technological, thereby enacting a posthuman hybrid,⁴⁸ in the selected texts, the machine engages with such issues by challenging the meaning of potential evolutionary shifts involving machines, a notion elaborated upon in the second chapter of this thesis.

Another concept utilised in terms of the human/machine equation is the 'cyborg'. Cyborg theory promulgates an integrated perspective regarding the human and its technology. Chris Hables Gray comments that

⁴⁷ 'Posthumanism: A Critical History', p. 23.

⁴⁸ See *Representations of the Post/Human*, pp. 20-37. Graham's book is 'an examination of the impact of twenty-first-century technologies—digital, cybernetic and biomedical—upon our very understanding of what it means to be human' (p. 1). This concept of the posthuman will, in part, characterise the analyses of Ballard and Vonnegut that follow.

What happened between the birth of science and today is not central for this story so much as the fact that many things did happen, particularly in terms of the tension between seeing the world and the human body as natural and seeing them as machinic. Today they are conceived as both, and this is why instead of natural bodies wielding machine tools, we have systems that incorporate both—cyborgs.⁴⁹

One of the earliest and most well-known discussions of the concept is Donna Haraway's 'A Cyborg Manifesto', where Haraway disavows the border between inert and organic, human and machinic, while also utilizing the cyborg as a potential harbinger of gender equality. Though considerations of gender do not enter this thesis, several of Haraway's ideas connect to the posthuman conception of the human, and Haraway is often considered as a major contributor to posthumanist discourse.⁵⁰ Haraway comments that

Biology and evolutionary theory over the last two centuries have simultaneously produced modern organisms as objects of knowledge and reduced the line between humans and animals to a faint trace re-etched in ideological struggle or professional disputes between life and social science.⁵¹

Haraway's essay focuses on the dismantled barrier between not only human and machine, but also human and animal, a feature that laid the groundwork for the emergent parameters of a cyborg theory that encompasses border disavowal from various angles. For this reason, Haraway's ideas play a role in reading the posthuman, specifically in Ballard's texts.

⁴⁹ Chris Hables Gray, *Cyborg Citizen: Politics in the Posthuman Age* (London; New York: Routledge, 2001), p. 177.

⁵⁰ Andy Miah, for instance, credits Haraway's essay as an influence on posthumanism, stating that 'Haraway's work in fashioning the contemporary use of the term *cyborg* is a crucial component of how posthumanism has developed in the last twenty years' ('Posthumanism: A Critical History', p. 8. Emphasis in original).

⁵¹ Donna J. 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), pp. 149-181 (p. 152).

The basic premise from which this thesis operates is that the machine, as represented in the texts under scrutiny, calls attention to the inadequacy of the humanist model for comprehending the human. As Larry McCaffery comments: 'Clearly these developments in technology and critical theory require some radical rethinking of several of the basic paradigms and metaphors through which West Europeans have viewed themselves since the time of the ancient Greeks'.⁵² Echoed in McCaffery's statement is Hayles' urging for a definition aligning with the present moment. Hayles, has 'sought to emphasize the role that narrative plays in articulating the posthuman as a technical-cultural concept',⁵³ and states that '[t]he literary texts often reveal, as science cannot, the complex cultural, social, and representational issues tied up with conceptual shifts and technological innovations'.⁵⁴ Hayles views literary texts as imperative in constructing an understanding of how we interpret the transformations and discoveries occurring within society. Her integrative approach manifests itself in the way she takes cybernetic, scientific, technological and literary and philosophical accounts into consideration when discussing the posthuman. The texts in question investigate the implications of such a reworking, invoking the posthuman subject as a result.

Evolutionary Animal

Before integrating concepts of evolution and the animal, it is worth investigating how the 'animal' is defined by the *OED*. The first definition provided is: 'A living organism which

⁵² Larry McCaffery, *Storming the Reality Studio: A Casebook of Cyberpunk and Postmodern Science Fiction* (Durham and London: Duke University Press, 1991), p. 7.

⁵³ *How We Became Posthuman*, p. 22.

⁵⁴ *Ibid*, p. 24.

feeds on organic matter, typically having specialized sense organs and a nervous system and able to respond rapidly to stimuli; any living creature, including man',⁵⁵ a scientific and inclusive definition that incorporates the human into a conception of the animal. It is precisely this boundary crossing that this thesis identifies in the fiction of Ballard and Vonnegut, and within the discourse of posthumanism and evolutionary theory. This thesis speaks of the animal, but always in relation to the human as part of the continuum of living organisms. This is not to say that the texts in question, or the implications of posthumanism, cannot or do not extend beyond this definition, but, for the purposes of this thesis, the animal is considered as a defining aspect of the human. For this reason, the term evolutionary animal—sometimes termed 'evolutionary human animal'—has been adopted in order to convey the specific relationship between human and animal as understood throughout this thesis. The texts analysed herein rarely discuss or depict the animal in a literal sense. Instead, the idea of the human as animal is primarily incorporated via evolutionary ideas. In addition, since this thesis considers perspectives from the sciences, where the evolutionary human animal is frequently viewed on the basis of biological investigation, the term 'biological' will be used in conjunction with the evolutionary animal at times.

The *OED*, however, provides two further definitions on the animal: one that challenges the ubiquity of the animal, and another that uses the term in a derogatory sense. First, the animal is defined as such: 'In ordinary or non-technical use: any such living

⁵⁵ *OED*, definition 1.a.

<http://www.oed.com/view/Entry/273779?rkey=Nqmhf2&result=1&isAdvanced=false#eid>. [Accessed 10 May 2011].

organism other than a human being. Freq. applied specifically to a mammal, as opposed to a bird, reptile, fish, etc.’.⁵⁶ Here, the distinction between human and other mammals is drawn, yet, repeatedly, the fictions in question deny this division. Second, the following description of ‘the animal’ is provided: ‘A person viewed as or likened to an animal; (in non-pejorative sense) a human being, an individual, a ‘creature’ (now *rare*); (with negative connotations) a person without human attributes or civilizing influences; one who is very cruel, violent, or repulsive’.⁵⁷ Here, the animal is utilised as a negative aspect of the human, a view of the human that is supported by events in Ballard’s *High-Rise*, for instance, but that requires unpacking in order to be evaluated in light of posthumanism.⁵⁸ If one views the division between human and animal as blurred, the human becomes less capable of assuming superiority and is decentred as the site of conclusive knowledge and experience. The above use of the term animal becomes merely a contrivance that seeks to expel unsavoury traits exhibited by the human by casting them to the realm of another life-form, in this case the animal. If the animal is already part of the human, however, such rejections become unsustainable. Cary Wolfe comments upon the necessity of such a shift:

Rather than freezing and reontologizing the difference between reason and its other (all its others), I argue that the other-than-human resides at the very core of the human itself, not as the untouched, ethical antidote to reason but as part of reason itself—the “trace” that inhabits it, so to use Derrida’s term. By thus keeping open the incalculability of the difference between reason/the human and its other/the

⁵⁶ OED, definition 1.b.

<http://www.oed.com/view/Entry/273779?rskey=Nqmhf2&result=1&isAdvanced=false#eid>. [Accessed 10 May 2011].

⁵⁷ OED, definition 2.a. listed as ‘In extended use’.

<http://www.oed.com/view/Entry/273779?rskey=Nqmhf2&result=1&isAdvanced=false#eid>. [Accessed 10 May 2011].

⁵⁸ Further investigation of the representations and implications of this definition of the animal is provided in Chapter Three of this thesis.

nonhuman (animal), we may begin to approach the ethical question of nonhuman animals not as the other-than-human but as the *infrahuman*, not as the primitive and pure other we rush to embrace as a way to cure our own existential malaise, but as part of us, *of us*—and nowhere more forcefully than when reason, “theory,” reveals “us” to be very different creatures from who we thought “we” were.⁵⁹

Here, Wolfe conveys the idea that those entities considered ‘inhuman’, especially the ‘animal’, in this case, can actually be considered as constitutive of the human itself, and this re-assessment thereby neutralises the tendency to draw distinctions between entities such as human and animal. It should be noted here, too, that Wolfe’s discussion of posthumanism—in part encompassing the notion that the posthuman does not end with an analysis of technologies, or the emergent technological sphere in which the human finds itself mired, but can also inform and be represented by issues surrounding the animal—borders closely on the arguments that inform this thesis. This thesis argues that the texts analysed contribute to the formation of a posthumanist thematic extending beyond the machine, so that a parallel strand of posthuman also emerges: the posthuman comprising the animal. Through the presence of both a technological and an animal possibility for the trajectory of the amorphous human category, a new definition of the human emerges. Cary Wolfe comments on this development:

On the one hand, then, the question of the animal is embedded within the larger context of posthumanist theory generally, in which the ethical and theoretical problems of nonhuman subjectivities need not be limited to the form of the animal alone (as our science fiction writers have dramatized time and again). On the other hand, the animal possesses a specificity as the object of both discursive and institutional practices, one that gives it particular power and durability in relation to other discourses of otherness. For the figure of the “animal” in the West (unlike, say,

⁵⁹ Cary Wolfe, *Animal Rites: American Culture, the Discourse of Species, and Posthumanist Theory* (Chicago: University of Chicago Press, 2003), p. 17. Emphasis in original.

the robot or the cyborg) is part of a cultural and literary history stretching back at least to Plato and the Old Testament, reminding us that the animal has always been especially, frightfully nearby, always lying in wait at the very heart of the constitutive disavowals and self-constructing narratives enacted by that fantasy figure called “the human”.⁶⁰

Wolfe identifies the category of the human as perceptually constructed via cultural influence. Also, however, the above passage indicates the complexities involved in discussing ‘nonhuman subjectivities’, whether this be in terms of the animal or some other entity. Francis Fukuyama states that ‘Much of the work done in animal ethology over the past few generations has tended to erode the bright line that was once held to separate human beings from the rest of the animal world’.⁶¹ Fukuyama’s interpretation of the human is that the species possesses a distinctiveness that concedes superiority, so any turn towards dismantling the borders between the human and the animal, for instance, would be viewed as unproductive. In marked contrast, the results of an interpretative strategy such as that established by Wolfe do not necessarily entail the survival of the human, per se. What is involved, instead, is the renegotiation of boundaries. In the fictions chosen, the result is a human that, especially in terms of evolutionary theory, must acknowledge its lack of special or privileged status. Transmutability thus becomes a foundational principle through which to understand the human. Hence, considerations of the human as a ‘species’ must be re-negotiated in terms of transmutation. The human does not constitute the category of ‘species’; it must be understood in terms of being acted upon by ever-

⁶⁰ *Animal Rites*, p. 6.

⁶¹ Francis Fukuyama, *Our Posthuman Future: Consequences of the Biotechnology Revolution* (London: Profile Books, 2002), p. 144.

changing forces—it is being ‘species-ified’. Wallace points out how Darwin’s *The Origin of Species* also interacts with this fluctuating understanding of the term:

there may be only one sense in which we can state unequivocally that the *Origin* is about the origin of species. According to this view, the “origin” lies neither in the power of a Creator, nor in material genetic changes within organisms, but in the human systems of taxonomy, and therefore of language, which define “species” — a concept of species which is “morphological” rather than “biological”, at the same time expressing Darwin’s distance from the practice of “speciesism” *per se* [...] For him [Darwin], the effort was to make categorisation coincide with complex but actual existences and developments in nature.⁶²

Even for Darwin, then, the term ‘species’ was adopted in order to facilitate categorical ease and discussion, though in fact the complexity of a species is ultimately uncontainable within such terminology. Here, Darwinian evolutionary theory coincides with how the concept of ‘species-ified’ underlines the concerns of this thesis as it traces the narrative scope of the posthuman.

When discussing posthumanism, Miah contends that:

posthumanism is consistent with perspectives in animal ethics that seek to diminish the meaning and value of claims that species boundaries should have any bearing on our moral commitment to other life forms. This broad understanding also offers insights into how contemporary visions of posthumanism are informed by conversations on cyborgs or automata, which have often involved a reflective stance on humanity’s distinct and special place in the world. In this fashion, a crucial premise of posthumanism is its critical stance towards the prominence afforded to humanity in the natural order. In this sense, the “post” of posthumanism need not imply the absence of humanity or moving beyond it in some biological or evolutionary manner. Rather, the starting point should be an attempt to understand what has been omitted from an anthropocentric worldview, which includes coming to terms with how the Enlightenment centring of humanity has been revealed as inadequate.⁶³

⁶² ‘Introduction: difficulty and defamiliarisation—language and process in *The Origin of Species*’, pp. 5-6.

⁶³ ‘Posthumanism: A Critical History’, p. 2.

Miah identifies the breaching of species boundaries as fundamental to an understanding of the posthuman. If one deems the human as a separate species, anthropocentric perspectives posit the distinctiveness of the human, which leads to notions of superiority. Here, Miah also succeeds in demonstrating how species crossovers relate to the theoretical shifts occurring as the machine invades the human category. Finally, Miah manages to touch upon how shifts implicit within a posthumanist perspective do not necessarily entail precise bodily or biological transformations—although these can be involved—but rather depend upon a theoretical restructuring, specifically regarding the origin of the concept of a secular supremacy for the human: the Enlightenment. This moment is called into question by posthumanism.

If the human cannot definitively be considered the most ‘progressed’, the most ‘advanced’ species on the planet, then the premise upon which the philosophical tradition of humanism is based is called into question, a dilemma discussed by Matthew Calarco in *Zoographies* when he recognizes that

the commitment to biological continuuism we find in such thinkers as Darwin, Dawkins, and de Waal is an essential path for thought, inasmuch as it both decenters the human and offers the possibility of uncovering traits among animals that were long assumed to be the province of human beings. The philosophical task we are presented with in the face of such discoveries consists in marking and recording these ruptures within philosophical discourse and in extending and deepening them so as to displace the anthropocentric-epistemological thrust that has dominated and continues to dominate the overwhelming majority of philosophical inquiry [...] in rethinking the way in which the human-animal distinction has been drawn, we are confronted with the fact that Western philosophy—which from its origins in Greek thought has grounded itself on a hierarchical version of the human-animal

distinction—is constituted irreducibly and essentially as an anthropocentric ethical and political discourse.⁶⁴

Calarco seeks to redress anthropocentrism, a point which returns discussion to a consideration of the second aspect of the *OED* definition listed above that identifies the animal as a transgressive aspect of the human. Such a description relies upon an anthropocentric view of the world, one that derives perspectives from the human outwards. In terms of posthumanism, however, a non-anthropocentric standpoint must be constructed, as suggested by Calarco. He takes the need to reassess the borders of the human one step further, however, in his suggestion that scientific approaches to the human contribute to the dismantling of boundaries between human and animal, thereby forging a ‘two cultures’ continuum. In other words, in tune with the above statements provided by Miah and Calarco, as well as with the outward-looking features of posthumanism, the shift towards non-anthropocentrism can be reinforced and complemented by an incorporation of perspectives from beyond the humanities. Joan Gordon affirms this concept, noting how ‘Sf, the literature of change [...] is particularly well suited as an exploratory site for animal studies: evolution is a science of change, concerned with the developing relationships among different species, while ethology and the study of consciousness examine animal and human cognition’.⁶⁵ Ballard and Vonnegut’s texts contain concepts related to the evolution-derived disciplines of ethology and sociobiology, and allusions to these

⁶⁴ Matthew Calarco, *Zoographies: The Question of the Animal from Heidegger to Derrida* (New York: Columbia University Press, 2008), p. 63.

⁶⁵ Joan Gordon, ‘Animal Studies’, in *The Routledge Companion to Science Fiction*, ed. Mark Bould et al (London; New York: Routledge, 2009), pp. 331-340 (p. 331).

disciplines are present within several of the narratives in question; hence, reference to these theories recurs throughout this thesis, thereby providing novel approaches to the narratives.

Scholarly approaches to 'animal studies' have not completely overlooked scientific discourse either. Recent interest in the question of the animal has established 'animal studies', or what Sherryl Vint identifies as 'human-animal studies (HAS)'⁶⁶ as a prominent subject of interest in humanities scholarship.⁶⁷ In her most recent book, *Animal Alterity: Science Fiction and the Question of the Animal* (2010), Vint provides detailed analyses of several science fiction texts that represent or interact with questions concerning the animal, thus establishing an important link between HAS and sf. On this topic, Vint asserts that

sf and HAS have much to offer one another: sf has a long history of thinking about alterity, subjectivity and the limits of the human which is precisely the terrain explored by much HAS, while HAS offers new and innovative ways to think about sf's own engagement with such issues, situating it within a material history in which we have always-already been living with "alien" beings.⁶⁸

This statement aligns with the concerns of this thesis, except instead of focussing on the interaction between HAS and sf, this thesis focuses on the relationship between science fiction, posthumanism and evolutionary theory. The animal, in this case, is not the sole focal point for demonstrating the meaning of these relationships, but rather one aspect of a triangulated association that plays a role in constructing the posthuman. In this sense, the approach adopted by this thesis is markedly distinct from that of Vint. Although Vint

⁶⁶ Sherryl Vint, *Animal Alterity: Science Fiction and the Question of the Animal* (Liverpool: Liverpool University Press, 2010), p. 1. This thesis does not purport to offer a comprehensive analysis of 'animal studies' scholarship, but only concerns itself with how animal studies interacts with posthumanism, and with science fiction.

⁶⁷ This thesis, however, diverts from the route of conceiving of the animal in literature via the lens of critical theory, and instead seeks to address the perspectives deriving from 'scientific' investigations of the human animal.

⁶⁸ *Animal Alterity*, p. 2.

intersects with the concerns of this thesis in foundational premise, the methodological approach adopted in her book remains limited to theoretical perspectives derived from critical theory, leaving acknowledgement of what is an extensive body of scientific discourse untouched.

Making the (R)evolutionary Leap

It is imperative to note that this thesis understands the incorporation of machine and the evolutionary animal in relation to the human as an event that is typically and frequently fraught with paranoia, resistance and, ultimately, victory on the part of the human.

Badmington outlines this paradigm in his discussion of Hollywood science fiction films of the 1950s, such as *Invasion of the Body Snatchers* (1956) and *The Blob* (1958), where ‘the aliens were always defeated, frequently by a uniquely “human” quality’.⁶⁹ Badmington claims that the overt reaffirmation of humanism within these narratives indicates that a ‘crisis in humanism’ was occurring—‘Humanism was in trouble: Hollywood knew this but took refuge in denial’⁷⁰—and, in analysing the repetitive staging of threat and victory,

Badmington comments that ‘Man faced a threat from an inhuman other: “his” position at the centre of things was at risk’.⁷¹ How the texts in question invert the notion of such ‘risk’ is an underlying focus of this thesis. Both the machine and the animal have been continually utilised in the quest for contrastive definitions of the human. It is such ruptures between human and ‘inhuman’ that posthumanism, in part, seeks to redress by asking just

⁶⁹ ‘Introduction: Approaching Posthumanism’, p. 8.

⁷⁰ ‘Introduction: Approaching Posthumanism’, p. 8.

⁷¹ *Ibid*, p. 8.

how stable the human category is, but also just how divergent the human really is in terms of the machine and/or the animal. Via fictional scenarios, a theoretical debate unfolds regarding the human, its origins, its relationships to the objects and entities that surround it, and its categorical status in Western societies.

In terms of the selected fictions by Ballard and Vonnegut, the stage is usually devoid of the literal 'alien'.⁷² Instead, the 'alien' is contained within the machine or the evolutionary animal. J.G. Ballard pioneered the notion of science fiction moving from explorations of 'outer space', to investigations of 'inner space',⁷³ and the selected texts incorporate this shift in terms of locating the 'alien' as already inhabiting the human. It is not the human that is invaded by the machine or the evolutionary animal, but, rather, the traditional, Cartesian, liberal humanist method of viewing the human that is under threat. Graham touches upon this idea: 'The issue at stake [...] is not about how accurate or adequate a particular identity appears to be but how identities get formed; how definitions of what it means to be human get produced and circulate through practices of *representation*'.⁷⁴ In the posthumanist narratives of Ballard and Vonnegut, however, this supposition is overturned. The human is confronted with the machine and the animal, and, often, instead of resisting, undergoes a transition that results in a transmutation. Again, evolutionary theory plays a role in comprehending the depiction of such shifts, specifically

⁷² An exception is Vonnegut's *Slaughterhouse-Five*, which includes the Tralfamadorian aliens.

⁷³ This term will be discussed in more detail in Chapter One of this thesis.

⁷⁴ *Representations of the Post/Human*, p. 37. Emphasis in original.

in terms of adaptation.⁷⁵ The texts in question have a levelling effect on the machine, the animal and the human.

In terms of this recurring thematic, it is notable that texts of posthuman science fiction analysed in this thesis do not portray the conceptual transitions from human to human-machine, or human-animal as terrorizing or dreadful.⁷⁶ There is, instead, a semblance of acceptance, sometimes even inevitability, causing the texts to stand apart from many previous and contemporaneous works of fiction. Like Badmington, Miah comments upon the tendency for fiction to centre on the 'fear' of invasive 'others':

Often, stories about the transformation of biology and the rise of machines are imbued with narratives of fear and uncertainty, which reveal a sense of human insecurity arising from sharing the world with the living machine, or the cyborg. Such alien beings are frequently represented as a threat to humanity, calling into question their identity and powers of domination.⁷⁷

A narrative that conveys the human in confrontation with either the animal or the machine, yet depicts this confrontation as a struggle that must be overcome or a situation that must be avoided, would be deemed 'humanist', whilst narratives that, like those selected herein, convey the encounter as either welcome or at least curious and worthy of further un-anxious, unfettered consideration, can be considered 'posthumanist'. Acceptance of what is traditionally deemed 'inhuman' thus becomes a defining feature of posthumanist texts. The ongoing theme of acceptance in the face of transmutation is a recurrent thread that connects the narratives of Ballard and Vonnegut.

⁷⁵ This concept will first be elaborated upon in Chapter Two of this thesis.

⁷⁶ Even in Ballard's *Crash*, for instance, which for critics was initially considered replete with horrific and terrifying prospects, the characters exemplify an acceptance of their predicament, however perverse a reader might perceive it. This theme of acceptance is discussed in detail in Chapter Two of this thesis.

⁷⁷ 'Posthumanism: A Critical History', p. 12.

Posthumanism and Science: Paradox and Resolution

One of the paradoxes of attempting to operate a methodology contingent on posthumanism and 'scientific' theory is that, as discussed above, posthumanism attempts to investigate the problematic implications of humanist philosophy, yet it is from within the texts of pre-Enlightenment thinkers, including Descartes and Francis Bacon, that understandings of science akin to today's practice were forged. Erica Fudge traces the modern approach to science back to Francis Bacon and Descartes. She comments that

The emergence of more modern concepts of science can be seen most clearly in the work of two key figures of early modern thought: Sir Francis Bacon and René Descartes. Both of these men, in different ways, changed the ways in which science was understood and [...] they both had a fundamental impact on the ways in which we live with and think about animals.⁷⁸

What becomes implicit in Bacon and Descartes' approach to science is the superiority of the human and its perspective. The question remains as to whether posthumanism can incorporate scientific theories into its remit without negating its project of dismantling human authority and centrality. Nick Bostrom recalls that

The Age of Enlightenment is often said to have started with the publication of Francis Bacon's *Novum Organum*, "the new tool" (1620), which proposes a scientific methodology based on empirical investigation rather than a-priori reasoning. Bacon advocated the project of "effecting all things possible," by which he meant using science to achieve mastery over nature in order to improve the living condition of human beings.⁷⁹

⁷⁸ *Animal*, p. 93.

⁷⁹ Nick Bostrom, 'A History of Transhumanist Thought', in *Academic Writing Across the Disciplines*, ed. Michael Rectenwald & Lisa Carl (New York: Pearson Longman, 2011), pp. 1-30, <http://www.nickbostrom.com/papers/history.pdf> [Accessed 15 March 2011], p. 2.

Here again, is a point with which the texts analysed herein take notice. Rather than elevate the human to a position of mastery and supremacy, in which humanity can dictate how 'progress' and 'improvement' can be implemented for the human species, the fiction of Ballard and Vonnegut questions the Baconian stance by suggesting that the human is just another organism, with no authority to commit altering decisions or implement drastic changes. The human in these fictions is, rather, subject to its surroundings and thereby a subject of the environment. The idea of transmutation and subjection to environmental forces informs the characters' behavior and development much in the same way that theories of evolution describe the human.

Just as posthumanism cannot completely sever its connection to its forebear, humanism, so too does this argument recognise that the application of scientific principles to a posthumanist methodological practice is fraught with paradox. Bostrom reminds us that

The Enlightenment is said to have expired as the victim of its own excesses. It gave way to Romanticism and to latter-day reactions against the rule of instrumental reason and the attempt to rationally control nature, such as can be found in some postmodernist writings, the New Age movement, deep environmentalism, and parts of the anti-globalization movement. However, the Enlightenment's legacy, including a belief in the power of human rationality and science, is still an important shaper of modern culture.⁸⁰

So, while the posthumanist aspects of Ballard and Vonnegut's fiction extend beyond the remit of humanism's assumptions about the human and its role in the world, the legacy of the scientific method and its influence on culture remains a pivotal plot device that shows

⁸⁰ 'A History of Transhumanist Thought', p. 4.

little sign of fading, and rather stands as a representation of how both the human and the posthuman are shaped by knowledge garnered from the humanities and the sciences. As will be reiterated in the analyses to follow, the specific scientific concept on which this thesis focuses—evolution—enables a view of the human as transmutable.

The methodological features of posthumanism itself, however, can allay certain aspects of the potential paradox involved in aligning scientific theories with posthumanist tenets. Badmington says that ‘The figure of “Man” has, accordingly, been cut down to size, opened to intimate invasions from what once lay only on the side of the inhuman’.⁸¹ Invasions illustrated in Ballard and Vonnegut involve the machine and the evolutionary animal. Through a lens informed by transmutability, the concept of evolution intersects with posthumanism. The human animal, as understood through the evolutionary lens, is subject to evolutionary and environmental forces, often beyond its control, including the catalyst of evolutionary change: adaptation. Evolution at once decentres the human from occupying the central sphere of control and determination, and realigns the human’s relationship to the ‘animal’. If the human is the same as the other animals it witnesses on the planet Earth, all subject to evolutionary and adaptive shifts, then what semblance of authority can it claim and how can a humanist philosophy be maintained?

Bostrom contends that ‘After the publication of Darwin’s *Origin of Species* (1859), it became increasingly plausible to view the current version of humanity not as the endpoint

⁸¹ Neil Badmington, ‘Cultural Studies and the Posthumanities’, in *New Cultural Studies: Adventures in Theory*, ed. Gary Hall and Clare Birchall (Edinburgh: Edinburgh University Press, 2006), pp. 260-272 (pp. 263-64).

of evolution but rather as an early phase',⁸² thus invoking the role that evolutionary theory plays in constructing a perspective on the human that comprises transmutability. Once one begins to perceive the human as changeable, as only one phase in a long evolutionary line of predecessors, and eventual successors, the static definition of the human offered by humanist philosophy begins to look inadequate. By extension, too, the machine and the animal begin to be perceived as potential, or former, stages for the human, rather than intruders trespassing where they do not belong. Wallace notes that 'Since Darwin, we have had a century and a half to accommodate ourselves to the notion that we exist in a continuum with organic nature. The confrontation of our kinship with machines feels like a much more recent event, and it reminds us of how deep, in literary humanism, is the taboo separating the human from the mechanical'.⁸³ Here, Wallace identifies the kinship with the evolutionary animal, as well as the machine, that is upheld by posthumanist thought and, I argue, can also be detected in the work of Ballard and Vonnegut. Evolution plays a role that not only offers a continual reformation of the 'species', but also anchors the posthuman in scientific discourse. The parameters of human transmutation are not completely knowable or predictable, but they are interpretable through the lenses of posthumanism and evolutionary theory, conjunctions that introduce us into the realm of the posthumanities.

⁸² 'A History of Transhumanist Thought', p. 3.

⁸³ D.H. Lawrence, *Science and the Posthuman*, pp. 4-5.

The Posthumanities Approach

Throughout this thesis, texts that derive their information from scientific approaches and sources have been utilized in conjunction within critical discussions of the texts themselves. When establishing his argument for D.H. Lawrence as representing posthumanist thinking in his fiction, Wallace proclaims:

These provocative questions are not meant to instal the superiority of science over literature. They seek, rather, to test out how far certain assumptions about the “human” value of the literary might have become inscribed, at the expense of science, in the thinking, even of those of us who study the interrelation of science and literature and pride ourselves on our interdisciplinarity.⁸⁴

This thesis is aligned with Wallace’s statement, in that the argument herein seeks to dismantle the borders between science and the humanities, while also simultaneously re-ascribing value to both intellectual enterprises. As there is a present deficit of scientific understanding and inclusion in literary studies, however, arguments tend to focus on how science might be reincorporated into an overall understanding of the human, as well as of literature. Wallace asks:

How deep is our investment in the humanistic project of literary studies, and to what extent does this investment rest upon a set of inherited assumptions about science? Intuitively, it feels like a good thing to continue to speak up for the “humanistic”; but what is this position worth if it rests upon a caricature of science-as-Other? What, in fact, might the term “humanist” mean in this context?⁸⁵

Wallace posits that posthumanism is a means of thinking through these questions, and this thesis agrees with this suggestion. Moving beyond the facets of posthumanism that enable thinking beyond the humanist, this thesis also posits that a methodological

⁸⁴ D.H. Lawrence, *Science and the Posthuman*, p. 4.

⁸⁵ *Ibid*, p. 4.

interrelationship be forged within academia. In order to begin addressing such issues, a brief foray into the wider debate surrounding the division of academic cultures and knowledge—often referred to as the ‘two cultures’ debate—is required. This interlude serves to situate the thesis in terms of wider academic debates, but also achieves the goal of describing the backgrounds and intentions, as well as the impact and, potentially, the innovation associated with utilising scientific theories throughout the analyses comprising this thesis. Entertainment of such discussions ties together the larger academic concerns of this thesis, and indicates further research that can occur in conjunction with the themes discussed herein.

In a Rede Lecture delivered at Cambridge University in 1959, C.P. Snow outlined the basic parameters of what has come to be known as ‘the two cultures debate’.⁸⁶ The foundational principles of Snow’s argument rest on the following observation:

I believe the intellectual life of the whole of western society is increasingly being split into two polar groups [...] at one pole we have the literary intellectuals [...] at the other scientists. Between the two a gulf of mutual incomprehension—sometimes (particularly among the young) hostility and dislike, but most of all lack of understanding.⁸⁷

⁸⁶ Numerous facets of Snow’s argument remain relevant to academics today, and it should be noted that another common term used to describe the debate today is ‘the science wars’. Taking place primarily between scholars in the social sciences and researchers and theorists in physics, the ‘science wars’ have blossomed in manifold directions. According to Harry Collins and Jay A. Labinger: ‘[T]he majority of scientists who have been paying serious attention to science studies have been physicists’. In their book, *The One Culture*, ‘all but one of the active scientists are physicists’ [From ‘Introduction’, in *The One Culture?: A Conversation about Science* ed. Jay A. Labinger and Harry Collins (Chicago: University of Chicago Press, 2001), pp. 1-10 (p. 8).] Although this thesis does not purport to offer a comprehensive analysis of this complex and multi-dimensional debate, it is worth considering how the analyses that comprise this thesis fit into the wider academic questions surrounding the debate. The selected fictional texts by Ballard and Vonnegut, I argue, represent both sides of the debate, and thus serve as fertile foundations for establishing a theoretical discussion of the issues first outlined by Snow.

⁸⁷ C.P. Snow, *The Two Cultures and the Scientific Revolution* (Cambridge: Cambridge University Press, 1959), pp. 3-4.

Snow pinpoints a debate that continues to rage within academic disciplines. His statement that ‘The degree of incomprehension on both sides is the kind of joke which has gone sour’⁸⁸ is just as relevant today as it was more than fifty years ago. Dissatisfaction with the ongoing lack of integrated knowledge produced in academia continues to be expressed by academics on both sides of the divide. Brian Baxter notes that

The biological knowledge crucial to the formulation of a workable and effective conservation policy is not readily available to, or understood by, individuals schooled in social sciences and humanities which have deliberately cut themselves off from all contact with the natural sciences.⁸⁹

The debate raises the question of how the humanities might incorporate scientific discoveries into their knowledge base.⁹⁰

⁸⁸ *The Two Cultures*, p. 11.

⁸⁹ Brian Baxter, *A Darwinian Worldview: Sociobiology, Environmental Ethics and the Work of Edward O. Wilson* (Aldershot; Burlington, VT: Ashgate, 2007), p. 85.

⁹⁰ Such concerns plagued the mathematician and physicist, Alan Sokal, who, arguably, brought the ‘science wars’ directly to the threshold of humanities scholarship with his attack on the accountability of postmodern theory. An event known now as ‘The Sokal Hoax’ reinstated the involvement of literary studies in the two cultures debate. In his controversial deception, Sokal exposed what he considers the misinformed nature of postmodernist thinking. The hoax occurred in 1996 and consisted of Sokal’s submission of an article—intentionally sated with errors and misguided conclusions—to a renowned publication, *Social Text*, which proceeded to publish the work. This was followed by Sokal’s subsequent admission of the deliberate nonsensicality of the article, and his claim that the publication of the piece is indicative of the imprudent thinking occurring within humanities scholarship at present. Sokal, along with theoretical physicist Jean Bricmont, outlines the argument in the following passage:

For some years, we have been surprised and distressed by the intellectual trends in certain parts of American academia. Vast sectors of the humanities and the social sciences seem to have adopted a philosophy that we shall call, for want of a better term, “postmodernism”: an intellectual current characterized by the more-or-less explicit rejection of the rationalist tradition of the Enlightenment, by theoretical discourses disconnected from any empirical test, and by a cognitive and cultural relativism that regards science as nothing more than a “narration”, a “myth” or a social construction among many others.

[Alan Sokal and Jean Bricmont, *Intellectual Impostures: Postmodern Philosophers’ Abuse of Science* (1997; London: Profile, 1998), p. 1]

Sokal also claims that ‘One of my goals here is to make a small contribution toward a dialogue on the Left between humanists and natural scientists—“two cultures” which, contrary to some optimistic pronouncements (mostly by the former group), are probably further apart in mentality than at any time in the past fifty years’ (*Intellectual Impostures*, p. 248). Perhaps Sokal would agree with C.P. Snow’s claim that

Omission of scientific knowledge from humanities scholarship is often sustained by appealing to fears of 'determinism', 'reductionism' and a 'universalising perspective'. The conditions resulting in this omission raise a series of anxieties and concerns: If 'science' perceives humanity as universally similar, then how can difference play a part? What of those who do not 'fit' into the model provided by science and the cultural model it purports?⁹¹ If humans can be reduced to their constituent parts, then what of questions and explanations that stretch beyond the quantitative? If humans can be perceived as predetermined, then how can we construct a notion of 'free-will' and 'individual agency'? Such questions contribute to an atmosphere of active questioning and scholarship and should be upheld as relevant theoretical quandaries worthy of investigation.

Posthumanism is an example of scholarship that engages with these questions. As Wallace asks: 'what if we are dependent upon a materialist science to take us where literary cultures refuse to go? What if materialism itself is, in this light, both an imaginative and a humanizing doctrine?'.⁹² Hayles, too, identifies the role that the scientific text might play in relation to the literary. Inverting her earlier comment that literary texts perform operations inconceivable within scientific genres, Hayles iterates that

The scientific texts often reveal, as literature cannot, the foundational assumptions that gave theoretical scope and artifactual efficacy to a particular approach [...] From my point of view, literature and science as an area of specialization is more than a subset of cultural or a minor activity in a literature department. It is a way of

'Literature changes more slowly than science. It hasn't the same automatic corrective, and so its misguided periods are longer',⁹⁰ and count postmodernism as one of those periods of misguidance.

⁹¹ In this regard, there is also an ingratiating fear of subscribing to philosophies that might support eugenics. Bostram touches upon this aspect when he recognises that 'The holocaust left a scar on the human psyche. Determined not to let history repeat itself, most people developed an instinctive revulsion to all ideas appearing to have any kind of association with Nazi ideology' ['A History of Transhumanist Thought', p. 6].

⁹² D.H. Lawrence, *Science and the Posthuman*, p. 5.

understanding ourselves as embodied creatures living within and through embodied worlds and embodied words.⁹³

Both Wallace and Hayles, in their explicit discussions of posthumanism, envision a space in which interaction between literature and science can occur in a conciliatory manner.

Conversely, by formulating theories and questions in conjunction with a distinct and deliberate dismissal of scientific discoveries and theories, the potential for constructive conclusions is obscured and humanities scholarship fuels the ongoing 'war' between the sciences and the humanities.

To take a pertinent example, a theory utilised in this thesis in order to interpret how the machine and the evolutionary animal are displayed in the fictions under scrutiny is sociobiology, which frequently comes under the microscope in debates regarding the 'two cultures'. In his evaluation of Richard Dawkins, Rod Preece comments that

Selfish gene theory and sociobiology are to be understood as intrinsic elements of utilitarian, determinist, and materialist theory [...] On the foundations of sociobiology, there can be no spontaneity, no creativity in the animal (or for that matter, the human) world. The animal is blindly following pre-ordained rules. All "will", other than that directed to genetic interests, is expunged from the animal.⁹⁴

Preece expounds a common criticism of evolutionary approaches to the human: lack of scope for free-will and creativity. Such a perspective often characterizes critical accounts of science. Preece's critique of the selfish gene theory continues, deeming Dawkins' ideas as 'narrowly conceived',⁹⁵ and largely draws offense from Dawkins' enduring insistence on

⁹³ *How We Became Posthuman*, p. 24.

⁹⁴ Rod Preece, 'Selfish Genes, Sociobiology and Animal Respect', in *Animal Subjects: An Ethical Reader in a Posthuman World*, ed. Jodey Castricano (Waterloo, Ontario: Wilfrid Laurier University Press, 2008), pp. 39-62 (pp. 45-46).

⁹⁵ 'Selfish Genes, Sociobiology and Animal Respect', p. 56.

calling the human a machine. It is at this intersection that posthumanism can intervene; in posthumanist thought, it is acceptable to occupy the categories of human, animal and machine simultaneously. Regarding the 'two cultures' debate, however, the current state of affairs involves a mutual incomprehension, followed by a mutual dismissal that is laced often with a deep-seated resentment and aversion. The reaction of those outside of the humanities to recent theories and methodologies within its remit indicates a certain trend tending towards the dismissive. Evolutionary biologist, Robert Foley, for instance, comments that

[R]eligion does not provide the main intellectual opposition to Darwinian thought, the growth of social theory and cultural relativism have produced ideas that are equally antagonistic towards evolution.⁹⁶

Such statements create an atmosphere of mutual antipathy. For all that scientific practitioners are becoming dismissive of humanities perspectives, so too are humanities scholars dismissive of scientific discoveries.

The primary issue raised by the 'two cultures' debate is that certain fields of research and knowledge ignore the discoveries of another, often to their detriment. Speaking of Snow's lecture, Jay A. Labinger and Harry Collins state that 'His strongest objections, perhaps, were to the asymmetry he perceived: for a scientist to be unfamiliar with the literary canon was to be considered uncultured by the establishment, whereas the converse was accepted virtually as a matter of course'.⁹⁷ This unequal distribution may have

⁹⁶ *Humans Before Humanity: An Evolutionary Perspective*, p. 3.

⁹⁷ Harry Collins and Jay A. Labinger, 'Introduction: "The Science Wars" and "The Two Cultures"', in *The One Culture?: A Conversation About Science*, Harry Collins and Jay A. Labinger, ed. (Chicago: University of Chicago Press, 2001), pp. 1-10 (p. 2).

concerned Snow; today, it effects the operations of knowledge exchange. Richard Dawkins comments that

Today the theory of evolution is about as much open to doubt as the theory that the earth goes round the sun, but the full implications of Darwin's revolution have yet to be widely realized [...] Philosophy and the subjects known as "humanities" are still taught almost as if Darwin had never lived. No doubt this will change in time.⁹⁸

Snow pinpoints this theme as well: when speaking of literary intellectuals, he comments that '[t]hey are impoverished too—perhaps more seriously, because they are vainer about it. They still like to pretend that the traditional culture is the whole of "culture", as though the natural order didn't exist. As though the exploration of the natural order was of no interest either in its own value or its consequences'.⁹⁹ A similar statement is offered by Joseph Lopreato. Pertaining to his discussion of scientific development since the Copernican Revolution, he comments that

according to an axiom of the emerging scientific enterprise, the theoretical success or failure of a discipline was to a measurable extent a function of the degree to which it acknowledged the wider scientific boundaries and the orienting principles conjoined with them.

Unfortunately, the axiom has a poor standing in social science, and predictably social thought has of late progressed but slowly if at all toward a general theory of the sociocultural system, as many schools in various disciplines maintain.¹⁰⁰

As the above statements indicate, the misunderstanding that continues to characterize the 'two cultures' debate revolves around errors in representation and misperceptions of information. As C.P. Snow noted in 1959,

⁹⁸ *The Selfish Gene*, p. 1.

⁹⁹ *The Two Cultures*, pp. 13-14.

¹⁰⁰ *Human Nature and Biocultural Evolution*, pp. 1-2

The clashing of two subjects, two disciplines, two cultures—of two galaxies, so far as that goes—ought to provide creative chances. In the history of mental activity that has been where some of the break-throughs came. The chances are there now. But they are there, as it were, in a vacuum, because those in the two cultures can't talk to each other.¹⁰¹

This predicament is becoming a growing field of interest, from Collins' and Labinger's *The One Culture*, to Edward Slingerland's recent publication, *What Science Offers the Humanities: Integrating Body and Culture: Beyond Dualism* (2008). Slingerland's book highlights these issues in the current academic atmosphere, drawing attention to the increasing prescience of Snow's lecture and the relevance of addressing scientific thinking within literary practice. This thesis draws attention to these debates in order to situate the analytical work performed in the field of 'posthuman science fiction' amidst the wider debates that impact upon academic scholarship. It is here that the posthumanities emerge as a potential future trajectory for literary studies.

Science fiction, this thesis argues, offers a stage on which the 'two cultures' debate can be performed, but also a space in which the necessity of conciliating a 'one-culture'¹⁰² is made apparent. For this reason, this thesis adopts Darko Suvin's definition of science fiction, wherein he identifies 'SF' as distinct from other extrapolative genres, such as folk and fantasy. Science fiction, nonetheless, has a complicated history of definitional difficulty. Carl Freedman asserts that 'No definitional consensus exists'¹⁰³ that might serve to strictly define science fiction as a form or genre. In a similar vein, Willis E. McNelly consents that

¹⁰¹ *The Two Cultures*, p. 16.

¹⁰² This is the title of a book by Harry Collins and Jay A. Labinger, outlining the 'science wars'. See below.

¹⁰³ Carl Freedman, *Critical Theory and Science Fiction* (Middletown, CT: Wesleyan University Press, 2000), p. 13.

Science fiction probably has as many definitions as literature itself, and whether it's simply a pulp genre striving for respectability, or future-scene fiction, or speculative fiction (as Robert Heinlein and Harlan Ellison would have it), or a branch of imaginative literature which deals with the interface between man and machine, concerned with ideas and their impact rather than character—or any of a hundred other definitions—makes little difference.¹⁰⁴

The science fiction texts selected for this thesis, however, demonstrate links to the posthumanities. The texts conjoin methodological approaches from the sciences and the humanities, thus demonstrating a resolution of the 'two cultures' debate in their content and form. The texts, in other words, operate according to a 'rational' discourse that derives from a 'scientific' basis, a constraint that is in keeping with the definition of science fiction offered by Suvin, whose consideration of the term 'SF' necessitates a rational framework and explanatory element. In his attempt to 'lay the basis for a coherent poetics of SF', Suvin argues 'for an understanding of SF as the literature of *cognitive estrangement*',¹⁰⁵ noting that estrangement is a '*formal framework of the genre*'.¹⁰⁶ Suvin explicates his claim in the following statement: '*SF is, then, a literary genre whose necessary and sufficient conditions are the presence and interaction of estrangement and cognition, and whose main formal device is an imaginative framework alternative to the author's empirical environment*'.¹⁰⁷ Suvin carries on, reaffirming SF's distinct trajectory away from any form that does not take cognition as a

¹⁰⁴ Willis E. McNelly, 'Kurt Vonnegut as Science-Fiction Writer', *Vonnegut in America: An Introduction to the Life and Work of Kurt Vonnegut*, ed. Jerome Klinkowitz and Donald L. Lawler (New York: Delacorte Press, 1977), pp. pp. 87-96 (p. 89).

¹⁰⁵ Darko Suvin, *Metamorphoses of Science Fiction: On the Poetics and History of a Literary Genre* (New Haven: Yale University Press, 1979), p. 4. Emphasis in original.

¹⁰⁶ *Metamorphoses*, p. 7. Emphasis in original.

¹⁰⁷ *Metamorphoses*, pp. 7-8. Emphasis in original.

foundational principle, such as folktale or fantasy.¹⁰⁸ Luckhurst's explanation of Suvin further explicates the significance of the concept of 'cognitive estrangement':

"Cognitive estrangement" is the shorthand term that defines Suvin's stance: the reader enters an imaginative world different (estranged) in greater or lesser degree from the empirical world around the writer or reader, but different in a way that obeys rational causation or scientific law (it is estranged cognitively).¹⁰⁹

In this way, the definition proposed by Suvin relates to this thesis' connection with the posthumanities. In the texts under consideration, theoretical stances from both sides of the 'two cultures' debate are represented. Suvin acknowledges the ability of science fiction to sit comfortably on the complex border between the 'sciences' and the 'humanities', when he comments that 'Significant SF denies thus the "two-cultures gap" more efficiently than any other literary genre I know of [...] It demands [...] that the critic be a Darwinist and not a medicine-man'.¹¹⁰ Suvin's definition is thus essential to the thrust of the argument herein. Through the genre of science fiction, a posthumanities approach can begin to emerge, one that takes into account theories from both halves of the 'two cultures'.

Complications arise when one considers that a large part of the hesitancy generated from within the humanities to utilise scientific knowledge and theories revolves around a fundamental critique of 'reason' and, more specifically, 'the scientific method'.¹¹¹ In such critiques the scientific method itself is treated as circumspect, as impossible to exist outside

¹⁰⁸ *Metamorphoses*, paraphrase, p. 8.

¹⁰⁹ *Science Fiction*, p. 7.

¹¹⁰ *Metamorphoses*, p. 36.

¹¹¹ See, for instance, Donna J. Haraway, *Primate Visions: Gender, Race and Nature in the World of Modern Science* (New York; London: Routledge, 1989); Sandra G. Harding, *The Science Question in Feminism* (Ithaca, NY: Cornell University Press, 1986); Helen Longino, *Science as Social Knowledge: Values and Objectivity in Scientific Inquiry* (Princeton, N.J.: Princeton University Press, 1990); and Evelyn Fox Keller and Helen E. Longino, *Feminism and Science* (Oxford: Oxford University Press, 1996).

the bounds of cultural determinism. Lynda Birke, for instance, claims that ‘what scientists produce is culturally and socially embedded’.¹¹² On the other hand, however, the foundational procedures of scientific practice consider questioning as the basis of tradition. Carl Freedman comments on this, noting how

For science—even though many of its practitioners have historically thought their way forward in empiricist and, later, specifically positivist terms—possesses a fundamentally critical, nonempiricist charge in its ceaseless questioning of the given, in its refusal to repose in any material or intellectual status quo.¹¹³

Science, in other words, constructs itself by and through the questions it asks and answers.

When Richard Dawkins states, towards the beginning of *The Selfish Gene*, that ‘Darwin provides a solution, the only feasible one so far suggested, to the deep problem of our existence,¹¹⁴ he is expressing the continual doubt that denotes scientific enquiry; it is a doubt laced with an almost arrogant certitude—quantitative methods are genuinely accepted as reliable—but it is nonetheless a doubt that accounts for the possibility that another theory of greater feasibility may eventually emerge. The inherent questioning that characterises the process of scientific investigations is also perhaps why evolutionary biologist Robert Foley elected to fashion the chapter headings of his book—*Humans Before Humanity*—as questions. The divisions pose queries such as ‘What are Human Beings?’ or ‘When did we Become Human?’. As Foley comments: ‘To ask the question “when did we become human?” virtually traps one into the answer “it depends upon what you mean by

¹¹² Lynda Birke, *Feminism and the Biological Body* (Edinburgh: Edinburgh University Press, 1999), p. 14.

¹¹³ Carl Freedman, *Critical Theory and Science Fiction* (Middletown, CT: Wesleyan University Press, 2000), pp. 3-4.

¹¹⁴ Richard Dawkins, *The Selfish Gene* (1976: Oxford: Oxford University Press, 2006), p. 12.

human”’.¹¹⁵ Questioning and doubt underlining scientific enquiry has fuelled a culture of enquiry, perhaps no more so than concerning the question of the origin and meaning of the human. So while the investigations posed in scientific practice are necessarily provided by what the dominant culture and society deems worthy of examination, the results of those questions are grounded in evidence-based conclusions that permit further and perpetual questioning.

Posthumanism is always, as Badmington stresses, about a cultural anxiety. Similarly to Badmington’s identification of a ‘crisis in humanism’ in the Hollywood science fiction films of the 1950s, Geoff King and Tanya Krzywinska denote the role of science fiction in establishing a cultural commentary when they claim that ‘In imaginatively figuring the future (or an alternative past or present) science fiction films can be seen to some extent as measures of the hopes and fears of the cultures in which the films are produced and consumed’.¹¹⁶ Here, again, a justification for intermingling trans-disciplinary theories arises: the concerns regarding ‘science’ and the human can be registered in the fictions under scrutiny, hence necessitating a glance at contemporaneous texts produced from various angles of approach, including literature, popular science and scientific discourse.¹¹⁷ This

¹¹⁵ Robert Foley, *Humans Before Humanity: An Evolutionary Perspective* (Oxford; Cambridge, MA: Blackwell Publishers, 1995), p. 51.

¹¹⁶ Geoff King and Tanya Krzywinska, *Science Fiction Cinema: From Outerspace to Cyberspace* (London: Wallflower, 2000), p. 7.

¹¹⁷ In his discussion of Charles Darwin’s *The Origin of Species*, Jeff Wallace attributes some of Darwin’s ideas and linguistic turns to the influence of his cultural moment: ‘As many commentators have noted in different ways, Darwin’s language in the *Origin* is not so much his own as that of his culture: and again, not so much a unitary thing as a tapestry of discourses, borrowed or inherited, with varying degrees of mindfulness, from the evolutionism already evident in much social theory [...] as well as from a common stock of rhetoric which

thesis works towards establishing an analysis that bridges the gap between humanities scholarship and scientific discourse, in this case specifically that surrounding evolution. Science fiction is the raw material that facilitates a demonstration of these theories and intersections, and posthumanism is the methodological approach that enables the reconfiguration of perspectives to occur.

Chapter One of this thesis provides a brief introduction to J.G. Ballard, positioning his texts and subsequent critical reactions in relation to ‘science’ and ‘science fiction’, as well as providing a brief foray into Ballard’s concept of ‘inner space’.

By recognising the conflation of inert and organic entities that characterises Ballard’s texts, Chapter Two analyses how the texts of *Crash*, *High-Rise* and *Concrete Island* represent a posthumanist vision of the human in terms of the machine. In *Crash*, this is often represented via the involvement of the human and the machine in sexual mergers while, in the latter two texts, conflation of human and machine remains conceptual and metaphorical, yet influential in terms of establishing a posthumanist habitation for the human. What is also taken into account throughout this chapter is the ongoing influence of Ballard’s ‘nightmare logic’: an ambiguous space in which conclusive definitions of terms—including ‘nightmare’ and ‘dream’—are presented as perpetually paradoxical, slipping along the

he raided in order to make the text the object of popular consumption he wanted it to be’ [Jeff Wallace, ‘Introduction: difficulty and defamiliarization—language and process in *The Origin of Species*’, in *Charles Darwin’s The Origin of Species: New Interdisciplinary Essays*, ed. Jeff Wallace and David Amigoni (Manchester: Manchester University Press, 1995), pp. 1-46 (pp. 12-13)]. Although contrasting in content, the sentiment that culture influences written texts of a specific era is inherent in Wallace’s comment, and relates also to the relevance of identifying how cultural theories circulating at the time might have impacted upon fictional publications by Ballard and Vonnegut.

boundary-breaking soap suds of Ballard's chromium bowers.¹¹⁸ Finally, the machine takes on evolutionary connotations via its role in constructing the potential future trajectories and adaptations of the twentieth-century human, both physically and theoretically speaking. Manfred E. Clynes and Nathan S. Kline's concept of 'participant evolution' provides a lens through which an interpretation of the machine and of evolution in Ballard's trilogy can be constructed.

Chapter Three moves the discussion to the evolutionary human animal as it is displayed in the trilogy, focussing on how ethological, sociobiological and evolutionary thinkers provide one possible method of interpreting the three texts. Concepts such as the 'human zoo' are pivotal to this reading, and further complicate the human's relationship to both the animal and the machine. In this reading, the machine becomes synonymous with the systemic machine, against which the human animal positions itself. Hence, the paradoxes of posthumanism are raised by focusing on the varied ways in which the relationships between human, evolutionary animal and machine are aligned and realigned. The space between the human and the evolutionary animal is reduced by the human characters' behaviour as 'animalistic', but also as evolutionarily influenced, especially when read in conjunction with thinkers like Desmond Morris and Frans de Waal. It is here that a posthumanities methodological approach asserts its most overt presence in this thesis.

¹¹⁸ This allusion is in reference to a passage from *Crash* that will be analysed in Chapter Two: 'The distant headlamps, refracted through the soap solution jetting across the windows, covered their bodies with a luminescent glow, like two semi-metallic human beings of the distant future making love in a chromium bower' (*Crash*, p. 133). It is particularly illustrative of the way in which the text harmonises the space between organic and inert entities.

In a format and style similar to Chapter One, Chapter Four briefly introduces Kurt Vonnegut's relationship to the themes and discussions of this thesis. Humanism, posthumanism, science and science fiction are addressed in order to lay the foundations for the analyses that follow.

Chapter Five traces representations of the machine in the three selected texts by Vonnegut. *Player Piano* utilises both the literal and the metaphorical or societal machine, as an illustrative device influencing characters throughout the novel. Also, however, the divisive, paradoxical terrain between the human and the machine is traversed in this text, thereby calling attention once again to the ongoing fluctuations that characterise investigations into the posthuman. Attached to this paradox is an anxiety of the posthuman, and *Player Piano*, *Slaughterhouse-Five* and *Galápagos* each investigate the meanings and potential interpretations associated with the fear of becoming 'non-human'.

Finally, Chapter Six locates the evolutionary animal in the same three texts, especially focussing on the idea of the human and the zoo, the complicated relationship between human and animal and the overt evolutionary metaphors and allusions that typify Vonnegut's *Galápagos*. This chapter argues that Vonnegut's presentation of the evolutionary animal is (r)evolutionary—not only is the animal presented as an implicit and unquestioned element of the human, but the change that this perspective renders is pivotal to interpreting the human in the twentieth century, and necessitates an incorporation of posthumanist thinking.

A brief concluding chapter reiterates how the general arguments concerning science fiction texts and posthumanism relate to the wider debate surrounding the 'two cultures'

by directing attention to the significance of developing a posthumanities methodology within literary studies.

Chapter One

J.G. Ballard: Science and Science Fiction

Ballard's fiction is a useful site from which to begin an examination of the decentred human, as throughout specific narratives, the categorical markers that traditionally define the human are continually called into question. In his discussion of genre and J.G. Ballard, Roger Luckhurst comments that 'Ballard's texts [...] open and expose the binaristic logic of the border'.¹ As mentioned in the Introduction to this thesis, Luckhurst's premise revolves around Ballard's fiction as inhabiting 'an angle between two walls' and he evokes the division between science fiction and postmodern fiction—low art and high art—as a rift that Ballard transcribes and transcends in various ways. In his book, Luckhurst discusses 'Ballard's peculiar interstitiality', in a project that 'demonstrates the need to generate multiple ways of bridging the discomfiting gaps that cleave his fictions'.² Following from Luckhurst's premise, this thesis intends to approach Ballard's oeuvre from the spaces 'between' the evolutionary human animal and the human machine. Jeannette Baxter suggests the possibility of viewing 'Ballard's work as a prolonged experiment in the representation of tensions and ambiguities inherent in contemporary history, culture and language'.³ I would include in a list of these tensions the question of the human machine and the human evolutionary animal—ambiguously presented categories that have the potential to radically alter conceptions of the human category.

¹ Roger Luckhurst, *The Angle Between Two Walls: The Fiction of J.G. Ballard* (Liverpool: Liverpool University Press, 1997), p. 30.

² *The Angle Between Two Walls*, pp. xvii.

³ Jeannette Baxter, 'Introduction', *J.G. Ballard*, ed. Jeannette Baxter (London: Continuum, 2008), pp. 1-14 (p. 8).

In the process of identifying such an interpretative possibility, however, I am also aware of and in agreement with Luckhurst's insistence on avoiding the assignment of a comprehensively thetical reading of Ballard: Luckhurst notes that 'important modulations, even profound differences, emerge to question any account that would wrap up the series (the entire series of Ballard's work) within a singular frame'.⁴ As Luckhurst points out, while Ballard's texts tend to revisit similar thematic concerns—as well as repeating, even, character names—it is important to acknowledge the manifold possible interpretations that the texts offer. Admittedly, Ballard's fiction spans a vast array of themes, and this thesis views the texts through only one selected lens. While the argument contained herein highlights the idea that the machine and the evolutionary animal are over-arching thematic concerns that could be read into texts beyond those that I will consider, I am not espousing the idea that this is the only or the privileged avenue of approach that should be applied unquestioningly to Ballard's oeuvre.

Expanding upon Luckhurst's premise, this thesis demonstrates how Ballard's thematic concerns construct an ambiguous space of questioning and debate—as the divisions between human and machine, and human and animal, as well between theories of determinism and constructivism and, more broadly speaking, the 'sciences' and the 'humanities' are opened up via his narratives. Ballard's texts project a slow transition from one mode of perception to another. Despite the title of *Crash*, for instance, the text ultimately portrays a process of adaptation and assimilation. The same could be said for both *High-Rise* and *Concrete Island*. The texts are not about the car or the machine, or the

⁴ 'The Angle Between Two Walls', p. 48.

crash or the revolt, exclusively; they are also about the systemic shift occurring in society—the shift from an exclusive definition of the human to one that incorporates the machine, and the shift from humanism to posthumanism.

Ballard's 'Science'

Roger Luckhurst points out that 'a literary text (especially a science fiction one) can investigate science, but could not conform to strict scientific protocols without losing its fictivity'.⁵ Here, one can return to Suvin's identification of science fiction as a literature of cognition and estrangement. The 'scientific' rules of an imagined society may be in adherence with the actual world of the reader, but the distance between the fictional arena and the reader's reality results in an estrangement. It is in the balance between science and fiction, between determinism and constructivism that Ballard's fictions lie.

David N. Samuelson comments that

Much of sf only uses science minimally, as a launching platform for social satire or psychological fables, with aesthetic complications. Poetic license even permits wholesale abrogation of contemporary scientific laws and theories. J.G. Ballard, Philip K. Dick, Ray Bradbury, Harlan Ellison, and Kurt Vonnegut Jr often have disregarded the science of their day.⁶

While this statement does not claim that Ballard entirely lacks interaction with scientific principles, it does imply that he primarily overlooks it as a source of fictional intrigue. This may in fact be the case, overtly speaking, but I would argue that Ballard's texts contain a fundamental, underlying engagement with scientific theories, most notably those that fall

⁵ *The Angle Between Two Walls*, p. xvi.

⁶ David N. Samuelson, 'Hard SF', in *The Routledge Companion to Science Fiction*, ed. Mark Bould, Andrew M. Butler, Adam Roberts, and Sherryl Vint (London and New York: Routledge, 2009), pp. 494-499 (p. 496).

under the remit of the biological sciences. As the fictions comprise a reconfiguration of conventional binary divisions, the categorical inscriptions that inform our academic practices are challenged.

This is not the first sustained analysis of how Ballard's texts contribute to a dialogue between the sciences and the humanities. Brian Baker, for example, speaks specifically of how Ballard's early novels, including *The Drowned World* (1962), *The Drought* (1964) and *The Crystal World* (1966), demonstrate evolutionary ideas. Baker makes the general point that

Ballard subverts science fiction tropes and conventions in order to produce a different kind of "space fiction", namely one which explores the deep implications of time, space, psychology and evolutionary biology in order to dismantle anthropocentric narratives and, in turn, open up alternative ways of experiencing, and conceiving of, contemporary human subjectivity.⁷

Baker discusses the theme of evolution in relation to Ballard's early fiction, but I argue that the topic extends beyond this era and occupies a pivotal function in several other texts. In narratives like *High-Rise*, *Concrete Island* and *Crash*, for instance, the intersection between evolutionary theory and the dismantling of human superiority is prominently depicted.

Baker speaks of the way in which

Ballard's science fiction is immersed not only in Freudian depth psychology but, like the science fiction of H.G. Wells to which he refers, also in a modern evolutionary biology that fatally undermines the idea of human dominion over the Earth.⁸

⁷ Brian Baker, 'The Geometry of the Space Age: J.G. Ballard's Short Fiction and Science Fiction of the 1960s', in *J.G. Ballard*, ed. Jeannette Baxter (London: Continuum, 2008), pp. 11-22 (p. 13).

⁸ 'The Geometry of the Space Age', p. 20.

Via the theme of evolution, Ballard's texts not only enter a realm of posthumanist philosophical implications, but also engage with theories of evolutionary adaptation—a theory that, like posthumanism, presupposes the human as non-fixed.

The texts to be discussed in this chapter explore the suburban and urban landscapes of the twentieth century, placing characters and events in fictional situations and representing potential reactions. In this respect, Ballard has a unique perspective on his role in relation to the fiction he produced. In an interview with David Livingstone, Ballard comments:

I see myself as a neutral observer [...] All I'm doing is looking out and seeing what's going on in the street. And all my fiction is a fiction of analysis, where I've tried to identify certain ongoing trends that seem to be apparent [...] I could see all these social trends, with an entertainment culture that thrived on violence and sensation and a rootless urban and suburban population with nothing to do other than play with their own psychopathic fantasies. Modern technology, whether in the form of a motor car or a motorway or a high rise building, was empowering peoples' worst impulses [...] the technology involved pandered to and facilitated the eruption of people's worst natures.⁹

Though it seems that the above statement is discussing technology only, what it also achieves is a reaffirmation of the perspectives offered by what Martin Amis terms as Ballard's 'concrete-and-steel period':¹⁰ how the evolutionary human animal is interacting with the machine. Ballard's statement invokes a scientific platform for composing fiction.

⁹ David Livingstone, 'J.G. Ballard: Crash: Prophet With Honour', *Spike Magazine* (1 August 1999), <<http://www.spikemagazine.com/0899ballard.php>>, [Accessed 03.12.2009].

¹⁰ Martin Amis writes that *The Atrocity Exhibition* (1970) heralded Ballard's most problematical phase, his concrete-and-steel period. Training the electronic eye of the SF fantasist on the landscape of the present day, Ballard became the prose-poet of the tabloid headline, the operating theatre, and the motion sculpture of the highways' [From Martin Amis, 'Hello America by J.G. Ballard', in *The War Against Cliché: Essays and Reviews, 1971-2000* (London: Jonathan Cape, 2001), pp. 104-106 (p. 104). Originally published in *The Observer*, 1981]. *Crash*, *High-Rise* and *Concrete Island* can be considered a trilogy within the concrete-and-steel phase. See also Martin Amis, 'From Outer Space to Inner Space', *The Guardian*, 25 April 2009.

The writer constructs an environment, diegetically speaking, and fills that environment with fictional representations. Ballard's attitude toward creating a narrative is thus one of observation and hypothesis, or experiment and result. Such approaches connect him to a scientific mindset.

Ballard himself considers scientific approaches to the human in several reviews assembled in his *A User's Guide to the Millennium*. When Ballard discusses Steve Jones' *The Language of the Genes*, for instance, he notes that 'Even our belief in our uniquely privileged place in nature is under challenge'.¹¹ In such statements, Ballard demonstrates an awareness of current scientific developments. Threats posed to the human by scientific discoveries that delimit the 'humanist' notion of a supreme and dominant human are illustrated in Ballard's fictions and intersect with the assertions of posthumanism. Luckhurst comments that "The "history" of science fiction is marked, not by science at the "cutting edge", but by mediations and meditations on the scientific'.¹² This thesis argues that Ballard's texts are examples of such meditations.

Ballard's Science Fiction

J.G. Ballard makes a convincing argument for science fiction as an influential genre:

One can almost make the case that science fiction, far from being a disreputable minor genre, in fact constitutes the strongest literary tradition of the twentieth century, and may well be its authentic literature. Within its pages, as in our lives, archaic myth and scientific apocalypse collide and fuse. However naively, it has tried to respond to the most significant events of our time—the threat of nuclear war, over-population, the computer revolution, the possibilities and abuses of medical

¹¹ *A User's Guide to the Millennium*, p. 154.

¹² *The Angle Between Two Walls*, p. 23.

science, the ecological dangers to our planet, the consumer society as benign tyranny – topics that haunt our minds but are scarcely considered by the mainstream novel.¹³

Here, Ballard identifies science fiction as a literary venue in which questions about science and the ontology of the human can be examined. Another comment made by Ballard also closely relates to the dominant concerns of this chapter, namely how the machine plays a significant role in demarcating the definitional parameters of the human. At one point, Ballard stated that ‘The social novel is reaching fewer and fewer readers, for the clear reason that social relationships are no longer as important as the individual’s relationship with the technological landscape of the late twentieth century’.¹⁴ In the second chapter of this thesis, the role of the machine in Ballard’s trilogy will be investigated. First, a key concept that underlines any examination of Ballardian tropes must be established; it is a concept defined by the author himself: ‘inner space’.

Inner Space

Highlighting the concept of the ‘inner’ is in keeping with Ballard’s intentions regarding the future direction of the science fiction genre. In ‘Which Way to Inner Space?’, he states that

The biggest developments of the immediate future will take place, not on the Moon or Mars, but on Earth, and it is inner space, not outer, that needs to be explored. The only true alien planet is Earth. In the past the scientific bias of science fiction has been towards the physical sciences—rocketry, electronics, cybernetics—and the emphasis should switch to the biological sciences.¹⁵

¹³ *A User’s Guide to the Millennium*, p. 194.

¹⁴ *A User’s Guide to the Millennium*, p. 205.

¹⁵ J.G. Ballard, ‘Which Way to Inner Space?’, in *A User’s Guide to the Millennium* (Hammersmith: Harper Collins, 1996), pp. 195-198 (p. 197).

The mission to explore inner space is upheld in Ballard's texts, a point on which critics frequently focus. Istvan Csicsery-Ronay, Jr. says that Ballard 'proposed that SF be re-envisioned as a genre exploring psychological "inner space", in overt opposition to the scientific power-fantasies of establishment SF'.¹⁶ Similarly, Martin Amis comments:

He kept asking: what effect does the modern setting have on our psyches—the motion sculpture of the highways, the airport architecture, the culture of the shopping mall, pornography and technology? The answer to that question is a perversity that takes various mental forms, all of them extreme. When he broke away from rigid SF, Ballard said that he was rejecting outer space for 'inner space'. This has always been his arena.¹⁷

In the discussions of representations of the machine that comprise this chapter, the term 'inner space' will be utilised when discussing the shifting conception of 'outer space'—the external, physical world—in relation to 'inner space' as a formerly sanctified realm occupied by the human. In reading Ballard's concrete-and-steel trilogy, especially in terms of the machine, 'outer space' merges with 'inner space'. This concept becomes pivotal to the reading of Ballard's trilogy that runs throughout this thesis. It is also important, however, to connect the complex concept of 'inner' as 'psychological' with the notion of an 'inner' space that can be more loosely interpreted as a dismantling of formerly rigid boundaries. Toby Litt comments that

Despite Ballard's insistence on the parapsychological [...] it seems to me as though he has no interest in the Freudian subconscious as such. His interchangeable heroes [...] do not have rich mental lives. But as soon as one takes the external world which they inhabit *as* their subconscious, as soon as one sees sublimation as being replaced

¹⁶ Istvan Csicsery-Ronay Jr., 'Science Fiction/Criticism', in *A Companion to Science Fiction*, ed. David Seed (Oxford: Blackwell, 2007), pp.43-59 (p. 49).

¹⁷ Martin Amis, 'From Outer Space to Inner Space', *The Guardian*, 25 April 2009, <<http://www.guardian.co.uk/books/2009/apr/25/jg-ballard-martin-amis>> [Accessed 3 March 2010]

by efflorescence, by architecture, then one begins to see Ballard aright. In this reading, there remains no barrier between external and internal worlds.¹⁸

Litt highlights the dismantling of borders between inner and outer that will be discussed in terms of Ballard's trilogy. Also, however, he reaffirms the supposition that the psychological aspects of Ballard's texts can be just as easily interpreted and translated into a more general discussion of external influences on the human subject. Michel Delville touches upon this notion when he remarks that

Ballard's investigation of the mind-deadening effects of suburban domestic life [...] is linked with an understanding of the fundamental failure of technology to provide any more than a precarious social and psychological status quo; one whose instrumental rationality is eventually eradicated by the violence it has sought to repress.¹⁹

In a similar manner, Luckhurst comments that 'Ballard's condensed novels are fractured records of the psyche bending under the pressure of new technologized milieux'.²⁰ In each case, environmental factors are connected to psychological ones. The wider architecture of Ballard's landscapes becomes pivotal to a discussion of the human: concrete and steel, technology and machines are illustrated as influencing the human subject.

In this thesis, Ballard's concept of 'inner space' will be utilised in various ways. First, the 'inner' will be referred to in terms of the biological body of the human, while the 'outer' references the external, social or physical environment. In this sense, the 'outer' refers to the set of principles and values received from external stimuli, including the culture in which the human resides. The 'inner', on the other hand, more closely aligns with the

¹⁸ Toby Litt, 'Foreward', in *J.G. Ballard*, ed. Jeannette Baxter (London: Continuum, 2008), p. ix.

¹⁹ Michel Delville, *J.G. Ballard* (Plymouth: Northcote House in association with the British Council, 1998), p. 51.

²⁰ *Science Fiction*, p. 151.

'biological', including the physical characteristics of the human body, its genetic makeup and its evolutionarily-inherited behaviours and imperatives. In this way, Ballard's texts interact with science fiction themes without the necessity of travelling to alternate time periods or environments. It is the human itself that presents an 'alien' in need of exploration.

The idea that Ballard constructs a science fiction that interacts with the present moment—a 'present' that has been perpetually suspended as his fiction remains relevant to a twenty-first century audience—is in keeping with his overall feelings towards the genre itself. In a 1967 interview, he states: 'For me, science fiction is above all a prospective form of narrative fiction; it is concerned with seeing the present in terms of the immediate future rather than the past'.²¹ Baudrillard pushes this idea forward when he takes *Crash* as an example of 'this science fiction that is no longer one', commenting that

Crash is *our* world, nothing in it is "invented": everything in it is hyper-functional, both the circulation and the accident, technique and death, sex and photographic lens, everything in it is like a giant, synchronous, simulated machine: that is to say the acceleration of our own models, of all models that surround us, blended and hyperoperational in the void.²²

Ballard also intimates this idea in his 1995 'Introduction' to *Crash*, for instance, when he comments that '[w]e have annexed the future into the present',²³ and, '[i]t is now less and less necessary for the writer to invent the fictional content of his novel. The fiction is

²¹ George Macbeth, 'The New Science Fiction', Interview with J.G. Ballard, originally recorded on the *Third Programme* of the BBC on 1 February 1967, <<http://www.jgballard.ca/interviews/interviews.html>> [Accessed 22 October 2009].

²² Jean Baudrillard, *Simulacra and Simulation*, trans. Sheila Faria Glaser (Ann Arbor, MI: University of Michigan Press, 1994), p. 125. Emphasis in original.

²³ 'Introduction', p. i.

already there. The writer's task is to invent the reality'.²⁴ As fiction and reality blur into inseparable concepts, so too, inner and outer can be seen crashing into one another, building one another and trafficking the emergent borderless zone that dismantles formerly divisive perceptions.

²⁴ 'Introduction', p. i.

Chapter Two

Concrete, Steel and Machines in J.G. Ballard's Trilogy

In the 'Project for a Glossary of the Twentieth Century', Ballard defines science fiction as 'the body's dream of becoming a machine'.¹ Although the piece is, in short, a list of sardonic definitions for terms like *war*, *genetics*, *personal computers*, for instance, such a statement nonetheless seems an appropriate place to begin a discussion of Ballard's concrete-and-steel trilogy. The witty definitions Ballard provides in his glossary are drenched in a humour that enables a cultural commentary. Ballard attempts to view what a twentieth-century reader might consider quotidian in a reformed manner; here, especially, the relationship between the human body and the machine is highlighted in a way that calls both entities into question. What such a statement might be hinting at is a leitmotif of *Crash*, *High-Rise* and *Concrete Island*. While this chapter focuses primarily on *Crash*, analyses of the other texts mentioned above, considered to be part of Ballard's 'concrete-and-steel period', will also be discussed. Ballard's trilogy invokes a posthuman perspective that comprises both the machine and the animal, the former of which will be the focus of this chapter.

There are several significant and sustained ways in which the narratives induce the possibility of a posthumanism encompassing the machine. The first can be considered in terms of merging 'inert' and 'organic' entities. The characters continually display an inability to distinguish between what is 'alive' and what is 'inert', between what is 'real' and what is 'fantasy', and also between which elements constitute a human subject.

¹ J.G. Ballard, *A User's Guide to the Millennium: Essays and Reviews* (London: Flamingo, 1997), p. 279.

Through the disruption of an easily identifiable human status, categorical designations are questioned, thus opening a space in which the posthuman subject can emerge. At one point, the protagonist of *Crash*, James Ballard, comments: 'I realized that the human inhabitants of this technological landscape no longer provided its sharpest pointers, its keys to the borderzones of identity'.² The human must now look beyond its own borders in order to comprehend itself and the surrounding environment. Throughout the text, inert objects invade and pierce the human, and, in so doing, construct a new definition of the human and of sexuality. *Crash*, particularly, comprises a continual blurring of the boundaries between the human and the machine, thus prompting a shift towards a realization of that bodily 'dream' mentioned in Ballard's definition. The term 'dream', however, is complicated in relation to this theme, and often inverted into a nightmare, a feature that will be discussed throughout this chapter. This phenomenon also resonates with events in *High-Rise* and *Concrete Island*, and analyses tracing this thematic serve to demonstrate the ongoing relationship between Ballard's trilogy and posthumanist theory.

Secondly, the scenarios depicted in the trilogy raise the question of how the machine can be theoretically positioned in relation to the human. Can the human be perceived as separate from the technology it produces? Or, is technology an originary element that constitutes humanity? By illustrating confusion surrounding these questions, the texts allude to a posthuman subjectivity in which the human and the machine are indistinguishable, thus challenging definitions of the human that rely upon delineation

² J.G. Ballard, *Crash* (1973; London Harper Perennial, 2008), p. 36. All further references to this text are to this edition and will be provided parenthetically.

from the machine as a foundational principle. The narratives themselves provide no substantial perspective on or solution to such questions, a feature to which Roger Luckhurst responds by noting, specifically with regard to *Crash*, that

The text absents itself from making any conclusion about the thesis it remorselessly restates page after page, and this makes it a classic instance of what Roland Barthes termed the “scriptable” text—that is, a text that has to be actively completed, to be almost cowritten by the reader if any sense of meaning or closure is to be reached.³

The fluidity of meaning within the text leaves its pages open to numerous interpretations, one of which deals with how the text acts as a space in which a questioning of the human category can occur.

The conditions identified in the first two points of my argument necessitate an interpretation of the human as transmutable. By demonstrating how the space between organism and environment is fluid within the texts, as well as showing how the machine is, at times, conceived of as inseparable from the human, a discussion of evolution within the narrative is enabled. The third point connecting *Crash*, *High-Rise* and *Concrete Island* to posthumanism, then, concerns how the texts present a scenario where an evolutionary trajectory toward the machinic is welcomed by the characters. Hence, issues surrounding the concept of adaptation, but also of ‘participant evolution’ are raised. These concepts will be read via the concept of Ballard’s ‘nightmare logic’.⁴

A reading of the human in humanist terms is disrupted in Ballard’s trilogy.

Disturbance is achieved, in part, via the concepts of ‘dream’ and ‘nightmare’. As already

³ Roger Luckhurst, ‘J.G. Ballard: Crash’, in *A Companion to Science Fiction*, ed. David Seed (Malden, MA: Blackwell, 2005), pp. 512-521 (p. 515).

⁴ The origin of this phrase is *Concrete Island* (1974; St. Albans: Granada, 1976). The narrator uses the term in reference to the disorientation Maitland experiences when he perceives a potential rescuer as a torturer (pp. 59-60).

indicated, Ballard invokes the idea of the dream in his definition of science fiction. Yet, as the process of enacting the 'body's dream' is portrayed, the shift often comes across as more of a nightmare, a word that is used throughout the narrative of *Crash* to describe various characters and situations, and a concept with which the author begins his 1995 Introduction to the text: 'The marriage of reason and nightmare that has dominated the 20th century has given birth to an ever more ambiguous world'.⁵ Yet the concept of the nightmare within the text is complicated by the characters' willingness to accept what might conventionally be considered a 'dystopic' existence. It is here that a discussion of evolution and adaptation to a machinic landscape is complicated by the ambiguity of 'dream' and 'nightmare' within the narrative.

The author Ballard asks 'Do we see, in the car crash, a sinister portent of a nightmare marriage between sex and technology?',⁶ while, within the text, the sinister aspects of such a marriage are celebrated rather than rejected by his characters. This paradoxical framework is what I will refer to as Ballard's 'nightmare logic': a continually ambivalent, yet impactful perception that dominates the landscapes of his narratives. The space between the dream and the nightmare, between reality and fantasy constructs the parameters of this nightmare logic. *Crash* obscures its own potential to be nightmarish by complicating conventional notions of 'normalcy' to the point of decentering morality. Again in his 1995 Introduction, the author Ballard comments: 'I feel that, in a sense, the writer

⁵ 'Introduction', p. i.

⁶ 'Introduction', p. iii.

knows nothing any longer. He has no moral stance'.⁷ The decentred morality depicted within the pages of *Crash* indicates the difficulty of easily ascribing categorical descriptions. The reader becomes unaware of whether he or she is waking from a nightmare or falling into one. In the space between the dream and the nightmare, then, an analogous relationship is constructed: within this ambiguous realm, the text also unsettles the category of the human, predominantly via the convergence of human and machine.

This chapter begins with a close reading of *Crash*, focusing in particular on how the organic and inert, and the 'inner' and 'outer' are conflated in the text. The subsequent two sections of this chapter perform analyses of *High-Rise* and *Concrete Island* along similar lines. Finally, the ultimate section considers how what might be considered the 'inner' imperatives inscribed by evolutionary theory interact with the 'outer' world of the social human animal and its machinic milieu.

Crashing into the Machine

An analysis of how the human crashes into the machine in *Crash* entails several angles of approach. Here, I will discuss two overarching interpretations of this trend: the organic crashing into the inert; and, the organic and the inert becoming indistinguishable via sexual and sexualized encounters and relationships. In order to demonstrate the disintegrating barrier between the human and the machine, 'organic' refers to living entities, most prominently referring to the human; while 'inert' refers to inorganic objects, such as machines.

⁷ 'Introduction', p. ii.

'A language in search of objects'⁸: The Organic Crashes into the Inert

In *Crash*, the automobile becomes the intermediary between human subjects, the barrier through which the human must crash in order to come to terms with the shifting parameters of its self-definition. Ballard the author comments that 'social relationships are no longer as important as the individual's relationship with the technological landscape of the late twentieth century',⁹ a thought reflected in the chromium content of *Crash*. In the text, this relationship is demonstrated via the 'body's dream of becoming a machine', a yearning illustrated in the characters' reactions to the inert objects that comprise the technological landscape in which they are mired.

By assigning significance beyond functionality to inert objects, the protagonist Ballard begins to redefine the parameters of the human, overturning humanist distinctions between the human and the non-human. Redefinition occurs, for instance, when he perceives that 'the flyovers overlaid one another like copulating giants, immense legs straddling each other's backs' (p. 59). Yet this relatively straightforward personification and anthropomorphism is also reversed in *Crash*. The human is depicted as comprising an inert quality that hints at Donna Haraway's claim that

Late twentieth-century machines have made thoroughly ambiguous the difference between natural and artificial, mind and body, self-developing and externally designed, and many other distinctions that used to apply to organisms and machines. Our machines are disturbingly lively, and we ourselves frighteningly inert.¹⁰

⁸ From *Crash*, this quotation refers to Catherine's lesbian sex acts: 'These descriptions seemed to be a language in search of objects, or even, perhaps, the beginnings of a new sexuality divorced from any possible physical expression' (p. 24).

⁹ *A User's Guide to the Millennium*, p. 205.

¹⁰ Donna J. 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), pp. 149-181 (p. 152).

The disavowal of the inert/organic boundary becomes apparent when the members of Vaughan's crash cult visit a crash demonstration at 'The Road Research Laboratory'.

Ballard's descriptions convey an eerie perception of the living as inert:

In the bright afternoon light the several hundred visitors took on the appearance of mannequins, no more real than the plastic figures which would play the roles of driver and passengers in a front-end collision between a saloon car and a motorcycle.
(p. 98)

Watching the mannequins crash, the human spectators seem 'ghostly images', and the narrator Ballard comments that '[t]he dream-like reversal of roles made us seem less real than the mannequins in the car' (p. 104),¹¹ invoking Haraway's comment on the alarming 'inert[ness]' of the human subject in the twentieth century. It is, however, not only the character of Ballard who displays border confusion. During their visit to the demonstration, Helen Remington—widow of the man killed in Ballard's initial collision—'reach[es] through the starred windows and caress[es] the plastic arms and heads' (p. 98). Emotional attachment to the inert is expressed, too, via Vaughan's relationship to the automobile. For him, 'the smallest styling details contained an organic life as meaningful as the limbs and sense organs of the human beings who drove these vehicles' (p. 140). The inanimate is often portrayed as life-like and worthy of emotional attachment as, throughout *Crash*, inanimate objects receive a degree of affection.

Viewed conversely, however, Ballard tends to evaluate the 'lived-body' as inert, a trend that not only conflates the inner body with the external world, but also serves to remove 'the human' from a pedestal of superiority. Organic and inorganic cannot be easily

¹¹ Interestingly, the ambivalent logic that underpins *Crash* is referred to in this scene as a 'dreamlike logic' (p. 98), thus blurring the borders between the nightmare and the dream once again.

detected, thus the text seems to be underlining the inability to distinguish easily between 'real' and 'fake', between human and 'non-human'. Michel Delville comments on 'Ballard's ability to defamiliarize our everyday environment and explore the junctions between bodily and objective geometries, as well as the boundaries between the organic and the nonorganic',¹² and this defamiliarization is apparent within *Crash*. Gestures of affection towards and appreciation of inert objects suggest that a meaningful schism between the human and the non-human has been breached. At the moment of this fissure, the figure of the cyborg emerges as a potential theoretical perspective on the human in *Crash*.

The concept of the cyborg assists in interpreting the role of the machine in *Crash*. As distinctions between 'human' and automobile grow fuzzier, what is called for is a re-worked definition of the human; the 'cyborg' provides one possible lens through which to construct such an explanation. *Crash* offers an alternative conceptualization that verges on and threatens, questions and aggravates, the category of the human. Real and artificial are mistaken as interchangeable. In his analysis of Philip K. Dick's *Do Androids Dream of Electric Sheep?* (1968)—famously adapted to the screen as Ridley Scott's *Blade Runner* (1982)—Kevin McCarron asserts that 'Whenever the textual stress is on prosthetics, on the kind of technology that fuses blood and iron, the debate is really about the human, and its sometimes opposite, the inhuman'.¹³ Ballard's texts conceptually think through the cultural object of the cyborg and the human machine. In Ballard's narrative, a non-physically

¹² Michel Delville, *J.G. Ballard* (Plymouth: Northcote House in association with the British Council, 1998), p. 25.

¹³ Kevin McCarron, 'Corpses, Animals, Machines and Mannequins: The Body and Cyberpunk', in *Cyberspace, Cyberbodies, Cyberpunk: Cultures of Technological Embodiment*, ed. Mike Featherstone and Roger Burrows (London: Sage, 1995), pp. 261-273 (p. 264).

transformed cyborg begins to emerge. Chris Hables Gray's interpretation of the cyborg identifies a theme relevant to the analysis at hand. He notes that

Cyborgization transcends the human, dissolving old distinctions between nature and culture or organic and machinic. Herbert Simon's "sciences of the artificial" are also being elided because everything can now be viewed as both artificial or natural.¹⁴

Such a statement describes the fictional representations of the human presented in Ballard.

Lack of strict distinctions between flesh and metal enable a reconfiguration of the human.

Haraway discusses how we are all already cyborgs, with medical science, pharmaceuticals and technologies constantly used as the artificial limbs of the human. Gray, too, comments upon this idea, stating:

We are a cyborg society of tools, machines, and organisms but we deny it. We deny our connection to the organic, the world in which we are embedded, and we deny responsibility for the technosciences we make.

To fail to come to terms with our cyborgian situation as part of both organic (the "natural") and machinic (industrial civilization) realms would be fatal. Crashing either of these systems will end humanity, and yet the two systems often seem to be on a collision course.¹⁵

Such perspectives align the human with the machinery it operates and the technology it creates, thus hinting at a concept of the human as originally technological. Gray underlines the integrated relationship between humans and the machines they create, a concept that is fictionally represented in Ballard's trilogy. Also intimated by the above passage is the idea that, often, the human and the machine are depicted as separate entities that are at odds with one another, destined to ceaselessly 'crash' into each other. It is this image that Ballard's text overturns, by illustrating the accepted integration of machine into the human

¹⁴ *Cyborg Citizen*, p. 183.

¹⁵ *Ibid*, p. 194.

realm that occurs throughout the pages of *Crash*. Yet it is only after the near-fatal collision between human and machine that the protagonist of *Crash* is able to participate in the process of recognising and approving the machine, perhaps suggesting that the road to re-assessing the 'human' definition is a long one, fraught with overturned vehicles and unrecovered corpses.¹⁶ The cyborg is a useful reminder of the potential for a border disavowal that does not necessarily have to result in the elimination of one entity and the destruction of another.

Badmington discusses such an idea in terms of posthumanism: 'As I see it, the task of posthumanism is to uncover those uncanny moments at which things start to drift, of rereading humanism *in a certain way*, against itself and the grain'.¹⁷ This is where posthumanism intersects with cyborg theory: at the moment when the borderzone is realigned. David Bell reaffirms this perspective when he states that

As the boundary between human and machine blurs, as the technologization of culture quickens pace, so we enter into the age of post-humanism [...] While we should point out that cyborgization does not equal post-humanism, the cyborg stands as a potent figure to help us think through our relationships with machines, and theirs with us.¹⁸

The technological, machinic landscape must therefore be taken into account in order to proceed with a realignment of the human category. Cyborg theory provides a starting point from which to establish such re-evaluations. The other texts comprising the concrete-

¹⁶ Images of detritus and wreckage in the wake of the machinic society are conveyed also in the next text to be discussed, *High-Rise*.

¹⁷ Neil Badmington, *Alien Chic: Posthumanism and the Other Within* (London; New York: Routledge, 2004), p. 118. Emphasis in original.

¹⁸ David Bell, 'Introduction', in *The Cybercultures Reader*, ed. David Bell and Barbara Kennedy (London: Routledge, 2000), pp. 1-12 (p. 5).

and-steel trilogy enact similar boundary disturbances in relation to the 'machine' and the 'human', the 'inert' and the 'organic'.

Ballard's narrative conveys a degree of ambivalence towards the dismantling of the border between biological organism and non-organic entity, and hence between inner and outer as defined in this thesis. Furthermore, the characters in *Crash* display a willing acceptance of the inevitable confusion that arises when technology becomes the focal point of human life in an unprecedented way, a feature that stands as a common trope of the 'posthuman science fiction' discussed herein. The text conveys a situation that sits unsettlingly alongside a humanist rhetoric that demands strict definitions of the human and its borders. In *Crash*, however, the human is never decreed a cyborg, a human-machine, a hybrid of automobile and flesh. Instead, the merger remains highly theoretical and ambiguous throughout the text. Also discussing Dick's *Do Androids Dream of Electric Sheep?*, N. Katherine Hayles uses the text to highlight a point similar to that made by McCarron, commenting that 'Dick understood that how boundaries are constituted would be a central issue in deciding what counts as living in the late twentieth century'.¹⁹ I would argue that Ballard, too, participates in this project, as his fictions continually question demarcations between living and dead, real and fake. *Crash*, then, joins the ontological questioning typical of a genre that continually confronts the subjects of the strange, the alien, the unprecedented, and thereby constructs a space in which these theories and uncertainties can be tested and theorized. Within the text of *Crash* this speculative space

¹⁹ N. Katherine Hayles, *How We Became Posthuman: Virtual Bodies in Cybernetics, Literature, and Informatics* (Chicago: University of Chicago Press, 1999), p. 161.

assumes a markedly sexual tone. The conflation of inert and organic permeates the borderzones between automobile and sexual body.

'An Ambiguous Realm'²⁰: Organic and Inert Sexuality

The prospect that Ballard can consider his wife's 'lived-body' 'as inert and emotionless as a sexual exercise doll fitted with a neoprene vagina' (p. 38) elicits an extreme image of uncertain boundaries, as well as inducing forays into the topic of sexual relations. But whether the vagina is compared to synthetic rubber or the fluid lines of an automobile, the ambivalence nonetheless remains constant. To borrow a phrase from Badmington's discussion of *Blade Runner*, 'the opposition between human and replicant is unsustainable'.²¹ An example that threatens to dismantle former barriers occurs when Ballard is taken for x-rays after his car crash. Closely observing the x-ray technician, he ponders:

How could I bring her to life—by ramming one of these massive steel plugs into a socket at the base of her spine? Perhaps she would then leap into life, talk to me in animated tones about the latest Hitchcock retrospective, launch an aggressive discussion about women's rights, cock one hip in a provocative way, bare a nipple.
(p. 29)

Ballard expresses difficulty recognising a distinction between organic and inert entities.

Again referring to the x-ray technician, he comments:

Like all laboratory technicians, there was something clinically sexual about her plump body in its white coat. Her strong arms steered me around, arranging my

²⁰ 'Faced with this junction of the crashed car, the dismembered mannequins and Vaughan's exposed sexuality, I found myself moving through a terrain whose contours led inside my skull towards an ambiguous realm' (*Crash*, p. 101).

²¹ Neil Badmington, *Blade Runner's Blade Runners*, *Semiotica*, 173.1/4 (2009), 471-489, (p. 472).

legs as if I were some huge jointed doll, one of those elaborate humanoid dummies fitted with every conceivable orifice and pain response.

(p. 29)

Conceiving of himself as a doll, Ballard once again distorts the line between living and non-living matter, viewing the human and non-human as inextricably linked, perhaps even as synonymous. Such distortions permeate descriptions throughout the text. When Vaughan and Ballard's wife, Catherine, engage in a sexual act while Ballard drives through a car wash, the limitations of the human are once more questioned: 'The distant headlamps, refracted through the soap solution jetting across the windows, covered their bodies with a luminescent glow, like two semi-metallic human beings of the distant future making love in a chromium bower' (p. 133). Here, the sexual act demonstrates the fluidity between human and machine. Even the language utilised in the passage suggests a liquid movement and a liquid exchange between humans and machines, as the lather creates an ethereal radiance. Yet this exchange extends beyond the corporeal, physical space of the entities in question and enters a theoretical realm where humanist notions of what it means to be human are abandoned and replaced by posthumanist visions of a more permeable identity. What is also intriguing about this passage is the fact that the characters are described as illuminated by the headlamps of an automobile, suggesting that the continual presence of the car in the quotidian sphere has led to a transition in how the human views itself.

Yet another instance of organic/inorganic commingling occurs when Ballard engages in a sexual encounter with the character of Gabrielle, a woman crippled from a car accident. Gabrielle has a complex series of straps, metal and braces fitted to her body, yet Ballard expresses frustration that more of her flesh has not been replaced. Upon examining her

breast, he states, 'For some reason I had expected it to be a detachable latex structure, fitted on each morning along with her spinal brace and leg supports, and I felt vaguely disappointed that it should be made of her own flesh' (p. 147). As Ballard constructs his emergent sexual relationship with Gabrielle, he 'celebrate[s]...the excitements of these abstract vents let into her body by sections of her own automobile' (p. 148). Viewing this fictional scenario in terms of posthumanism, it can be argued that Ballard's ability to perceive the inorganic as erotic marks a shift toward a posthuman perspective on the human. A consideration of posthumanism must be invoked in order to comprehend the impact of Ballard's narrative. Badmington, discussing Haraway's work, notes that

the monadic subject of humanism finds itself replaced by a nomadic confusion of the organic and the inorganic, the natural and the cultural [...] Taking this trembling of tradition as its starting point, posthumanism has, to put matters in somewhat general terms, interrogated the myth of humanism by activating the moments of pollution and the slow slide of certainties that have habitually been drowned beneath the white noise of uniqueness.²²

As *Crash* disavows the boundaries between the human and its technology, then, it also covertly subscribes to the process of conceptualizing the posthuman.

The above examples are typical of the text in general; the novel can be viewed as a series of sexual acts that transpire between the human body and its inert surroundings—most often components of the automobile. If, traditionally speaking, the human is alive, while the automobile is not, yet characters in the text blur this distinction, what does this say about the human? *Crash* pinpoints the dilemma that increasingly presents itself as society moves towards a technologically integrated, and dominated, landscape. The initial

²² Neil Badmington, 'Cultural Studies and the Posthumanities', in *New Cultural Studies: Adventures in Theory*, ed. Gary Hall and Clare Birchall (Edinburgh: Edinburgh University Press, 2006), pp. 260-272 (p. 263).

impacts of a reformed human disposition can be observed in the characters' attitudes towards inert objects encountered in a quotidian, public space. This public space also has a private dimension, however, and it is during the numerous elicited sexual encounters that the line between inorganic and organic is most prominently breached.

After a prolepsis that invokes Vaughan and his crash cult, the fabula of the novel begins to unfold amid the car-crash ruins of the protagonist, Ballard. Upon awakening from the shock of his automobile crash, and during his post-crash hospital stay and recovery period, Ballard surveys his surroundings like a pubescent child first discovering the universe of sexuality and the various innovative potentialities it might offer. Yet Ballard's newly aroused sexual disposition entails a conjoining of the organic and the inert. For example, the protagonist Ballard recounts:

This obsession with the sexual possibilities of everything around me had been jerked loose from my mind by the crash. I imagined the ward filled with convalescing air-disaster victims, each of their minds a brothel of images. The crash between our two cars was a model of some ultimate and yet undreamt sexual union. The injuries of still-to-be-admitted patients beckoned to me, an immense encyclopedia of accessible dreams.

(p. 19)

Ballard's fantasies combine the fleshly with the metallic; everything is considered in a relationship with the inert, what we might call 'the non-human'. The physical world is repeatedly opened to Ballard as a possible site of sexual satisfaction. When in the hospital, Ballard comments on how 'The elegant aluminized air-vents in the walls of the X-ray department beckoned as invitingly as the warmest organic orifice' (p. 30).

By conflating the inert and the organic, Ballard's fantasy world is expanded. In observing a lesbian affair between his wife Catherine and secretary Karen, Ballard once

again introduces the allure of the inert: 'Her sullen eroticism, the elegant distance she placed between her fingertips and my wife's nipples, were recapitulated in the distance between myself and the car' (p. 24). Ballard continually invokes the technical to complete his erotic fantasies, constructing a recurrent trend in the narrative that involves a preference for inert over organic. For instance, after engaging in anal intercourse with Vaughan, Ballard recognizes that Vaughan's presence has become inconsequential to sexual satisfaction; it is the 'motorway' that fulfils Ballard's orgasm. Just as Ballard confesses—'I could bring myself to orgasm simply by thinking of the car in which Dr Helen Remington and I performed our sexual acts' (p. 65)—so does Ballard's encounter with Vaughan correlate to an inability to think of sex outside of the realms of technological integration. In what might be considered a 'nightmare logic' of disconnection and non-emotion, the protagonist Ballard notes that: 'Detached from his automobile, particularly his own emblem-filled highway cruiser, Vaughan ceased to hold any interest' (p. 94). Vivian Sobchack comments that 'Throughout the discourses of cyborgism, there is extraordinary emphasis on the erotics of technology as flesh-based, on a transcribed and transubstantiated sexuality that is fatally confused as to the site of its experience'.²³ Such confusion presents itself within the diegetic space of *Crash*.

Human-based bodily eroticism is replaced by the concrete and steel surfaces of the motorway and the automobile. In the text, then, 'sexuality' is not defined by desire, arousal, or the extraction of semen—all of which inarguably play a part—but instead insists upon a

²³ Vivian Sobchack, 'Beating the Meat/Surviving the Text, or How to Get Out of this Century Alive', in *Cyberspace, Cyberbodies, Cyberpunk: Cultures of Technological Embodiment*, ed. Mike Featherstone and Roger Burrows (London: Sage, 1995), pp. 205-214 (p. 212).

brand of fleshly appreciation that the protagonist Ballard increasingly fails to accommodate.

Hence, the text once again raises the issue of the inner crashing into the outer. In his 1969

interview with *Penthouse*, the author Ballard comments on this theme when he states:

I believe that organic sex, body against body, skin area against skin area, is becoming no longer possible simply because if anything is to have any meaning for us it must take place in terms of the values and experiences of the media landscape, the violent landscape [...] That is why I bring in things like the car crash.²⁴

The author Ballard expands the remit of sexual experience from an act that is and must be strictly bodily, contained within and possessed by the physical, inner space of the human, and re-inscribes the experience as intrinsically linked with the technological landscape of the twentieth-century.

'The Vestibule of [a] Vulva'²⁵: De-eroticized Sex in *Crash*

Throughout the text of *Crash*, physical connections between entities are repeatedly described, yet in terms of both flesh and metal the prose exerts an un-erotic tone. The language of the text intersects with the content it is representing; hence, a merging of boundaries occurs even within the construction of the text itself. It is important to note how this effect takes shape and impacts upon the narrative, as a discussion of this feature reiterates how *Crash* embodies its own evolutionary and posthumanist transition towards regarding the inert and the organic as inseparable.

²⁴ Lynn Barber, 'The Penthouse Interview: J.G. Ballard: Sci-Fi Seer', *Penthouse Magazine*, May 1970, pp. 26-30.

²⁵ *Crash*, p. 63.

The physical encounters portrayed in *Crash* might be considered ‘mechanical sex’ in more than one way, as the language used to describe the human conjoining in a sexual union with both other humans and the technological is also imbued with a mechanical quality. The terms by which Ballard describes the body within and without the act of sex are largely composed of cold, methodical prose, a typical Ballardian style. For Sobchack, such descriptions underline the non-erotic sexuality that lurks beneath the pages of Ballard’s sexually explicit prose:

A moral tale written in the guise of a “pornographic” quasi-science fictional narrative, *Crash*’s cold and clinical prose robs the sex acts and the wounds the narrator describes of feeling and emotion and, I would assume in most cases, also of the ability to arouse the living flesh of the reader.²⁶

Writing in direct response to Jean Baudrillard’s interpretation of *Crash*,²⁷ Sobchack demarcates the text as un-erotic, and she is not alone in her analysis. The language employed throughout *Crash* is dry, emotionless, detailed, and mechanical: a writing style which Michel Delville refers to as ‘Ballard’s clinical approach’. Delville contends that this method ‘pre-empts any form of complicity or empathy on the part of the reader’,²⁸ commenting also on ‘Ballard’s style—which is consistently blank, neutral and stripped of all the conventional artifices of fiction’.²⁹ Form appropriates content. The human is

²⁶ ‘Beating the Meat/Surviving the Text, or How to Get Out of this Century Alive’, p. 205.

²⁷ See Jean Baudrillard, ‘*Crash*’, in *Simulacra and Simulation*, trans. Sheila Faria Glaser (Ann Arbor, MI: University of Michigan Press, 1994), pp. 111-120.

²⁸ J.G. Ballard, p. 23. Although, in this specific instance, Delville is discussing *The Atrocity Exhibition*—noting how the deaths and reappearances of its ‘characters’ result in the reader’s inability to conjure any degree of empathy—the statement nonetheless seems to have a direct connection to the ‘clinical’ style also utilized in *Crash*.

²⁹ J.G. Ballard, p. 24.

becoming machine, so the language used to describe this 'becoming' must comprise technicity.

During an interview, the author Ballard pronounced that 'novelists should be like scientists, dissecting the cadaver'.³⁰ Hence, many critics have attributed Ballard's tendency towards the technical to his background in anatomy, as well as to his early life experiences with death and war in Shanghai, where he was forced to regard the body objectively in order, perhaps, to cope with the images to which he was exposed.³¹ In order to reveal the posthumanist undercurrents of the text, however, it can be said that particular attention paid to the language Ballard uses in relation to the body illuminates and complements certain themes present therein.

Common words that pervade the pages of *Crash*, include, for instance 'penumbra', 'rictus', 'carapace', 'fascia', and 'iliac'. Each of these terms refers to a highly specific aspect of the body,³² and Ballard's inclusion of scientifically specialized, non-colloquial vocabulary not only creates a sterile, unadorned atmosphere, but also suggests that the lexis of the quotidian cannot do justice to descriptions of the body; the language bank must be expanded in order to ensure exact comprehension. The importance of exactitude is met again in the narrator's descriptions of sexual encounters. For instance, when the character of Ballard engages in sexual foreplay with his wife, Catherine, he states:

³⁰ Travis Elborough, 'The Sage of Shepperton: A Biographical Profile', in *Crash* (Harper Perennial: 2008), pp. 2-7 (p. 3).

³¹ See Ballard's confrontation with death during the Japanese invasion of Shanghai, for instance, in J.G. Ballard, *Miracles of Life* (London: Harper Perennial, 2008), pp. 30-36.

³² It should be noted that 'fascia' is also used to describe automobiles. See *OED*: 'Chiefly in form *facia*. The instrument panel or dashboard of a motor vehicle' (*Oxford English Dictionary Online*, definition 2.d. <http://www.oed.com/view/Entry/68341?redirectedFrom=fascia#eid>).

I took her left hand and pressed it to my sternum [...] The beatings and burnings married in our minds with the delicious tremors of our erectile tissues, the spilt blood of students with the genital fluids that irrigated our fingers and mouths.
(p. 26)

Depicting a scene where the couple watch atrocity newsreels to initiate sexual arousal, the use of terms like 'sternum', 'erectile tissues' and 'genital fluids' create a clinical marriage-bed that easily translates into the hard contours of the automobile. Delville comments that 'the images of sexual perversion which abound in Ballard's *Atrocity Exhibition* and *Crash* [...] are almost entirely deprived of erotic content, as they are always depicted in strictly technical terms'.³³ An explanation for this lexical choice can be attributed to the concrete and steel content of the narrative. The following sexual description, for instance, is clinical, as well as dependent on the inert:

My finger moved into Helen's rectum, feeling the shaft of my penis within her vagina. These slender membranes, like the mucous septum of her nose which I touched with my tongue, were reflected in the glass dials of the instrument panel, the unbroken curve of the windshield.
(p. 63)

When the character of Ballard engages with Helen Remington, he first experiences the potential of the car to intensify the sexual encounter:

When I put my arm around her shoulders she smiled briefly to herself, a nervous rictus of the upper lip which exposed her gold-tipped right incisor. I touched her mouth with my own, denting the waxy carapace of pastel lipcoat, watching her hand reach out to the chromium pillar of the quarter window. I pressed my lips against the bared and unmarked dentine of her upper teeth, fascinated by the movement of her fingers across the smooth chrome of the window pillar.
(p. 61)

³³ J.G. Ballard, p. 31.

An alternate world of possibilities locates sexual arousal and desire within an obsessive attention to the details of both the human body and the inert automobile. It is as if the narrator Ballard's ability to focus on exact details of the human body logically transcribes itself into an appreciation for the machine—an entity whose functional success depends upon a specific engineering of details. As Remington and Ballard launch their strictly automobile-centred affair—the narrator informs us that sex never occurs at Remington's flat, despite several visits there—Ballard's sexual arousal becomes inextricably linked with the automobile, and the language employed to describe sexual encounters makes this outcome rather inevitable. Again, Ballard depicts an encounter with Remington:

The volumes of Helen's thighs pressing against my hips, her left fist buried in my shoulder, her mouth grasping at my own, the shape and moisture of her anus as I stroked it with my ring finger, were each overlaid by the inventories of a benevolent technology—the moulded binnacle of the instrument dials, the jutting carapace of the steering column shroud, the extravagant pistol grip of the handbrake. I felt the warm vinyl of the seat beside me, and then stroked the damp aisle of Helen's perineum. Her hand pressed against my right testicle. The plastic laminates around me, the colour of washed anthracite, were the same tones as her pubic hairs parted at the vestibule of her vulva.

(p. 63)

The importance of what each finger and hand does amounts to an assignment of technicity to the human, suggesting that the right hand might be more advantageous than the left to perform a certain function. And, just as in the car, where one must consciously make a decision of which instrument to use, which direction to turn, the sexual encounters described in *Crash* rely upon close and accurate detailing.

As the 'plastic laminates' of the automobile are compared to the 'vestibule of [a woman's] vulva', the narrator shamelessly equates the human with its external, inert

surroundings. Content and form merge as mechanical sex emerges via mechanical syntax. The term 'vestibule', for instance, intimates a material structure, the entrance hall to a building. What results, perhaps unsurprisingly, is that the characters repeatedly engage in sexual acts that are seemingly divested of passion. 'Catherine seemed still only half aware of Vaughan, holding his penis in her left hand and sliding her fingers towards his anus as if performing an act divorced from all feeling' (p. 132). The climactic sexual union between Ballard and Vaughan exhibits this trend:

With my fingers I touched the scar on his penis, then felt the glans within my mouth. I loosened Vaughan's bloodstained trousers. His naked buttocks were like a pubertal youth's, as unscarred as a child's [...] I crouched behind Vaughan, forcing his thighs against my own. The jutting carapace of the instrument binnacle presided over the dark cleft between his buttocks. With my right hand I parted his buttocks, feeling for the hot vent of his anus [...] His anus opened around the head of my penis, settling itself around the shaft, his hard destrusor muscles gripping my glans [...] the motorway drew the semen from my testicles.

(p. 166)

The sexual encounter is not described in terms of reciprocation and emotion, but rather in technical terms that make the object of Ballard's sexual fulfilment inconsequential. Ballard is consciously aware of this phenomenon throughout the text, hinting earlier at the anticipated lack of eroticism a sexual act between him and Vaughan would entail:

However carnal an act of sodomy with Vaughan would have seemed, the erotic dimension was absent. Yet this absence made a sexual act with Vaughan entirely possible. The placing of my penis in his rectum as we lay together in the rear seat of his car would be an event as stylized and abstracted as those recorded in Vaughan's photographs.

(pp. 81-82)

The sex is 'stylized and abstracted'. Thus, the writing about the sex must be technical.

Scott Bukatman comments on this aspect of the sexual atmosphere of the text when he says

that *Crash* comprises 'a landscape in which the erotic is denied, repressed, and paved over by layers of concrete, tarmac, and chrome [...] Eroticism becomes a question of mathematics, of alignment'.³⁴

Notably, this is the case for characters other than Ballard. In fact, it is Vaughan who performs the most perfunctory acts in the back of his Lincoln, and, like Ballard, Vaughan also demonstrates a confusion regarding the organic and the inert: 'For Vaughan, the colour-keyed interiors of the Lincoln and the other cars which he began to steal for an hour or so each evening exactly simulated the skin areas of the young whores who he undressed as I drove along the darkened expressways' (p. 140). His inability to distinguish between the human and the machine—or his desire to conjoin the two indissolubly—results in a mechanical approach to the human body. Engaging in movements described as 'stylized', Vaughan deliberately positions his sexual partners—Ballard's wife and various prostitutes among them—in an attempt to re-enact the positions of crashed victims he has photographed. Ballard comments: 'At his apartment I watched him matching the details of her body with the photographs of grotesque wounds in a textbook of plastic surgery' (p. 1). During one of Vaughan's sexual encounters, in this instance with two prostitutes, he is illustrated in the following manner: 'Examining the breast, Vaughan gripped the nipple between thumb and forefinger, extruding it forward in a peculiar manual hold, as if fitting together a piece of unusual laboratory equipment' (p. 114). At another point, Ballard's

³⁴ Scott Bukatman, *Terminal Identity: The Virtual Subject in Postmodern Science Fiction* (Durham: Duke University Press, 1993), p. 292.

description of his wife and Vaughan's sexual encounter likens Vaughan to the operator of a complicated machine:

Catherine lay back with her legs apart, her mouth raised to Vaughan, who touched it with his lips, laying each scar in turn against her mouth. I felt that this act was a ritual devoid of ordinary sexuality, a stylized encounter between two bodies which recapitulated their sense of motion and collision. Vaughan's postures, the way in which he held his arms as he moved my wife across the seat, lifting her left knee so that his body was in the fork between her thighs, reminded me of the driver of a complex vehicle, a gymnastic ballet celebrating a new technology.

(p. 132)

Lines between organic and inert are dismantled at the most fundamental, sexual layer of identity. Descriptions of sexual acts recurring throughout Ballard's prose not only incorporate the idea that the characters are 'crashing' into one another rather than engaging in a reciprocal exchange, but also further demonstrate the non-erotic dimensions represented via the sexual encounters in the text, thus moving the human farther from its traditional definition within Western culture. The human in *Crash* need not be deemed machinic; rather, the parameters that define the human must be extended to incorporate this aspect.

The result is a de-centralization of the human body as comparisons between the organic human and the inert objects among which it moves serve to disempower the flesh as the quintessential symbol of desire. Functionality is depicted as more significant than sensuality. Although denoted as a pornographic novel, the text often reads more like a technical writing manual, a guide to the vocabulary of sexual organs, or a how-to pamphlet on 'techno-erotic'³⁵ foreplay. While 'the vestibule of her vulva' is not an unpleasant phrase

³⁵ Edward Fox, 'Empire of the Sun', *The Nation*, 240 (1985), 89-90 (p. 89).

and possesses a certain amount of poetic consonance, in terms of enacting a 'sexual' fantasy, the description is procedural.

Crash offers moments of reflection that open up the question of how quotidian technologies necessitate a reappraisal of definitions that are often taken for granted. Importantly, this urge for re-definition occurs at the junction between technology and the human, a circumstance that intimates Scott Bukatman's claim that, '[i]t is not technology per se that characterizes the operations of science fiction, but the interface of technology with the human subject'.³⁶ Bukatman's statement is similar to that recognised by Jane Arthurs and Iain Grant in their introduction to *Crash Cultures*: 'the crash [is] always an attempt to refashion the relation between organism and machine'.³⁷ By attributing machinic qualities to the human, integrating machine and human in sexual acts, and utilising machinic prose to illustrate the border disavowals between 'organic' and 'inorganic' the events and linguistic turns describing *Crash*'s automobiles and human characters move beyond traditional conceptions of the human. Posthumanism takes into account the role of the machine in relation to, rather than disjunction from, the human, thereby offering a viable theoretical approach to the text.

Crashing into the Posthuman

The human in Ballard's texts rescinds its authority by acknowledging the significance and the 'life' potential of inert objects; cars, high-rises, highways, airplanes, assume significant

³⁶ *Terminal Identity*, p. 8.

³⁷ Jane Arthurs and Iain Grant, 'Introduction', in *Crash Cultures: Modernity, Mediation and the Material* (Bristol; Portland, OR: Intellect, 2003), pp. 1-13 (p. 7).

presences that dictate the actions of the human. These are the minutiae of the larger environment that act upon the human and urge adaptation. As the external environment collides with the organism, so too does the boundary between human and machine become blurred. In disturbing the border between the inert and the organic, the characters are shocked into a state where traditional categories, boundaries, and definitions are undermined.

Within the parameters of the concrete-and-steel-dominated setting, the protagonist of *Crash* is forced to confront his identity and the limits that define his 'humanity'. He narrates: 'I realized that the entire zone which defined the landscape of my life was now bounded by a continuous artificial horizon, formed by the raised parapets and embankments of the motorways and their access roads and interchanges' (p. 40), and this statement could be transferred to either of the other concrete-and-steel texts with alacrity. Found in an unavoidable position—bound by the ceaseless reproduction of artificiality—*Crash* portrays Ballard 'coming to terms' with self-definition in the face of the non-human. Once again the question can be raised: Is this a nightmare? Or is this the body's dream of becoming a machine realized? Instead of resisting and protesting the conjoining of the human and its environment, the character of Ballard opts to 'adapt'—as many other Ballardian protagonists tend to do—and in this adaptation there is a degree of hope and excitement:

The hard jazz of radiator grilles, the motion of cars moving towards London Airport along the sunlit oncoming lanes, the street furniture and route indicators—all these seemed threatening and super-real, as exciting as the accelerating pintables of a sinister amusement arcade released on to these highways.

(p. 37)

Indeed, in the process of recovering from his car crash, Ballard's attitude and perspective regarding the world around shifts as he begins to see new possibilities in the external world: 'I was convinced that the key to this immense metallized landscape lay somewhere within these constant and unchanging traffic patterns' (p. 50); and 'An immense peace seemed to preside over the shabby concrete and untended grass. The glass curtain-walling of the terminal buildings and the multi-storey car-parks behind them belonged to an enchanted domain' (p. 35). Instead of viewing his surroundings as harsh and unwelcoming, as harbingers of dangerous and threatening industrialization, globalization and 'progress', Ballard begins to gauge the as-yet-unknown opportunities present in the artificial environ, including the possibility of merging with the machine to construct a reformed human identity. Demonstrating borderzone disavowal, these descriptions elicit the possibility of conceiving of the human as originally conjoined with its technology and only conceptually divorced from it for the purposes of perceiving 'the world' as 'other' than 'human'. The reality that is constructed in the text is one of confused boundaries that challenge the assumption that the human is superior to, or even separate from, the machines that it creates.

In *Crash*, the human merges with the machine through an unsentimental sexual union, one that not only relegates strong emotion to the margins of experience, but also delineates human flesh as a secondary focal point in sexual encounters. Hence, a posthuman sexuality emerges from the pages of *Crash*. Significantly, the descriptions of sexual encounters that fill the pages of the text repeatedly depict not a human interacting with another human or machine, but more specifically, *crashing* into the other. Yet this

violent occurrence is not, as might be expected, greeted with fear and disdain; it is instead met with acceptance and excitement. Before discussing how the repeated notion of acceptance impacts upon an interpretative methodology in approaching *Crash*—and before demonstrating how the merging of organic and inorganic, combined with an open reception of the machine, contributes to the theme of evolution in *Crash*—the other constituents of Ballard’s concrete-and-steel trilogy will be discussed in relation to the machine.

Building the Human-Machine in *High-Rise*

High-Rise exhibits the possibility of incorporating the machine into traditional conceptions of the human. Similar to *Crash*, a merger of ‘organic’ and ‘inert’ is depicted via the characters’ relationship to the building and its constituent machines. In the case of *High-Rise*, too, it is efficacious to discuss this conjunction in terms of ‘outer’ and ‘inner’. Here, the ‘outer’ refers to the ‘machine’ of the building, while the ‘inner’ connotes the biological, physical and behavioural states of the human characters. As the maintenance of the building disintegrates, the inner space of the human follows suit, hence the merger calls into question the human category.

In a general discussion of Ballard’s work, Scott Bukatman observes that Ballard’s characters are without ego, and they become only a part of the landscape, and the landscape becomes a schizophrenic projection of a de-psychologised, but fully colonized, consciousness. As in melodrama or surrealism everything becomes at once objective and subjective.³⁸

³⁸ *Terminal Identity*, p. 41.

Here, Bukatman identifies the merging of inner psychology and outer environment that typifies the text, connecting this conjunction to the lack of dominating characters, but also noting that consciousness of 'self' remains intact. Bukatman's concept thus connects to posthumanism: the human characters are relegated to the sideline of experience, as the 'outer' conditions of the environment—in this case the high-rise—dictate the narrative events. What results is a muddled vision of where the human ends and the building begins, and vice versa, explicating Bukatman's insistence on the intermingling of objective and subjective experience. In a similar vein to *Crash*, the disavowal of clearly marked borders contributes to the text's status within the genre of 'posthuman science fiction'. The text displays the human as disintegrated and malleable. Lack of distinction between what is animate and what is not propels this shift forward.

'[A] clutch of bones and a burial tag'³⁹: Locating the Human in the *High-Rise*

The narrator comments that the character of Richard Wilder 'felt the same identification with the camera that he did with the dog',⁴⁰ thus placing the human in a new relationship to both the animal and the technical. Both comparisons, however, concede a degree of dominance previously reserved for the human. The surviving residents of Ballard's high-rise continually ignore the death-scenes that surround them, treating the now-inert human flesh as one would a broken dishwasher. When, towards the conclusion of the narrative,

³⁹ J.G. Ballard, *High-Rise* (1975; Harper Perennial, 2006), p. 35. All further references to this text are to this edition and will be given parenthetically.

⁴⁰ *High-Rise*, p. 156.

Wilder finds himself at the 35th-floor swimming pool, he sees, 'Two bodies...float[ing] in the pool, barely distinguishable from the other debris, the kitchen garbage and pieces of furniture' (p. 159). The trend can also be observed in reference to the cadavers of Dr Robert Laing's anatomy lab: 'The steady amputation of limbs and thorax, head and abdomen by teams of students, which would reduce each cadaver by term's end to a clutch of bones and a burial tag, exactly matched the erosion of the world around the high-rise' (p. 35). Such a perspective reduces the human to its constituent parts, and simultaneously transforms the arbiter of consciousness and reason—the human—to mere matter. In Ballard's text the expression of this sentiment reveals a deep-seated discomfort with borders that might construct a superior status for the human. The human is no longer regarded as distinct and separate from its environment.

In *High-Rise*, this stance typifies the reformed attitudes of the characters; as violence and class-determined affiliations come to dominate their lives, the machine, including the inanimate structure of the building, enacts its own agency. Here we might evoke Donna Haraway's idea that the human need not fear its inevitable relationship to the animal and the machine. In 'A Cyborg Manifesto', she suggests that 'a cyborg world might be about lived social and bodily realities in which people are not afraid of their joint kinship with animals and machines, not afraid of permanently partial identities and contradictory standpoints'.⁴¹ Haraway identifies the shifting conception of the human via the increasing presence of the inert, the animal and the mechanical in our lives. In humanist discourses,

⁴¹ 'A Cyborg Manifesto', p. 154.

such disturbances are reviled and suppressed, but in the fiction discussed here, a divergent perspective is proffered.

The amalgamation of organic and inorganic occurs as the characters and narrator of *High-Rise* repeatedly describe the human in terms of its inanimate surroundings, but also the reverse. A character called Mrs. Steele, for instance, considers the building

as if it were some kind of huge animate presence, brooding over them and keeping a magisterial eye on the events taking place. There was something in this feeling—the elevators pumping up and down the long shafts resembled pistons in the chamber of a heart. The residents moving along the corridors were the cells in a network of arteries, the lights in their apartments the neurones of a brain.

(p. 40)

This quotation illuminates a transition from viewing objects, machines and technology as external, non-sentient entities, to using these items as a means of comprehending the metaphysical and psychological landscape of the human. The human, as represented in such depictions, is originally technical, and thus, a technological entity. The idea of the human as machine permeates the text, especially in terms of how the human and machinic components become indistinguishable and interchangeable.

In the narrative of *High-Rise*, this perspective is also demonstrated in the characters' tendency to incorporate the building into conceptions of the body. The narrator tells us, for instance, that 'At parties people discussed their insomnia in the same way that they referred to the other built-in design flaws of the apartment block' (p. 13). Here, the body becomes a site that requires the same degree of maintenance and attention as the inanimate structure that houses it. Yet it is not only the building that invites the conflation of the animate and the inanimate: the technology that serves as a function to the building—in this

argument considered as representing an overall functioning machine—has a similar effect on the residents. In his discussion of the monstrous features of the anthropomorphised building in *High-Rise*, Andrzej Gąsiorek comments that this ‘observation tellingly captures the text’s urban gothic atmosphere and its indebtedness to the dystopian traditions of science fiction’.⁴² Descriptions of the setting harbour a spooky, even apparitional, quality that further enforces the disturbance of a static human identity. At one point, the narrator mentions that ‘the callisthenics machine seemed to move up and down like columns of mercury, a complex device recording the shifting psychological levels of the residents below’ (p. 139). Characters are repeatedly described in terms of the technological, as if this is the reformed reference point for comprehending the human. At one point, for instance, Eleanor Powell is described as ‘flick[ing] on and off like a confused TV monitor revealing glimpses of extraordinary programmes’ (p. 96). Descriptions such as this demonstrate the increasing tendency to view and attempt to understand the human in terms of the machine.

Violence, too, extends beyond the realm of the human as the characters physically abuse not only each other, but their inert surroundings, the materials of their isolation, their dissatisfaction: ‘the residents had become exaggeratedly crude in their response to the apartment building, deliberately abusing the elevators and air-conditioning systems, overstraining the power supply’ (p. 76); and, ‘[t]hey wandered around the deserted rooms, kicking in the faces of the television sets, breaking up the kitchen crockery’ (p. 110). These depictions can be read as attempts to rebel against a potential evolutionary shift that incorporates or results in the ‘machine’. In one sense, *High-Rise* can be read as a depiction

⁴² Andrzej Gąsiorek, *J.G. Ballard* (Manchester: Manchester University Press, 2005), p. 123.

of how 'the body at last rebel[s]'⁴³ against the oppression of the machinic components that construct an impenetrable environmental and social machine.

Such a reading risks abandoning posthumanism in favour of a reinforced humanist ideal: a fixed concept of the human body that fears a conjunction with its technological creations. The presence of such fear is justified by the depiction of the high-rise acting against its inhabitants: 'Like a huge and aggressive malefactor, the high-rise was determined to inflict every conceivable hostility upon them' (p. 57). Not only does this description endow the high-rise with a conscious agency, but also, as the luxurious, time-saving devices that adorn life in the high-rise malfunction, the narrative incorporates the common 'new wave' science fiction themes of entropy and the technologically-induced destruction of the human. There is a sentiment that the high-rise structure is not conducive to human survival. Ultimately, however, the above descriptions invoke the idea that the human is already technical, and, combined with the concept of an aggressive machine that threatens the sanctity of the human, Ballard's text presents an ambiguous conclusion regarding the human and the machine. Due to wavering, unstable borders between human and machine, posthumanism serves as a viable interpretative model for Ballard's text.

High-Rise portrays a human society disintegrating beneath the weight of a concrete-and-steel habitat. Yet, at the same time, technology is portrayed as enabling. At several points in the text, the machine is illustrated as a slave to humanity:

the servants who waited on her [Anne Royal] were an invisible army of thermostats and humidity sensors, computerized elevator route-switches and over-riders,

⁴³ See J.G. Ballard's definition for 'X-ray', in *A User's Guide to the Millennium* (1996: London: Flamingo, 1997), p. 276.

playing their parts in a far more sophisticated and abstract version of the master-servant relationship.

(p. 72)

Another example of this relationship arrives via the character of Pangbourne:

Pangbourne belonged to the new generation of gynaecologists who never actually touched their patients, let alone delivered a child. His speciality was the computerized analysis of recorded birth-cries, from which he could diagnose an infinity of complaints to come. He played with these tapes like an earlier generation of sorcerer examining the patterns of entrails.

(p. 83)

Here, once again, the machine is utilized to serve human endeavours in scientific medical procedures. The removal of human interaction via the integration of the technological is striking, providing a revised means by which it might be possible to conceive of the human. Hence the narrative continually opens a space in which debates about the machine and the human can be enacted. Still further, ambiguity is entrenched via the narrative's portrayal of characters who begin adapting to the technological milieu. A movement towards this acceptance is most prominently displayed by the middle-class characters.

Building Isolation: Social Dimensions of the *High-Rise*

The human-machine emerging from *High-Rise* relates implicitly to the class war that ensues:

A new social type was being created by the apartment building, a cool, unemotional personality impervious to the psychological pressures of high-rise life, with minimal needs for privacy, who thrived like an advanced species of machine in the neutral atmosphere. This was the sort of resident who was content to do nothing but sit in his over-priced apartment, watch television with the sound turned down, and wait for his neighbours to make a mistake.

(pp. 35-36)

Here, the narrator indicates that the source of the majority of hostility does not lie with the lowest classes, but with those wedged between high and low, yet also indicated in this passage is the idea that a 'new social type' has evolved to inhabit the lifestyle of the high-rise. Importantly, this new species 'thrives' in a setting of isolation, violence and antagonism, and it is thus delineated by the narrator as an 'advanced species of machine'. As a result, the machinic inhabitants become delineated from the others through their lack of visible emotion. A connection can be made to Badmington's observation of this phenomenon in Don Siegel's *Invasion of the Body Snatchers* (1956), when he states that: 'In the complete absence of "bug-eyed monsters", the essential distinction between the human and the inhuman moves from the physical to the metaphysical: humans have feelings, but aliens do not'.⁴⁴ A similar distinction begins to emerge within Ballard's *High-Rise* as demarcations between lower, middle- and upper- class inhabitants exert influence, consequently constructing an 'us' and 'them' narrative exacerbated by the vertical architecture of the high-rise building. In other words, the 'alien' of the high-rise becomes the 'human' who is portrayed in a manner that is farthest from the tenets of humanist philosophy, in this case, the middle classes. As Wilder attempts to rebel against the high-rise, he offers a scathing critique of the middle classes:

opponents were people who were content with their lives in the high-rise, who felt no particular objection to an impersonal steel and concrete landscape, no qualms about the invasion of their privacy by government agencies and data-processing organizations, and if anything welcomed these invisible intrusions, using them for their own purposes. These people were the first to master a new kind of late twentieth-century life. They thrived on the rapid turnover of acquaintances, the lack

⁴⁴ *Alien Chic*, p. 137.

of involvement with others, and the total self-sufficiency of lives which, needing nothing, were never disappointed.

(p. 36)

The isolation described in the above passage is inscribed by the architectural space of the high-rise and results in a lack of community.

Apart from a political dimension that inculcates architecture as a source of influence, Ballard's text associates isolation and demarcation within class hierarchy with a psychiatric prison. Wilder comments on how his flat reminds him of a 'cell he had filmed two days earlier in the psychiatric wing of the prison' (p. 44), and, when Wilder tells his wife of his idea to film footage of the high-rise, his wife comments that it will be like "'Another prison documentary'" (p. 45). Here, the nightmare of the high-rise is equated with the entrapment that characterizes life in the high-rise and its society. Also, however, the nightmare can be equated with the inhabitant if one considers those who begin to adapt and adjust as nightmarish visions of an advanced human species embracing a system of technological control at the cost of a distinguishable human category. Importantly, however, these inhabitants are depicted not just as machines, but also as 'psychotic'.

The middle class, especially, is depicted as insane in its unquestioning ability to accept life in the high-rise because it affords no struggle and demands minimal social interaction and responsibility. Wilder ponders that 'Living in high-rises required a special type of behaviour, one that was acquiescent, restrained, even perhaps slightly mad. A psychotic would have a ball here' (p. 52), and, later in the text, Royal reasons that they should, 'Let the psychotics take over. They alone understood what was happening' (p. 143). In these instances, the middle-class characters are depicted as both machine and insane,

descriptors that, in the conventional sense, relegate these characters to a less-than-human category.

Just as the characters in *Crash* locate a freedom for perversity within the technological landscape of the automobile, the characters in *High-Rise*, lacking a demarcated 'human identity', also participate in the cultivation of a newly-found sense of 'freedom':

Secure within the shell of the high-rise like passengers on board an automatically piloted airliner, they were free to behave in any way they wished, explore the darkest corners they could find. In many ways, the high-rise was a model of all that technology had done to make possible the expression of a truly "free" psychopathology.

(p. 36)

There is a longing for re-conceptualizing and thus perhaps moving beyond the definition of the human that is determined by the high-rise; yet this transition is, at the same time, enabled by the structure, by the 'machine'.

In *High-Rise*, distinctions that once strictly demarcated the human category remain fuzzy and boundaries are blurred to the extent that categorical dismantling becomes necessary. Following her comment that Ballard occupies the role of a social critic, Jeannette Baxter comments that 'If the adjective Ballardian is to be understood as providing some kind of mirror on the contemporary world, then it is a mirror which distorts'.⁴⁵ Distortion occurs throughout *High-Rise* especially in terms of re-evaluating accepted definitions, of re-arranging and re-assigning traditional alignments, in this case regarding the human.

Ballard's 'nightmare logic' operates on the principle of alteration, thus aligning *High-Rise*

⁴⁵ Jeannette Baxter, 'Introduction: J.G. Ballard and the Contemporary', in *J.G. Ballard: Contemporary Critical Perspectives*, ed. Jeannette Baxter (London: Continuum, 2008), pp. 1-10 (p. 2).

with a posthuman discourse that suggests that the human can no longer be considered in terms of a stable, fixed identity.

Ballard's 1975 text is a social and political commentary, a work of speculative fiction set in an alternate present. From one perspective, the text displays the idea that machines can no longer be considered as separate from humans, but can be viewed as 'continuous with the tools and machines they construct'.⁴⁶ If the machine is already part of the human, then how can the human resist or derive fear from machines? Themes discussed in *Crash* and *High-Rise* are revisited in *Concrete Island*, not from the motorway or the high-rise, but from a space of exceeding 'betweenness':⁴⁷ the traffic island.

The Concrete Humans of *Concrete Island*

Concrete Island is centred on the conditions precipitating as a result of the protagonist, Robert Maitland's, initial crash, his marooned predicament on a traffic island, and his indecisiveness regarding 'escape'. Like *Crash*, the text commences with a literal crash, so that the violent, traumatic event could be read as an epiphany-inducing moment. As in *Crash*, where Ballard's transformative voyage begins only after a violent encounter with the machinery of the automobile, so too does Maitland begin to reassess his relationship to the machine and the environment after an accidental mis-manoeuvring of his automobile.

⁴⁶ Bruce Mazlish, *The Fourth Discontinuity: The Co-evolution of Humans and Machines* (New Haven and London: Yale University Press, 1993), p. 5.

⁴⁷ As explained in the introduction to this section, this term is a deliberate reference to Roger Luckhurst's thesis regarding Ballard's fiction as occupying 'the angle between two walls'. Luckhurst asserts that 'Ballard renders visible the space *between* frames, exposes the hidden assumptions behind the secure categorizations of literature and literary judgment' [*The Angle Between Two Walls: The Fiction of J.G. Ballard* (Liverpool: Liverpool University Press, 1997), p. xiii; emphasis in original].

Roger Luckhurst comments that '*Concrete Island* is the shadowy double of *Crash*'.⁴⁸

Similarities between the two texts extend beyond the initial crashes that frame each narrative, extending into the realm of human and machine conflagration.

In a similar style to *Crash* and *High-Rise*, *Concrete Island* depicts a gradual merger of the formerly 'concrete' designations between inner and outer. When, for instance, Maitland discovers an abandoned cinema that reminds him of his childhood, the narrator comments that 'More and more, the island was becoming an exact model of his head'.⁴⁹ Imposition of identity onto the landscape typifies the narrative as Maitland undergoes a process of self-disintegration. When Maitland tries to contact the outside world by writing messages on a concrete slope visible to passing drivers, a rain shower immediately washes away his attempts, and the narrator informs us that 'He knew that he was not merely exhausted, but behaving in a vaguely eccentric way, as if he had forgotten who he was. Parts of his mind seemed to be detaching themselves from the centre of his consciousness' (p. 63). The process of surrendering the 'self' to an architectural space, in this case the island, is especially apparent in the following passage:

He surveyed the green triangle which had been his home for the past five days. Its dips and hollows, rises and hillocks he knew as intimately as his own body. Moving across it, he seemed to be following a contour line inside his head.

The grass was quiet, barely moving around him. Standing there, like a shepherd with a silent flock, he thought of the strange phrase he had muttered to himself during his delirium: I am the island.

(p. 131)

⁴⁸ '*The Angle Between Two Walls*', p. 134.

⁴⁹ J.G. Ballard, *Concrete Island* (1974; St. Albans: Granada, 1976), p. 69. All further references to this text are to this edition and will be given parenthetically.

As in *Crash* and *High-Rise*, the environmental space inhabited by the characters becomes indistinguishable from its inhabitants. Colombino comments on the phenomenon:

It is no accident that the changing rhythms of his body and psyche determine a constant fluctuation and redefinition of space and its boundaries. The island becomes an introspective palimpsest, the site of constantly renewed psychosomatic inscriptions.⁵⁰

Colombino here focuses on how the island becomes a site upon which Maitland begins to write himself, yet this tablet is constantly changing. An identity less stable than humanist philosophy would presume is thus illustrated. The physical space of the island becomes an aspect of the human, and vice versa: the island and Maitland's state of mind are presented as interconnected. Hence, the barrier between internal, individual self and external environment is broken down. In this sense, the text presents a posthumanist slant: the characters are decentred as they are subsumed and controlled by influences beyond the human. Inner and outer mergers typical of the concrete-and-steel trilogy recur here, conveying a posthumanist subjectivity that disavows the boundaries between organic and inorganic.

Maitland begins to rely upon the island as a mollifying device:

he was at last beginning to shed sections of his mind, shucking off those memories of pain, hunger and humiliation—of the embankment where he had stood screaming like a child for his wife, of the rear seat of the Jaguar, where he had inundated himself with self-pity...All these he would bequeath to the island.

(p. 156, Ellipses in original)

⁵⁰ Laura Colombino, 'Negotiations with the System: J.G. Ballard and Geoff Ryman: Writing London's Architecture', *Textual Practice*, 20:4 (2006), 615-35 (p. 621).

Identity as subsumed by the island is represented, but Maitland takes this analogy one step further when he envisions the island enabling a bodiless realm:

As he tottered about, Maitland found himself losing interest in his own body, and in the pain that inflamed his leg. He began to shuck off sections of his body, forgetting first his injured hip, then both his legs, erasing all awareness of his bruised chest and diaphragm [...] Identifying the island with himself, he gazed at the cars in the breaker's yard, at the wire-mesh fence, and the concrete caisson behind him. These places of pain and ordeal were now confused with pieces of his body.

(p. 70)

Attempts to reject his bodily presence hint at a humanist subjectivity: a separation of mind and body re-invokes a version of Cartesian dualism. Yet this is complicated in the text by the merger of the flesh and the inanimate. Maitland gradually affiliates his body with the material characteristics of the island, surrendering the sanctity of his separate and human identity in favour of a more cohesive and integrated existence.

Concrete Estrangement

The narrative presents an unresolved struggle, instigated by a traumatic crash, between the human and its constructed environment. Maitland is positioned between the motorway and the accidental and unforeseen consequence of the motorway's construction, a triangular traffic island. Discussing this feature of the text, Gašiorek remarks that

The concrete island on which Maitland crashes is not just a metaphor for his mind but also a symbol of the waste and destruction modernity leaves in its wake. It is a non-place in precise ways: it exists solely as the space left over and in between a series of interlocking highways, which define and isolate it; it is a forgotten patch of waste ground shaped by the discarded remnants of urban life; it is a habitus for the city's rejects, who are forced to live on its margins. This non-place functions as an

abject, alienated microcosm, the dark other to the mundane reality from which Maitland is so suddenly removed.⁵¹

As Gąsiorek intimates, the environments amidst which Maitland finds himself situated are artificially assembled; the text operates solely within 'human-made' surroundings. Yet several significant scenarios arise due to this fact: a) the island setting constructs an atmosphere of estrangement; b) estrangement is derived from Maitland's relationship to the traffic island; c) estrangement is derived from Maitland's relationship to the world external to the traffic island; and d) Maitland expresses an eventual acceptance of his circumstances of entrapment. Each of these scenarios occurs within the text, and because each setting is a 'construction', it is through large-scale physical entities that a metaphor for the machine can be derived. Here, the machine, and its constituent technologies, is embodied systemically in the constructions it enables.

Concrete Island offers a situation common to several other science fiction and 'adventure' tales: the plot is centred on a protagonist who begins to question his heretofore acquired knowledge. The quotidian space of Maitland's perception is overturned by his experience on the island. Colombino comments that

Here Ballard conveys the idea that any spatial knowledge overloaded with conventions and reassuring habits [...] to which we adjust [...] can be unsettled by the dramatic amplification of ordinary psycho-biological ranges.⁵²

Certainly, the process of unsettling human identity is undertaken in the narrative. Such an analysis, however, first requires an acknowledgement of the role of setting in enabling

⁵¹ J.G. Ballard, p. 108.

⁵² 'Negotiations with the System, p. 620.

'dramatic amplification' to occur. As in various texts that might be considered *Concrete Island's* forbears—including *Robinson Crusoe* and *The Tempest*⁵³—the island setting precipitates a transformative process.

Early in the novel, the protagonist witnesses his world slipping away into the concrete horizons that delimit the traffic island. Perspectival upheaval occurs immediately following the initial traumatic car crash; and, following his jolt through the barriers of 'civilisation' into the physically constrictive confines of an inescapable traffic island, Maitland is introduced to an expanding landscape. The parameters of isolation are reiterated throughout the first chapters of the novel: 'the island was sealed off from the world around it by the high embankments on two sides and the wire-mesh fence on its third' (p. 13). Yet, as time moves forward, the constrictiveness of the island is lessened, and acknowledgement of expansive alternatives offered by the traffic island catalyses a physical expansion of space. Maitland's perspective on his former existence is thus transformed as the island becomes a means of escape from the confines of 'civilisation'. The island setting provides the first point of departure for such a reading.

The physical conditions of Maitland's entrapment are described by the architecture of the traffic island and its surrounding area:

⁵³ Both Luckhurst and Delville comment on the critical connection of Ballard's work to these texts. Delville notes that 'The synopsis of *Concrete Island* immediately evokes the myth of Robinson Crusoe' (p. 42); and also comments that 'Ballard's frequent references to such primal narratives as the Bible or Shakespeare's *Tempest* clearly indicate that his purpose is not to perpetuate stereotypes but to make archetypal figures of the past relevant to our present condition' (*J.G. Ballard*, p. 47). In his discussion of *Concrete Island*, Roger Luckhurst asserts that: 'Crusoe parallels are evident; so too the echoing, in Jane, Proctor and Maitland, of the principal figures of *The Tempest* (even down to Proctor's first steps in writing being a "learning to curse", like Caliban' (*The Angle Between Two Walls*, p. 137).

The slope up to the feeder road was more than thirty feet high and even steeper than the embankment of the motorway. Where the two roads met, at the western apex, the earth slopes gave way to vertical concrete walls.

(p. 33)

The architectural arrangement of the traffic island delimits the possibilities of Maitland's getaway:

The morning rush-hour was under way, thousands of vehicles pouring back into central London. Horns sounded above the guttural roar of diesel engines and the unbroken boom of cars passing through the overpass tunnel.

(p. 29)

Furthermore, the injuries Maitland has endured stand as a barrier to his potential to contrive and then enact a plan that might result in a successful breakaway. The narrator informs the reader that: 'He was still twenty feet from the embankment—even if he were to reach it he would never be able to climb the steep and unpacked slope' (p. 31). Each of these factors contributes to Maitland's initial foreboding feeling regarding the island and the impossibility of rejoining his previous life.

The seemingly hopeless pursuit of escape from the island is reiterated throughout the first half of the novel. The narrator comments that 'Given the peculiar topography of the island, its mantels of deep grass and coarse shrubbery, and the collection of ruined vehicles, there was no certainty the he would ever be noticed at all' (p. 43). As a result of his predicament, Maitland's feelings of isolation and despondency surface: 'Maitland felt himself alone on an alien planet abandoned by its inhabitants, a race of motorway builders who had long since vanished but had bequeathed to him this concrete wilderness' (p. 149). The significance of this quotation is heightened when one remembers that civilisation is within view, within grasp, even, of Maitland at all times. Despite proximity to Maitland's

former reality, an impenetrable wilderness emerges on the concrete island, and, consequently, a state of deep isolation. The machine-centred world from which Maitland has emerged is temporarily marginalized and the result is a questioning of those parameters that have defined the protagonist thus far. A forging of new categorical inscriptions results.

Maitland is stranded in the midst of the machine of Western society, stuck amid the detritus of one of its most exemplary technologies of transformation and 'progress': the automobile. The first half of the narrative depicts the struggle of human against machine.

Towards the beginning of the narrative, the following description is provided:

Maitland stopped and turned back, but the skidding car was already on him, the young driver wrestling with the wheel as he lost control. Maitland felt the car rush through the air towards him. Before he could shout the car had plunged into a wooden trestle which Maitland had kicked into the road. The pinewood frame hurled against him. He felt his legs knocked away and was flung backwards through the dark air.

(p. 22)

Moments like this portray the struggle of the human against the insurmountable systemic 'machine' — the highway, the motorcar, the debris of civilization. The human character is depicted as dethroned from the seat of control and, in *Concrete Island*, it is the actual, literal machine of the car that instigates a power shift. Yet throughout the text, a wider connotation for the machine is realised: the machine comprises a 'system' wielding powers over which the human no longer has ultimate authority. Yet posthumanist theory suggests that the semblance of such authority was always an illusion anyway. The human has never had as much control as the parameters of a humanist philosophy would lead one to believe. *Concrete Island* participates in the disintegration of the humanist mode of perceiving the

human, especially in its depiction of a character estranged from a surrounding environment that was formerly perceived as familiar and non-threatening.

In one sense, then, the text can be read as a 'human-versus-machine' narrative, as a kind of survival struggle against the machine and the machinic society it produces. Yet, alternatively, this reading can be further scrutinised as it becomes apparent that the consequence of illustrating the struggle is a re-aligned human subjectivity, one that decentres the human, but also one that questions the role of the human in relation to the machine. If Maitland, before arriving on the traffic island, was implicit within the systematic machine that is now asserting its weight and influence, then how separate from this machine is the human in the first place? The text opens various strains of interpretation, thus aligning itself with Luckhurst's comment about *Crash*:

[I]t is surely significant that *Crash* can support so many self-sustaining yet entirely contradictory readings. It might be that the studied neutrality of the text cunningly reshapes itself to whatever theoretical approach is thrown at it.⁵⁴

A similar statement could be applied to *Concrete Island*, published just one year after *Crash*. In addition, the text undergoes various transformations and inversions within its narrative, one of which involves Maitland's shift from viewing the island as entrapping to viewing it as liberating.

As the text progresses, an inversion occurs in which Maitland shifts from regarding the island as intimidating, unwelcoming and confining, to his viewing the world surrounding the island—the ocean of concrete, tarmac and traffic—as the alienating force. Maitland's predicament, therefore, is never entirely considered destitute or strictly

⁵⁴ Roger Luckhurst, 'J.G. Ballard: *Crash*', p. 518.

unpleasant. The narrator tells us that 'Despite his injuries and the damage to the car, his fears that he might be stranded for ever on the island seemed almost paranoid' (p. 34). The non-acceptance of helplessness is perhaps a result of his 'island' exile being performed in the midst of 'civilization'. During one of Maitland's first attempts to escape, the reader is informed that 'Three hundred yards away, beyond the eastern entrance of the overpass, was the call-box of an emergency telephone, but he knew that he would be killed if he tried to walk through the tunnel' (pp. 18-19), a bittersweet reminder of the ineffectuality of the human in the face of its self-constructed machines. Maitland is remarkably exiled within the nexus of the societal machine, standing amid the symbols and arbiters of 'progress' and 'technology' constructed by the human. A quotation from J.G. Ballard relates to this scenario:

Really, it's not the car that's important: it's *driving*. One spends a substantial part of one's life in the motor car and the experience of driving condenses many of the experiences of being a human being in 1970, the marriage of physical aspects of ourselves with the imaginative and technological aspects of our lives. I think the 20th century reaches just about its highest expression on the highway. Everything is there, the speed and violence of our age, its love of stylization, fashion, the organizational side of things—what I call the elaborately signalled landscape.⁵⁵

The protagonist of *Concrete Island* is situated within this 'signalled landscape', and through its position on the brink of several motorways, the traffic island serves as a cultural space in which 'experiences of being a human being in 1970', for instance, are explored—not from the dashboard of the automobile, but from the detritus beneath its chassis, from the

⁵⁵ Lynn Barber, 'The Penthouse Interview: J.G. Ballard: Sci-Fi Seer', *Penthouse Magazine*, May 1970, pp. 26-30. Emphasis in original.

materials that remain after the rubber tyres have sped off, from the spectral forms lurking in the vehicle's exhaust fumes.

Concrete Island presents a situation in which the impetus of estrangement becomes inverted. First, Maitland is estranged by his lack of access to 'civilisation', and then he is alienated by the possibility of regaining a foothold within this construct. The topography of the external world of which Maitland was once a part but from which he has now been exiled takes on a threatening posture:

In his aching head the concrete overpass and the system of motorways in which he was marooned had begun to assume an ever more threatening size.

(p. 49)

The overbearing structures of the world apart from the traffic island become antagonising features: 'the whole city was now asleep, part of an immense unconscious Europe, while he himself crawled about on a forgotten traffic island like the nightmare of this slumbering continent' (p. 25). The character of Jane, a woman whom Maitland eventually discovers inhabiting the island, reiterates the estranging effects of the external world when she comments on the lack of consideration in contemporary society: "'So no one stopped? I suppose you were surprised. These days we don't notice other people's selfishness until we're on the receiving end ourselves'" (p. 83).

Maitland's perspective also shifts concerning the geographical features of the traffic island. The longer Maitland remains, the more the island expands: 'The embankments seemed further away from him on all sides. By contrast the island appeared far larger, covered by a dense and luxuriant growth' (p. 122). The island appears larger and more

accommodating as 'civilization' becomes increasingly threatening. As the external world poses a rising hazard, Maitland develops repugnance for it: 'Gazing up at the maze of concrete causeways illuminated in the night air, he realized how much he loathed all these drivers and their vehicles' (p. 20). Though only a short time ago part of that 'maze', his transition to distaste occurs quickly. With this shift, the technological impositions of civilization loom larger and appear more inaccessible. Regarding the embankment, Maitland notes that 'not only had the slope become steeper than he remembered it, but the hard shoulder and balustrade seemed twenty feet higher' (p. 125). As a result of the island's increasing appeal, like most Ballardian protagonists, Maitland comes to accept his situation, even embrace it. He begins to consider the island as a kind of abode: 'The concrete junction of the two motorway routes shone in the sunlight like an elegant sculpture, and Maitland often visualized using its high deck as a pleasant roof garden' (p. 143). The architecture of the concrete terrain transitions from a harsh, inhospitable locale to a luxuriant space that supports and nurtures life.

As Maitland's 'estrangement' triggers are inverted, the text joins the ranks of science fiction classics, such as Yevgeny Zamyatin's *We* (1921), Aldous Huxley's *Brave New World* (1932), George Orwell's *Nineteen Eighty-Four* (1949), or Vonnegut's *Player Piano* (1952). The scenario of resistance and awareness is repeated: the protagonist undergoes a violent event or catastrophic occurrence which initially instigates feelings of isolation and estrangement from the society against which the character protests. Later, however, the protagonist discovers an underground, subversive group of resisters who share common sentiments, thus enabling a resistance plot to unfold. Similarly, *Concrete Island* illustrates the estranging

force of a machine-reliant architectural space, a system that encourages isolation—one is alone in the car, in the high-rise flat, in front of the computer screen—and thus prevented from the possibility of unification and the arrival of cooperative understanding.

While standing, as Luckhurst puts it, as *Crash*'s 'shadowy double', the text also alludes to *High-Rise*. At one point, the following description is provided: 'The towers of the distant office-blocks rose into the afternoon air. Searching the warm haze over Marylebone, Maitland could almost identify his own building' (p. 16). Confined within the traffic island, Maitland envisions his former entrapment within his high-rise office. Again, as if pre-empting the composition of Ballard's next novel, when Maitland looks to the west, he sees, '[s]ilhouetted against the evening corona of the city, the dark façades of the high-rise apartment blocks hung in the night air like rectangular planets' (p. 23). It is almost as if the plot of *High-Rise* is occurring contemporaneously; behind the opaque windows of the building glimpsed by Maitland, a war is raging, and, meanwhile, Vaughan and Ballard speed past the traffic island while Maitland cries for help, balking beneath the hedonistic auto-affairs of *Crash*.

Estrangement from Maitland's former existence is reinforced, however, by the language utilized in the above passage. '[P]lanets' alludes to the mysterious, unexplored realms of outer space, in this case supplanted by exploration of contemporary society. And, like *High-Rise*, the narrative describes an uncanny isolation, occurring amidst the architectural milieu of twentieth-century Western society. Also as in *High-Rise*, however, where the characters eventually open their doors of isolation and communicate with fellow inhabitants, contact with hidden enclaves of resistance is enabled in *Concrete Island*, as

Maitland meets the island's occupants: Jane and Proctor. The text ultimately celebrates the freedom to be perverse, to be non-conventional, to be machine, to be animal. When Maitland questions Jane about her past life—based on a pile of photographs he discovers in her living area—Jane responds that she “‘came here to get away from all these moral attitudes...People are never happier than when they're inventing new vices’” (p. 115). The liberation embodied within the text is often depicted as a freedom to extend the parameters of a heretofore-accepted reality. Like in *High-Rise*, the technological system redefines the materials and borders of social control. When this system ceases to exert influence and command, the introduction of a revised social order is necessitated. In *Concrete Island*, the subsequent introduction of others who also have arrived already at these beliefs strengthens this transition. So when Maitland discovers Jane, a prostitute living in an abandoned bunker on the traffic island, and Proctor, an illiterate ex-circus performer who has also made the island his home, the plot aligns with other tales of science fiction where resistance to a 'mainstream' lifestyle is paramount. Similar to protagonists of what might be termed 'science fiction resistance plots', Maitland remains sceptical of both his former lifestyle and the new possibilities offered to him, continuing to consider himself an outsider, a castaway on his newly discovered island of opportunity.

In this sense, Ballard's stories always arrive at 'the alien'. The concrete-and-steel trilogy is characterized by the presence of a protagonist who experiences a crash, and subsequently considers himself estranged from the society from which he has emerged and which forged his identity up to the moment of impact. Also, however, the protagonist considers himself estranged from the hidden societies that he eventually discovers.

Ballard's brand of science fiction explores the 'inner', not only in terms of psychoanalysis and the human mind, but also in terms of the 'inner' spaces of society: hidden resistances, alternatives to the normative. Yet still Ballard's protagonists continually embody ambivalence—in-betweenness, as Luckhurst puts it—and these occupations disable commitment to any singular theme.

Concrete Acceptance

As Maitland's perspective on the island shifts, and as he assimilates his body to the island, a degree of acceptance is conveyed. 'Human versus machine' is replaced by human as machine, or human embraces machine. By Chapter Nine of the novel, Maitland decides to reject a return to civilisation. Just as Wilder expresses his desire to conquer the high-rise, so does Maitland determine to battle against the island: 'As he was already well aware, it was this will to survive, to dominate the island and harness its limited resources, that now seemed a more important goal than escaping' (pp. 64-65). Colombino comments that 'We are kept uncertain whether Maitland is inescapably trapped or just reluctant to leave, forever bound to play over and over again his desire/unwillingness to escape'.⁵⁶ An inversion occurs with regards to Maitland's urge to escape; he now avoids the possibility of discovering a way out. While early in the text Maitland considers to himself that he is "'marooned here like Crusoe'" (p. 32) and must enact a plan of escape to avoid endless entrapment, the conditions of confinement are ultimately re-codified. Maitland's decision to remain on the traffic island enables an escape from his former life.

⁵⁶ 'Negotiations with the System, p. 620.

In this sense, then, the text engages with Ballard's nightmare logic. What Maitland is or is not escaping from is unclear. The nightmare becomes entangled with the dream. Michel Delville identifies Maitland as 'an inverted Robinson' who 'does not try to recreate a civilized society on a miniature scale but, instead, goes through a process of initiation that draws him away from civilization into the deepest and most primitive reaches of his unconscious self'.⁵⁷ The rejection of civilization demonstrated by Maitland provides an inverted means of analysing the island setting. In her analysis of *Concrete Island*, Laura Colombino comments on this point, stating that 'In short, every fixed concept of space is turned inside-out, every meaning is reversed and undone'.⁵⁸ Through these inversions of expectation, one can also reread the human in Ballard's fiction.

The human is at once entrapped and enabled by its systems of technology, its machines of progress. Maitland is physically trapped between concrete and automobiles, high-rises and tarmacadam, yet this scenario affords him a choice: to join the machinic milieu, to adapt to the environment, as demonstrated by the characters in *Crash*, or to resist the machine, to fight against the building, as the characters in *High-Rise*. *Concrete Island* comes between these two seminal concrete-and-steel texts and occupies a position of deeper ambivalence as a result. At one point in the text Maitland intimates: "'I don't want anyone to know I'm on the island'" (p. 167), a hint at his unwillingness to rejoin civilisation, but also an exposition of the shame that accompanies such a decision. Colombino comments upon such an idea when she states that

⁵⁷ J.G. Ballard, p. 42.

⁵⁸ 'Negotiations with the System', p. 620.

It is no accident that Maitland's transgression, his yielding to things that are fatal and voluntarily uncontrolled, is condemned to take place hidden from society's hegemonic panoptic gaze [...] The aesthetics of vanishing (as self-erasure from the world of signs) is an exception and an individual event whose meaning (or rather meaninglessness) cannot be taken in and appropriated by society. Maitland's journey through the spires and up to 'the dead centre of' the island's 'maze' (p. 63) implies his desire to get in touch with a looser subjectivity, which, stripped of both ego and social 'architectural' superstructures, becomes more intimate with one's physical, animal being.⁵⁹

How this situation relates to the animal will be discussed in the following chapter of this thesis. Here, however, Maitland's marooning instigates a perspectival shift; he is able to view the society that has formed him from a new angle. At the text's conclusion, Maitland opts to challenge the traditional structures determining the societal 'machine' from which he has materialised by building an alternative life on the traffic island. Yet Maitland decides to be counted as a missing person, rather than explain his decision to those who remain ensconced in his former lifestyle.

Concrete Island explores what Ballard terms the 'technological landscape',⁶⁰ in which, he questions: 'Is there some deviant logic unfolding more powerful than that provided by reason?'⁶¹ Within *Concrete Island*, 'reason' is supplanted by 'perversion', which is represented in various manifestations—from Maitland's relationship with Jane, to his refusal to 'escape' the traffic island and return to the 'normative' moral centres of society. The *Oxford English Dictionary* provides several definitions of 'perverse', including the following: 'Of a person, action, etc.: going or disposed to go against what is reasonable,

⁵⁹ 'Negotiations with the System', p. 622.

⁶⁰ 'Introduction', in *Crash*, p. iii.

⁶¹ *Ibid.*

logical, expected, or required; contrary, fickle, irrational'.⁶² This definition points to a reliance on an accepted method of behaving, and thus to a moral certitude that might be established externally, by societal law, or intrinsically, by accepted community values. Etymologically speaking, the Latin root *perversus* connotes the idea of being 'awry, unnatural, abnormal, wrong-headed, or misguided',⁶³ again relying on a solid, incontrovertible notion of what is 'right'. Ballard's question regarding a logic more powerful than reason thus connects his enquiry to the issue of perversion. His characters' willingness to explore perversions, un-reasonable arenas, demarcates Ballard's work as engaged in a process of boundary re-inscription.

Concrete Island challenges the notion of a moral centre, and depictions that can be read as 'perversities' become mere elements of the human that are often suppressed and hidden by the constructed laws of human society. Comparably, *High-Rise*, in part, suggests that it is these constructed communities that define humanity, without them the human is 'insane' or 'machine-like'. What is present within Ballard's concrete-and-steel phase on the whole is an imaginative speculation on what the human is, what it might be, and what it might one day become. As Ballard states, the writer:

offers the reader the contents of his own head, a set of options and imaginative alternatives. His role is that of the scientist, whether on safari or in his laboratory, faced with an unknown terrain of subject. All he can do is to devise various hypotheses and test them against the facts.⁶⁴

⁶² *Oxford English Dictionary Online* < <http://dictionary.oed.com> > [Accessed 25 September 2010].

⁶³ *OED Online*.

⁶⁴ 'Introduction', in *Crash*, p. ii.

How Ballard takes his readers deeper into this 'safari' is the topic of the next section of this chapter, in which analysis focuses on the implications of evolutionary themes in the trilogy.

Crashing into the Evolutionary Machine

The concrete-and-steel trilogy entertains several common thematic strains: the continual display of human merging with machine, the increasing difficulty displayed when attempting to distinguish life from non-life, human from non-human, as well as an excitement-laden acceptance of the machine. Each of these focal points raises questions of human and machine evolution. *Crash*, *High-Rise*, and *Concrete Island* can be read as theoretical investigations of the adaptive shift of the human towards machinic integration. Themes discussed thus far—including the perceptual merging of organic and inorganic, in both quotidian and sexual encounters—lend themselves to an interpretation that takes into consideration the shift that the human is undergoing in relation to the machine. Implicit within this exploration is also a question of evolution and one of its driving forces, adaptation.

Evolutionary perspectives on Ballard's fiction provide a means of analysing the wider context of narratives like *Crash*, *High-Rise* and *Concrete Island*. As these texts call into question the category of the human, the organic and the inert, so too do these novels evoke the potential for re-assessing the parameters of evolutionary change. The 'evolutionary machine' incites adaptive measures for the evolutionary human animal. Various theoretical standpoints derived from a Darwinian worldview intersect thematically with scenarios depicted in Ballard's fictions.

Participant Evolution

A concept first discussed by Manfred E. Clynes and Nathan S. Kline in their article 'Cyborgs and Space',⁶⁵ participant evolution posits the notion that the human can adapt to technological change, thereby advocating the interception of the human with its own evolutionary course. During a subsequent interview regarding the concept, Clynes stated that

We are presently programmed biologically for a certain rate. There is nothing *absolute* about that rate [...] Evolution is more than survival of the fittest. And participant evolution can make fit the adventurous, the self-chosen unfit, and probably improve the qualities of life more effectively, even in the long run, than by just waiting for the less fit to become extinct.⁶⁶

Starting conceptually from 'participant evolution' as outlined by Clynes and Kline—scientific researchers in the field of physiology and psychiatry, respectively—a connection can be forged between the concept of 'participant evolution' and the fictional depictions provided by Ballard's trilogy. The idea that the human might have a role to play in its own evolutionary trajectory is one that relates closely to the posthuman—in both its suggestion that there is a potential to occupy a non-humanist definition of the human, and in its acknowledgement of evolutionary principles of adaptation and change. Evolutionary trajectories have been considered by critics working within various theoretical fields, in both the sciences and the humanities. Chris Hables Gray, for example, comments on the

⁶⁵ Manfred E. Clynes and Nathan S. Kline, 'Cyborgs and Space', *Astronautics*, September 1960, 26-27, 74-76.

⁶⁶ Chris Hables Gray, 'An Interview with Manfred Clynes', in *The Cyborg Handbook*, ed. Chris Hables Gray, Heidi J. Figueroa-Sarriera and Steven Mentor (New York and London: Routledge, 1995), pp. 43-53 (p. 53). Emphasis in original.

possibility of escaping a potential evolutionary nightmare by seizing the reigns of the human's trajectory. He states that

[W]ith the advent of genetic engineering, we not only can consciously evolve and invent our machine companions, we can do the same for our bodies. This is clearly a major step beyond natural selection and the careful breeding Darwin called artificial selection [...] We have an opportunity, if we take participatory evolution seriously, to be free of both the rule of blind chance-necessity (the Darwinian perspective) and its opposite, distant absolute authority (creationism).⁶⁷

Although here Gray is identifying advances in genetic engineering as potential contributors to 'participant evolution', the conceptual shift that this requires is implicit in Ballard's narratives, where the human is re-configured in terms of the machine, especially as perceived in the Cartesian model. In Ballard's trilogy, the question of the human, the machine and the relationship between the two is placed at the forefront, and a movement towards integration is highlighted.

In an interview with the director of the screen adaptation of *Crash* (1996), David Cronenberg speaks on this topic:

What I think has happened is that we have seized control of evolution without being aware of it. Survival of the fittest as a principle-one now has to say, what does "fittest" mean? It might be the guy who makes money the best in a capitalist society. There are cultures which embody the notion of suicide within them. . . . [I]f you can get enough people to will it along with you, it is the reality.⁶⁸

Cronenberg suggests that evolution has become a conscious method on the part of the human and therefore can encompass an evolutionary path towards destruction, as represented in *Crash*, for instance. In terms of the fictional prognostications of *Crash*, the

⁶⁷ *Cyborg Citizen*, p. 3.

⁶⁸ David Cronenberg, quoted in Mikita Brottman and Christopher Sharrett, 'The End of the Road: David Cronenberg's *Crash* and the Fading of the West', *Literature/Film Quarterly*, 30:2 (2002), 126-132 (p. 129).

text can be read as presenting a behavioural shift—having sexual relations with machines—that might eventually instigate and constitute an anatomical change. A character like Gabrielle certainly suggests such a possibility. How far can the human body be modified before the long-term implications of this modification impact behaviour to such an extent that an evolutionary shift might occur? Or, perhaps evolution has ceased except with the incorporation of the machine, as Bruce Mazlish suggests when he claims that

evolution in humans increasingly has unfolded in terms of culture—our “second nature”; indeed, human physical change has largely ceased except, as I shall try to show, in the form of prosthetic adaptation, that is, mechanical means.⁶⁹

Mazlish’s ‘fourth discontinuity’ can be identified as the moment when the human and the machine become evolutionarily inseparable. He comments that ‘we can also consider seriously the question whether, broadly defined, *evolution* is taking a new direction with the increasing presence of machines’,⁷⁰ a speculation that is certainly present within the pages of Ballard’s trilogy. In one sense, Ballard’s *Crash* could be read as a manifestation of this idea, in that the human characters’ desire to morph with the machine is overwhelmingly sexual, suggesting an affinity with the machine beyond technophilia. Or, perhaps the machine is already, in some way, inherent within the human. Foley offers an evolutionary perspective on this premise when he speaks of ‘technology’ and the human, commenting that

Perhaps [...] anatomy is not the appropriate criterion, for after all, it is our behaviour that really distinguishes humans from the rest of the animal world. Technology,

⁶⁹ Bruce Mazlish, *The Fourth Discontinuity: The Co-evolution of Humans and Machines* (New Haven and London: Yale University Press, 1993), p. 7.

⁷⁰ *The Fourth Discontinuity*, p. 13. Emphasis in original.

perhaps may be the key [...] this has been strongly associated with becoming human.⁷¹

Foley discusses the role that technology plays in defining the moment when the human emerged:

To many, tool-making has been the decisive factor. Even a cursory glance at the world shows that humans depend on technology to an extraordinary extent. This is not just the case for urban, industrial peoples, but for all societies. Houses, food, weapons, games, all involve technology to some extent even if they are relatively simple in construction [...] Technology is the means by which the human world is created.⁷²

This perspective enables a conceptualization of the human that considers the machinic as an original element of the human as a species, as it moved farther from its evolutionary predecessors. If the incorporation of the machine is considered a defining step for the human, then Manfred Clynes' concept of 'participatory evolution' becomes even more applicable, as awareness of the potential role of the machine in evolution becomes apparent with the proliferation of human-machine interface.

Brian Baxter, in his discussion of the 'Darwinian worldview', speculates on the possibility of controlling human evolution:

[F]or a Darwinian there is another important, and rather neglected, issue, namely, whether the waste and suffering inherent in the process of natural selection means that we cannot properly be expected to have moral respect for a natural world within which such a process is absolutely central. Should we not seek rather to escape the nightmare of natural selection, and put as much distance as possible between ourselves and natural processes/entities?⁷³

⁷¹ *Humans Before Humanity*, p. 75.

⁷² Robert Foley, *Humans Before Humanity: An Evolutionary Perspective* (Oxford; Cambridge, MA: Blackwell Publishers, 1995), p. 43.

⁷³ Brian Baxter, *A Darwinian Worldview: Sociobiology, Environmental Ethics and the Work of Edward O. Wilson* (Aldershot; Burlington, VT: Ashgate, 2007), p. 12.

It seems that Baxter is here invoking a cyborgian perspective on evolutionary theory, one that distances the human from its 'natural' forbears by aligning an evolutionary trajectory within the technological realm. His use of the word 'nightmare' is intriguing, as it implies that natural selection, which, arguably, has been a major force behind the construction of the present day human, might be deemed nightmarish. Such an assertion borders on the fringe of Ballard's 'nightmare logic', posing a hurdle to strictly assigning the nightmare, and inverting traditional views on the evolutionary process. If Ballard's trilogy suggests a degree of participant evolution involving the human and the machine, then adaptation as a theme plays a role in the process of this transmutation.

Adaptation

The field of evolutionary biology lends assistance in establishing the parameters by which the notion of adaptation in relation to Ballard's texts can be addressed. Evolutionary biologist Robert Foley outlines some principles surrounding adaptation:

Apart from evolution—change through time—there is another consequence of natural selection. This is adaptation. In its simplest meaning this refers to goodness of the fit between an organism and its environment. The better fitted an individual is to its environment, then the better adapted it is. Adaptation is a consequence of natural selection because it is those individuals who are better adapted to their environment who will leave more offspring, and given the other conditions, then over time a population will come to be adapted to its environment.⁷⁴

If adaptation is largely concerned with the transformation of the organism to fit its environment, then such a situation seems to be occurring throughout *Crash*, *High-Rise* and

⁷⁴ *Humans Before Humanity*, p. 27.

Concrete Island. The texts suggest that in order to survive in the late twentieth century an acceptance, rather than a rejection, of the machine is necessary.

Adaptation is intrinsically connected to the process of evolution; without the transmutation that accompanies adaptation, shifts in the composition of organisms do not occur. In other words, if a species does not adapt, it does not survive. Hence, Robert Foley identifies adaptation as 'another consequence of natural selection',⁷⁵ apart from evolution. Speaking from a sociobiological perspective, John and Marry Gribbin note that 'the ability to be flexible and adapt is itself something that is part of our genetic inheritance and has evolved because it is successful'.⁷⁶ In discussions of evolution, adaptation plays a significant and constitutive role in shaping an organism.

Adaptation also plays an important role in Ballard's fiction. Michel Delville considers the 'autogeddon' aspirations of *Crash* as '[t]he motif of transcendence and collective transformation',⁷⁷ suggesting that an adaptive strategy may be at play in the narrative. Furthermore, Delville discusses Ballard's texts as espousing the 'view of human beings as conditioned and motivated by their physical environment',⁷⁸ noting that 'his characters are simultaneously activating and being activated by changes in their immediate environment'.⁷⁹ As discussed in the above textual analyses, the organic and the inert often conjoin in Ballard's fiction, thus relegating physical and mental environments as interchangeable and equally imperative in terms of subjectivity. A theoretical, fictionally

⁷⁵ *Humans Before Humanity*, p. 27.

⁷⁶ John and Mary Gribbin, *The One-Per Cent Advantage* (Oxford: Blackwell, 1988), p. 92.

⁷⁷ J.G. Ballard, p. 57.

⁷⁸ *Ibid*, p. 16.

⁷⁹ J.G. Ballard, p. 13.

displayed fluidity between the organic and the inert, the biologically inherited and the culturally constructed in Ballard's fiction can be seen to intersect with adaptation as a scientific concept explaining evolution. It is via the text of *Crash*, primarily, that the interrelationship of these themes can be explained.

‘[T]he transformative possibilities of the disaster’⁸⁰: Change Acceptance

Crash begins proleptically, with the protagonist describing the death of the car-crash cult leader Vaughan. The final paragraph describes the ‘unceasing flow’ of traffic and foreshadows continual car crashes. What might be conceived of as a nightmarish existence is supplanted by the characters’ willingness to accept and persevere in their predicaments. Acceptance constitutes the horizon of Ballard’s nightmare logic, and various critics have commented upon the repeated theme of acceptance in his oeuvre. Brian Baker, for example, comments that ‘Ballard’s protagonists are only too eager to embrace the transformative possibilities of the disaster, even if this is at the cost of personal dissolution’.⁸¹ Also noticing the trend, Scott Bukatman states that

Ballard does not necessarily embrace the emergent order of things, and the series of technological disaster novels he has produced reveal a profound suspicion of the new cultural formations. Yet the acceptance is paramount: Ballard’s protagonists are marked by their acceptance of the altered circumstances of reality.⁸²

This, then, is not the first attempt to discuss the theme of acceptance in Ballard. It is significant to note, however, that the acceptance characterising the events of *Crash*

⁸⁰ This quotation is taken from Brian Baker, ‘The Geometry of the Space Age: J.G. Ballard’s Short Fiction and Science Fiction of the 1960s’, in *J.G. Ballard: Contemporary Critical Perspectives*, ed. Jeannette Baxter (London: Continuum, 2008), pp. 11-22 (p. 15). See discussion in below section.

⁸¹ ‘The Geometry of the Space Age’, p. 15.

⁸² *Terminal Identity*, p. 46.

collaborates with a shift toward a subjectivity that desires an extension beyond the borders of the human bodily substrate.

The author Ballard offers a perspective on the motif of acceptance in his fiction. In an interview with Andrew Hultkrans:

Andrew Hultkrans: Many of Cronenberg's films deal with biological mutation, often mediated by technology. Some of your stories and novels deal with that as well. But there's a difference in the characters' response to these mutations - in Cronenberg there's usually some kind of visceral revulsion, a sense of horror in the face of extreme change. But in some of your works - *High Rise*, *Crash*, *The Atrocity Exhibition*, and *Concrete Island* (1974) - there's an almost calm, tacit acceptance of the new context, as if it were relatively natural. How are your heroes able to adapt to these disturbing transformations?

J.G. Ballard: [...] my characters, right from my early natural-disaster novels, accept the transformation taking place, because it's an externalization of some deep, unconscious—or semiconscious—need of their own. They embrace the catastrophe because they're keen to remythologize themselves, and rediscover the different world that lies beyond the transformation.⁸³

Here, Ballard offers a way of reading his texts, a method that focuses on the unconscious psychological manifestation of the characters' psyches onto the landscape. Once again, the theme of inner and outer merging is addressed, but in a way that also acknowledges the possibility of transformation as a positive process. As external and internal become difficult to distinguish, the characters participate in that process of 're-mythologizing' of which Ballard speaks. The human begins a process of being rewritten, both conceptually and physically, and demonstrates willingness towards enacting re-inscription. This compliance relates to the concept of adaptation.

⁸³ Andrew Hultkrans, 'Body Work', *Artforum International*, 35:7 (1997), 76-80, <http://www.jgballard.ca/interviews/jgb_hultkrans_interview.html> [Accessed 20 September 2010].

There is a desire, an excitement, which beckons from the margins of fantastic impossibilities, offering that ‘immense encyclopedia of accessible dreams’ (p. 19) of which the narrator of *Crash* speaks. But if we are to read this acceptance as an adaptive strategy, then non-acceptance would mean non-survival. Interestingly, in terms of Ballard’s trilogy, *High-Rise* depicts the most resistance to the machine, and also entails the most fatalities. A posthumanist attitude toward the machine would, instead, favour acceptance and adaptation to the shifting landscape, as the parameters of the human must be conceived of as already malleable. Chris Hables Gray expresses this sentiment when he comments that ‘The future is [...] a new environment. The future is what cyborgs are for. We have evolved to ride out future shock’.⁸⁴ Such a statement could apply to the characters in the texts discussed thus far, who, instead of rejecting the technological landscape and seeking an existence elsewhere, assimilate and adapt to the environment by attempting to establish a human subjectivity that enables the machinic to prevail.

Roger Luckhurst considers Ballard’s early texts—*The Drought*, *The Drowned World* and *The Crystal World*—as illustrations of ‘painterly post-disaster worlds in which traumatized survivors sought various ways to embrace, rather than defeat, oncoming death’.⁸⁵ The arguments laid out in this chapter do not stray far from Luckhurst’s point: faced with the oncoming death of the human at the hands of the machine, the characters begin to embrace a posthumanist subjectivity that incorporates the machine into the human. The result is a portrayal of the human adapting to the machinic landscape that can be read

⁸⁴ *Cyborg Citizen*, p. 195.

⁸⁵ *Science Fiction*, p. 148.

and further comprehended through the lens of evolutionary theory. Protagonists who willingly adapt to their environment enable survival. A slight paradox arises, however, when one considers that as the characters in the concrete-and-steel trilogy urge a merging of human and machine, the machine is still reliant upon a Western technocracy that is fallible and prone to fluctuations. Jeremy Rifkin raises a related concern in his discussion of biotechnology:

Human beings are tool makers by nature. We are continually rearranging and altering our environment to secure our well-being and enhance our prospects for a better way of life. We are also risk takers. How then, do we know which tools to use and what risks to take?⁸⁶

Gray, speaking of the cyborg shift, provides an intriguing potential response to Rifkin, commenting that: 'In the long run it may not be a good survival strategy, but we are committed'.⁸⁷ Is this the 'nightmare' that J.G. Ballard's texts depict? Or is it the utopian existence intimated via Haraway's cyborg and Ballard's 'bodily dream'? A paradox arises within the narrative of *Crash* when the characters begin to adapt to what is potentially an 'uninhabitable' milieu in order to survive. The question of the machine becomes entangled with the question of evolutionary initiatives.

Maladaptation

While the characters in Ballard's trilogy display an acceptance of the machine that hints at a participant evolutionary process, the attempts of the characters to adapt to the concrete and

⁸⁶ Jeremy Rifkin, *The Biotech Century: Harnessing the Gene and Remaking the World* (New York: Jeremy P. Tarcher/Putnam, 1998), p. 233.

⁸⁷ *Cyborg Citizen*, p. 195.

steel environment can also be read as a sardonic display of this impossibility. In Cronenberg's *Crash*, Vaughan (Elias Koteas) comments that the body's dream of becoming a machine is just 'a crude sci-fi concept',⁸⁸ thus rejecting the 'dream' of the cyborg, or the integration of the human and the machine, as unfeasible. Vaughan continues to state that the idea of a human/machine merger 'just floats on the surface and doesn't threaten anybody'. Ballard's texts, too, often present the impracticality of adapting to the concrete and steel habitat depicted in the trilogy. Carl Tighe observes that

Disconcertingly, *Crash* does not suppose the end of the world: humanity survives the invention of the car and then adapts to it—that is the problem. The point at which the car, instead of being shaped by humanity, has begun to shape humanity is one that has already gone by almost unnoticed. The book is a kind of auto-erotic dystopia.⁸⁹

If the human is going to act upon its evolutionarily-derived imperatives, the urge toward adaptation to the human's own artificially constructed environment will, theoretically speaking, lead to unrest. Yet, if the human adapts to a machine-dominated existence when, in fact, the system is finite and unsustainable, then the result will be a species maladapted to other environments that do not comprise machinic elements. *Crash* continually threatens to depict the human in an absolute merger with the automobile, yet the possibility of a new hybrid species emerging from such a conjunction incessantly 'floats on the surface' of the text. The physical union between human flesh and steel machine takes place within a theoretical realm that necessitates an acceptance without visible results. As mentioned previously, the tangible, physical cyborg is left unrealised.

⁸⁸ *Crash*, dir. David Cronenberg (Alliance Communications Corporation, 1996).

⁸⁹ Carl Tighe, *Writing and Responsibility* (London; New York: Routledge, 2005), p. 80.

Adaptation to a system that is dominated by the machine is often construed as non-conducive to ultimate survival. The question continually posed within *Crash*, for instance, is whether adapting to a system that has been constructed by the human indicates a viable evolutionary shift, or merely a phase of speculative prognostications inspired by technophilia. If one reads Ballard's text as his 1995 introduction instructs, as a warning, then it is a warning against adapting to a system that is not necessarily irreversible and, to some extent, not necessarily conducive to the future evolutionary trajectories and possibilities of the human. Boyne raises this question in his discussion of Cronenberg's

Crash:

If we are the disaster, if the disaster is us, right now, how would we know? In parallel to our disconnectedness from the past, there is our dislocation from what is to come; the meaning of our present is absent, unavailable to us.⁹⁰

Once again the question of where the nightmare is located arises. Attesting to the inability to ever firmly and absolutely locate the parameters of the disaster, the past, the present, the future, Boyne touches upon issues raised within *Crash*, as well as within the other concrete-and-steel narratives. As the characters in *Crash* navigate the surrounding society, they must come to terms with adapting to a system which may soon become uninhabitable, hence the need to reassess human subjectivity in terms of the posthuman. As already demonstrated, this is a major motif in *High-Rise*, yet one which also can be seen in *Crash*. Read in this way, *Crash*'s crashes move from the physical—from car crashing into car, body crashing into

⁹⁰ Roy Boyne, 'Crash Theory: The Ubiquity of the Fetish and the End of Time', *Anglelaki*, 4:2 (1999), 41-52 (p. 42) [Accessed 9 December 2009].

body and car crashing into body—to a consideration of how the human might be crashing into the entire machinic system under which it resides.⁹¹

Maladaptation as a theoretical structure for the relationship between the human and the machine in Ballard's trilogy strikes chords that are potentially damaging to the project of identifying the texts as posthuman science fictions. This is due to the complication that arises when one considers the machinic as separate from the human. If the human and the machine were one-hundred percent theoretically inseparable, their distinctiveness unidentifiable, then speaking of the maladaptation of the human to a machinic system would be futile. What is presented in Ballard's texts is a situation in which the boundaries between the two entities are made less firm and more conflicted than before; but, a definitive merger or ultimate conclusion on the relationship between human and machine is left unsettled. In relation to the subject of adaptation, however, it can be said that considerations based on evolutionary theories always presuppose a posthumanist perspective on the human. Focus shifts away from the human as a) central, b) superior, and, c) inseparable from the machine, in this case the 'evolutionary machine'. Bruce Mazlish contends that 'We are now coming to realize that humans are not as privileged in regard to machines as has been unthinkingly assumed',⁹² a statement which connects to the idea that an incorporation of machine into a definition of the human is called for. This idea is certainly represented in Ballard's texts. Despite the possibility of reading the human and the machine as colliding entities, the idea of transmutation nonetheless dominates.

⁹¹ Discussion of the relationship between the machinic landscape and the human as evolutionary animal will continue in more detail in Chapter Three.

⁹² *The Fourth Discontinuity*, p. 3.

The theories derived from evolutionary principles described above allocate the human as a biological entity that is subjected to an evolutionary machine that enforces a process of change over time. Considering how this process interrelates with the human subject, but also with the human-constructed machinic landscape, intersects specifically with the concerns of Ballard's trilogy. Speaking of *Crash*, Luckhurst states that one must 'understand it in all the complexity of its place in science fiction history and the explosive cultural and historical milieux of England in the early 1970s'.⁹³ While the emergent techno-science of the 1970s collides with Ballard's trilogy, so too, can the texts be considered in terms of the scientific theories that emerge within the biological realm. Each of the texts discussed above re-assesses the borders of the human and hence interacts with an emergent posthumanism that threatens to challenge some of the most pervasive and defining qualities of the humanist tradition.

Ballard's concrete-and-steel trilogy raises many questions concerning evolution, often leaving the resolution of these theoretical disputes unresolved. How can we discern the dream from the nightmare? Is the human the disaster and machine the triumph? Or is the machine already an integral part of the human definition and the disaster our inability to integrate—conceptually and physically? Is the machine inducing a catastrophic existence for the human, or does it offer a potential utopic existence? In typical Ballardian fashion, *Crash* remains ambivalent about these questions, but the ideas and scenarios raised by the text are manifold. Considered as a whole, the trilogy of which *Crash* is a part calls for an integration of both a posthumanist outlook on the human and machine, as well as a

⁹³ 'J.G. Ballard: *Crash*', p. 520.

posthumanities theoretical approach. The parameters of the humanist definition of the human are called into question by the proximity of the machine, thus necessitating a perspective on the human that considers the shifting status of the machine. In addition, the potential merger between human and machine indicates the prospect of a participant evolution, which also raises questions of maladaptation and the evolutionary human animal. These issues can be addressed only by referring to theories from across academic disciplines, thus forging a space for the posthumanities.

Ballard, the Machine and Posthumanism

Carl Tighe comments that *Crash* is 'a logical extension of the possibilities of the human psyche, a comment on the way we live, love and lust, on the way humans make and remake themselves'.⁹⁴ Considered in these terms, Ballard's concrete-and-steel trilogy constructs a perception of the human that incorporates 'the other' of the machine, thereby moving towards conceptual integration. In part, these texts depict the human accepting the machine as an evolutionary possibility enabling transformation. Acceptance in the face of the machine and of adaptation to a technological system is often conveyed as horrific and surmountable in science fiction texts. Ballard's trilogy, in its divergent portrayal the machine as less distinguishable from the human than previously assumed, calls for an application of the label of 'posthuman science fiction'.

⁹⁴ *Writing and Responsibility*, p. 89.

Badmington speaks of 'The humanist belief in a natural essence which exists outside history, politics, and social relations'.⁹⁵ In connection to Badmington's comment, the question remains of whether or not evolutionary theory must necessarily be conceived as presupposing an essential human essence. Yet the underlying foundation of both posthumanism and evolutionary theory requires a view of the human that entails transmutation and change over time. The changeable human category posits ambiguity and doubt, diffraction and disturbance as foundational principles, features that define both posthumanism and evolutionary theory. Thomas Foster indicates this precise posthumanist perspective:

Posthuman narratives ambivalently but inextricably connect empowering uses of new technologies, new possibilities for self-control and self-definition, and new possibilities for cultural diversity outside the universalizing framework of the normative human form, with increasing possibilities for external control and manipulation of those same uses and possibilities.⁹⁶

From the ambivalent attitude of posthuman narratives towards technology, Foster here outlines a dichotomy between viewing technology as both controlling and manipulable. Foster, in fact, advocates that criticism adopt a 'dialectical relation' towards new technologies: 'a combination of unbounded pleasure in the horizons they open up and unceasing scepticism toward what we might find when we get there'.⁹⁷ The unrelenting dichotomous relationship described by Foster reflects methods of interpreting and understanding the human in a manner that is not far from that offered by evolutionary

⁹⁵ Neil Badmington, 'Introduction: Approaching Posthumanism', in *Posthumanism*, ed. Neil Badmington (Basingstoke: Macmillan, 2000), pp. 1-10 (p. 5).

⁹⁶ Thomas Foster, *The Souls of Cyberfolk: Posthumanism as Vernacular Theory* (Minneapolis, MN: University of Minnesota Press, 2005), p. 244.

⁹⁷ *The Souls of Cyberfolk*, p. 244.

biology. Robert Foley discusses the difficulty of neatly assigning an origin date to the human, identifying that 'becoming human and being a human being are two different things entirely'.⁹⁸ The question of when the human became human appears to be just as complicated as the question of what remains to define the human category in the age of the machine.

Ballard's concrete-and-steel trilogy encompasses a posthumanism that enables interjection from various disciplines, including those outside the humanities, thus facilitating a posthumanities methodology. The diffracted human subject depicted in the texts analysed above contributes to readdressing the status of the human in the twentieth and twenty-first centuries. In typical Ballardian style, the characters of these narratives are not disturbed by the emergent parameters of their techno-erotic sexuality and their technophilic subjectivities; in fact, they are rather unaffected, unsurprised and non-resistant to shifting perceptions of the human and the machine. *Crash*, *High-Rise* and *Concrete Island* subvert anti-machine tropes as the human characters long to become machine. As a result, within Ballard's trilogy, the parameters of the human definition are challenged and rewritten. While the narratives of the trilogy do not necessarily depict a wholesale replacement of the human by the machine, the theoretical re-evaluation of the human category that the texts provoke marks an incentive towards this potential shift. The texts under scrutiny can be seen as occupying Bukatman's 'posthuman solar system': 'a comic-

⁹⁸ *Humans Before Humanity*, p. 77.

book world of infinite possibilities and cyborg multiplicities, defined in and through the technologies that now construct our experiences and therefore our *selves*.⁹⁹

Donna Haraway comments that 'the boundary between science fiction and social reality is an optical illusion',¹⁰⁰ and the concrete-and-steel trilogy certainly exhibits such a possibility. The future is not happening in some remote location or faraway, make-believe land: the future is occurring within the present. As Dani Cavallaro notes, 'Ballard's narratives focus on the catastrophic side of science fiction to intimate that catastrophe is not a destiny that awaits humans but rather something that has already happened'.¹⁰¹ *Crash* depicts the epitome of human-machine assimilation in the present and hence without futuristic machines; *High-Rise* depicts the imminent issue of architecture as 'machine' and human adaptation; and *Concrete Island* depicts the estranging effect of occupying the space between the 'natural' and the 'artificial' that has been unintentionally and unavoidably constructed by the machinic society. A reformed conception of the human is presented in these narratives, one that does not presume a distinction between organic and inert; one that is posthuman in its parameters. Rather than read this shift as a negative occurrence—as a 'nightmare', or an inversion of normative logic, however, one might read it as a necessary critique. It is an examination of how the human is slowly 'crashing' through the barrier between the formerly opposed categories of inner and outer, human and non-human, but also, eventually of the biological and the social.

⁹⁹ Scott Bukatman, 'Postcards from the Posthuman Solar System', in *Posthumanism*, ed. Neil Badmington (Basingstoke: Macmillan, 2000), pp. 98-111 (p. 111). Emphasis in original.

¹⁰⁰ 'A Cyborg Manifesto', p. 149.

¹⁰¹ Dani Cavallaro, *Cyberpunk and Cyberculture: Science Fiction and the Work of William Gibson* (London: Athlone, 2000), p. 6.

Each of the texts analysed here upholds the sentiment that an examination of the present must take into account immediately foreseeable possibilities. This, my argument runs, must also include those possibilities concerning the future evolutionary trajectory of the human animal. How Ballard's trilogy engages with the issue of the evolutionary human animal is the focus of the next chapter.

Chapter Three

Ballard's Evolutionary Animal

An effective place to begin a discussion of the theme of the animal in the fiction of J.G.

Ballard is in 'the suburbs'. The author Ballard provides the following definition:

Unlike its unruly city counterpart, the suburban body has been wholly domesticated, and one can say that the suburbs constitute a huge petting zoo, with the residents' bodies providing the stock of furry animals.¹

Here, Ballard invokes the image of the human zoo, a concept closely associated with *High-Rise*, but one that also plays a sustained role throughout Ballard's collected works.²

Nonetheless, the analyses that comprise this chapter will be limited to *High-Rise*, *Concrete Island* and *Crash*. In these texts, the suburb is often depicted as a site of upheaval, of dissatisfaction and of revolution. The suburb becomes the symbol of a limiting space that represses the needs of its inhabitants and disgruntles its human subjects. In *High-Rise*, the suburb translates into the contained space of the skyscraper apartment block; in *Crash*, the delimiting space surrounds the characters in the form of automobiles, motorways, concrete buildings and tarmacadam seas; while in *Concrete Island* the suburban sphere constitutes the protagonist's former existence, from which he departs. In each case, the inhabitable space constructed for the human becomes synonymous with the 'zoo'; this is especially the case in *High-Rise*, the text that most explicitly embodies the metaphor. In each text

¹ J.G. Ballard, *A User's Guide to the Millennium, Essays and Reviews* (London: Flamingo, 1997), p. 277.

² The theme extends beyond the 'concrete-and-steel' zoo to works such as 'Billennium' (1962), 'Chronopolis' (1979), *Running Wild* (1988) and *Millennium People* (2003), to take a few examples.

comprising the concrete and steel trilogy, however, the impact of the environment upon the human is integral.

As mentioned in the discussion of J.G. Ballard's science fiction contained in Chapter One of this thesis, the 'inner' can be considered in connection with the psyche of the human subject, but also with the conflation of boundaries. Scott Bukatman touches upon the complicated notion of inner space in Ballard's fiction:

The science fiction writer who has been the longest inhabitant of this new territory is J.G. Ballard. Ballard's science fiction has rejected the explosive trajectories associated with the macrocosmic realms of faster-than-light travel and galactic empire, in favor of the imploded realms of what he has termed "inner space". Such a term might imply that Ballard is constructing a psychological science fiction, a science fiction centered upon individual subjectivity, but this is not quite the inner space to which he refers. His work is marked instead by its sustained refusal of individual psychology and his construction of a world which itself bears the marks of the writer's own interior, but socially derived, landscape.³

As Bukatman intimates, inner space cannot merely be relegated to a discussion of psychology and the human mind, but has an added element of interaction with a critique of the social and the environmental. This becomes increasingly apparent as, within Ballard's narratives, the social environment begins to dictate and define the qualities and actions of the characters. In a similar sense, then, the landscapes of the texts can be perceived as acting upon the physical elements that comprise the human. It is at this intersection between organism and environment that an analogous connection between Ballard's characters and the evolutionary animal is forged. This is where Ballard's definition of the suburbs becomes fundamental to the representations and images that recur throughout the

³ Scott Bukatman, *Terminal Identity: The Virtual Subject in Postmodern Science Fiction* (Durham: Duke University Press, 1993), p. 41.

concrete and steel trilogy. Depictions of how the human in Ballard's texts interacts with and is affected by its external surroundings tend to intersect with theories offered from disciplines such as ethology and sociobiology, two approaches utilised in order to read the novels in question. Ballard's texts depict the human as an evolutionary animal, suggesting that the animal is an element that must be integrated into an understanding and definition of what has come to be known as the human. A dismantling of the border that distances human from animal is enacted via the enduring figure of the evolutionary animal. Focus now turns solely to the evolutionary and animal aspects of the posthuman, bearing in mind that the machine is never far from the borders of this perception. For clarity and ease of argument, however, a separation of these elements continues to be enacted.

Paul Crosthwaite notes that 'literary writing, like all modes of signification, traverses a symbolic field whose zones of particular density and ultimate boundaries are historically contingent'.⁴ While Crosthwaite is discussing the impact of World War II on the literary landscape, such a statement might be extrapolated and extended to how we read literary texts in general. Turning to cultural theories contemporaneous with a text's publication is an effective and illuminating method of approaching a text. On this note, it is worth considering the scientific theories that were circulating in the cultural sphere at the time of publication of Ballard's trilogy, including the emergence of the fields of ethology and sociobiology. In addition to a conceptual realignment that involves the animal, consideration of scientifically-derived texts extends analysis beyond posthumanism into

⁴ Paul Crosthwaite, *Trauma, Postmodernism and the Aftermath of World War II* (Basingstoke: Palgrave Macmillan, 2009), p. 175.

the posthumanities, bringing methodological approaches to bear in unprecedented ways. This chapter embodies the posthumanist notion of dismantling barriers between the human and the evolutionary animal, as well as the posthumanities notion of dissolving disciplinary boundaries.

From one perspective, Ballard's texts depict the human in terms of an inconsistency between the human animal and its architectural and technological surroundings. The narratives discussed in this chapter often present the technologically constructed landscape as claustrophobic and uninhabitable, and images of the human as an animal trapped in a metaphorical cage—the suburb, the city, the high-rise—are conjured frequently. Such representations of the technological environment coincide with contemporaneous theories circulating in branches of evolutionary biology, including ethology sociobiology. Ideas developed in the writings of Desmond Morris, Frans de Waal and John and Mary Gribbin, for example, intersect with Ballard's definition of the suburbs as a site of dissatisfaction and upheaval. By taking into account a perspective offered by evolutionary biology in a manner that has not yet been approached as a critical consideration in terms of Ballard's narratives, this chapter demonstrates how, as discussed in the Introduction to this thesis, the notion of a decentred human posited by posthumanism is not so distinct from that which can be found in the discourses surrounding evolutionary theory.

Specific theories posited by Desmond Morris interrelate with the plot of *High-Rise*, yet Morris' ethological standpoint also aligns with theories derived from sociobiology.

Brian Baxter summarises that

sociobiology grew fairly uncontroversially out of the field of ethology, the study of animal behaviour [...] It differed from its ethological predecessor by giving greater emphasis to the functional significance of animal behaviour—seeking to explain why evolution has selected it, and thus in what ways it might be considered as adaptation.⁵

As Baxter suggests, approaches adopted by sociobiology are closely connected to those utilised in ethology. Daniel Dennett notes that, when E. O. Wilson coined the term ‘sociobiology’, ‘he meant it to cover the whole spectrum of biological investigations concerned with the evolution of interrelations between organisms in pairs, groups, herds, colonies, nations’.⁶ With the publication of Wilson’s seminal text on the subject, *Sociobiology: The New Synthesis* (1975), a new means of approaching the question of the human emerged, one that incorporated zoology and ethology into considerations of the human. More specifically in terms of a posthumanities approach to Ballard, however, sociobiological viewpoints assist in comprehending the human as an evolutionary animal.

Utilisation of concepts from ethology and sociobiology, as well as the identification of connections between 1970s science fiction texts such as Ballard’s and ethological and sociobiological ideas that gained popularity during the same decade, rekindles debates about determinism and constructivism, thus further addressing the discrepancy sustaining the divide between the ‘two cultures’. In his 1994 introduction to the *The Naked Ape*, Morris notes how he ‘used the title simply to emphasize that I was attempting a zoological portrait

⁵ Brian Baxter, *A Darwinian Worldview, Sociobiology, Environmental Ethics and the Work of Edward O. Wilson* (Aldershot; Burlington, VT: Ashgate, 2007), p. 22.

⁶ Daniel C. Dennett, *Darwin’s Dangerous Idea: Evolution and the Meanings of Life* (London: Penguin, 1996), p. 483.

of our species',⁷ but such a portrait was not welcome by the society in which the text was originally published. Morris reflects on these events in the following statements:

[E]very word I had written became the subject of heated debate. The human animal, I discovered, was still finding it hard to come to terms with its biological nature. I must confess I was surprised to find myself fighting a rearguard action for Charles Darwin. After a century of scientific progress and the discovery of more and more fossils of human ancestors, I had assumed that most people were ready to face the fact that we are an integral part of primate evolution [...] In some parts of the world *The Naked Ape* was banned and illicit copies were confiscated and burned by the Church, or the idea of human evolution was ridiculed and the book was viewed as a bad joke in appalling taste.⁸

The objections to ethological stances such as those expressed above indicate an underlying fear of the re-emergence of attitudes that might be discriminatory to any individual or group that does not fall under the remit of specific parameters outlined in a given theory. These objections become even more pronounced if one considers the field of sociobiology as well. Brian Baxter outlines some aspects of the debate surrounding the field of sociobiology:

[M]any evolutionary ethicists are positively hostile to sociobiology in any of its forms. They regard it as a specimen of the baleful rationalism and scientism bequeathed to us by the Enlightenment [...] These intellectual postures, in their view, have served to justify the purely instrumental and exploitative attitudes to nature that have created our current environmental difficulties. For such environmental ethicists the alternative view of human beings as having an essentially cultural mode of existence, in independence of their biological origins, is the preferred theoretical perspective.⁹

⁷ Desmond Morris, 'Introduction', in *The Naked Ape: A Zoologist's Study of the Human Animal* (1967; London: Vintage, 2005), p. ii.

⁸ *The Naked Ape*, p. i.

⁹ *A Darwinian Worldview*, pp. 95-96.

Although written with reference to environmentalist ethics, Baxter's point strikes a similar chord to preferred conceptions of the human within the humanities—particularly in literary studies, where theories based on relativism and constructivism have dominated the landscape, especially in critical approaches informed by postmodern theory. Baxter explicates this situation when he comments that 'in various ways the arrival of biology at the door of the social sciences and humanities poses a serious threat to much that human beings have come to hold dear'.¹⁰ In other words, the investigative results garnered from scientific studies threaten certain societal values, practices and institutions that citizens of Western societies have come to take for granted. The fictional texts in question, however, demonstrate certain aspects of these contemporaneously published, scientifically-based approaches to the human. Furthermore, such intersections contribute to forging a link between ethology, sociobiology and posthumanism. By moving towards a posthumanities approach to theory and literature, humanities scholars can begin to interact with the vast field of data provided by scientific communities. The texts examined herein beg for such a transition to be enacted, hence, the reading of Ballard contained in this thesis seeks to highlight certain similarities between ethology, sociobiology and fictional representations of the human.

In her discussion of the 'post/human', Elaine L. Graham comments that 'the genetic affinity between humans and "almost-human" primates calls forth speculation about the

¹⁰ *A Darwinian Worldview*, p. 91.

nature of human uniqueness'.¹¹ This is the underlying project directing sociobiological research enterprises. As Gribbin et al note, 'sociobiology is the study of all forms of social behaviour in all animals, including humans'.¹² The functions of this definition, as well as the practices contained within the discipline of sociobiology, denote the human as an evolutionary animal. This thesis argues that such a connection is also forged in Ballard's trilogy. It is for this reason that ethological and sociobiological discussions of the human have been taken into account in this thesis. The evolutionary animal emerges as a site where the human is re-written, in terms of Darwinian theory as well as its more recent developments. These perspectives offer alternative readings of the texts in question, while also building a dialogue between specific sectors within the sciences and the humanities.

In enacting such an analysis, the intention is not to suggest that Ballard the author supports or propagates ethological or sociobiological sentiments. The status of these texts as 'science fiction', however, raises interesting conjunctions with popular science circulating at the time. Ballard's texts present scientific debates, though not overtly. This thesis does not propose that Ballard the author condones a scientific project in his fiction, but, rather, given the content of the texts in question, a viewpoint derived from scientific principles provides a useful and engaging lens through which an innovative reading of the narratives becomes possible.

¹¹ Elaine L. Graham, *Representations of the Post/Human, Monsters, Aliens and Others in Popular Culture* (Manchester: Manchester University Press, 2002), p. 32.

¹² John and Mary Gribbin, *One Per Cent Advantage, The Sociobiology of Being Human* (Oxford: Blackwell, 1988), p. 89.

High-Rise: Building 'The Human Zoo'

High-Rise is the most effective place to begin a demonstration of a posthumanities methodology that interrelates with evolutionary discourses. Notions of superiority regarding the human are realigned via the evolutionary animal—an animal that can be identified and explicated by the language of scientific discourse.

Sherryl Vint raises the issue of the human zoo, noting that 'Like the reversal stories of pets, imagery of zoos in sf is frequently used to demonstrate the error of alien perceptions when they presume that humans are specimens suitable for zoos rather than recognise that we are sentient beings'.¹³ Vint's observation, however, can also be applied to Ballard's text; only, in this narrative, it is the human machinic environment, constructed by the human, that results in a zoo scenario. Fictional circumstances thus highlight the shifting conception of the human, as well as the idea that an implicit, presumed authority and control over a human-manufactured living space—in this case, a high-rise, is not as obvious or automatic as it might seem. In adhering to a built environment, the human inhabitants willingly enter individual cells for confinement, and the result is a 'human zoo'.

At one point the narrator of *High-Rise* states:

All the evidence accumulated over several decades cast a critical light on the high-rise as a viable social structure, but cost-effectiveness in the area of public housing and high profitability in the private sector kept pushing these vertical townships into the sky against the real needs of their occupants.

(p. 52)

¹³ Sherryl Vint, *Animal Alterity, Science Fiction and the Question of the Animal* (Liverpool: Liverpool University Press, 2010), p. 173.

The discomfort expressed by the characters is substantiated by an account provided by the intrusive, omniscient narrator. The above statement presents a diegetically external narrative that verifies the inability of the characters to adapt to the structure. Thus, when the narrator tells us that '[Wilder] was constantly aware of the immense weight of concrete stacked above him, and the sense that his body was the focus of the lines of force running through the building' (p. 48), a statement fraught with paranoia, the credibility of such an account is verified by the narrator's provision of sociological 'evidence', and the incorporation of data from the external world not only implicates the text as a possible source of cultural commentary, but also transposes the narrative from confinement within its fictional walls to engagement with topical debates relating to the cultural moment.

Contemporaneous theories generated from evolution-derived bases intersect with Ballard's narrative. Speaking from an ethological perspective, Desmond Morris published several texts of popular science during the 1960s and 70s, the most famous of which being *The Naked Ape* (1967).¹⁴ Written as a follow-up to this well-known publication, *The Human Zoo* (1969) contains several pertinent perspectives that relate to Ballard's *High-Rise*. The

¹⁴ In several instances, J.G. Ballard himself comments on the work of Morris, stating that 'At its best Desmond Morris's imagination can throw up a genuinely strange idea—the subliminal conflation of breasts and buttocks, for example—and *The Naked Ape* and *Manwatching* even hint at a new kind of novel' (*A User's Guide to the Millennium*, pp. 167-68); and, 'So-called hard science is now the new show business. Take someone like Desmond Morris, a so-called scientist who is really one of the leading pop entertainers. He's as much a showbiz performer as John Lennon' (Lynn Barber, 'The Penthouse Interview: J.G. Ballard: Sci-Fi Seer', *Penthouse Magazine*, May 1970, pp. 26-30). While these comments might not be classed as superlative laudations of the texts, they do suggest awareness not only of Morris' ideas, but also of the emergent genre of popular science literature. Interestingly, Jeff Wallace makes similar comments about Darwin's *The Origin of Species*, remarking that: 'the *Origin* is neither a realist novel nor a romantic poem, though it does have affinities with each, and a fascinating organisational logic' [Jeff Wallace, 'Introduction: difficulty and defamiliarization—language and process in *The Origin of Species*', in *Charles Darwin's The Origin of Species: New Interdisciplinary Essays*, ed. Jeff Wallace and David Amigoni (Manchester: Manchester University Press, 1995), pp. 1-46 (p. 31)].

representation of the high-rise as a human zoo inhabited by animals that are subjected to both environmental influences and evolutionary behaviours is discussed by Desmond Morris and assumes a fictional representation in Ballard's trilogy.

With his ideas that human crises in the twentieth century have been largely exacerbated by the environments in which the human is forced to operate—environments that are temporally incompatible with the human's present stage of evolution—Morris evokes controversial, yet intriguing theories that regard the human as another animal, or rather, as a 'naked ape'. Morris notes that

The human animal appears to have adapted brilliantly to his extraordinary new condition, but he has not had time to change biologically to evolve into a new genetically civilized species. This civilizing process has been accomplished entirely by learning and conditioning. Biologically he is still the simple tribal animal depicted in scene one.¹⁵

Morris' texts posit that evolutionary change has been slower than societal change, thus resulting in complications for the human animal. In other words, it is possible that the late-twentieth century environment—constructed *by* the human and *for* the human—is non-conducive to the mental and physical needs *of* the human. Such a position is also supported by ethologist Frans de Waal when he writes that

Our societies probably work best if they mimic as closely as possible the small-scale communities of our ancestors. We certainly did not evolve to live in cities with millions of people where we bump into strangers everywhere we go, are threatened by them in dark streets, sit next to them in the bus, and give them the finger in traffic jams. Like bonobos in their cohesive communities, our ancestors were surrounded by people they knew and dealt with every day. It's remarkable that our societies are as orderly, productive, and relatively secure as they are.¹⁶

¹⁵ Desmond Morris, *The Human Zoo* (1969: London: Vintage, 1994), p. 1.

¹⁶ Frans de Waal, *Frans Our Inner Ape: The Best and Worst of Human Nature* (London: Granta, 2006), p. 233.

A consensus begins to emerge from these considerations, one that entertains the notion that the human becomes entrapped, unable to express unconscious urges, unhappy, or even violent and traumatized, in the context of an urban or suburban space.

While the text might enable a Freudian interpretation,¹⁷ as the characters are presented as rebelling against their 'uncanny' home, Morris's theory also provides an applicable backdrop for comprehending the fictional events of the novel, offering both a temporal relation and a cultural relevance to *High-Rise*. In his theories regarding the human zoo, Morris notes that

Each kind of animal has evolved to exist in a certain amount of living space. In both the animal zoo and the human zoo this space is severely curtailed and the consequences can be serious.¹⁸

At another point, Morris states that

The comparison we must make is not between the city-dweller and the wild animal, but between the city-dweller and the captive animal. The modern human animal is no longer living in conditions natural for his species.¹⁹

Notable elements of the above quotation come from Morris's insistence that the machinic environment is not conducive to the survival of the human animal. This idea is supported, too, through perspectives in literary criticism. Michel Delville, for instance, identifies this theme in several of Ballard's short stories, commenting that

¹⁷ In his book entitled *J.G. Ballard*, Michel Delville provides an overtly Freudian reading of *High-Rise*: see p. 53.

¹⁸ *The Human Zoo*, p. 19.

¹⁹ *Ibid*, p. vii. Here, an understanding of the word 'natural' could be reiterated by a comment that Wallace makes in relation to Darwin's use of the term in *The Origin of Species*. Wallace notes: 'But "naturalistic" must here be grasped in its full, paradoxical sense: a theoretical understanding of the physical or ecological interrelatedness of things brings with it a realisation of the impossibility of any stable, absolute knowledge of that condition.' [Introduction: difficulty and defamiliarization—language and process in *The Origin of Species*', p. 40].

Implied in many of these stories of imprisonment in time and space is a conception of the human condition as that of being trapped in various kinds of psychological, cultural or social confinement. The stories which fall into the interior “captivity narrative” category, like ‘Concentration City’ and ‘The Delta at Sunset’, often involve isolated individuals at odds with societal apparatuses which deny their basic unconscious urges.²⁰

Here, Delville illustrates the idea that societal systems somehow delimit the potentialities of the evolutionary human animal, and this idea is strikingly similar to that offered by Morris and de Waal. Along similar lines, Gašiorek considers the role of space and place in *Concrete Island* and *High-Rise*, commenting that

As a kind of waste-land created out of the detritus modernity leaves behind, the island is an *already* alienated terrain, characterised by an absence of meaning and social relations. The high-rise, in contrast, is a designed place, a building created within the framework of town planning and urban regeneration, yet its geometrical structure and its separation from its environment make it a space that *becomes* alienating. It is a self-contained world that cannot sustain the community life it was intended to facilitate [...].²¹

Delville and Gašiorek identify how the distancing and estranging features of the modern architectural space are dominant features in Ballard’s fiction. These two literary scholars interact with the notion of the human and cultural or environmental entrapment, which can then be extended to include consideration of the evolutionary animal. By reading further into Ballard’s fictive depictions of dissatisfaction, a connection can be forged between his illustrative tales and contemporaneous scientific theories circulating throughout the era in which the trilogy was published. The environments, painted as the backdrops of unrest, can be read as challenges to the behaviour and trajectory of the evolutionary human animal.

²⁰ Michel Delville, *J.G. Ballard*, (Plymouth: Northcote House in association with the British Council, 1998), p. 14.

²¹ Andrzej Gašiorek, *J.G. Ballard* (Manchester: Manchester University Press, 2005), p. 110. Emphasis in original.

As *High-Rise* unfolds, the inhabited space is increasingly likened to a 'huge petting zoo' and the events of the plot depict what happens when the residents of the vertical habitation emerge from their caged dwellings. *High-Rise's* utilisation of the zoo metaphor illustrates the evolutionary human animal entrapped within the concrete and steel bars of its architectural habitat. Morris's theory regarding what he refers to as the 'supertribe' illuminates certain themes present in the text. Similar to de Waal, Morris speaks of the situation of the large community, wherein the human is 'not biologically equipped to cope with a mass of strangers masquerading as members of our tribe'.²² Events depicted in *High-Rise* attest to the relevancy of these ethological ideas; group affiliations are constructed around common factors within the fictional building, such as floor level, class and gender. Morris continues, commenting that: 'Trapped, not by a zoo collector, but by his own brainy brilliance, he has set himself up in a huge, restless menagerie where he is in constant danger of cracking under the strain'.²³ Once again, the 'restless menagerie' is illustrated by Ballard and, within the dystopic walls of the high-rise, the danger of deterioration is pictured as a potential reality.

Via these links, a connection between Morris's ethological perspective and posthumanism can be forged. A perspective on the human derived from evolutionary principles necessitates an acceptance of the human as an evolutionary animal. If humanist features were to be incorporated, consideration of the evolutionary human animal would be curtailed by the need to construct a privileged space wherein the human enacts mastery

²² *The Human Zoo*, p. 6.

²³ *The Human Zoo*, p. vii.

and control over itself and its environment. The co-affiliations necessary to comprehend theories derived from evolutionary concepts render the 'humanist' category of the human problematic, hence the call for a posthumanist outlook. If the animal can be used as a comparative and not a contrastive species, then where does this leave the space for constructing human distinctiveness? Cary Wolfe comments on the shift toward incorporating the animal:

as Slavoj Žižek has pointed out, in modernism we repudiate animality and the primal forces unleashed (and necessarily repressed, if we believe Freud's *Civilization and Its Discontents*) at the margins of the *socius*, whereas postmodernism is characterized by a more ambivalent relation to the animal, the monster, the Thing.²⁴

This ambivalent relationship is illustrated within the pages of *High-Rise*; subsequently, interpretative methods of approaching the text can effectively incorporate perspectives from outside the humanities to address the question of the human and the animal.

As a move towards the project of re-evaluating 'species distinction', the concept of 'the human zoo' raised in Morris's text lends itself neatly to Ballard's *High-Rise*. Both texts explore the issue of the human in modern civilization and emphasize the similarities between the 'modern human' and the 'captive animal'. Here, Ballard's image of the suburbs constituting a giant petting zoo is revisited. In fact, the zoo metaphor is adopted by the narrator of *High-Rise* and reiterated throughout the text, serving as a function to the plot and as a point of reference for the omniscient narrator. The comparison, however, also invokes the question of the nightmare: the depiction of human inhabitants likened to zoo

²⁴ Cary Wolfe, *Animal Rites, American Culture, the Discourse of Species, and Posthumanist Theory* (Chicago: University of Chicago Press, 2003), p. 13. Emphasis in original.

animals can be considered nightmarish in terms of conventional conceptions of the human, thus raising the question of whether the nightmare is internally or externally derived. In *High-Rise*, especially, the machinic landscape fluctuates between being portrayed as an oppressive and a liberating force on the human inhabitant. In both cases, however, a realigned understanding of where the human stands in relation to the evolutionary animal is necessitated by the narrative. Referring to Judith Halberstam and Ira Livingston's discussion of the posthuman, Graham explicates the significance of their use of the terms 'family' and 'zoo'. Graham states that these terms

offer two useful contrasting metaphors for post/humanity and how it might be conceived. "Family" supposes a species with a tidy genealogy, effective at naturalizing its own social conventions, counting its development in generational and temporal terms and deriving its material and reputational well-being from a purity of patrilineal descent. A "zoo", on the other hand, may have a particular logic in the ordering of its exhibits, but makes no pretension to being a natural habitat, even though it may stress its benevolence towards its residents. Yet it also hints at a wilderness lurking beneath the ordered taxonomy that is only just contained by its gates and enclosures [...] To invite speculation on the post/human is to suspect that we are perhaps more like the "others" than like ourselves, unavoidably contaminated by hybridity and leaky boundaries.²⁵

It is precisely within the 'zoo' that Ballard's fictional scenarios take place, hence inviting the question of whether the animal is an inescapable component of the human.

Illustrations recurring throughout Ballard's text provide comparisons between the high-rise and the zoo, hence reinforcing the potential for the text to be read as sublimating the 'leaky boundaries' surrounding the human. The architect of the fictional building, Anthony Royal, for instance, plays a prominent role in the narrative, living on the fortieth

²⁵ *Representations of the Post/Human*, p. 36.

floor in his penthouse apartment. The zoo metaphor is further entrenched via the description of Royal's attire, an outfit that suggests his unofficial role of zoo-keeper: 'he wore his white safari-jacket [...] the kind of garment that might be affected by an eccentric camp-commander or zoo-keeper' (p. 66). Royal increasingly recognizes the effects resulting from the construction of the high-rise; he observes that '[t]he residents of the high-rise were like creatures in a darkened zoo lying together in surly quiet, now and then tearing at each other in brief acts of ferocious violence' (p. 127), once again invoking Morris's vision of a discontented human entrapped by machinic surroundings. In terms of this image, and in an analogy similar to that outlined in Chapter Two, the concepts of 'dream' and 'nightmare' also inhabit an analysis of the evolutionary animal in the high-rise.

The 'Night-Dream' of the Evolutionary Human Animal

Royal's dream to build the high-rise results in a nightmare of violent proportions. The narrator tells us that Royal

had always wanted his own zoo...Over the years he had sketched many designs for the zoo, one of them—ironically—a high-rise structure...Zoos, and the architecture of large structures, had always been Royal's particular interest.

(p. 80)

Royal becomes the architect of the psyche and the characters inhabit his constructed nightmare. In this way, Royal enacts a fictional model of Freud's theory of dreams and

wish fulfilment, where it is theorized that '*a dream is the fulfilment of a wish*'.²⁶ In Royal's case, however, his dream becomes the occupants' nightmare. The narrator states:

Without knowing it, he had constructed a gigantic vertical zoo, its hundreds of cages stacked above each other. All the events of the past few months made sense if one realized that these brilliant and exotic creatures had learned to open doors. (p. 134)

This description links the realization of Royal's fulfilled wish to questions of agency and consciousness. The inhabitants of Royal's dream begin to deny his architectural exploits by enacting an awakening, or, in other words, by 'opening doors'. Yet the question remains: are the characters awakening from a nightmare or into a nightmare? In one sense, the human animal is depicted as entrapped by its machinic surroundings. It is here that the evolutionary animal intersects with the machine, and thus an interpretation involving the theories of Morris and de Waal becomes apparent. The 'evolutionary machine' collides with the 'machinic' surroundings provided by the high-rise and the result is detrimental for the evolutionary human animal that inhabits Ballard's *High-Rise*.

Yet, at the same time, the nightmare of the human zoo becomes a 'dream' space, in which wayward possibilities can be realized. By embracing the potentiality for recognising the human as an animal, and through a breakdown of the normative values formerly imposed upon them by structures like high-rises, the characters locate a new, almost unidentifiable sense of liberty. The high-rise nightmare is re-written as a space of potential revolution. Wilder, for instance, recognizes the conflict as a welcome respite from the formulaic, predictable life he has led up until now:

²⁶ Sigmund Freud, *The Interpretation of Dreams*, trans. and ed. James Strachey (London: Allen and Unwin, 1954), p. 121. Emphasis in original.

For the first time it occurred to Wilder that the residents enjoyed this breakdown of its services, and the growing confrontation between themselves. All this brought them together, and ended the frigid isolation of the previous months.

(p. 60)

In addition, the narrator notes that

The more arid and affectless life became in the high-rise, the greater the possibilities it offered. By its very efficiency, the high-rise took over the task of maintaining the social structure that supported them all. For the first time it removed the need to repress every kind of anti-social behaviour, and left them free to explore any deviant or wayward impulses. It was precisely in these areas that the most important and most interesting aspects of their lives would take place.

(p. 36)

Without the established, technological order in place, a former method of organisation reasserts itself. The nightmare of the machine becomes a means of realising the dream of the evolutionary animal. Delville comments on the above passage, speaking of the characters as having 'reached [a] post-Darwinian stalemate' where 'the high-rise paradoxically relieves its occupants from "the need to repress every kind of anti-social behaviour"'.²⁷ In this sense, the high-rise enables the human animal to unresignedly adhere to the evolutionary imperatives assigned to it by the evolutionary machine.

Through the disintegration of the building and its ordered, mechanized features, the enactment of wayward impulses becomes possible, a situation from which the characters do not recoil in horror, but rather embrace. Without the detailed construction of reality composed by the rectilinear structure of the high-rise, the characters are awakened to the behaviours made possible by their existence as evolutionary animals. After Royal's death, Laing decides that 'it no longer mattered how he behaved, what wayward impulses he gave way to, or which perverse pathways he chose to follow' (p. 172). The characters begin

²⁷ J.G. Ballard, p. 51.

to inhabit the nightmare—thereby overcoming its propensity to induce fear. In turn, they nullify the controlling power of the high-rise as nightmare. As the characters learn to open their own doors, habit shifts the parameters of the nightmare by transforming the space of the high-rise into a dream the characters can inhabit.

Considering the high-rise as a nightmare object, the inhabitants could be perceived as waking up from an uninhabitable environment and the class war might then be read as a means of escaping the psychic landscape of the high-rise and rejecting the society it represents. Yet if one views the high-rise as a kind of unconscious dream finally realized, then the situation into which the inhabitants descend—as they move away from and reject the high-rise—would be termed nightmarish. In any case, events in Ballard’s narrative draw attention to the tenuous symbiosis between the evolutionary human animal and its built environment by illustrating concrete reversions to former methods of social organisation.

Posthuman Evolutionary Animal

A consideration of the human as not only animal, but as a captive animal, is a challenge to traditional notions of comprehending the human. A posthumanism that comprises the animal, such as that dramatized and fictionalized within *High-Rise*, challenges not only the categorical assignation that determines the human as different from the animal, but also positions the human in direct relation to its animal counterpart in terms of behaviour and socialization. Considering the high-rise as an inefficacious structure that is non-conducive to human habitation is one possible lens through which to view the events of the plot, and

one which would be supported by various theories relating to the human category, including the ethologically derived perspectives offered by Desmond Morris and Frans de Waal, as mentioned above. de Waal writes that

It's remarkable that our societies are as orderly, productive, and relatively secure as they are. But city planners can and must do a better job at approximating the community life of old, in which everyone knew every child's name and home address.²⁸

de Waal's premise is based on a theory similar to Morris's, which involves the idea that the social organization from which humans have evolved remains a significant and persistent influence on human behaviour, genetic make-up, and psychology.

In theory, the high-rise structure, with its self-contained provisions—a supermarket, swimming pool, school, movie theatre—should be an ideal setting for building the small communities of which de Waal speaks. In questioning what it is that prevents this situation from occurring, de Waal's thinking can provide constructive theoretical speculation on the issue. Engaging in a critique of capitalism, de Waal alleges that

unmitigated capitalism may be unsustainable as it celebrates the material well-being of a few while shortchanging the rest. It denies the basic solidarity that makes life bearable. In doing so, it goes against a long evolutionary history of egalitarianism, which in turn relates to our cooperative nature. Primate experts show how cooperation breaks down if benefits aren't shared among all participants, and human behavior likely follows the same principle.²⁹

Like Morris' suggestion that 'the social isolation of the teeming city can cause a great deal of stress and misery for many of the human zoo inmates',³⁰ de Waal also adopts such a

²⁸ *Our Inner Ape*, p. 233.

²⁹ *Ibid*, p. 232.

³⁰ *The Human Zoo*, p. 6.

stance. Ballard's text intersects with these ethological questions in conjunction with an environmental and architectural critique. The high-rise is presented as instigating a revolution and prompting the eruption of 'animalistic' behaviours. This becomes more apparent as the characters begin to communicate via bodily functions.

Building the Human Animal Body

Ballard's metaphor of a 'huge petting zoo' full of 'furry animals' constituting the suburban landscape becomes a prominent metaphor for the narrative events of *High-Rise*. First, the fictional high-rise is compared to a zoo full of human-animals, an analogy which is intensified by the propensity of the characters to behave like animals. How the characters navigate the space of their human zoo thus becomes an intriguing topic within the high-rise.

As the text proceeds, notions of 'normalcy' in the building vanish and the tenants resort to animalistic behaviours. Here, a definition of the animal as that derogatory part of the human, that part that the human would rather assign to others, is utilised. Still, however, this vision of the human as animal relates directly to its status also as a subject of evolutionary forces. One example demonstrating the evolutionary animal in *High-Rise* is the distinct marking of territory via bodily odours. Significantly, the characters first begin marking territory via their pets: 'On more than one occasion elevator doors were sprayed with urine' and 'the dog-owners habitually transferred to the lower-level elevators, encouraging their pets to use them as lavatories' (p. 23). Yet the human quickly moves through a displacement period that uses the pet as a buffer, and the characters begin to incorporate the use of human odour as a means of identifying their place within the social

hierarchy: 'Like their garbage, the excrement of the residents higher up the building had a markedly different odour' (p. 131).

Odour is used to mark territory, that is, to keep outsiders out, but also to establish the identity of the high-rise within, and thus as a means of dismissing the outside world, that is, anything that lies beyond the borders of the 'zoo'. Laing specifically highlights this point when, despite persevering with his duties as a lecturer in anatomy at the nearby university, he pointedly refuses to shower and even hopes someone will take notice of his newly-cultivated odour identity. Indeed, the narrator speaks of the strong scent of the residents of the high-rise, a feature that seems to be developed in order to strengthen tribal bonds. Laing notices that 'The absence of this odour was what most unsettled him about the world outside the apartment block, though its nearest approximation was to be found in the dissecting-room at the anatomy school' (p. 107). Laing's affinity with his own odour as well as that of the high-rise attests to the relevance of the zoo metaphor, as each character delineates his or her own 'cage' with distinct odours. These elements work together to create a sense in which the tenants have become members of a human zoo: animals content within their own cells, their own enclaves; amongst their own scents and amid their own refuse. This is illustrated when Laing reflects on the opposite building and thinks of his own apartment as a return to safety and comfort: 'Laing remembered the stale air in his apartment, tepid with the smell of his own body' (p. 103). Activities usually relegated as animalistic are here performed by the human and illustrated prominently in the narrative.

As the connection to territory grows stronger, phobias relating to the external world abound. Standing in the centre of the empty lake outside the high-rise, Laing is assaulted by feelings of menace: 'The absence of any kind of rigid rectilinear structure summed up for Laing all the hazards of the world beyond the high-rise' (p. 104). After his trepidated response to the outside world, Laing is convinced that 'he would never again try to leave the high-rise' (p. 104). Indeed, this description further explains one reason why, after the inception of civil war within the building, almost none of the characters continues with their lives outside of the high-rise. The narrative thus presents an ambiguous notion of both the human and its habitat. Are the characters rebelling against the high-rise, or embracing it as a productive environment? In a sense, both reactions inhabit the text, as the high-rise provides an isolated space, an island, in which normative modes of behaviour can be challenged.

The character of Wilder, for instance, experiences what might be considered a reversion or regression towards animality, but can also be viewed as a means of acknowledging the presence of 'wayward' impulses within the human. For Wilder, specifically, an acknowledgement of the evolutionary animal arrives via his physical sexuality. Like an animal intent on conveying dominance, Wilder continually uses his sexual body as a means of asserting command. At one point, Wilder is calmed by the sight of his own penis in a mirror, 'a white club hanging in the darkness'; and the narrator tells us how 'He would have liked to dress it in some way, perhaps with a hair-ribbon tied in a floral bow' (p. 128). Issues of differentiation are raised in such descriptions, implicating, in part, that the human does not occupy a supreme position in relation to the bodily substrate.

In other words, the human utilises aspects of its 'animal' body—those constituents of the body that address what is conventionally considered inappropriate for human social expression. By relying on the body as a means of communication, the characters in *High-Rise* address the animal as an undeniable element in the human equation.

Building Human Communication

Language—typically identified as a distinct marker of the human—is displaced as a form of communication in Ballard's novel; instead, the body prevails as the signifier of meaning. Fudge points out the prevalence of language as indicative of the human, noting that: 'use of language as a way of differentiating human from animal has a long history, one that brings together discussions of reason and communication'.³¹ A disintegration of the borders between human and animal via the elimination of language from the equation is exhibited in Ballard's *High-Rise* and reinforces the text's status as indicating posthumanist thinking.

When interacting with his wife, the narrator comments that Wilder 'took off his trousers, as if exposing his thick chest and heavy loins in some way reasserted his authority over himself' (p. 46). And again, when he comes across another woman, 'he found himself wanting to touch her, to put his arm around her shoulders. Some kind of wayward sexuality was at work. For a grotesque moment he was tempted to expose himself to her' (p. 82). The behaviours exhibited by Wilder might be considered as a move toward the 'animal', as the tenants use increasingly 'inhuman' forms of expression in order to navigate the newly emerging social space in which they find themselves having to operate. This

³¹ Erica Fudge, *Animal* (London: Reaktion Books, 2002), p. 117.

tendency thus levels the disparity between human and animal, suggesting that the communicative function of the human can merge with that of the animal.

At one point, the narrator notes how 'These bizarre contrasts pleased Royal, marking the extent to which these civilized and self-possessed professional men and women were moving away from any notion of rational behaviour' (p. 92). The idea of 'rationality' as being eroded within the high-rise relates back to the critique of humanist philosophy that underpins this thesis. If Royal associates the 'civilised' aspects of the human with the 'rational', then he is adhering to a Cartesian understanding of the human and its position in the world wherein the human's distinct capacity for 'reason' is placed in stark contrast to that of the animal, or the machine. It is this precise construction of the human that the text undermines. Constantly depicting a shifting humanity—one that is continually redressing its relationship to the animal and the machine—the narrative conveys the human inhabitants in a communicative transaction that rejects the human quality of language, and instead reverts to bodily-based expressions of meaning. Here, the animal intersects with the evolutionary human, as the history of the human is conjured via the animal body that the human characters use to convey meaning in the text. *High-Rise* raises the issue of the biological body that evolutionary theory takes as its starting point. By calling upon the animal as a site of experience, boundaries are realigned. It is via the non-linguistic, animal body that the transmutation of the human occurs in *High-Rise*.

An approach to Ballard's text that re-introduces the possibility of considering the human in terms of the animal also furthers the project of redressing the liberal-humanist subject. Ballard's texts contain a reaffirmation of the significance of the body for cultural

and social developments. Not only is the environment identified as an impact on the human that should not be overlooked, but the body itself is inscribed as a site of meaningful experience. The body plays a significant role as class-based affinities begin to develop within the high-rise. After sabotaging the building's technologically-driven system of provision for its inhabitants, class-based antagonisms begin to erupt throughout the building:

a number of absurd but unpleasant altercations broke out in the darkness between those who wanted to descend to their apartments on the lower levels and the residents from the upper floors who insisted on escaping upwards in the cooler heights of the building

(p. 23)

The conflict thus quickly divides along the levels of the building, which, incidentally, tend to correspond to class affiliation, a class-consciousness largely dictated by the job one holds in society. Delville comments that via the three main protagonists— Wilder, Laing and Royal— three social groups are represented.³² The narrator relates that:

an apparently homogeneous collection of high-income professional people had split into three distinct and hostile camps. The old social subdivisions, based on power, capital and self-interest, had reasserted themselves here as anywhere else.

(p. 53)

With the proximity of a large number of similar co-residents, the characters base their affinities on the radical exclusion of those of a different 'class'. The situations illustrated hint that technological progress is merely a thin veneer covering an often overlooked, underlying evolutionary history. Once again, the evolutionary explanations provided by de Waal offer pertinent perspectives on the text. de Waal alleges that:

³² J.G. Ballard, p. 49.

no ape can afford to feel pity for all living things all the time. This applies equally to humans. Our evolutionary design makes it hard to identify with outsiders. We've been designed to hate our enemies, to ignore the needs of people we barely know, and to distrust anybody who doesn't look like us. Even if within our communities we are largely cooperative, we become almost a different animal in our treatment of strangers.³³

Here, de Waal does not seem to be justifying or excusing exclusionary tendencies

characterising the human animal; he only provides an evolutionary lens through which to view the human animal.

Where physical, bodily-based differences are lacking, the characters make up for this by enacting a kind of differentiation in order to ensure identity with the appropriate caste. Relating back to the cultivation of specific odour-identities, the characters also differentiate via dress and body markings. The tenants of the highest floors, for instance, persistently don extravagant gowns and tuxedos when partaking in the nightly festivities of the high-rise, as if in some way distinguishing themselves as separate from their all too similar 'professional' neighbours. The first death of a human character in the high-rise highlights this trend, as the tenants discover their neighbour, the jeweller: 'Far below, embedded in the crushed roof of a car in the front rank, was the body of a man in evening dress' (p. 41).³⁴

It is not only the elite who attempt to differentiate themselves. Resident of the lower levels,

³³ *Our Inner Ape*, p. 235.

³⁴ Significantly, the first death in the high-rise war is not of a human, but an animal: an Afghan hound is found drowned in the 10th floor pool, and the culprit is later revealed to be Wilder. Paul Crosthwaite comments upon the foreshadowing aspects of this incident: 'The atavistic forces that are about to be unleashed are first signalled by the vindictive drowning in one of the pools of a pedigree dog belonging to one of the building's wealthier inhabitants' [Paul Crosthwaite, *Trauma, Postmodernism and the Aftermath of World War II*, p. 92]. Here, the animal is once again a conduit through which the human passes in order to begin a categorical re-assessment.

Wilder, for instance, participates in an act of delineation by way of marking his body. He paints designs on his body using lipstick:

What had begun as a drink-fuddled game had soon taken on a serious ritual character. The markings, apart from frightening the few other people he might come across, gave him a potent sense of identity.

(p. 155-56)

Thus, in the same way that the residents of the upper-most levels of the building don continual evening wear as the class war emerges, so too does Wilder establish a new marking for his own self-realized class.

By viewing the characters from the perspective of evolution-derived theories, Ballard's text entertains the possibility that dystopia lies not in the animal body that invokes a violent revolution, but in the already existent society that built the high-rise. The animal body is merely an evolutionary conduit that seeks to adapt to its surroundings and adjusts activities and behaviours according to survival principles. Furthermore, technology is highlighted as enacting an impact upon the human animal—in this case, the machinic environment and technological element of the high-rise. Morris and de Waal theorise an incompatibility between organism and environment based on the notion that biological evolution has accelerated at rate distinct from social, cultural or machinic evolutions. For instance, de Waal asserts that 'Given that humanity cannot pin its hopes on continued biological evolution, it needs to build upon its existing primate heritage',³⁵ suggesting that although the human species overtook certain evolutionary potentialities with technological intervention, biological evolution continues to have a bearing on the present state of the

³⁵ *Our Inner Ape*, pp. 228-29.

human. Hence, according to de Waal, the only option for the present human is to acknowledge and build on an animal past, to concretize the vision of the human as an evolutionary animal. *High-Rise* paints a picture of this paradoxical question, providing a platform for this debate.

Ballard's nightmare logic positions the human ambiguously between the idea of the nightmare within and the nightmare without. The inner and the outer collide in terms of defining and writing the human and its identity, suggesting that it is both the external, the socially and culturally derived forces that impact upon the human category, as well as the notion of an internal, evolutionary influence passing generally through the generations. In reference to the sociobiological theories of E.O. Wilson, Baxter notes that

Wilson asks the questions that have become the hallmark of sociobiological investigation. How far have human beings developed genetic traits that are adapted to our contemporary world, and how far are they carry-overs from earlier stages of human development?³⁶

Along a similar line of thinking, John and Mary Gribbin comment that 'what matters is that we should try, through sociobiology, to understand what our animal inheritance predisposes us for, so that we can decide whether that predisposition is good or bad and can take suitable steps to overcome it where necessary'.³⁷ Depictions of the human in relation to the machinic milieu presented in *High-Rise* investigate these precise questions. In this way, Ballard's nightmare logic is only a nightmare in terms of the reader who desires a displacement of ambiguity via strict categorization and definition of protocol in

³⁶ *A Darwinian Worldview*, p. 24.

³⁷ *The One Per Cent Advantage*, p. 93.

terms of binary oppositions. A comparable scenario characterises the events of the second novel in the trilogy: *Concrete Island*.

Concrete Island, Concrete Animal

Concrete Island presents a slightly inverted situation. The space onto which Maitland crashes is initially perceived as confining; yet, as the narrative progresses, the notion of a circumscribed space or a human zoo shifts to the world surrounding and external to the traffic island. The most overt way in which the evolutionary animal emerges on the *Concrete Island* is via the portrayal of characters as 'animalistic', in the derogatory sense of the word. The way in which the architecture of the island relates to the architecture of the evolutionary human animal is thus an intriguing place to begin discussing the theme of the evolutionary animal in Ballard's text.

Architecture in *Concrete Island* necessarily focuses on distinct features of the traffic island. The piece of land—sandwiched between three motorways and onto which the protagonist crashes—begins to mould Maitland, hence indicating a wider thematic interest in the relationship between organism and environment. Here, the concept of 'inner space' returns to inhabit the concrete island. As Maitland traverses and occupies the space, his thoughts and personality are just as much inscribed on the island as the island becomes written upon his body. Colombino touches upon this phenomenon when she states that 'the hero's permanence on the concrete island is by no means a return to a prior, mythic physicality but to a new corporality inscribed in and subdued to "the possibilities of urban

architecture”'.³⁸ As discussed in the second chapter of this thesis, the perspective on the physical surroundings outlined via Maitland’s narrative fluctuates as Maitland begins to favour the lifestyle offered by the island over that of his former existence. Furthermore, the way in which Maitland is altered as a result of his environmental surroundings relates closely to theories of evolutionary adaptation, where organism and environment interact to produce adaptations necessary for survival.

The process of change is enacted most apparently in relation to time on the island. The following passage indicates that ‘The island seemed larger and more contoured, a labyrinth of dips and hollows. The vegetation was wild and lush, as if the island was moving back in time to an earlier and more violent period’ (p. 102). Here, the notion that the island is performing a type of time warp is conveyed, and this sentence connects to the evolutionary perspective that can be applied also to the events of the narrative. In a simplistic sense, the characters on the island are moving backward toward a time when urban architecture was not a factor confronted by the human species. The narrative portrays the effects of what happens when the human evolutionary animal, portrayed as largely unchanged biologically, re-confronts an existence that determined his evolutionary trajectory—namely, that of survival and adaptation.

Time in the text is presented as ambiguous and disjointed, a situation that contributes towards the idea that the human animal, as portrayed in *Concrete Island*,

³⁸ Laura Colombino, ‘Negotiations with the System’, J.G. Ballard and Geoff Ryman: Writing London’s Architecture’, *Textual Practice*, 20:4 (2006), 615-35 (p. 619).

inhabits more than one developmental era simultaneously. Maitland's car, for example, appears antiquated even immediately after the accident occurs:

In front of him was the rusting chassis of the overturned taxi into which the Jaguar had slammed. Half hidden by the nettles, several other wrecks lay nearby, stripped of their tyres and chromium trim, rusty doors leaning open.

(pp. 9-10)

A rapid movement of time is conveyed through the pivotal image of the automobile.

Directly after Maitland's accident, his advanced, technological means of transport is already assimilable with the remains of other, former accidents. The text conveys an anachronism, a sense that the narration has stepped out of time, almost in the manner of a time-travel tale, opening an ambiguous space that enables an investigation of the human and its twentieth-century environment. Delville comments that

In a typically Ballardian manner, Maitland's journey 'Through the Crash Barrier' signals the emergence of a new identity in himself, one which is more or less dictated to him by reminiscences of his childhood, on the one hand, and by a confrontation with the subconscious energies of his inner self, on the other.³⁹

While the text could be read strictly in terms of a new identity emerging for Maitland, the idea of a new identity can be extrapolated to forge a connection with evolutionary theories. In other words, it is also possible to interpret the text as a means of addressing the evolutionary past of the human. This can be achieved first by analysing Maitland's relationship with Proctor, and the animal identity that emerges as the characters make their way 'through the crash barrier' of the categorical human, and into the expanding definition of the human that can be constructed from within posthumanism and the posthumanities.

³⁹ J.G. Ballard, pp. 42-43.

Body Language

Maitland's relationship with Proctor involves various manifestations of the animal theme.

As in *High-Rise*, non-verbal communication becomes the dominant mode of communication within the text. The following passage explicates this trend:

He waited without expression when Maitland stood over him, unfastening his trouser vent.

As the urine struck his face, Proctor raised his scarred hands. He stared at the amber liquid splashing on to his palms and pouring down the lapels of his dinner-jacket. Unable to move his body, he looked passively at Maitland. The jet of urine hit the tramp's mouth and eyes, frothing on his shoulders. The hot drops bubbled and seethed in the dust around him.

Maitland waited until he had finished. Proctor lay stranded on his side in the pool of urine, his eyes lowered. With one hand he tried to clean the dinner-jacket, brushing sadly at the lapels.

(p. 135)

By this point in the narrative, Proctor has bribed Maitland into giving him possession of the dinner jacket that Maitland was wearing when he experienced the crash. The scene depicted thus juxtaposes a smartly dressed man being urinated upon by a lame, dishevelled character. It is through such dominance displays that Maitland forges relationships with those already inhabiting the island: Proctor and Jane. The non-verbally communicated meaning of the message sent from Maitland to Proctor is remarkable not simply for its lack of language-based negotiation or conflict, but also for its distinct trajectory away from any behaviour that might occur away from the traffic island.

Colombino notes that

It is no accident that, in sheer opposition to society's pathological need for cleanliness, as revealed by the immaculate suburbs which Ballard associates with

our sterile near future, the island is the place of the excremental, filth, and refuse repressed by society.⁴⁰

Here, Colombino is touched upon a pivotal point regarding the architecture of the island and the behaviour it induces. The narrative contrasts an ordered, hygienic, rule-inscribed society with that of the traffic island, where tribal affiliation and 'animal' communication reign supreme.

After urinating on Proctor, as Jane watches silently, Maitland demands that she gather his scattered belongings, discarded in a drunken escapade during which Jane and Proctor humiliated Maitland. A show of dominance therefore instigates the scene, and Maitland's treatment of Jane following the incident further supports this theory. Jane attempts to reassert dominance by stating: "I won't help you get away from here", yet Maitland responds, "Never mind. As a matter of fact, I don't particularly want to get away from here. Not for the moment, anyway" (p. 136). Maitland further solidifies his dominance when, immediately following sexual intercourse, he instructs Jane to wash him. 'His new-found aggressive role, although completely calculated, had subdued the young woman. He pulled off his shirt. His arms and chest were covered with grease and bruise-marks' (p. 137). Once again, non-verbal communication dictates the parameters of the power structure on the island. As Jane washes him, Maitland considers the following:

He was surprised that it had pleased him, even slightly, to humiliate the young woman, playing on her muddled feelings of guilt and deriding her in a way that he had never thought himself capable of doing. By contrast, his humiliation of Proctor had been entirely calculated; he had degraded the old tramp in the crudest way he could [...] Determined to survive above all else, he would exploit this strain of cruelty in himself in the same way that he had earlier exploited his self-pity and

⁴⁰ 'Negotiations with the System', pp. 621-622.

contempt. All that mattered was that he dominate the senile tramp and this wayward young woman.

(p. 139)

Maitland becomes increasingly convinced that dominance is necessary for his survival on the island, and, similar to the non-linguistic interaction between characters in *High-Rise*, he elects to communicate this dominance via non-verbal practices.

The absence of language as a means of communication also plays a large role in Proctor's struggle to comprehend and assimilate to any society outside the traffic island. Similar to Wilder in *High-Rise* and, as demonstrated in the next section, Vaughan in *Crash*, Proctor disavows language, instead constructing an alternative mode of being in the world—one that does not necessitate language and therefore also always returns the characters to an 'animal' relationship to the world. Yet the very interconnection represented through the fluid exchange between human language and animal body language unsettles the distinction between the human and the animal, causing its function to become less effective.

For Proctor, language represents a realm from which he has been excluded; therefore, he exhibits fear of the written word. Maitland's attempts to escape by writing chalk messages on the concrete wall—messages that would be visible to passing drivers—are thwarted by Proctor's erasure of these messages, unbeknownst to Maitland. As a result of Maitland's discovery of Proctor's illiteracy, he eventually offers reading and writing instruction to Proctor, an endeavour that ultimately proves unsuccessful. The narrator states that 'To begin with, when Maitland had chalked up the first few letters of the alphabet, the tramp had refused even to look at them, cringing away as if they threatened

some terrifying curse' (p. 151). It is here that Proctor presents an explicit connection to *The Tempest's* Caliban,⁴¹ who detests the language of his oppressors. Unlike in Shakespeare's dramatic text, however, where Caliban's speech contains some of the most poetic language in the play, the communication of Ballard's Proctor is largely constituted by non-verbal displays. The capacity for language, often deemed a singularly human attribute, is dismantled in Ballard's text, thus calling forth the question of the human and its relational definition in terms of the animal.

The character of Proctor, however, goes even further with his rejection of traditional 'human' communication. He not only refuses to use language, but also refuses to rely on his vision: 'He was not going blind, Maitland was convinced, but simply preferred to rely on his scarred fingers and his sense of touch within the secure realm of the island's undergrowth' (p. 150). Speech and vision are deemed unreliable. Ballard's characters continually reaffirm the necessity of utilizing the body and its functions and communicative capacities in a manner that supplants common modes of communication, including 'seeing' objects and 'hearing' language. Colombino comments that 'the means to attain the erasure of reality-as-language is the return of repressed corporality. This is always presented as visceral, traumatised or injured'.⁴² In *Concrete Island*, a 'repressed corporality' can be seen to emerge as the characters navigate the parameters of the traffic island. Ultimately, the narrative can be seen to function as a commentary on the capacities and functions of the human animal in relation to its environmental surroundings. The text

⁴¹ As mentioned in Chapter Two, footnote 51 of this thesis, both Michel Delville and Roger Luckhurst also identify connections between Ballard's text and Shakespeare's *The Tempest* (1611).

⁴² 'Negotiations with the System', p. 617.

repeatedly conveys a process whereby the human moves closer theoretically to the animal. These depictions further align the text with posthumanism, as well as facilitating the potential for ethological and sociobiological approaches to be applied, a process that begins via the literal animal.

Becoming Animal

Described at one point as 'Bent beast and pale rider, [...] wander[ing] through the seething grass' (p. 155), the relationship between Maitland and Proctor contains the most explicit connection to an animal theme. Here, the 'animal' is considered in terms of the literal 'animal'. Also, however, especially in the manner in which Proctor is described, the definition alluding to the derogatory aspects of the animal as applied to the human can be seen in the text. As Maitland extends his stay on the island, he, too, begins to be conveyed in this manner. In these comparisons, the evolutionary animal is overshadowed by the literal animal, but the resultant effect is the same: the human is redefined in terms of the animal, thus necessitating a posthumanist perspective.

Maitland eventually discovers a series of air-raid shelters on the traffic island, hidden amid the long grasses and 'dense undergrowth' (p. 74), the largest of which serves as Proctor's abode. Maitland's initial discovery of the habitat is described in the following manner: 'A sweet but not unpleasant smell greeted him, as if he were stepping into the lair of some large and docile creature' (p. 76). Proctor continues, from this point onward, to be described in terms of his 'non-human' attributes. For instance, Proctor is described as a 'broad, thick chested figure who was watching him from the doorway, head lowered like a

bull's between swaying shoulders' (p. 76). Shortly thereafter, as Proctor attacks Maitland upon finding him in his lair, 'Maitland was only aware of the panting, bull-like figure dragging him up the slope' (p. 76). Once again, Proctor is depicted as 'mark[ing] out the ground, kicking away the loose stones like a large animal searching for the kindest terrain' (p. 94). In addition, when Maitland comments that, during their initial meeting, Proctor had tried to kill him, Jane responds: 'He thought you were trying to take over his den' (p. 98).

Further descriptions reinforce the image of Proctor as animal and solidify the role he enacts in the narrative: 'The tramp moved through the grass in a low crouch, like some wary beast, his scarred hands parting the blades' (p. 108); and, 'Proctor was crouching like a nervous animal, unsure whether to assert his dominion over the island' (p. 111). Further examples abound, including descriptions of Proctor as a 'large, simple animal' (p. 123); 'a well-groomed domestic animal' (p. 143); and an 'amiable beast' (p. 159). Describing Proctor in this manner also aligns him with a categorical 'otherness'. The story behind Proctor's eventual arrival on the island is described by Jane in the following terms:

"When he was sixteen or seventeen he used to be a trapeze artist with some fly-by-night circus. That was before they had any safety legislation. He fell off the high wire and damaged his brain. They just threw him out. Mental defectives and subnormals are treated appallingly — unless they're prepared to go into institutions they have absolutely no protection."

(p. 98)

Proctor is presented as 'defective' and therefore 'outside' society. Often, he is described in terms of a dehumanised character, rather than explicitly as the animal. During the first encounter with Proctor, he is described in the following manner:

The man was about fifty years old, plainly a mental defective of some kind, his low forehead blunted by a lifetime of uncertainty. His puckered face had the expression of a puzzled child, as if whatever limited intelligence he had been born with had never developed beyond his adolescence. All the stresses of a hard life had combined to produce this aged defective, knocked about by a race of unkind and indifferent adults but still clinging to his innocent faith in a simple world.

(p. 86)

Proctor is 'the other', the alien, the savage and the animal all combined into one character. He is Crusoe's Friday and Prospero's Caliban, refusing to join the society that has rejected him, yet once in contact with the progenitors of this society, always enacting the expectant behavioural codes of his station.

The definitions surrounding the word 'Proctor' offer various perspectives on the character that are carried out within the text. The *OED*'s first definition is '[a] person employed to manage the affairs of someone else; an agent, proxy, attorney', a definition which might seem to exceed a character largely described as 'defective'. When considered in terms of the hierarchy that unfolds in the text, however, Proctor's position enables a management of the order of the island. Also, given his literary, intertextual association with the above-mentioned canonical texts, a reader might consider the character as a mere proxy for the protagonist's encounter with 'the other'. The second definition provided by the *OED* refers to the term 'proctor number', and is defined as 'the number assigned to an early printed book in the *Index to the Early Printed Books in the British Museum* (1898-1938) begun by R.G.C. Proctor'. This definition allows association to stretch to the historical documentation of literature, an association that seems ironic for a character who despises the written word and the power structure from which any linguistic apparatus has been

constructed. Yet the historical implications of the next part of this definition seem to offer a possibility of considering Proctor in terms of an historical marker or indicator of both recurrence of the human archetype, but also of the kind of atavism that Proctor enables via the animal descriptions the narrator employs to convey his actions and character: '2.

Proctor order *n.* (also Proctor's order) a system of classification according to geographical origin, printer, and chronology for early printed books, first used in Proctor's *Index* (see *Proctor number n.* at sense 1).' Proctor, then, embodies the notion of origins, of ancestry.

Whichever definition one might elect to signify a connection between name and narrative event, Proctor nonetheless stands as an indicator of a certain 'animality' that comes to dominate the behaviour of each island inhabitant.

Significantly, and as in *High-Rise*, the text connects the animal to the 'insane'. Not only is Proctor defined through animality, but he cannot exist within the parameters set for those deemed categorically 'other', hence his continual determination to remain on the island. With this otherness Ballard combines an animality. As demonstrated above, he is depicted in terms of the animal—the bull, lion, beast, large animal. Yet, if one considers various other manifestations of the animal as represented through the human, apart from the imposition of the animal metaphor, the text serves to open up the category of both the human and the animal for alternate interpretations and perspectives. Such a possibility begins to arrive when, as Maitland decides to stay on the island, he too becomes described in more animalistic terms: 'Maitland stretched out a claw-like hand. He held Jane's right arm in a fierce grip. "No—I want to stay here. For the time being"' (p. 161). The lines between humanity and animality become blurred as the stereotypical imaging of the

'savage' as 'animal' is subverted by Maitland's eventual transformation. In addition, it is not only the organic characters who reinforce such metaphorical connections; at one point the air-raid shelters are described as animalistic: 'The roofs of the air-raid shelters rose around them like the backs of ancient animals buried asleep in the soil' (p. 173). Inert and organic entities are conflated once again, as both the human and its surroundings are considered in terms of the animal.

A discussion of the non-verbal communication that dominates the narrative, combined with an analysis of the recurrent depictions of Proctor as animal, serves to situate the text within a posthumanism that defies categorical boundaries regarding the human. As the text indicates the posthuman, however, it also moves into the posthumanities in its depiction of the evolutionary human animal within a machinic environment. As in *Crash* and *High-Rise*, where representations of the machine and the animal, respectively, intimate the theme of adaptation, so too does *Concrete Island* interact with this concept.

The Evolutionary Animal on the *Concrete Island*

In addition to the portrayal of Proctor as animalistic, thus re-envisioning the boundaries between the human and the animal, the text also intersects more directly with the evolutionary animal. The theories of Morris that were applied to *High-Rise* have an equitable, concrete grounding in *Concrete Island*. Recall Morris's assertion that 'the social

isolation of the teeming city can cause a great deal of stress and misery for many of the human zoo inmates'.⁴³ This scenario is constructed in terms of the traffic island as well.

Situated amidst a machinic 'nightmare' space, in which human survival has been supplanted by the functional success of the motorway, *Concrete Island* conveys entrapment within the architectural space of the roadway—a symbol of urban and suburban enterprise that, on the one hand, delimits the potential of seeing the human as distinctive and unique, and, on the other hand, questions the parameters of the human in the face of the machine.

Colombino mentions that

It is only through the crevice in the urban texture—in the case in point the nondescript traffic island into which Maitland crashes—that the return of repressed physicality can bubble up to crack and defy the architectural will. Entering this unknown space entails the exit from the confines of calculation and the exposure of both body and mind to incalculable risks.⁴⁴

Here, Colombino implies that the emergent body depicted in the text defies the architectures of the motorway, or, more generally, the concrete space inscribing the island. What also occurs, however, is a merger of perspectives on the human as both animal and machine. The categorical designations that demarcate human from animal and human from machine are discounted by the descriptions in the text. Border disavowal thus occurs on various levels. Such breaks in delineation also occur when one considers the evolutionary history of the human animal, an issue that aligns with the descriptions that dominate the text and have been discussed thus far. The ambiguous positioning of the human between the animal and the machine—in both social and biological, evolutionary

⁴³ *The Human Zoo*, p. 6.

⁴⁴ 'Negotiations with the System', p. 618.

terms—serves as a means of interpreting the actions of characters within *Concrete Island*. The characters develop in accordance with their environmental surroundings, as well as their evolutionarily-inscribed modes of being in the world. In *Concrete Island*, Maitland ultimately opts to adapt to the concrete island, rather than return to the external machinic society that necessitates a sublimation of the animal. Here, both adaptation in terms of environment, as well as theories deriving from Morris and de Waal offer an insightful interpretative lens to the text. This is the case, too, in terms of how the evolutionary animal appears within the pages of *Crash*.

Crashing into the Evolutionary Human Animal

While *High-Rise* and *Concrete Island* sit more comfortably alongside each other and alongside the theme of the evolutionary animal—especially when considered in terms of theoretical stances such as ethology and sociobiology—*Crash*, too, contributes to the debate. Most notably, the animal as portrayed in *Crash* emerges via the human depicted as a changing, adapting and speculative figure. Foremost, the text contains references to the animalistic characteristics of the human. Second, *Crash's* illustration of a transmutable, evolutionary human figure connects to Alvin Toffler's theory of 'future shock', a concept that intersects with events in the novel and is further discussed below.

First of all, the evolutionary animal becomes apparent via the portrayal of the human as animalistic. Like Proctor's illustration as an animal, the animalistic depictions of the human have a potential to construe the derogatory definition of the animal, and to encompass those aspects of the human that the human would rather not own. Instead,

these facets are projected onto the animal. Although this is not entirely consistent with the kind of un-stereotypical animal this thesis discusses, *Crash* can be seen to take the commonly accepted view of the animal as that which is lesser than the human and project it onto the sexual practices of its characters. Despite relying on what might be deemed humanist definitions of the animal to start, the text ultimately participates in the process of dismantling hierarchies distinguishing human from animal and, consequently, invokes the concept of the evolutionary animal.

Crash's characters navigate their environment according to sexual urges, ones that often override the limits of 'reason'. In the humanist tradition, reason is possessed solely by the human, so when the characters begin to demonstrate 'unreasonable' behaviours, a shift occurs in terms of defining the human, but also in terms of uniting the human to the animal. Relating also to Fudge's discussion of reason and language mentioned earlier in this chapter in relation to *High-Rise*, Kevin McCarron notes that 'When Descartes asserts the division between mind and body he necessarily accepts a further dichotomy, this time between humans and animals'.⁴⁵ The definition of the human as possessing 'reason', as outlined by Descartes, thus implicates the human's relation to the animal when 'reason' is absent from human activity.

⁴⁵ Kevin McCarron, 'Corpses, Animals, Machines and Mannequins: The Body and Cyberpunk', in *Cyberspace, Cyberbodies, Cyberpunk: Cultures of Technological Embodiment*, ed. Mike Featherstone and Roger Burrows (London: Sage, 1995), pp. 261-273 (p. 263).

The characters in *Crash* do not act in a manner appropriate to the accepted laws of logic and consequence that govern the twentieth-century society in which they are depicted. For example, the protagonist Ballard begins to view everything around him as possessing a potential for sexual pleasure:

The aggressive stylization of this mass-produced cockpit, the exaggerated mouldings of the instrument binnacles emphasized my growing sense of a new junction between my own body and the automobile, closer than my feelings for Renata's broad hips and strong legs stowed out of sight beneath her red plastic raincoat. I leaned forward, feeling the rim of the steering wheel against the scars on my chest, pressing my knees against the ignition switch and handbrake.

(p. 41)

Here, shortly after his initial automobile accident, Ballard identifies a connection between himself and the machine, but this also extends to the inception of his ongoing fetish for the automobile. Ballard, as a 'reasonable' human, rejects this foundational facet of his definition and opts instead for an existence dictated by varying combinations of sexual attainment. It is in this sense that a lack of traditional 'reason' combines with the protagonist's, and other characters', animalistic urge for sexual satisfaction. In one scene, depicting Ballard with an airport prostitute, the characters are described in a sexual encounter taking place in a multi-storey car-park:

As she brought my penis to life I looked down at her strong back, at the junction between the contours of her shoulders demarked by the straps of her brassière and the elaborately decorated instrument panel of this American car, between her thick buttock in my left hand and the pastel-shaded binnacles of the clock and speedometer. Encouraged by these hooded dials, my left ring-finger moved towards her anus.

(p. 47)

The protagonist Ballard is constantly approaching the human body in a sexual manner.

Over-emphasis on sexuality, his sexual abandon, is ripe for the stereotypical consideration

of Ballard as 'animalistic'. Even in the presence of what might be considered non-sexual surroundings—a car-park—Ballard's sexuality is rampant. Furthermore, Vaughan possesses an even more overt sexuality and is often described as animalistic throughout the text.

When Vaughan engages in repeated acts of self-harm, Ballard narrates:

His face was whiter than I had ever seen it, and he moved in bursts of exhausted nervousness around the cabin of the car, like an uncomfortable animal. This hyper-irritation reminded me of my own long recovery from a bad acid trip some years earlier, when I had felt for months afterwards as if a vent of hell had opened momentarily in my mind, as if the membranes of my brain had been exposed in some appalling crash.

(p. 158)

In both cases, Ballard attributes Vaughan's behaviour to descriptors that lie beyond the remit of traditional boundaries established for the human. By invoking the animal, and then the influence of a foreign substance on the human body, a drug, the characters of Ballard and Vaughan establish the difficulty of comprehending the human in terms of humanist philosophy. Without posthumanism as a theoretical guide, a way of thinking, the characters are bereft of a means of interpreting their behaviours and surroundings, resorting to attributions of the animal to the human that fail to fully integrate the posthuman, or even the evolutionary animal into the human definition. For this reason, *Crash* calls for a posthumanist outlook.

Descriptions of Vaughan consistently raise the issue of the physical, animal body in the social sphere, urging a re-ordering of acceptable terms of social interaction via the unavoidable presence of the body. As in *High-Rise* and *Concrete Island* body language

emerges and indicates the undeniable presence of the evolutionary past. Vaughan represents this theme in the following description:

Searching through the photographs in his apartment, he half turned towards me, so that his heavy groin quietened me with its profile of an almost erect penis. He knew that as long as he provoked me with his own sex, which he used casually as if he might discard it for ever at any moment, I would never leave him.

(p. 2)

Here, Vaughan's physicality is deployed in order to command power and dictate subservience. The gesture is, in terms of its most essential attributes, an animalistic means of communicating. The text of *Crash* posits the beginning of this exploration in the author Ballard's trilogy, repeatedly invoking moments where, as in Haraway's discussion of the cyborg, the 'boundary between human and animal is transgressed'.⁴⁶ During the opening chapter of the novel, Ballard observes the dents in an automobile created when Vaughan collides with a 'large mongrel dog' (p. 5), and comments on 'The long triangular grooves on the car [that] had been formed within the death of an unknown creature, its vanished identity abstracted in terms of the geometry of this vehicle' (pp. 5-6). In this description there is no sense of ineffectuality in terms of the dog's death—in fact the death of the animal immediately spurs Ballard to ponder his own death. The dog undergoes the same process of theoretical assimilation with the vehicle that the human experiences throughout the narrative. Presentation of the animal in this manner inculcates the animal as on par with the human. Death is not overlooked as meaningless: an affinity is reached due to the

⁴⁶ Donna J. 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), pp. 149-181 (p. 152).

fact that the death of the animal reminds Ballard of his own death. Another example occurs when Ballard recalls the following incident:

two years earlier when I had been hit by a German shepherd dog running blindly across a street. I had stopped a hundred yards ahead and walked back to find two schoolgirls vomiting into their hands over the dying dog.

(p. 129)

Again, an immediate intimacy is expressed via the animal and its death. Instead of considering the incident as the inconsequential death of a non-human creature, the narrator reminds us of the lack of distinction between the human and animal. So, just as throughout the text inner and outer merge as the boundaries between organic and inorganic become hazy and difficult to decipher, so too does the text hint at the haziness of the border between the human and the animal. The text of *Crash* can be situated at the juncture where the human, the animal and the technical begin trespassing onto each other, driving posthumanism into a directive position.

The dislocation of the human and the animal relates to the decentring of the human subject, in cohesion with posthumanist theory. Throughout the text, the human is repeatedly and persistently decentred as an entity, in terms of both the machine and the animal. There is a sense in which the characters are aware of their own finitude, of the minuscule place they occupy in the scheme of history and of the temporal shifts of the larger universe. The following quotation epitomizes this sentiment, as the narrator imagines how

A new race of beachcombers might appear, squatting on these heaps of fractured windshields, sifting them for cigarette butts, spent condoms and loose coins. Buried beneath this new geological layer laid down by the age of the automobile accident would be my own small death, as anonymous as a vitrified scar in a fossil tree.

The idea of a pre-empted archaeological excavation serves as a reminder that the human is a transient entity that will pass away into an unknown abyss, hence relating to the theme of the evolutionary human animal: the human is merely a passing stage in the evolutionary process. The narrator envisions his death as being not meaningless or fruitless, but 'anonymous'. The language used by *Crash's* narrator, such as 'vitrify' evokes violent images of fire and forging glass, thereby further demystifying the process of life and death in which the human is inescapably bound. As the protagonist Ballard imagines himself dead and fossilized, buried underneath a mountain of automobile parts, the human is envisioned in a posthumanist light. Contrary to the typical interpretation of animalistic traits, moments wherein the human is depicted as animalistic in *Crash* are not conveyed as negative, but rather as either matter-of-fact, or as positive attributes of the human. Ballard's text thus inverts the established notion of animality; and, as a result, levels the distinction between human and animal that tends to characterise fictions that might be considered to occupy a more humanist spectrum of enquiry and debate.

***Crash* and 'Shock' of the Evolutionary Animal**

The notion of the evolutionary animal also becomes apparent in *Crash* via the relationship between the human and the technological environment. As discussed in Chapter Two, the text intersects with the theme of evolution via the machine and the question of maladaptation and acceptance, themes that are revisited when considering the evolutionary animal. To a certain extent, like in *High-Rise* and *Concrete Island*, the human is depicted as

coming into conflict with its machinic environment. While there is a certain amount of conflation between the physical human body and the physicality of the machine, as demonstrated in Chapter Two, there is also a wider distinction made between the systemic environment created by the machine, and the evolutionary human animal. In order to comprehend the implications of this relationship, it is worth addressing a contemporaneous theory that intersects with evolutionary notions: Alvin Toffler's 'future shock'.

In *Future Shock* (1970), Toffler defines the term as 'the distress, both physical and psychological, that arises from an overload of the human organism's physical adaptive systems and its decision-making processes. Put more simply, future shock is the human response to over-stimulation'.⁴⁷ Toffler's theory presupposes a reliance on evolutionarily influenced perspectives on the human: the human is seen, incontrovertibly, as an evolutionary animal subject to the same stresses and influences as any other known organism. Ballard's trilogy mirrors the notions displayed in Toffler's theory. With Ballard's depictions of a gleaming, 'overlit' technological realm, the stimulation experienced by his characters results in the dismantling of former barriers between the human and the external landscape. Though Toffler identifies technology as a significant factor contributing to his concept of 'shock', the way in which he presents the theory relates directly to concerns surrounding the human as an evolutionary animal.

The behaviour of the characters in *Crash* touches upon the idea of future shock. They are traumatised by overly-metallic surroundings and respond by engaging in 'perverse' acts of congruence with other humans and machines. From one perspective, it

⁴⁷ Alvin Toffler, *Future Shock* (London: Bodley Head, 1970), p. 290.

could be said that the evolutionary animal depicted in *Crash* is at odds with its technological milieu, and desperately seeking a way to resurrect its relationship to the wider environment. The same relationship can be seen in *High-Rise*, where the violent revolution entails direct attacks on the technological systems of provision and the high-rise architecture. It should also be noted, however, that while Ballard's texts engage with certain sentiments that can be related to Toffler, the texts do not ultimately label or judge the transformation occurring as a result of 'future shock'. In other words, while Ballard's texts depict elements of 'future shock' taking place, the narratives do not admonish the characters for enjoying it. Lack of conclusive morality does not, however, preclude Ballard's texts from affinity with social, cultural and scientific theories circulating at the time. In fact, the ambiguity contained within Ballard's depictions makes his fictions engaging sites for theoretical speculation.

In terms of Toffler's theory, a connection to Ballard's *Crash* can be forged as Toffler's affinity with evolution-derived theories becomes apparent. Significantly, Toffler suggests that society has accelerated beyond evolutionary capacity, stating that 'future shock' is a 'psycho-biological condition' and that it entails 'the shattering stress and disorientation that we induce in individuals by subjecting them to too much change in too short a time'.⁴⁸ It is here that the idea of the human as an evolutionary animal becomes imperative to comprehending Toffler's suggestions. Only by interpreting the human as subject to evolutionary forces from a past history of evolutionary change can Toffler's concept of 'future shock' be integrated into an interpretation of Ballard's fiction. In both cases, the

⁴⁸ *Future Shock*, p. 4.

human is removed from the seat of centrality, but also from control over its past and future. The 'evolutionary machine' impacts upon the human and the texts ultimately demonstrate the inability of the human to enact complete control, especially in the face of a machinic landscape that does not complement the needs of the animal that is the human. Here, adaptation once again plays a role in constructing the human image.

Toffler does not decree the human as unchangeable, but he does delimit the rate of change that can be undergone. Toffler states that

To assert that man must adapt seems superfluous. He has already shown himself to be among the most adaptable of life forms [...] Such accomplishments give rise to the glib notion that his adaptive capabilities are "infinite". Yet nothing could be further from the truth. For despite all his heroism and stamina, man remains a biological organism, a "biosystem", and all such systems operate within inexorable limits.⁴⁹

Toffler demonstrates the exact theoretical moment in which posthumanist and evolutionary theories intersect: the human can adapt, but this adaptation occurs within limits. Roger Luckhurst comments on the publication of the text, commenting that: 'Yet what this sense of crisis in the early 1970s induced was less the feeling of a headlong fall into the future and more an awareness of the end of something: the limits of this form of rapacious modernity.

Acceleration in the cycle of technologies was the graspable form of this rapacity'.⁵⁰

Luckhurst touches upon Toffler's identification of a speed of societal change that came to be associated with changes in technology. I would argue that Ballard's concrete-and-steel trilogy can be read as a fictional representation of this cultural thematic, and the animal necessarily plays a role in reacting to these environmental factors, as the 'inner' space of the

⁴⁹ *Ibid*, p. 289.

⁵⁰ Roger Luckhurst, *Science Fiction* (Cambridge; Malden, MA: Polity, 2005), p. 170.

human animal confronts the outer space of the built environment. The following statement made by C.P. Snow elucidates a discussion of technological revolutions:

During all human history until this century, the rate of social change has been very slow. So slow, that it would pass unnoticed in one person's lifetime. That is no longer so. The rate of change has increased so much that our imagination can't keep up. There is *bound* to be more social change, affecting more people, in the next decade than in any before. There is *bound* to be more change again, in the 1970's [...] Men are no longer prepared to wait for periods longer than one person's lifetime.⁵¹

It is this change that Toffler outlines in his text, concluding that the biologically and evolutionary influenced human species has not adjusted, biologically or psychologically, to the rapid advancement such change entails.

As discussed in Chapter Two, Ballard's trilogy raises the paradox of the biological human and its apparent urge to adapt to the machinic society. The evocation of the biological substrate and its limitations, however, is not unique to the concrete and steel trilogy. As mentioned previously, Brian Baker provides an analysis of Ballard's incipient science fiction that relies upon an evolutionary perspective. In several of Ballard's early novels, Baker identifies the 'reinsertion of humankind into the biological realm. There is no sense that humans can stand outside evolutionary processes and pressures, observing and retaining the mental landscapes of "civilization"'.⁵² Here, a literary critic brings evolutionary theory to bear on Ballard's early works, texts that often overtly engage with concepts of adaptation and evolution. I would argue, however, that such a statement could be applied also to the texts selected here. *High-Rise*, *Concrete Island* and *Crash* demonstrate

⁵¹ C.P. Snow, *The Two Cultures and the Scientific Revolution* (Cambridge: Cambridge University Press, 1959), p. 40. Emphasis in original.

⁵² Brian Baker, 'The Geometry of the Space Age: J.G. Ballard's Short Fiction and Science Fiction of the 1960s', in *J.G. Ballard*, ed. Jeannette Baxter (London: Continuum, 2008), pp. 11-22 (p. 19).

the human in a pivotal struggle to adapt to a technologized existence. It is exactly this portrayal that constitutes Ballard's connection to Toffler.

The Concrete and Steel Trilogy: Evolution, Biology and the Body's Impossible Dream

Ballard's texts present fictional, hypothetical trajectories in which the question of the human and its evolution—biologically, socially and mechanically speaking—plays a significant role. N. Katherine Hayles comments on the 'blind spot' that emerges when 'literary and cultural critics confront the fields of evolutionary biology':

From an evolutionary biologist's point of view, modern humans, for all their technological prowess, represent an eye blink in the history of life, a species far too recent to have significant evolutionary impact on human biological behaviors and structures. In my view, arguments like those that Jared Diamond advances in *Guns, Germs, and Steel: The Fates of Human Societies* and *Why Sex is Fun: The Evolution of Human Sexuality* should be taken seriously. The body is the net result of thousands of years of sedimented evolutionary history, and it is naïve to think that this history does not affect human behaviors at every level of thought and action.⁵³

Representing a similar perspective to that espoused by Morris, de Waal and Toffler regarding evolutionary influences upon the human, Hayles situates the human body and its evolutionary history as a significant element to take into consideration. It is at this juncture that the fictional representation of an unavoidable bodily presence intersects with the theoretical frameworks of both posthumanism and evolutionary theory. In the fictions discussed here, the human body is presented as an evolutionary influence on the human characters. Hence, in Ballard's trilogy, a popular transhumanist theory such as Ray

⁵³ N. Katherine Hayles, *How We Became Posthuman, Virtual Bodies in Cybernetics, Literature, and Informatics* (Chicago: University of Chicago Press, 1999), p. 284.

Kurzweil's idea that the human will reach a 'singularity' with the machine,⁵⁴ for example, is undercut by the re-emergence and emphasis placed on the evolutionary aspects of the human animal, or the animal aspects of the evolutionary human. Overall, the images portrayed in Ballard's fictions suggest a separation that is not easily overcome, if at all possible. Once again, the 'crude sci-fi concept', 'the body's dream of becoming a machine' is continually deferred. Yet a conceptual merger of human, animal and machine is nonetheless necessary in order to comprehend the origins and potential futures of the human.

High-Rise, Concrete Island and *Crash* suggest that the animal is not an aberration to be ignored, but an intrinsic, unavoidable component of the human. Francis Fukuyama bemoans the possibility of a posthuman world in which 'any notion of "shared humanity" is lost, because we have mixed human genes with those of so many other species that we no longer have a clear idea of what a human being is'.⁵⁵ Ballard's fictions demonstrate that, even without an overt physical mixing of genetic material, the posthuman future has already arrived—a future that has more to do with our perceptions of the human in relation to the animal and the machine, and less to do with actually 'becoming' other-than-human.

Ballard's trilogy depicts a continually emergent animality, while also constructing a tension between the opportunity integrated machines might offer for a new form of human life and consciousness, as well as the possibility that they might precipitate the downfall of human society as constructed in the twentieth-century. Whether or not the future will

⁵⁴ See Ray Kurzweil, *The Singularity is Near: When Humans Transcend Biology* (London: Penguin, 2005).

⁵⁵ Francis Fukuyama, *Our Posthuman Future, Consequences of the Biotechnology Revolution* (London: Profile Books, 2002), p. 218.

entail an apocalyptic vision, or rather, as Hayles surmises, 'a more moderate view of seriated social, technological, political, and cultural changes',⁵⁶ is still undecided. Ballard's texts do little in the way of prophesising future trajectories or providing moral stances. An overriding sentiment, however, is demonstrated through these narratives: the idea that the evolutionary animal cannot be overlooked, and that part of incorporating the animal into a definition of the human involves acknowledging theories from beyond the remit of the humanities, in this case the biologically derived theory of evolution. Any theory that seeks to reconfigure approaches to the human must take into account the tricky terrain of the body and the biological. When speaking of the evolutionary human animal, the biological arrives at the forefront of interpretation, especially in terms of how the human is portrayed in the texts in question. Comparable connections between the evolutionary animal, the machine, evolutionary theory and posthumanism also characterise the terrain of Kurt Vonnegut's fiction, a brief introduction to which comprises Chapter Four. Chapters Five and Six conclude this thesis by discussing these themes in three texts: *Player Piano*, *Slaughterhouse-Five* and *Galápagos*.

⁵⁶ *How We Became Posthuman*, pp. 284-85.

Chapter Four

Kurt Vonnegut: Posthumanism, Science and Science Fiction

Vonnegut's texts serve as a site for related debate regarding the cultural and scientific construction of the human. In the chapter that follows, three novels have been selected—*Player Piano* (1952), *Slaughterhouse-Five* (1969) and *Galápagos* (1985)—in order to focus an analysis of the human, the machine, the evolutionary animal, evolution and posthumanism. Admittedly, almost all of Vonnegut's novels and short stories touches upon the themes discussed in this thesis; and, while the selected texts have often been discussed by critics interested in Vonnegut's oeuvre, this thesis offers an original, reformed perspective on some of the perennial themes contained within his well-known, popular texts. In reference to Vonnegut, Kevin A. Boon notes that: 'What he addresses repeatedly with his fiction is that human life occupies a chaotic margin between fixed systems'.¹ It is on the chaotic margin that an analysis of the evolutionary animal and the machine operates. Before entering explicit analyses of the chosen texts, it is worth situating Kurt Vonnegut within the field of posthumanism.

In the light of essays like David Andrews's 'Vonnegut and Aesthetic Humanism'² and Todd F. Davis's 'Apocalyptic Grumbling: Postmodern Humanism in the Work of Kurt Vonnegut',³ an argument aligning Kurt Vonnegut with posthumanism runs the risk of

¹ Kevin A. Boon, *Chaos Theory and the Interpretation of Literary Texts: The Case of Kurt Vonnegut* (Lampeter: Edwin Mellen Press, 1997), p. 149.

² David Andrews, 'Vonnegut and Aesthetic Humanism', in *At Millennium's End*, ed. Kevin A. Boon (Albany: State University of New York Press, 2001), pp. 17-47.

³ Todd F. Davis 'Apocalyptic Grumbling: Postmodern Humanism in the Work of Kurt Vonnegut', in *At Millennium's End*, ed. Kevin A. Boon (Albany: State University of New York Press, 2001), pp. 149-65.

coming across as unpopular or foolhardy. Donald E. Morse comments that *Player Piano* is a plea for humans to be more human, frailties and failings included.⁴ With the existence of such critical stances from prominent Vonnegut scholars, calling for Vonnegut to be considered in terms of posthumanism swims against the 'humanist' tide that has developed in the wave of criticism that addresses the question of the human in his oeuvre. Yet, despite the continual reiteration of Vonnegut's place as a humanist writer, there remains a space for a posthumanist interpretation of the texts, especially when one considers redefining what various critics, and what Vonnegut himself, actually imply when they use the term 'humanism'.

Vonnegut, as an author and an individual, is known by most critics as a 'humanist'.⁵ In his own self-proclamation of being a humanist, Vonnegut proclaims: 'We humanists try to behave as decently, as fairly, and as honorably as we can without any expectation of rewards or punishments in an afterlife'.⁶ In this sense, Vonnegut's version of humanism involves notions of cultivating 'decent' behavior, as well as an inbuilt secularism. Later, Vonnegut states that 'We humanists serve as best we can the only abstraction with which we have any real familiarity, which is our community'.⁷ Although what Vonnegut precisely means when he says 'our community' is left open to various interpretations, many

⁴ Morse notes, for instance, that '[t]his belief in the humanness of human beings will become a constant in all of his later novels and stories', in Donald E. Morse, *The Novels of Kurt Vonnegut: Imagining Being an American* (Westport, Conn: Praeger, 2003), p. 43.

⁵ This is in part due to his taking over from Isaac Asimov the role of 'Honorary President of the American Humanist Association'. See *A Man Without A Country*, ed. Daniel Simon (London: Bloomsbury, 2006), p. 80. Stefan Weisshampel also draws attention to this in *The Role of Science Fiction: Asimov and Vonnegut – A Comparison* (Hamburg: Diplomica Verlag, 2008).

⁶ Kurt Vonnegut, *A Man Without A Country*, ed. Daniel Simon (London: Bloomsbury, 2006), p. 79.

⁷ *A Man Without A Country*, p. 80.

critics have taken Vonnegut's non-fictional speculations on humanism as evidence of an unrelenting relationship between the writer and the idea of a static, uncompromising human essence. David Andrews identifies moments in Vonnegut's texts when this brand of humanism becomes apparent. Andrews argues, for instance, that Eliot Rosewater's statement 'you've got to be kind', appearing in *God Bless You, Mr. Rosewater*, implies that 'Vonnegut grants humanity a wholly practical, humanistic purpose'.⁸ Yet it should be duly noted that the characteristics identified within Vonnegut's definitions of humanism do not adhere to specific notions of Renaissance Humanism, so that posthumanism does not, in fact, dismantle the type of humanism of which Vonnegut speaks. Rather, it seeks to disrupt certain modes of perceiving the world and the human that evoke and construct systems of oppression and dominance by way of irreversibly distinguishing the human from other organic and inorganic forms. What better suits the discussion herein is to denote Vonnegut a 'humanitarian'. As will be demonstrated in the analyses that follow, to argue that Vonnegut's fiction upholds humanist ideals in terms of the humanism that posthumanism critiques is unsustainable. Within Vonnegut's texts, a distinct posthumanist stance is detectable. Continually in his fictions, the question is raised of how and where the human can be perceived in relation to the machine and the evolutionary animal.

The dilemma of posthumanism is that it attempts to reconfigure attitudes towards the human in relation to other entities, but the unintended, and, at times, risky side effects of this endeavour involve diminishing the 'respect' afforded the human. Vonnegut's novels certainly interact with the decimation of respect that occurs, for instance, during

⁸ 'Vonnegut and Aesthetic Humanism', p. 18.

wartime. In *A Man Without A Country*, Vonnegut comments on the treatment of soldiers sent to the Middle East in the new millennium, stating that 'They are being treated, as I never was, like toys a rich kid got for Christmas' (p. 72). It is this objectification of the human that Vonnegut rails against with his best-known novel, *Slaughterhouse-Five*, a text which, published in America during the height of the Vietnam War, is often hailed as an anti-war novel.

The question remains, when examining the posthuman strain within Vonnegut's novels, of how posthumanism fits in with such statements. Comparing the human to the machine or the evolutionary animal provokes the risk of lowering every form to a base level that justifies abuse and disregard. This is one potential interpretation, but the overall thrust of the posthumanist argument is that by assigning superiority to *any* object or life form is the fulcrum of the problem. In order to enact the atrocities committed during war, the principle of binary opposition must already be operable. Contrastingly, a posthumanist take on the human enlists formerly excluded entities in the human definition; thereby, the potential for discriminatory practice based on overt demarcations becomes less plausible. In this way, posthumanism attempts to outline a theoretical framework that enables an overcoming or a re-inscription of such thinking. In this sense, then, it is unsurprising that Vonnegut can be viewed in terms of such a theory; his texts contribute to the establishment of this perspectival shift.

Vonnegut's Posthumanism

Three major ways in which Vonnegut's texts contribute to a posthumanist theoretical outlook align with the three posthumanist points posited in this thesis: a) the decentring of the human, which, along with this process, necessitates a reformation of terms associated with the human; b) the inclusion of entities formerly designated as separate and distinct from the human category, namely the machine and the evolutionary animal; and, c) an inclusion of scientific principles that constructs a connection to the posthumanities.

Jerome Klinkowitz notes how 'Vonnegut's fiction reinvents the genre [of science fiction] even as the world he faces, in its rush toward the twenty-first century, demands redefinitions in terms of the previously unthinkable terms which have, since 1945, become part of its nature'.⁹ The conditions that call for redefinition are portrayed in the selected novels. Decentring the human occurs via the depiction of the human as less than essential to its own planet, as well as the wider universe beyond. The inclusion of machines and aliens with differing intellectual capacities (*Player Piano* and *Slaughterhouse-Five*) as well as the relative triumph and proliferation of the evolutionary human animal and, even, the devolved human species (*Galápagos*), contribute to such decentrings.

The ways in which the texts in question demonstrate the intrusion of the human category by the machine and the evolutionary animal will be discussed at length in the final two chapters of this thesis. First, it should be noted that the theme of transmutation in Vonnegut's texts has been addressed by a handful of critics, including Loree Rackstraw,

⁹ Jerome Klinkowitz, *Structuring the Void: The Struggle for Subject in Contemporary American Fiction* (Durham: Duke University Press, 1992), p. 26.

who, whilst cursorily referring to *Galápagos*, comments that ‘Vonnegut envisions all life forms as interdependent and thus equally important and valuable’,¹⁰ and later adds that ‘an interrogation of the myopic arrogance of human authority is central to his fictions’.¹¹ In addition, James Lundquist maintains that ‘for all his seeming simplicity, for all his public acceptance, he is deeply interested in epistemological questions of an impressive variety—the unreality of time, the problem of free will, the nature of a pluralistic universe, and man’s ability to live with his own illusions’.¹² I would add to this list, an exploration of the parameters that define the human in the late twentieth century. In addition to a decentring of the human that calls for reformed terminology, as well as an intrusion of the human category by the machine and the evolutionary animal, it is worth recognising the way in which Vonnegut’s texts construct a posthumanities approach to both the novel, and to the potential interpretative strategies that these novels inspire as a result.

Kevin A. Boon’s millennial collection of Vonnegutian criticism, entitled *At Millennium’s End* (2001), contains several critical pieces that already practise the posthumanities. Essays such as Jeff Karon’s ‘Science and Sensibility in the Short Fiction of Kurt Vonnegut’, Donald E. Morse’s ‘You Cannot Win, You Cannot Break Even, You Cannot Get Out of the Game: Kurt Vonnegut and the Notion of Progress’, and Loree Rackstraw’s ‘Quantum Leaps in the Vonnegut Mindfield’, persist in mingling scientific theory and scientific approaches with literary analysis. Due to the focus of these critical studies, as

¹⁰ Loree Rackstraw, ‘Quantum Leaps in the Vonnegut Mindfield’, in *At Millennium’s End: New Essays on the Work of Kurt Vonnegut*, ed. Kevin A. Boon (Albany: State University of New York Press, 2001), pp. 49-63 (p. 53).

¹¹ ‘Quantum Leaps in the Vonnegut Mindfield’, p. 55.

¹² James Lundquist, *Kurt Vonnegut* (New York: Unger, 1977), pp. 15-16.

well as the themes comprising this thesis, it is pertinent and useful to briefly investigate Kurt Vonnegut's relationship to science.

Vonnegut's Science

Despite many critics' insistence on Vonnegut's critique of science, there also exists within his oeuvre a reliance on the scientific method and a dependence on a rationalist discourse that firmly places Vonnegut's work both within the realm of 'science' and 'science fiction'. This element of Vonnegut's work will be analysed in terms of how the prevalence of scientific thinking informs his narratives, strengthening the texts' connections to a posthumanities interpretative position in the process.

In a 1969 interview, Kurt Vonnegut comments that

All writers are going to have to learn more about science [...] simply because the scientific method is such an important part of their environment. To reflect their times accurately, to respond to their times reasonably, writers will have to understand that part of their environment [...] C.P. Snow and I are both very smug on this subject because we both have two cultures—H.L. Mencken, by the way, started as a chemist. H.G. Wells, too.¹³

Referring to his own background in chemistry, biology and engineering, Vonnegut aligns himself with a long tradition of science-fiction writers who have had a well-established knowledge of science. Vonnegut states that

As an undergraduate at Cornell I was a chemistry major because my brother was a big-shot chemist. Critics feel that a person cannot be a serious artist and also have had a technical education, which I had. I know that customarily English

¹³ CDB Bryan, 'Kurt Vonnegut, Head Bokononist', in *Conversations with Kurt Vonnegut*, ed. William Rodney Allen (Jackson, Mississippi: University Press of Mississippi, 1988), pp. 3-6 (p. 5). Interview first published in *New York Times Book Review*, 6 April 1969, pp. 2-25.

departments in universities, without knowing what they're doing, teach dread of the engineering department, the physics department, and the chemistry department. And this fear, I think, is carried over into criticism. Most of our critics are products of English departments and are very suspicious of anyone who takes an interest in technology. So, anyway, I was a chemistry major, but I'm always winding up as a teacher in English departments, so I've brought scientific thinking to literature. There's been very little gratitude for this.¹⁴

Through this statement, as well as through his provision of other science fiction writers who have a strong grounding in both the humanities and science, Vonnegut calls attention to the commonality of this position in terms of the science fiction writer. As Reed and Leeds put it, Vonnegut 'was simply writing out of his experience in an increasingly technological world and his training in the sciences'.¹⁵ What these statements also force the reader to focus on, however, is that the landscape of the twentieth century is not complete, not comprehensible, without an understanding of the scientific thinking and developments that have circumscribed it. Vonnegut comments that 'novels that leave out technology misrepresent life as badly as Victorians misrepresented life by leaving out sex'.¹⁶ Just as Ballard insists that we must address the 'overlit realm' and the 'technological landscape'¹⁷ which surrounds the twentieth-century human, so too does Vonnegut highlight the need for the writer to at least be aware of the parameters that define this realm.

William Rodney Allen comments that 'Vonnegut began more as a scientist than a novelist [...] he never lost the sense that a novelist should be "scientifically literate"'.¹⁸ On a

¹⁴ *A Man Without A Country*, pp. 15-16.

¹⁵ Marc Leeds and Peter Reed, 'Introduction', in *Kurt Vonnegut: Images and Representations*, ed. Marc Leeds and Peter Reed (Westport, Conn; London: Greenwood Press, 2000), pp. 1-3 (p. 3).

¹⁶ *A Man Without A Country*, p. 17.

¹⁷ See J.G. Ballard's 'Introduction' in *Crash* (1973; London Harper Perennial, 2008), pp. i and iii, respectively.

¹⁸ William Rodney Allen, 'Introduction', in *Conversations with Kurt Vonnegut*, ed. William Rodney Allen (University Press of Mississippi, 1988), pp. ix-xv (pp. ix-x).

similar note, when referring to *Player Piano*, Thomas P. Hoffman comments that 'Vonnegut writes more like a social scientist than a novelist'.¹⁹ Here, both critics touch upon Vonnegut's ability to present 'fiction' in a realm beyond pure fabrication. His texts emanate a notion of factual grounding that can be identified in terms of known scientific disciplines. In addition, Boon explains that 'By his own admission, his exposure to the sciences greatly influenced his view of the world and, consequently, his fiction'.²⁰

As demonstrated, it is widely agreed upon that Vonnegut's relationship to science is overt and plays a significant role in his fiction. This thesis does not argue that Vonnegut espouses scientific principles as definitive methods of explaining the world and the universe, but merely points out the prevalence of his intersection with significant debates in the sciences and the humanities, and points to his texts as sites of exploration for these pertinent debates.

Vonnegut's Science Fiction

Vonnegut's relationship to science constitutes his place within the science-fiction genre. This feature of Vonnegut's oeuvre becomes important to the overall concerns of this thesis because, by writing from the margins of science fiction, Vonnegut can be considered as producing a literature that, whether intentionally or not, often works toward overcoming the turbulent divide that demarcates the 'two cultures'. Like Ballard, Vonnegut is critically located between science fiction and postmodern fiction, between the stories of pop culture

¹⁹ Thomas P. Hoffman, 'The Theme of Mechanization in *Player Piano*, in *The Critical Response to Kurt Vonnegut*, ed. Leonard Mustazza (Westport, CT: Greenwood, 1994), pp. 5-14 (p. 5)

²⁰ *Chaos Theory*, p. 22. Though, primarily, in this instance, Boon notes how the bomb and its impact resulted in an overtly negative depiction of 'science' in Vonnegut's fiction.

and the literature of the academy. Consequently, in a critical light Vonnegut is seen to occupy the boundary zone between genres. Leeds and Reed, for instance, suggest that 'Science fiction has continued to have a place in Vonnegut's writing, but primarily as a source of parables and plot devices rather than as dominant mode'.²¹ Similarly, Klinkowitz proposes that 'Like dystopia, science fiction is simply a convention Vonnegut can use, sometimes against itself, for his larger purposes'.²² In addition, just as David N. Samuelson identifies J.G. Ballard as a science fiction writer who 'uses science minimally, as a launching platform for social satire or psychological fables, with aesthetic complications',²³ so too does Charles B. Harris downplay the role of science in Vonnegut, claiming that

though science plays an important role in his novels, Vonnegut never depends upon the more technical aspects of science to make his point, as, say, Pynchon does. This is significant when one remembers that Vonnegut majored in chemistry at Cornell and must be technically versed in some areas of scientific theory.²⁴

The authors of *Close Encounters?: Science and Science Fiction* arrive at a similar conclusion when they mention Brian Aldiss and J.G. Ballard as having 'a significant effect on the development of the genre, but neither has been primarily interested in its purely scientific content'.²⁵ So, while most critics agree with Vonnegut's placement in the science fiction genre, some argue that his relationship to this area of literature is more tenuous, or more cursory. Klinkowitz, for instance, intimates that 'Traditional sci-fi takes its science

²¹ Leeds and Reed, 'Introduction', in *Kurt Vonnegut: Images and Representations*, pp. 1-3 (p. 3).

²² Jerome Klinkowitz, *The Vonnegut Effect* (Columbia, SC: University of South Carolina Press, 2004), p. 183.

²³ David N. Samuelson, 'Hard SF', in *The Routledge Companion to Science Fiction*, ed. Mark Bould, Andrew M. Butler, Adam Roberts, and Sherryl Vint (London and New York: Routledge, 2009), pp. 494-499 (p. 496).

²⁴ Charles B. Harris, *Contemporary American Novelists of the Absurd* (New Haven, Connecticut: College & University Press, 1971), p. 54.

²⁵ Robert Lamourne, Michael Shallis and Michael Shortland, *Close Encounters?: Science and Science Fiction* (Bristol and New York: Adam Hilger, 1990), p. 26.

seriously—too seriously for Vonnegut’s purposes since the points he wants to make are not about machinery but about people’.²⁶ Because Vonnegut throws formerly strict borders into confusion, continuing to inspire debate amongst critics; and because his fiction deals with widespread topics, it is a significant site from which to construct a theory of the posthuman and the posthumanities. It therefore seems fitting to embark on an analysis of Vonnegut that takes into account both his uses of scientific theory, and his demonstration of how such theories interconnect with and construct perspectives on the human.

Player Piano, *Slaughterhouse-Five* and *Galápagos* challenge established theories surrounding the human, suggesting that the perspectives offered by a humanism-dominated Western philosophy are not always sufficient to describe or comprehend events and entities existing on the planet Earth, as well as in the universe beyond. Just as Billy Pilgrim and his earthling cohort cannot comprehend the Tralfamadorian concept of time, so too do Vonnegut’s novels suggest that theories beyond the human are present, yet not necessarily palatable and tractable in terms of the contemporaneous vision of life and the universe espoused by specific philosophical constructs. It is at this moment of breakdown in communication and decipherability that a posthumanist perspective can assist in extending comprehension to realms other than human. Science, science fiction and visions of the human intersect and interact within Vonnegut’s texts to reveal posthumanist notions, specifically in terms of how the narratives display the relationships between human, machine and evolutionary animal.

²⁶ *The Vonnegut Effect*, p. 183.

Chapter Five

Kurt Vonnegut's Machines

In their 'List of Works Useful for the Study of Machines in Science Fiction', Thomas P.

Dunn and Richard D. Erlich include the following titles by Vonnegut: *Breakfast of Champions*, 'EPICAC', *The Sirens of Titan* and *Slaughterhouse-Five*.¹ It is fair to say that critics have often taken an interest in the theme of the machine in Kurt Vonnegut's novels and that it is not an uncharted field, but here attention will shift to how the machine depicted in Vonnegut's texts contributes to the construction of the human, and, in turn, interacts with scholarship discussing posthumanism. Depictions of the machine in Vonnegut differ from those analysed in Ballard, most notably in the way that the machine is often portrayed as inextricably linked with the human in a metaphorical sense. What is conveyed in Vonnegut's texts is the concept of a pre-determined, machinic mode of constructing reality.

In order for Vonnegut's machinic worldview to become apparent, it is first worth noting that his approach to the machine is one of casual regard in terms of the human, yet monumental theoretical shifts substantiate this outlook. When, in a non-fictional mode, Vonnegut speaks of humans destroying their habitat, he comments that 'the planet Earth will soon have a crust of skulls and bones and dead machinery',² a statement that strikes a chord with Ballard's repeated depictions of post-apocalyptic machine detritus. Such an

¹ Thomas L. Wymer and Richard d. Erlich, 'List of Works Useful for the Study of Machines in Science Fiction' in *The Mechanical God: Machines in Science Fiction*, ed. Thomas P. Dunn and Richard D. Erlich (London: Greenwood, 1982), pp. 225-273 (pp. 254-55).

² Kurt Vonnegut, *A Man without A Country*, ed. Daniel Simon (London: Bloomsbury, 2006), p. 44.

image also relates to a moment in *Galápagos* where the narrator envisions the future discovery of twentieth-century human remains:

He was some kind of male ape, evidently — who walked upright, and had an extraordinarily big brain whose purpose, one can guess, was to control his hands, which were cunningly articulated. He may have domesticated fire. He may have used tools.

He may have had a vocabulary of a dozen words or more.

(p. 215)

The human is construed as not only unfixated, but as unrecognisable to future generations, thereby fulfilling two of the aspects of the posthuman analysed in this thesis: the human as not necessarily superior, and the human as subject to change. The above quotation succinctly highlights and represents the stance towards human, machine and animal adopted throughout Vonnegut's texts. There is an implicit and unquestioned identification of the human as an evolutionary animal, as well as an identification of the human's embedded relationship with the machine. The machine does not necessarily make the human less animal, or 'more' human, but merely exists alongside the human animal as an evolutionary development. Conversely, the evolutionary animal does not make the human less machinic. Instead, there exists a parallel and equitable interrelationship between human, machine and animal that correlates closely to the interrelationships posited by posthumanism. The evolutionary animal is always, admittedly, lurking in the background of analysis; nonetheless, this investigation will maintain the divisions utilised when discussing Ballard. The role of the machine in relation to the human varies according to the narrative, but, in each case, depictions of the machine in the selected texts make an impact upon the human and signify the posthuman.

Speaking generally of the machine in terms of Vonnegut's oeuvre, it is not often the machine itself that performs a destructive tendency in the narratives, but rather the human use of the machine. Vonnegut himself discusses this theme when he states that

Our children have inherited technologies whose byproducts, whether in war or peace, are rapidly destroying the whole planet as a breathable, drinkable system for supporting life of any kind [...] Anyone who has studied science and talks to scientists notices that we are in terrible danger now. Human beings, past and present, have trashed the joint.³

This idea receives sustained attention in *Galápagos*, where the 'oversize brains' of human beings are depicted as the culprits of global annihilation, and where a 'devolved' human species is portrayed as favourable to their big-brained, twentieth-century predecessors. As Gary Westfahl points out, the text 'envisions the future devolution of people into animals lacking the self-destructive attribute of "big brains"'.⁴ This theme will be demonstrated in the analysis that follows, but it is worth noting that the premise is not unique to the texts in question. In Hartley S. Spatt's discussion of the post-apocalyptic *Slapstick* (1976), for instance, he notes that 'This is a world where most people actually seem happy with their lives, and where if a miracle is needed it sometimes actually appears'.⁵ The pattern of post-destruction contentedness in Vonnegut's fiction strikes a chord with scenes displayed in Ballard's concrete-and-steel trilogy. As in *Galápagos* and *Slapstick*, after the destruction of a technologically over-burdened sphere, the human regains a sense of contentedness with the world.

³ *A Man Without A Country*, p. 70.

⁴ Gary Westfahl, ed., *The Greenwood Encyclopedia of Science Fiction and Fantasy: Themes, Works, and Wonders, Volume I* (Westport: Greenwood Press, 2005), p. 265.

⁵ Hartley S. Spatt, 'Kurt Vonnegut: Ludic Luddite', in *At Millennium's End: New Essays on the Work of Kurt Vonnegut*, ed. Kevin A. Boon (Albany: State University of New York Press, 2001), pp. 119-134 (p. 125).

It is not only through the destruction of large-scale machinic societies that Vonnegut's fiction interacts with the machine. Often, the human is portrayed in terms of the machinic. Spatt comments on this trope, maintaining that 'This fear of machinery has a nightmare corollary, running through all of Vonnegut's novels: the image of mechanized humanity, people who have become no more than machines'.⁶ As in Ballard's oeuvre, the concept of the 'nightmare' is associated with a potentially disintegrating concept of the human. Vonnegut, too, plays around with the inversion of the 'nightmare', often by confusing accepted notions of 'progress' in order to demonstrate that the thought patterns that dictate human decisions and definitions are not necessarily fixed and should not be taken for granted. One of the best known accounts of such an inversion occurs in a text frequently discussed by literary critics in terms of the machine: *Breakfast of Champions* (1973), a tale in which the human as machine is satirized. The protagonist, Dwayne Hoover, already halfway into a mental health breakdown, reads a Kilgore Trout novel in which the character is the only human amidst a society of machines, and consequently takes this narrative as gospel. Convinced that he is the only creature with 'free-will' because everyone else is a machine, Hoover goes on a remorseless killing spree. Throughout *Breakfast of Champions*, the narrator informs the reader that 'Dwayne Hoover's body was manufacturing certain chemicals which unbalanced his mind',⁷ and evidence of this imbalance is illustrated throughout the course of the narrative. Josh Simpson comments that 'Dwayne's violent outbreak occurs because Trout's science fiction destroys

⁶ 'Kurt Vonnegut: Ludic Luddite', p. 121.

⁷ Kurt Vonnegut, *Breakfast of Champions*; or, *Goodbye Blue Monday* (1973; London: Vintage, 2000), p. 14.

his understanding of the human 'other' [...] When he goes on his bloody rampage, he feels he is attacking machines and robots rather than human beings'.⁸ As a result, the line between the human and the machine is called into question and, consequently, *Breakfast of Champions* is often discussed in terms of the machine. While at turns comedic and light-hearted, the text investigates the question of 'free-will', and how the human interprets or utilises this concept in terms of the Western philosophical tradition. As will become evident, themes in *Breakfast of Champions* intersect with those of *Slaughterhouse-Five*,⁹ as well as *Galápagos*, which portrays the human being controlled by an unreliable brain. Analyses contained herein, however, divert from commonly utilised critical interpretations of Vonnegut's machine by viewing the narratives in terms of the posthuman. This chapter begins with a sustained analysis of the machine in Vonnegut's first novel, *Player Piano*, a text that, of the novels selected, contains the most overt representations of the relationship between human and machine. Analysis then moves on to discuss the significance of the machine in *Slaughterhouse-Five* and *Galápagos*.

The Mechanical *Player Piano*

Player Piano interacts with posthumanism by realigning the relationship between human and machine. This occurs via several avenues of approach. First, the boundaries between

⁸ Josh Simpson, "'This Promising of Great Secrets": Literature, Ideas, and the (Re)Invention of Reality in Kurt Vonnegut's *God Bless You, Mr. Rosewater*, *Slaughterhouse-Five*, and *Breakfast of Champions*, or, "Fantasies of an Impossibly Hospitable World": Science Fiction and Madness in Vonnegut's Troutean Trilogy', *Critique*, 45:3 (2004), 261-271 (p. 269).

⁹ Simpson comments that 'To discuss *Slaughterhouse-Five* at length without considering *Breakfast of Champions* is impossible. Considering their origins, it is surprising that the two novels have received such drastically different critical receptions' (*Ibid*, p. 268).

human and machine are blurred, in terms of both the 'literal machine' and the 'metaphorical machine'. The former entails a discussion of moments when the human and the machine are implicitly related and interacting; while the latter focuses on the machine as symbolic of the systemic, overarching societal 'system' depicted in the text. In addition, several other issues pertaining to the machine are addressed, including how the conflation of the human and the machine leads to an anxiety of erasure, in both physical and metaphysical terms; the machine's role in dismantling the authoritarian position of the human; a removal of the human perspective as central or definitive; and, a dismantling of human authority regarding the notion of 'progress'.

Player Piano depicts a society where the majority of daily tasks, in both personal and economic fields, are performed by machines. The novel is set in a fictional society, ten years after a major war that culminated in 'The Second Industrial Revolution'. The resultant society is divided along three distinct lines: the machines, the labourers and the engineers. The opening of the novel reads:

Ilium, New York, is divided into three parts.

In the north-west are the managers and engineers and civil servants and a few professional people; in the north-east are the machines; and in the south, across the Iroquois River, is the area known locally as Homestead, where almost all of the people live.¹⁰

The distinction between human and machine is made apparent from the inception of the narrative, informing a reader's understanding of the society. Coupled with this division is a murky region where the human and the machine reconnect and resemble one another. A

¹⁰ Kurt Vonnegut, *Player Piano* (1959; London: Mayflower, 1962), p. 5. All references to this text are to this edition and will be provided parenthetically.

challenge to a humanist sentiment, the disturbance of this border provokes fear of erasure, and the text often assumes a sardonic tone regarding this concept. At one point, the narrator comments that '[m]achines were doing America's work far better than Americans had ever done it. There were better goods for more people at less cost, and who could deny that that was magnificent and gratifying?' (p. 48). Yet at times, too, the human/machine division is not as strictly presented. It is the idea of a division or a hierarchy endowing any single entity with dominance or deference that is under critique here. Just as the war theme—as will be discussed with reference to *Slaughterhouse-Five*—draws attention to the positing of dominance as a factor informing torture and abuse, the machine in *Player Piano* dismantles the certainty of binary thinking.

***Player Piano's* Machines: Literal and Metaphorical**

Ballard's *Crash* conflates the organic and the inorganic, and *Player Piano* contains similar moments when the boundaries between the human and the 'inert', or 'inorganic', machine become questionable. At the text's inception, the narrator describes Building 58 at the Ilium Works as a 'pet' of Proteus' (p. 9). It is, in fact, the oldest building in the plant, the demolition of which was prevented by the manager of the Ilium Works, Dr Paul Proteus, personally: 'It was a vote of confidence from the past, he thought—where the past admitted how humble and shoddy it had been, where one could look from the old to the new and see that mankind really had come a long way. Paul needed that reassurance from time to time' (p. 9). Another example arises when the fictional president of the United States, Jonathan

Lynn—a clean-cut, good-looking spokesman for the country—appears on television to declare that ‘EPICAC XIV was, in effect, the greatest individual in history, that the wisest man that had ever lived was to EPICAC XIV as a worm was to that wisest man’ (p. 105). Lynn’s speech is reminiscent of an event to which Neil Badmington draws attention: the moment when *Time Magazine* endorsed ‘the computer’ as their ‘Man of the Year’.¹¹ The theoretical shifts necessary to support these viewpoints are investigated in posthumanism and represented in *Player Piano*. The text highlights the increasing fluidity between human and machine.

There is, accompanying this phenomenon, a tendency for the characters to assign human elements to the machines that exist in their lives. At one point, Proteus comments about a co-worker who can no longer find work: “‘The machines can’t stand him any more’” (p. 122). Such re-organisations of relationships recur throughout the text. The following comparison between the human and the machine blurs the definition of reason, as proposed by Descartes. Here, Proteus describes a co-worker:

Paul reflected that Baer was possibly the most just, reasonable, and candid person he’d ever known—remarkably machinelike in that the only problems he interested himself in were those brought to him, and in that he went to work on all problems with equal energy and interest, insensitive to quality and scale.

(p. 167)

The machine is invoked as superior to the human, in reasoning capacity and objectivity. Reason is judged by the parameters laid out by the machine, and the human is compared and contrasted along these lines. Proteus inadvertently associates the qualities of justness,

¹¹ Neil Badmington, ‘Introduction: Approaching Posthumanism’, in *Posthumanism*, ed. Neil Badmington (Basingstoke: Macmillan, 2000), pp. 1-10 (p. 1).

reason and candidness with a machine, but also seems to laud such characteristics. Here, the dichotomy between resenting machines for robbing the human of 'usefulness' and lauding the machine for justness and reason is illustrated. Proteus' employment of the metaphor of the machine to describe another human calls attention to the idea that, while the text continually depicts binary oppositions as guiding perspectives that inform the characters' actions and thoughts, the text also conveys a problematic space in which the division between human and machine cannot be simply and easily inscribed.

A barber in the narrative, Homer Bigley, comments on this development when he bemoans that: "'Doctor doesn't use his head and education to figure out what's the matter with you. Machines go over you—measure this, measure that. Then he picks out the right miracle stuff, and the only reason he does is on account of the machines tell him that's what to do'" (p. 175). Bigley carries on critiquing several prestigious professions: "'Used to be sort of high and mighty, sort of priests, those doctors and lawyers and all, but they're beginning to look more and more like mechanics'" (p. 175). In Bigley's account, the human capacity for decision-making and knowledge is being supplanted by the machine, and, as a result, the human comes to resemble the machine more closely. Yet this conclusion is somewhat paradoxical because if the human is more and more decentred by the machine, then surely the human should be perceived as less mechanical and more distinct from the machine. In a way, also, Bigley deplores the loss of a certain degree of religious belief regarding the superiority of certain human professions, yet it is still his system of definitional beliefs that guides his conclusions regarding the machinic elements of the

human. In combination with a commentary on human displacement, the text also raises issues concerning the systems that inform value in the human sphere.

Metaphorical Machine

As many critics have pointed out, Vonnegut's debut novel is not merely a commentary on the human's potential replacement by the 'literal' machine, but also serves as a commentary on the system in which twentieth-century humans find themselves, in post-World War II, Western nations such as the United States.¹² The machine in *Player Piano* assumes a stance beyond the mechanical device, and thus extends to a metaphor for the machinic characteristics of the society that harbours such technologies.

It is often discussed that the fictional city of Ilium 'stands in for Schenectady, the home of General Electric'.¹³ Klinkowitz reminds us that Kurt Vonnegut wrote Public Relations for General Electric and that

what he absorbed from General Electric, day and evening, was fashioned into his first finished novel, *Player Piano* [...] His subject was not only the implications of advancing technology for human life, but also the ways and means by which a giant corporation controls its employees.¹⁴

The characters within the text comment on this situation with discontent. Instigator of the 'Ghost Shirt Society' rebellion, Reverend Lasher, claims that 'half the people or more didn't

¹² Thomas P. Hoffman points out that 'The complex "machine" here is more than a mechanical system, it is the intricate complexity of American society' [Thomas P. Hoffman, 'The Theme of Mechanization in *Player Piano*', in *The Critical Response to Kurt Vonnegut*, ed. Leonard Mustazza (Westport, CT: Greenwood, 1994), pp. 5-14 (p. 13)]. Similarly, Peter J. Reed illustrates that 'for all its technological sophistication and social innovation, the America described in this book resembles the one we live in, and we quickly realize that what Vonnegut wants to tell us about is not so much the future as the present' [Peter J. Reed, *Kurt Vonnegut, Jr.* (New York: Warner Paperback Library, 1972), p. 24].

¹³ Lee Roloff, 'Kurt Vonnegut on Stage at the Steppenwolf Theater, Chicago', *Triquarterly*, 103 (1998), 17-28.

¹⁴ *Vonnegut in America: An Introduction to the Life and Work of Kurt Vonnegut*, ed. Jerome Klinkowitz and Donald L. Lawler (New York: Delacorte Press, 1977), p. 15.

understand much about the machines they worked at or the things they were making. They were participating in the economy all right, but not in a way that was very satisfying to the ego' (p. 81). This echoes Proteus's argument when attempting to convince his wife to abandon their lifestyle and retreat to a more 'simplistic' existence by appealing to "'the feeling of being needed and useful, the foundation of self-respect'" (p. 151). Such statements lead critics like Morse to propose that, in *Player Piano* 'a future electronic society places the good of the corporation and the *full employment of machines* ahead of human needs and desires including the human necessity for meaningful work'.¹⁵ Concerns about the 'metaphorical machine' dictate the use of the 'literal machine' and are re-articulated via what I will refer to as 'The Bratpuhrian subplot'.

The Bratpuhrian Subplot

The role of the metaphorical machine in the narrative is highlighted by the presence of an 'outsider' — The Shah of Bratpuhr — who serves as the reader's guide to divulge information regarding the constituents and operations of the society depicted in *Player Piano*.

Throughout the text, the Shah is escorted around Ilium by a government official, Ewing J. Halyard, in order to 'see what he could learn in the most powerful nation on earth for the good of his people' (p. 20). As James Lundquist agrees, 'The Shah remains merely a device [...] that enables Vonnegut to work in a commentary on the failures of American democracy'.¹⁶ In this way, the 'metaphorical' machine is brought to the forefront.

¹⁵ *The Novels of Kurt Vonnegut*, p. 39. Emphasis in original.

¹⁶ James Lundquist, *Kurt Vonnegut* (New York: Unger, 1977), p. 24.

The Shah serves as a convenient plot device, asking questions and demonstrating curiosities that the reader might also harbour, and thus offering an outsider's perspective through which the reader can learn something about the internal, diegetic state of affairs. When the Shah encounters men working on the road he asks if they are slaves, a point on which Halyard corrects him before stating, "'Before the war, they worked in the Ilium Works, controlling machines, but now machines control themselves much better'" (p. 21). Halyard later comments that in certain skill areas, people had not yet been liberated from production (p. 22), thus raising the idea of 'liberation' through the machine. Such notions, however, are eventually overturned through the perspective offered by the Shah. The Shah presents an 'estranged' position, but only to the inhabitants of the *Player Piano* society. To the reader, the metaphorical machine is more overtly apparent.

The Shah observes a typical American family functioning within an example of a typical household. Halyard shows him around the house of Edgar R. B. Hagstrom, who has a wife and son and inhabits 'Proteus Park, Chicago, a postwar development of three thousand dream houses for three thousand families with presumably identical dreams' (p. 139). Confusion arises when, after viewing the modern domestic appliances employed by the wife, Wanda, the Shah questions the purpose of such an efficient system, asking what it is Wanda does when she has completed her housework. His translator, Khashdrahr, explains: "'The Shah would like to know why she has to do everything so quickly – this in a matter of seconds, that in a matter of seconds. What is it she is in such a hurry to get at? What is it she has to do, that she mustn't waste any time on these things?'" , to which the manager of Proteus Park, Doctor Dodge responds "'Live!" [...] Live! Get a little fun out of

life''' (p. 142). Questioning about what exactly this 'living' comprises ensues, and the conclusion is that Wanda and her family complete domestic chores quickly so that they can watch television (p. 143). Here the narrative satirically exposes the fictional reality of the society depicted in *Player Piano*, where human labour and work has been largely replaced by machinic production and contribution. The text draws parallels between this society and the non-fiction parameters of the society in which it was produced, namely post-war America. What is significant about these examples in relation to the argument at hand, however, is the degree to which the machine is depicted as a force against which the human struggles. Similar to the scenarios illustrated in *High-Rise* and *Concrete Island*, the human is presented on a collision course with its mechanical surroundings. The human fluctuates between being assimilated with the literal machine and juxtaposed with the metaphorical machine.

The Bratpuhrian subplot illustrates a notion similar to that espoused by the 'Tralfamadorian subplot'¹⁷ in *Slaughterhouse-Five*: a seemingly inferior 'other' is presented as possessing a scope of knowledge that exceeds, or at least steps beyond, that of the human. Once again, the notion of decentring the humanist conception of the human is underscored. As Reed comments, 'Coming from a "more primitive" country, the Shah provides another and ironic perspective on this future society'.¹⁸ Reed also recognises that 'While the Shah of Bratpuhr sees from the start the spiritual poverty, the emotional deadness, and the social hypocrisy of this future America, Paul Proteus comes only falteringly to the same

¹⁷ More will be said of this in Chapter Six of this thesis.

¹⁸ Kurt Vonnegut, Jr., p. 28.

recognition'.¹⁹ The Bratpuhrian subplot illuminates the overall systemic machine that becomes a character in Vonnegut's novel.

With the intrusion of both the literal and the metaphorical machine into the human definition, the text also contains momentary displays of anxiety regarding the potential erasure of the human. Just as the machine exists on two levels in the text, so too does an anxiety of erasure occupy two distinct angles of impact: material erasure and metaphysical erasure. These anxieties further situate the text's depictions of relations between human and machine.

Material Erasure

At one point in the text, the narrator conveys that Proteus 'felt oddly disembodied, an insubstantial wisp, nothingness, a man who declined to be any more. Suddenly understanding that he, like Anita, was little more than his station in life, he threw his arms around his sleeping wife, and laid his head on the breast of his fellow wraith-to-be' (p. 118). In this moment, Proteus realises his own insignificance; he is merely another cog in the machine, or even, another machine.

The trend of machines supplanting the human runs throughout Vonnegut's career, even making an appearance in his final text, *A Man Without a Country*, where he laments that 'we have contraptions like computers that cheat you out of becoming. Bill Gates says, "Wait till you can see what your computer can become." But it's you who should be doing

¹⁹ *Ibid*, p. 45.

the becoming, not the damn fool computer'.²⁰ A similar sentiment was expressed by Vonnegut several years earlier, during an interview with Lee Roloff:

Think about it: here we are at the end of this century, and we are supposed to be celebrating being alive when there are computers! If it were not a way to make a person unemployable or worth only a minimum wage, there wouldn't be so much money poured into the development of these things. I don't know quite what the hell to do about it. You cannot fight progress, as they say.²¹

While this fear of erasure is expressed by the author himself, it retains an ambiguous tone in his first novel. Ultimately, what occurs through the presentation of anxiety is a move towards re-negotiating the lines of supremacy and hierarchy that tend to inform dominant modes of perceiving the human. The text opens up a space for a posthumanist debate to emerge.

The idea of the machine replacing physical tasks once allotted to the human is prevalent in the text. The following passage describes how the machinery housed within the Ilium Works initially recorded the movements of a skilled human machinist, Rudy, upon which to base its imitative programme:

this little loop in the box before Paul, here was Rudy as Rudy had been to his machine that afternoon—Rudy, the turner-on of power, the setter of speeds, the controller of the cutting tool. This was the essence of Rudy as far as his machine was concerned, as far as the economy was concerned, as far as the war effort had been concerned. The tape was the essence distilled from the small, polite man with the big hands, and black fingernails.

(pp. 12-13)

The horror imbued in this statement relates to the diminution of the human to a series of physical tasks. That the 'essence' of Rudy be reduced to machinic movements is displayed

²⁰ *A Man Without a Country*, p. 56.

²¹ Lee Roloff, 'Kurt Vonnegut on Stage at the Steppenwolf Theater, Chicago', *Triquarterly*, 103 (1998), 17-28.

as problematic to a perceived notion of the human as distinct from and/or superior to the machine. When drinking in the bar across the river, Rudy observes an actual functioning 'player piano' and comments, "'Makes you feel kind of creepy, don't it, Doctor, watching them keys go up and down? You can almost see a ghost sitting there playing his heart out'" (p. 31). The idea of the ghost in the machine is thus represented through Rudy's transformed existence from a menial labourer to a typecast for the machine. In this sense, then, the text purports a Cartesian, humanist notion of the human as that which should not, or cannot be configured into a formulaic, machinic structure. The machine must remain separate from the human. The physical replacement of human tasks by the machine reiterates such a stance throughout the text. For instance, when a talented engineer named Bud Calhoun designs a machine that eliminates his job, the narrator reminds us that now 'personnel machines all over the country would be reset so as no longer to recognize the job as one suited for men' (p. 66). Replacement of the human by machine assumes a more capacious connotation when the shift is described in terms of the wider environment. The narrator describes Dr Proteus' movement outside of the works:

There was nothing in sight to divert him, nothing but asphalt, a perspective of blank, numbered façades, and wisps of cold cirrus clouds in a strip of blue sky. Paul glimpsed the only life visible through a narrow canyon between Buildings 57 and 59, a canyon that opened onto the river and revealed a bank of grey porches in Homestead. On the topmost porch an old man rocked in a patch of sunlight. A child leaned over the railing and launched a square of paper in a lazy, oscillating course to the river's edge. The youngster looked up from the paper to meet Paul's gaze. The old man stopped rocking and looked, too, at the curiosity, a living thing in Ilium Works.

(p. 15)

Similar to Ballard's description in *High-Rise*, when Laing looks out across the endless concrete car-park, the above portrayal recounts the notion that the human is separate from the machine. The human is alive, whilst the machine and the material world are inert. Such divisions are represented throughout the narrative, but more often what is portrayed is an inability to distinguish between the inert and the organic that leads to a distinct anxiety of erasure.

The machine possesses the capacity for 'reason' beyond the capability of the human, because it is not informed by emotion or empathy, only by logic. When a former colleague of Proteus', Ed Finnerty, says to Proteus' wife: "'Anita [...] if you don't show more respect for men's privacy, I'll design a machine that's everything you are and *does* show respect'" (p. 38; emphasis in original), such connotations are imparted. A machine version of Anita might be less likely to question her position and the tasks that it entails. When Proteus brings his wife to the other side of the river to convince her to abandon machine-derived comfort in favour of a retrograde lifestyle in the cottage Paul purchases, he makes the following claim, attempting an appeal to her sentiments: "'In order to get what we've got, Anita, we have, in effect, traded these people out of what was the most important thing on earth to them—the feeling of being needed and useful, the foundation of self-respect'" (p. 151). Later, Proteus continues on a similar trajectory, stating that "'everybody used to have some personal skill or willingness to work or something he could trade for what he wanted. Now that the machines have taken over, it's quite somebody who has anything to offer'" (p. 158). Proteus' comments exhibit the growing uncertainty expressed by the characters in

reaction to the difficulty of claiming a distinct quality that invariably separates human from machine.

At another point in the text, Proteus calls the 'Ilium Real Estate Office' and speaks to an agent called Doctor Pond, who shows him the cottage he eventually purchases, a dilapidated house with no modern amenities. The site inspires in Proteus 'a vision of civilization as a vast and faulty dike, with thousands of men like Doctor Pond in a rank stretching to the horizon, each man grimly stopping a leak with his finger' (p. 131). This passage raises Vonnegut's perennial question: 'What are people for?'²² Yet, even with the text's conclusion the answer remains ambiguous. Michael Crichton comments upon this feature of Vonnegut's writing, proposing that '[t]he ultimate difficulty with Vonnegut is precisely this: that he refuses to say who is wrong'.²³ Again, as in Ballard's trilogy, the text is a philosophical site for excavation and exploration, rather than a conclusive or revelatory exposé, or polemic. Todd F. Davis, too, comments on this trend, revealing that 'Vonnegut intentionally neglects to offer a static ethical position'.²⁴ Perhaps the repetition of this sentiment is best explained by Vonnegut himself when he concludes that '[t]he truth is, we

²² Vonnegut asks this question repeatedly throughout his oeuvre. Eliot Rosewater poses the question in *God Bless You, Mr. Rosewater* (1965) and Kurt Vonnegut himself continually asks it, including in the text of *A Man Without a Country*. In a footnote to his essay on Vonnegut, Bill Gholson notes that 'the question "What are people for?" is central to his entire body of work'. See Bill Gholson, 'Narrative, Self, and Morality in the Writing of Kurt Vonnegut', in *At Millennium's End*, ed. Kevin A. Boon (Albany: State University of New York Press, 2001), pp. 135-147 (p. 146).

²³ J. Michael Crichton, 'Sci-Fi and Vonnegut [A Review of *Slaughterhouse-Five*]', in *The Critical Response to Kurt Vonnegut*, ed. Leonard Mustazza (Westport, CT: Greenwood, 1994), pp. 107-111 (p. 111).

²⁴ Todd F. Davis, 'Apocalyptic Grumbling: Postmodern Humanism in the Work of Kurt Vonnegut', in *At Millennium's End*, ed. Kevin A. Boon (Albany: State University of New York Press, 2001), pp. 149-65 (p. 151).

know so little about life, we don't really know what the good news is and what the bad news is'.²⁵

At times, *Player Piano* expresses an urge to maintain an identity distinct from the machine, an identity that can not be trampled upon by machinic invention. Yet, repeatedly, it is something beyond the material that is upheld as an undyingly human quality that cannot be imitated by the machine. Proteus highlights this idea when he says to Anita: "You've got something the tests and machines will never be able to measure: you're artistic. That's one of the tragedies of our times, that no machine has ever been built that can recognize that quality, appreciate it, foster it, sympathize with it" (p. 154). Although this idea is eventually overturned in *Galápagos*, with Hisako's inability to compete with the ikebana²⁶ skills of Mandarax, the idea of an artistic element being manifestly human is reiterated in *Player Piano*. For example, the occupation of the 'waiter' in restaurants or bars is still filled by the human, as this skill is deemed in some way artistic and nuanced (p. 43). Via such instances, the text continually demonstrates an anxiety surrounding the physical replacement of the human by the machine. One of the founders of the underground rebellion known as 'The Ghost Shirt Society' — the Reverend James J. Lasher, who works for the 'Reconstruction and Reclamation Corps' — capitulates this concept. In a meeting with Ed Finnerty and Paul Proteus at the bar across the river, he insists: 'you people have engineered them out of their part in the economy, in the market-place, and they're finding out — most of them — that what's left is just about zero' (p. 80). This process of

²⁵ *A Man Without A Country*, p. 37.

²⁶ 'Ikebana' is the Japanese art of flower arranging.

systematically erasing the 'value' of the human is even more potently construed via what I will refer to as an anxiety of 'metaphysical erasure'.

Metaphysical Erasure: Rationality Under the Microscope

While the text focuses often on the idea of the physical tasks of the human being replaced by the actions of a machine, it is the metaphysical aspects of human erasure that assume the most threatening postures in the text. When 'rationality' is construed as replaceable by the machine, the threat becomes more potent. Recalling Descartes' assertion that 'reason' belongs solely to the human, this theme intersects with a posthumanist account in which this Cartesian claim is challenged. When the Shah's tour-guide, Halyard, describes EPICAC XIV, he asserts: 'It's an electronic computing machine—a brain, if you like' (p. 101). Such descriptions litter the pages of *Player Piano*, drawing this theme to prominent attention and placing rationality under the theoretical microscope.

In the first chapter of the novel, Proteus' secretary, Katherine Finch recounts the content of a recent speech delivered by her boss, recalling his idea that "'the First Industrial Revolution devalued muscle work, then the second one devalued routine mental work'" (p. 15). From the text's inception, the idea that the machine has replaced the human is evident. Also apparent in the above comment, however, is the extent to which the mental and the physical have been distinguished from one another, so that the machine is perceived as gradually encroaching upon the human. The idea that the machine might supplant human mental capacity is seen as a more overt threat than any physical dominance the machine might impose. At one point, Proteus comments that the third industrial revolution would

be 'machines that devalue human thinking' (p. 16), and notes "'I hope I'm not around long enough to see that final step'" (p. 16). There is, then, a degree of acceptance allotted to machines that replace physical labour; this tolerance, however, does not extend to the idea that machines might one day supplant the human mind. Expressed in this dialogue is an inherent fear that the human might completely lose currency and status in the face of the machine. The arrival of such a scenario would raise the question of what belongs to the human category. Without 'thinking' and 'reason', what, if anything, can be claimed as the sole distinguisher of the human? Posthumanism ushers in a theoretical shift by highlighting that these distinctions have been blurry all along. By reassessing the parameters that have led to current perceptions of the human—namely those inspired by the philosophical writings of Descartes—posthumanism advocates a less concrete division between human, machine and animal, one that is illustrated and bolstered by the fictional scenarios depicted in Vonnegut's novel.

The power of the machine as a potentially superior arbiter of 'rationality' is frequently depicted in the text. Yet the ultimate conclusion regarding this potential capability of the machine is left unsettled. The text asks whether deeming 'rationality' within the remit of the machine is merely an improvement that can be utilised by the human; or, whether allowing the machine rational capacity is a threat to human identity and the human ability to use 'reason' effectively. The following description of a computer dictates the terms of the society of *Player Piano*, highlighting these theoretical quandaries:

EPICAC's hummings and clickings could be heard—the sounds attendant to the flow of electrons, now augmenting one another, now blocking, shuttling through a

maze of electromagnetic crises to a condition that was translatable from electrical qualities and quantities to a high grade of truth.

(p. 103)

Here, human judgement and valuation are replaced by the conclusions rendered by a machine. Proteus experiences an anxiety regarding this aspect of his life, at one point expressing his 'fear that there was far too little of him to get along anywhere outside the system, to get along at all contentedly' (p. 127). He expresses apprehension at the idea of setting up a business away from the gaze of the machine system, noting that 'The machines wouldn't let him into that business anyway' (p. 127). Functions once reserved for the human have been allotted to the machine and, as result, human reason and judgement have been decentred.

The problem outlined here is not the presence of technology and the machine, but rather the tasks allotted to this machinic presence. In the society depicted in *Player Piano*, machines possess the final say regarding reason, truth and judgement, even concerning the human. Yet, according to Wymer: 'Vonnegut goes beyond a simple attack on technology by suggesting that the real tragedy is that man has defined himself in a way that makes him replaceable by machines, that man has defined his own value as he defines the value of an object'.²⁷ The question, then, is relegating the machine to an 'appropriate' station in society. Morse comments that 'If Vonnegut continues very much aware of the almost absolute centrality of machines and of technology for late twentieth-century American society, he

²⁷ Thomas L. Wymer, 'Machines and the Meaning of Human in the Novels of Kurt Vonnegut, Jr., in *The Mechanical God: Machines in Science Fiction*, ed. Thomas P. Dunn and Richard D. Erlich (London: Greenwood, 1982), pp. 41-52 (p. 44).

also insists on their right use'.²⁸ The character of Lasher reaffirms this point: when Paul asks his opinion on the role that the scientist has played in the second industrial revolution, he says, "'They simply add to knowledge. It isn't knowledge that's making trouble, but the uses it's put to'" (p. 82). It is, then, a question of definitive parameters and the characters in *Player Piano* begin to accept their conflation with the machine, by the very language that they use.

Leonard Mustazza proposes that

Machines have not imprisoned the people of Ilium; their own humanity has, and even if they had managed to dismantle completely the current technocracy, Vonnegut suggests they would only be making way for another group of engineers with their own technologies and utopian schemes to work out.²⁹

Mustazza carries on his discussion of *Player Piano* to speculate that Vonnegut 'spends the novel leading the reader to a certain belief, then overturns the outcome, suggesting that happiness and discontent rely not on outward environment, but on individual approach to that environment, a theme which travels through Vonnegut's oeuvre in the theme of adaptation'; and that, ultimately, 'human dynamics create discontent by their very nature'.³⁰ As in *Crash*, the question of participant evolution and the machine is raised. How much influence and power does the human possess in relation to being defined or overtaken by the machine? *Player Piano* establishes Vonnegut's ongoing investigation of the question of free will and the human as a machine, explored also in *The Sirens of Titan* (1959), *Breakfast of Champions* (1973) and *Slaughterhouse-Five*. The conclusion of *Player Piano*

²⁸ Donald E. More, *The Novels of Kurt Vonnegut: Imagining Being an American* (Westport, CT: Praeger, 2003), p. 41.

²⁹ Leonard Mustazza, *Forever Pursuing Genesis: The Myth of Eden in the Novels of Kurt Vonnegut* (Lewisburg, PA: Bucknell University Press, 1990), p. 44.

³⁰ *Ibid*, p. 44.

supports the notion that trajectories of change are not easily established, if at all possible. Immediately following the destruction incurred by the revolution, the saboteurs commence rectifying the situation and establishing the previous order.

Mustazza touches upon the theme of inevitability as outlined in *Player Piano*, one that also plays significant roles in *Slaughterhouse-Five* and *Galápagos*. In *Player Piano*, Proteus questions his bosses, Kroner and Baer, asking “‘if we weren’t doing something bad in the name of progress’”, to which the two men respond: “‘history’s answered the question a thousand times’” (p. 115). The characters in the text, including Proteus, treat the resultant society of *Player Piano* as inevitable, relying on ‘rational’ thinking as an indicator of ‘natural’ progress. At one point, it is noted that Proteus ‘knew with all his heart that the human situation was a frightful botch, but it was such a logical, intelligently arrived-at botch that he couldn’t see how history could possibly have led anywhere else’ (p. 100). Such thinking relates to Lundquist’s assessment that in *Player Piano*, ‘not only has American know-how resulted in a society that is itself a huge player piano, but history is much like the music on a piano roll—it can only repeat itself’.³¹

These instances, however, also relate to the idea that the human is not taking responsibility for constructing the parameters that define the entities it is confronting. The question of free will and self-awareness is once again raised. Kevin A. Boon diverts culpability back to the human, noting that ‘[i]f we, as human beings, appear to be machines,

³¹ Kurt Vonnegut, p. 23.

it is, perhaps, because we have turned ourselves into machines'.³² In fact, Boon brings the distinction between literal machine and metaphorical machine into focus when he notes that 'It is systems of thought, such as capitalism, which see everyone as Dwayne Hoover does, as robots'.³³ Such shifts in understanding the human, however, contribute to a re-adjustment in comprehending the human. Posthumanism provides an alternative perspective on the machine and its relationship to the human by offering the possibility that the human need not express fear in its confrontations with the machine. A viewpoint that assimilates machinic outlooks or inevitabilities is favoured, rather than continually harkening back to the humanist divisions that lead to hierarchical visions.

Karen and Charles Wood discuss how *Player Piano* is about 'people and machines', yet note that 'contemporary man has been altered by his relation to the machine, and even the writer who chooses not to deal directly with the machine must realize that he deals with a machine-influenced man and society'.³⁴ Hence, just as both Vonnegut and Ballard assert their perspectives on science and technology, it is important for the twentieth-century writer to recognize how the forces of the 'machinic' mould and rearrange approaches.

Player Piano queries the place of the human in relation to the machine. One of the ways that this problem is posed is via the depiction of the human as a displaced entity that is subject to fallibility. A decentred, non-authoritative human is rendered not only by the literal and

³² Kevin A. Boon, *Chaos Theory and the Interpretation of Literary Texts: The Case of Kurt Vonnegut* (Lampeter: Edwin Mellen Press, 1997), p. 139. Here, Boon is specifically discussing *Breakfast of Champions*, nonetheless, the statement applies equally to *Player Piano*.

³³ *Chaos Theory*, p. 141.

³⁴ Karen and Charles Wood, 'The Vonnegut Effect: Science Fiction and Beyond', in *The Vonnegut Statement*, ed. Jerome Klinkowitz (New York: Dell Publishing, 1973), pp. 133-157 (p. 139).

metaphorical machine and the types of anxieties they induce, but also by a consideration of the human as flawed.

Halyard explains to the Shah that ‘cheap and easy brains were what was wrong with the world in the bad old days, and that EPICAC XIV could consider simultaneously hundreds or even thousands of sides of a question utterly fairly, that EPICAC XIV was wholly free of reason-muddying emotions, that EPICAC XIV never forgot anything—that, in short, EPICAC XIV was dead right about everything’ (p. 102). As highlighted above, the idea of supplanting human function with a machine, thereby rendering the human the second most advanced species, is entangled with anxieties, and the text exacerbates unease via the illustration of human foibles. Fear of metaphysical erasure is complemented by fear of human incapacity. When the Shah suggests how men and women affect the process of inheritance and propagation, wherein men sleep with “‘smart women and make good brains cheap’” (p. 102), Halyard considers in his own mind that ‘the procedure described [...] had been tried about a trillion times, and had yet to produce a brain that could be relied upon to do the right thing once out of a hundred opportunities’ (p. 102). Another example draws attention to human characteristics that are considered hindrances, such as emotionality. During the annual meeting of the most prominent and well-respected engineers, a play is performed in order to elicit emotion and convey morals to the attendant audience. The character of the ‘Old Manager’, in confrontation with both a ‘Young Engineer’ and a ‘Radical’, states at one point, “‘Are you prepared to appeal the fate of this star with reason rather than emotion? My duties require that I be the sworn enemy of emotion’” (p. 181). The society necessitates a rejection of certain human attributes in favour

of machinic approaches. Such instances, however, also highlight the problematic tendency to assign a specific and limited set of parameters and characteristics to the human. In the narrative, boundaries are crossed and thus redefinition of the human must be instigated. Reed identifies this theme in *Player Piano* when he considers that, '[t]he central conflict in the novel is between the machine and the human, between those forces which have brought about and espouse automation and those which affirm the dignity of man, the warmth and fallibility of his animal being'.³⁵ In Reed's reading, then, the human, the machine and the animal are once again pitted together. From a perspective informed by posthumanist thinking, the events of *Player Piano* can be conceived of as highlighting the ambiguity that separates each of these entities, and as demonstrating the murky divisions on which the human relies to establish its station in the world. The conveyance of human fallibility in *Player Piano* contributes to an adjustment of theoretical outlook.

A Critique of 'Progress' Played on the Posthumanist Keys of *Player Piano*

Relating to the iteration of human and machine fallibility, the text ultimately presents a critique of progress. In his essay on the subject of progress in Vonnegut's oeuvre, Donald E. Morse contends that

Technology, like culture, is Lamarckian rather than Darwinian; that is, society and culture retain, as an inherited trait, technological and cultural innovations whereas humans can neither biologically inherit nor build on a previous generation's accomplishments. There is no absolute barrier to what they may accomplish through technology, but clearly there remains an absolute barrier to what humans can do physically in addition to the seemingly insuperable barrier to what they may

³⁵ Kurt Vonnegut, Jr., p. 29.

become morally. Progress in technology thus does not equate with progress in humanity, despite a fuzzy popular linking of the two.³⁶

Here, Morse invokes for his example *The Sirens of Titan*, where the protagonist Malachi Constant moves around the universe at high speeds, but ultimately achieves very little.

Morse comments that, as a result, this novel draws attention to the idea that 'progress is not to be equated with motion, no matter how fast or extensive [...] Charging ahead on a course not chosen but randomly taken at an unregulated speed creates only the illusion of progress no matter how swift the movement'.³⁷ This interpretation of progress can also be overlaid onto Vonnegut's first novel, where the use of the machine, a technologically advanced entity, does not always equal 'improvement'.

Fundamentally, *Player Piano* underscores the problems that arise when 'progress' is unquestioningly associated with a technological existence, a critique reminiscent of Nick Bostrom's summation of posthumanism wherein he points out the origins of the Enlightenment, such as Francis Bacon's advocacy for 'using science to achieve mastery over nature in order to improve the living condition of human beings'.³⁸ Vonnegut's text dismantles this Enlightenment project by questioning the parameters and efficacy of

³⁶ Donald E. Morse, 'You Cannot Win, You Cannot Break Even, You Cannot Get Out of the Game: Kurt Vonnegut and the Notion of Progress', in *At Millennium's End: New Essays on the Work of Kurt Vonnegut*, ed. Kevin A. Boon (Albany: State University of New York Press, 2001), pp. 91-104 (p. 92). The dichotomy between movement and progress is also brought into sharper focus by the name 'Constant'. Critics often discuss the theme of science and progress in *The Sirens of Titan*, and it for this reason that this thesis refrains from a detailed discussion of its contents. In *Structuring the Void*, Jerome Klinkowitz provides a useful critique of the text, arguing in part that its parody of the 'space opera' — one of literature's most popular forms — contributes also to a dismantling of human superiority [Jerome Klinkowitz, *Structuring the Void: The Struggle for Subject in Contemporary American Fiction* (Durham: Duke University Press, 1992), pp. 42-43].

³⁷ 'You Cannot Win, You Cannot Break Even', pp. 92-93.

³⁸ Nick Bostrom, 'A History of Transhumanist Thought', in *Academic Writing Across the Disciplines*, ed. Michael Rectenwald & Lisa Carl (New York: Pearson Longman, 2011), pp. 1-30, <<http://www.nickbostrom.com/papers/history.pdf>>, p. 2.

'progress'. The resultant fictive illustrations of the human offer a complicated vision of posthumanism and of the machine. As mentioned previously, at the core of the narrative lies a metaphor for the society in which the text was composed. Post-war America, with its booming economy and unequivocal expansion of capitalism, is satirized and challenged, and what happens to the image of the human in the midst of this critique is a subject worthy of consideration. In this way, both the 'literal' and the 'metaphorical' images and manifestations of the machine are exhibited and investigated.

At a moment when the head of the Ilium Works, Dr Kroner, is honouring a recently deceased colleague, he describes the man as "'a great American, a great engineer, a great manager, a great pioneer at the head of the procession of civilization, opening new, undreamed-of doors to better things, for better living, for more people, at less cost'" (p. 171). Kroner's speech is presented from the critical viewpoint of Proteus, who, by this point in the novel, has seriously considered joining an underground saboteur movement. At another moment in the text, speaking with conviction of his role as an engineer, Kroner notes that "'Our job is to open new doors at the head of the procession of civilization. That's what the engineer, the manager does. There is no higher calling'" (p. 111). At these instances, as well as throughout the text, the concepts outlined by Kroner are disputed and undermined. From the sabotage movement that seeks to dismantle the machine-driven system, to Proteus' atavistic daydreams, a commentary on the Western, human definition of progress is provided.

Charles B. Harris argues that Vonnegut presents 'the illusion of a purposeful universe':³⁹

The belief in human progress ties in with this illusion. So long as man believes history unfolds as part of a universal drive toward goodness, he can see his own technological and scientific advances as consistent with this drive, as contributing to a universal goal. Strip purpose from the cosmos, however, and man's confidence collapses. Without a context of universal order and direction, progress seems random and arbitrary. The world, no longer explicable in terms of human reason, becomes unfamiliar.⁴⁰

Here, Harris's reading of Vonnegut intersects with a posthumanist reading. If a de-constituted notion of progress characterises the narrative of *Player Piano*, it can also be said that this re-evaluation of the concept intersects with the renegotiation of the posthuman as described in this thesis. Challenging progress means calling into question the parameters under which the human operates in the Western world. Progress necessitates a belief in human knowledge as central and definitive. It is this notion that is confronted in Vonnegut's text, as well as in posthumanism. In his reading of Vonnegut, Harris is even so bold as to declare that 'Vonnegut's belief in a purposeless universe constitutes his main theme',⁴¹ and argues that *The Sirens of Titan* is the primary illustration of this claim. Harris continues to argue that 'By portraying the whole of human endeavour as nothing more than an exchange of messages between creatures from outer space, Vonnegut effectively debunks beliefs in a purposeful universe, in free will, and in human progress'.⁴² The troubling aspect of Harris' argument is that, as evidenced by the above sentences, purpose

³⁹ Charles B. Harris, *Contemporary American Novelists of the Absurd* (New Haven, CT: College & University Press, 1971), p. 60.

⁴⁰ *Contemporary American Novelists of the Absurd*, p. 60.

⁴¹ *Contemporary American Novelists of the Absurd*, p. 61.

⁴² *Contemporary American Novelists of the Absurd*, p. 62.

is not portrayed as non-existent; it is merely a purpose 'stranger than any dreamed of in the philosophies of man'.⁴³ In actuality, then, instead of debunking 'purpose', the text merely debunks the centrality of the human and its planet in relation to the purpose of the larger universe. A similar situation occurs in *Slaughterhouse-Five* when Pilgrim is informed that the destruction of the universe will not be instigated by human, but by Tralfamadorian, activity. Vonnegut's posthumanism, then, might be described as reliant on 'Tralfamadorianism'. It is the Tralfamadorian perspective—the 'alien' perspective—that takes precedence in several of Vonnegut's novels, thus placing under scrutiny the centrality of the human and its knowledge.⁴⁴

What is at stake in *Player Piano*, however, is an interrogation of how one can, might, or should perceive the human. Due to a continual display of the interaction between humans and machines, the text calls into question the boundaries demarcating both categories, thus engaging with subsequently emerging theories of the posthuman. A minor character in *Player Piano*, Homer Bigley, comments "'Ever stop to think what a funny thing the human mind is?'" (p. 178). This statement might inform a traversal through the text. Various themes and events are conjured and depicted within the story, but at its most basic level, the novel interrogates the question of the human, its mind, its body and the integrated or divided perception of both. The depiction of the human in relation to the machine induces an ongoing interrogation of definitional parameters and articulates

⁴³ *Ibid*, p. 61.

⁴⁴ This concept will be discussed in more detail in the following section.

various facets of the posthuman. This process continues in Vonnegut's later novels, including *Slaughterhouse-Five* and *Galápagos*.

The Machine in the *Slaughterhouse*

Slaughterhouse-Five is Vonnegut's most renowned novel. As with *Crash*, one might say that a 'cottage industry'⁴⁵ of criticism has developed around it, analysing themes as varied as the text's connection to the counter-culture movement of the 1960s, to its role as an absurdist document. At the risk of dispelling a substantial body of scholarship, this thesis attempts to construct a reformed viewpoint on Vonnegut's most famous text. This thesis argues that the text can be seen to both represent and instigate a shift toward a posthuman understanding of the human, first in terms of the machine, but also in terms of the evolutionary animal.

The machine holds a symbolic function in *Slaughterhouse-Five*. As Wymer maintains, 'The problem of how man may both be seen as and distinguished from a machine is explored further in *Slaughterhouse-Five*'.⁴⁶ While Wymer concentrates on the comparison between the human and the machine as a traumatic coping strategy, this analysis will recognise how certain elements of the machinic comparisons made in the text reveal a posthumanist underpinning. When the text mentions the father-in-law of the protagonist, Billy Pilgrim, the narrator makes the following claim:

⁴⁵ Andrzej Gąsiorek comments that 'a veritable cottage industry of criticism has developed around *Crash*', in *J.G. Ballard* (Manchester: Manchester University Press, 2005), p. 17.

⁴⁶ Thomas L. Wymer, 'Machines and the Meaning of Human in the Novels of Kurt Vonnegut, Jr.', *The Mechanical God: Machines in Science Fiction*, ed. Thomas P. Dunn and Richard D. Erlich (London: Greenwood, 1982), pp. 42-52 (p. 48).

Lional Merble was a machine. Tralfamadorians, of course, say that every creature and plant in the Universe is a machine. It amuses them that so many Earthlings are offended by the idea of being machines.⁴⁷

Slaughterhouse-Five contains what can be referred to as the 'Tralfamadorian subplot', which involves the depiction of an alien species and its interaction with two humans: war-veteran, Billy Pilgrim, and pornographic film star, Montana Wildhack. Due to the inclusion of the Tralfamadorian subplot, Vonnegut's novel must briefly be considered in conjunction with an earlier novel in which the Tralfamadorians play a prominent role: *The Sirens of Titan*.

One plot event of Vonnegut's second novel involves the Tralfamadorian manipulation of the history of Earth in order to save a stranded spaceship. Also included is the character of Winston Niles Rumfoord, who can predict the future due to his ability to exist in what is termed a 'chrono-synclastic infundibulum', a phenomenon that enables simultaneous existence in different times and places. Rumfoord informs other characters of their irreversible fates, and despite efforts to amend events predicted, the characters are unable to alter their trajectories. These occurrences—from the full-scale human misunderstanding of Earth's history to the misinterpretation of freedom and choice—contribute toward demystifying human centrality and reassessing the relationship between the human and the machine. According to the fictional alien perspective of the Tralfamadorian, no creature alive possesses free will; and, this means that the human is actually a pre-programmed and manipulable machine.

⁴⁷ Kurt Vonnegut, *Slaughterhouse-Five*, or *The Children's Crusade: A Duty-dance with Death* (1969; London: Vintage, 2000), p. 112. All further references are to this edition and will be given parenthetically.

Allusions to the Tralfamadorian way of viewing the human hint at a subtext informing many Vonnegut's plots: the notion of free will and the question of the machine. In *Slaughterhouse-Five*, inclusion of the alternative viewpoint of the alien species appeals to the idea that being compared with or deemed a machine might not be as negative as a humanist perspective would imply. Like *Player Piano*, *Slaughterhouse-Five* perseveres with decentring the human to a point where the line between the human and the machine is disregarded unquestioningly. The deterministic strain running throughout Vonnegut's oeuvre challenges traditional Western notions of the human and its environment, as informed by humanist philosophy.

The following conversation that takes place between Billy Pilgrim and his Tralfamadorian captors explicates the text's investigation of this relationship. Pilgrim asks the aliens how he has come to arrive on Tralfamadore, to which one responds:

"It would take another Earthling to explain it to you. Earthlings are the great explainers, explaining why this event is structured as it is, telling how other events may be achieved or avoided. I am a Tralfamadorian, seeing all time as you might see a stretch of the Rocky Mountains. All time is all time. It does not change. It does not lend itself to warnings or explanations. It simply *is*. Take it moment by moment, and you will find that we are all, as I've said before, bugs in amber."

"You sound to me as though you don't believe in free will," said Billy Pilgrim.

"If I hadn't spent so much time studying Earthlings," said the Tralfamadorian, "I wouldn't have any idea what was meant by 'free will.' I've visited thirty-one inhabited planets in the universe, and I have studied reports on one hundred more. Only on Earth is there any talk of free will."

(p. 62)

The Tralfamadorian perspective challenges fundamental, yet often overlooked philosophical stances. When Billy asks how the universe will end, the Tralfamadorians

inform him that they 'blow it up' whilst running experiments with new fuels. The moment arrives when a 'test pilot presses a starter button, and the whole Universe disappears' (p. 84), to which Billy raises the question of why they cannot prevent such an occurrence. The Tralfamadorian responds: "'He has *always* pressed it, and he always *will*. We *always* let him and we always *will* let him. The moment is *structured* that way'" (p. 84; emphasis in original). It is such instances of determinism that litter the pages of Vonnegut's novels, causing the reader to reconsider how free will and agency often underpin approaches to the human and its identity.

Billy's relationship to time is also structured on the principles of determinism. Billy repeatedly relives moments from his life, but in each instance, he cannot alter events.⁴⁸ *Slaughterhouse-Five* can be read as encompassing 'the belief that we are trapped in a meaningless universe'.⁴⁹ Yet what is also occurring in this descriptive aspect of Vonnegut's novel is an intersection with posthumanism. The human must, in order to comprehend the text, give way to not only 'enormous forces' that remain beyond controlling, but also to 'other' elements and entities that can no longer be regarded as 'others', as inferior or unworthy in comparison to the human. The determinism of *Slaughterhouse-Five* hints at the posthumanist perspective. As Harris would have it, the text displays an absurdist inability to enact change—'Among the things Billy Pilgrim could not change were the past, the present, and the future' (p. 44)—and coupled with this absurdity is a shift in perceiving the

⁴⁸ A similar situation comprises the plotline of Vonnegut's *Timequake* (1997), wherein a time-warp reverts the entire planet Earth to ten years in the past, and the characters merely have to repeat the motions of the events of ten years of their lives without a chance for alteration.

⁴⁹ *Contemporary American Novelists of the Absurd*, p. 17.

human. If the human cannot control or contain its own destiny, then it must not exist at the centre of its own or any other universe. Just as Ballard's characters accept the incorporation of the machine into their definition of the human, Vonnegut's novel presents this idea and accepts it—terror and fear do not influence or delimit the human characters' behaviour. The Tralfamadorians provide a semblance of this stance when, flying between Earth and Tralfamadore, one states: 'We are where we have to be just now—three hundred million miles from Earth, bound for a time warp which will get us to Tralfamadore in hours rather than centuries' (p. 61). Acceptance of time and place is asserted via the Tralfamadorian approach. Ferguson comments on the premise in relation to the protagonists of

Slaughterhouse-Five and *Galápagos*:

Through their manipulation of time, Billy and Leon are able to accept the conditions of their existence. Billy accepts the events of 'all-time.' Although Leon does not come to terms with the past—his history—quite so satisfactorily, his fantasy—his story—enables him to accommodate to it. By the end of the book, he acknowledges that Nature's successful experiment on Santa Rosalia 'almost made me love people just as they were back then, big brains and all'.⁵⁰

As Ferguson indicates, in the end, both Billy and Leon recognise their relative positions in history and within their own stories. Acceptance informs Billy Pilgrim's attitude towards life and war as he travels, 'unstuck' in time through the universe of *Slaughterhouse-Five*.

⁵⁰ Oliver W. Ferguson, 'History and Story: Leon Trout's Double Narrative in *Galápagos*', in *Critique: Studies in Contemporary Fiction*, 40:3 (1999), 230-38 (p. 234).

The Human Machine in the *Slaughterhouse*

Apart from the larger, metaphorical machinic system under which the characters reside, descriptions of characters in *Slaughterhouse-Five* often invoke images of the literal machine.

At one point, the protagonist Billy Pilgrim is described in the following manner:

Billy's outward listlessness was a screen. The listlessness concealed a mind which was fizzing and flashing thrillingly. It was preparing letters and lectures about the flying saucers, the negligibility of death, and the true nature of time.

(p. 139)

The above passage highlights the mechanical view of the human that is developed and becomes implicit throughout Vonnegut's oeuvre. The use of 'fizzing' and 'flashing' to describe brain activity indicates a comparison between human and machine. It is such assignments that, as demonstrated in *Player Piano*, lead to a re-configuration of the human. This shift is contributed to by the human itself. Tolerance of machinic comparison and affiliation indicates that the system of language and understanding in place is not sufficient to cope with a changing society that necessitates co-habitation of the human and the machine. Confused boundaries between human and machine are scattered throughout the pages of *Slaughterhouse-Five*. Billy Pilgrim's hospital bed mate, Professor Bertram Copeland Rumfoord, comments at one point: "'That's not a human being anymore. Doctors are for human beings. They should turn him over to a veterinarian or a tree surgeon. *They'd* know what to do. Look at him! That's life, according to the medical profession. Isn't life wonderful?'" (p. 139; emphasis in original). At this point, Billy is in a near comatose state and does not respond to the events occurring around him. As a result, Rumfoord

concludes that he is less than human. Here, the parameters that commonly define humanity are made apparent, yet narrative events call such distinctions into question.

Wymer comments that 'The metaphoric expression of the most extreme effect of war goes beyond reducing man to a machine and reduces him to much less complicated objects',⁵¹ implying that some semblance of sanctity is lost via the war-time experience of the characters. Presenting moments of confusion between the human and the machine further aligns the text with a posthumanism that does not assume a clearly defined field between such entities. In his discussion of *Slaughterhouse-Five*, Scott MacFarlane comments that '[t]he author, in the context of man's warfare, repeatedly asks just what sort of creatures we human beings are. The element of science fiction in the novel, allows this question to be posed humorously, but in a profoundly metaphorical way'.⁵² Here, MacFarlane identifies the major focus of this chapter: how the human is represented in relation to the objects and beings around it determines the text's critique and conveyance of the parameters of the human 'creature'. MacFarlane's use of the term 'creature' is particularly relevant in relation to the concerns of this thesis. The human is not just conveyed as a superior species, but as a creature amongst other non-human objects and entities. While criticism discussing Vonnegut's text largely revolves around the themes of war and trauma, it is also possible to view the text in terms of how it positions the human

⁵¹ 'Machines and the Meaning of Human in the Novels of Kurt Vonnegut, Jr.', p. 48. Here, Wymer draws on a specific passage, which I will refer to in Chapter Six, in which the human passengers of a train are described as 'liquid' (*Slaughterhouse-Five*, p. 58). On the whole, however, Wymer's piece only lists moments, in *Player Piano*, *The Sirens of Titan* and *Slaughterhouse-Five*, when the machine is utilized as a metaphor, without delving further into the implications, metaphorical or theoretical, of such representations.

⁵² Scott MacFarlane, *The Hippie Narrative: A Literary Perspective on the Counterculture* (Jefferson, N.C.: McFarland & Co., 2007), p. 151.

in a posthumanist manner. Various critics identify a plethora of themes emerging from what at first seems a limited space defined by war and atrocity.⁵³ Relevant to the argument at hand is Freese's assertion that Vonnegut 'elevates his fictional evocation of the Dresden firestorm into a philosophical inquiry into the conditions of human existence'.⁵⁴ The text draws attention to the construction of the human condition in the twentieth century, while also, I argue, attending to divergent perspectives on the accepted definition of the human. Traditional boundaries for the human are presented and challenged, represented and redrawn in *Slaughterhouse-Five*. Via these pathways, a posthuman image materializes.

On the one hand, *Slaughterhouse-Five* can be read as a narrative that condemns destruction and serves as a plea to reconsider attitudes towards war. Yet the sanctity of the human is broken to the point where even the narrator begins to subscribe to this new language, this new method by which the human might be understood. The text does not call for 'dehumanization' by its adoption of de-humanizing imagery. What it does call for, however, is a re-evaluation of attitudes that foster destructive scenarios, including wars. It is the existence of a division between the human and 'the other' that enables conscription to hierarchical visions. Noting how Vonnegut's characters are often conveyed as 'between

⁵³ Reed, for instance, comments that '[t]he novel concerns itself not just with Dresden or war, but with a much broader depiction of a human condition which these events emblemize' (*Kurt Vonnegut, Jr.*, p. 181).

Lundquist goes even further, indicating several concerns that the text raises, when he argues that

For Vonnegut, the subject matter is not simply Nazi atrocity; it is many other things—runaway technology, inflated views of human destiny, amoral science, the distribution of wealth in America, the senselessness of war as continued experience, and insanity in Midland city.

[*Kurt Vonnegut*, p. 69]

⁵⁴ Peter Freese, 'Kurt Vonnegut's *Slaughterhouse-Five*; or, How to Storify an Atrocity', in *Kurt Vonnegut: Modern Critical Views*, ed. Harold Bloom (Philadelphia: Chelsea House Publishers, 2000), pp. 73-87 (p. 84).

categories, in boundary regions',⁵⁵ Boon's thesis considers the dismantling of boundaries a recurrent trope in Vonnegut's oeuvre. Yet Boon also identifies that it is precisely this dismantling that enables a reformed perspective on the human to emerge. He comments that 'categories are arbitrary and unstable, and when they are used to establish hierarchies of dominance, they are restrictive and inhumane'.⁵⁶ These ideas, represented by Vonnegut and Boon, demonstrate how posthumanism should not be viewed as a negation of humanitarian ideals, but rather, the 'post' of posthumanism should be seen as a reformed stance on the human, one that does not condone hierarchical vision of species that delimit one entity's ability to exist, or dominate in favour of another. By connecting the text to a theory of posthumanism, this thesis attempts to re-read the reformed perspective on the human offered by the narrator in order to reconsider and redress the forces that enable dehumanization. This is what is meant by distinguishing between the humanism Vonnegut self-proclaimedly adheres to, and the humanism that posthumanism attempts to rewrite. *Slaughterhouse-Five* questions how notions of superiority drive such behaviours. By invoking ideas of determinism, the human machine and the human's indistinctiveness from other entities, the narrative contributes towards constructing the posthuman. Vonnegut's later text, *Galápagos*, also takes part in a project of posthuman proportions.

⁵⁵ See *Chaos Theory*, pp. 93-113. Here, Boon specifically refers to Paul Proteus and his inability to firmly choose a side in the war against the machines, as well as to the indecisive nature of Eugene Debs Hartke in *Hocus Pocus* (1990) and Howard Campbell in *Mother Night* (1961).

⁵⁶ *Chaos Theory*, p. 105.

Galápagos and the Machine

Galápagos achieves an objectification of the human that runs counter to humanist thinking. The human in the narrative is not deemed 'unique' or 'separate' from the machine, in part because the human is sidelined from the role of executing actions and decisions. Instead, the text outlines the culpability of the human brain. In this way, the human is stripped of a certain degree of agency, as decisions and activities occurring in the brain are depicted as influencing and determining human action. One of the protagonists, a former biology teacher from Ilium, New York, named Mary Hepburn exemplifies the divorcing of the human from its constituent parts during a scene where she is considering suicide. The narrator, Leon Trout, informs the reader that:

Mary had also taught that the human brain was the most admirable survival device yet produced by evolution. But now her own big brain was urging her to take the polyethylene garment bag from around a red evening dress in her closet there in Guayaquil, and to wrap it around her head, thus depriving her cells of oxygen.⁵⁷

By way of such descriptions, the text undermines the idea of evolution as necessarily progressive. Not only is Mary depicted as subject to a force over which her human self has no control, thereby relegating the human to the margins of action, but also the instigation by her brain to act against the principle of survival demonstrates the potential fallibility of evolutionary imperatives. On the one hand, decisions made and actions taken can be viewed as evolutionarily inscribed, as the brain is construed as a product of an adaptive survival strategy. On the other hand, the brain is conveyed also as faulty regarding the

⁵⁷ Kurt Vonnegut, *Galápagos* (1985; London: Flamingo, 1994), p. 29. All further references to this text are to this edition and will be provided parenthetically.

processes necessary for survival. Either way, the human character of Mary, as well as others included in the text, is conveyed as incapable of performing that 'inherently' human trait of 'rationality'. Mary possesses a brain that enacts complete control over her, yet that brain cannot be relied upon to behave 'reasonably'.

The position of Leon Trout as narrator of the tale is significant to this thematic feature.⁵⁸ Leon Trout observes and reports on the events of the narrative whilst occupying a spectral form. Cast as the deceased son of Vonnegut's recurring fictional science fiction author, Kilgore Trout⁵⁹—notorious for his prolific publication of unread pulp science fiction—Leon makes his place amidst the cast of Vonnegut's well-known characters apparent from the start. Referring to his presence on the *Bahía de Darwin*, Leon states: 'I was the ghost of a ghost ship. I am the son of a big-brained science fiction writer, whose name was Kilgore Trout' (p. 177). Hence, Leon narrates the events of *Galápagos* from beyond the grave; having died unexpectedly while working on the construction of the *Bahía de Darwin* at a shipyard in Sweden, he is capable of serving as the ship's resident spectre,

⁵⁸ Oliver Ferguson comments on this plot device:

Vonnegut was understandably pleased with his employment of Leon Trout as the narrator of *Galápagos*. Not only is the problem of point of view obviated, but Leon is also useful in other ways. The flashbacks and foreshadowings—as he moves between his story and his history—determine the novel's structure, and his narrative style establishes its tone. And, whether madman or ghost, Leon is the conduit for Vonnegut's criticism of twentieth-century society.

['History and Story: Leon Trout's Double Narrative in *Galápagos*', in *Critique: Studies in Contemporary Fiction*, 40:3 (1999), 230-38 (p. 235).]

⁵⁹ David Bianculli adeptly points out that *Galápagos* contains no author's preface, the first of Vonnegut's texts to omit such a feature in twenty years [in 'The Theory of Evolution, According to Vonnegut [A Review of *Galapagos* [sic]]', in *The Critical Response to Kurt Vonnegut*, ed. Leonard Mustazza (Westport, CT: Greenwood, 1994), pp. 275-77 (p. 277)]. Perhaps, then, the presence of Leon Trout as Kilgore's son relates to the father-son relationship Vonnegut establishes between himself and Kilgore Trout in *Breakfast of Champions*. At the conclusion of this text, the character of Vonnegut envisions the face of his 'real' father in the face of Kilgore, a moment which complicates notions of paternity, but also of creation, as Vonnegut is the creator of Trout, but Trout then subverts this notion by representing the creator of the author and narrator: Kurt Vonnegut's father. Creator and creation are inverted, just as in *Galápagos*, where the creator of the tale, Leon, is displaced by the creator of the human, environment and adaptation.

able to purview the span of one million years, beginning in 1986. Trout occupies a unique position in the novel: he is capable of viewing and commenting upon events in an inconsequential manner, while also holding the privileged position of witnessing one million years of evolution on the island. Morse comments that the text 'employs an improbable persona using an inventive comic style to discuss the future, if any, of the human race'.⁶⁰ Leon trout guides the narrative, and therefore contributes to the growing depiction of the human as an unreliable, irrational machine with little control over decisions and future trajectories. As will be discussed in Chapter Six, the 'evolutionary machine' plays a large role in establishing this view of the human. The vision of the human as machine, too, constructs a posthuman subject in *Galápagos*.

Commentary on the human is often deployed via the voice of Kilgore Trout, whose science fiction plots are often recounted by his son. Leon Trout's disembodied voice embodies the foreknowledge possessed by a witness of one million years of evolutionary change, while his father possesses the uncanny, proleptic voice of a science fiction author. Between the two, a thoroughly demoralising view of twentieth-century humanity is proffered. The complicated characteristics of the human, its body and brain function, anger the spectral characters of Leon and Kilgore Trout, and an injurious session of human-bashing is delivered by the lips of the deceased Kilgore Trout. Leon and Kilgore Trout stand at the precipice of posthumanism, with their interpretations of the human as less than superior. As a result, the process of devolution—or, rather, evolution involving adaptation to Santa Rosalia—is construed as a step in the right direction within *Galápagos*. Meanwhile,

⁶⁰ *The Novels of Kurt Vonnegut: Imagining Being an American*, p. 174.

both father and son unite perspectives to convey the notion that the human has little control over its destiny, and is largely unreliable.

Examples abound, as the text portrays the human as incapable of controlling its own actions; instead, what is depicted is a 'brain' that controls the human beyond its alleged awareness. When Mary Hepburn is debating leaving her hotel room in the El Dorado to socialize with the other guests, again the brain is described as an agent separate to the human body, entailing a distinct set of desires and wishes:

the worst thing her brain had done to her, other than recommending suicide, was to insist that she come to Guayaquil despite all the news about the planetary financial crisis, despite the near certainty that 'the Nature Cruise of the Century', booked to capacity only a month before, would be called off for want of passengers.

(p. 29)

The narrator later informs the reader that 'Up in her room, Mary Hepburn was wondering if she had a brain tumour, and that was why her brain was giving her the worst possible advice all the time' (p. 32). A similar situation is described in relation to another character, James Wait. When the narrator tells the story of Wait murdering Prince Richard of Croatia-Slavonia, he says, 'It was Wait's big brain's idea. It wasn't anything he himself had particularly wanted to do' (p. 135). The situation described in *Galápagos* is reminiscent of another of Vonnegut's novels mentioned already in this chapter: *Breakfast of Champions*, a text dramatically culminating in the malfunction of the protagonist's brain. Entangled within these depictions of the human brain as uncontrollable is the idea of the human as unfixed and uncertain of its origins. It is in this confused space that depictions of the human as machine further problematise the humanist definition of the human.

The Human as Machine

The most prominent method of describing the human as machine in *Galápagos* intersects with the displacement of rationality and free will. By conveying the human as controlled by the mechanics of brain function, the narrative traverses an affiliation between human and machine. Within the narrative, the brain is described as ‘overelaborate nervous circuitry’ (p. 16). Repeatedly, the organ is described as a machine. The narrator makes comments such as ‘[t]here was no end to the evil schemes that a thought machine that oversized couldn’t imagine and execute’ (p. 16) and, ‘The mass of men was quietly desperate a million years ago because the infernal computers inside their skulls were incapable of restraint or idleness; were forever demanding more challenging problems which life could not provide’ (p. 217). Another example arises when Trout describes James Wait, sitting at the bar in the Hotel El Dorado, commenting that ‘He was not a drinker, actually, since he lived by his wits, and could not afford to have the delicate switches of the big computer in his skull short-circuited by alcohol’ (p. 17).

A direct comparison between human and machine is drawn in terms of another major character in the narrative, this time in relation to evolutionary processes. A translation and medical diagnostic computer, invented by Zenji Hiroguchi and known as ‘Mandarax’,⁶¹ is compared to the evolution of a human. When Akiko is born to Hisako on

⁶¹ ‘Mandarax [...] was not only a translator, but could also diagnose with respectable accuracy one thousand of the most common diseases which attacked *Homo sapiens*, including twelve varieties of nervous breakdown’ (p. 51; emphasis in original).

Santa Rosalia, emerging with fur covering her entire body,⁶² her transformation is compared with the shift from Gokubi to the more advanced system known as Mandarax:

The evolutionary sequence from Gokubi to Mandarax, by contrast, was a radical improvement in the contents of a package, but with few perceptible changes in the wrapper [...] inhabit[ing] nearly identical shells of high-impact black plastic [...] Any fool could tell Akiko from Hisako, but only an expert could tell Gokubi from Mandarax.

(pp. 53-54)

The above passage highlights the idea that while Akiko and Hisako are internally similar, Akiko has undergone external transmutation. In contrast, the machine Gokubi has evolved into Mandarax, but only by way of human intervention and, nonetheless, remains visibly identical. Boon comments on this phenomenon, noting that 'Mandarax, as brilliant a machine as it was, is unable to adapt to radical change [...] Human beings, on the other hand, *can* adapt'.⁶³ Here the distinction is drawn between the human and the human-made machine, by way of evolutionary principles. Like in *Player Piano*, the evolutionary animal is once again drawn into collusion with the human, while the machine is left to rust by its own devices. Boon carries on, reinforcing the idea that the machine is, evolutionarily speaking, a different animal from the human:

human beings manage, through evolution, to adapt to radical environmental changes and survive, while machines become impractical artifacts enslaved by their rigid, task-specific, construction [...] Machines are dependent on determinacy; human beings can readily adapt to indeterminacy.⁶⁴

⁶² According to the narrator, this mutation is due to radiation exposure suffered by the mother of Hisako during the bombing of Hiroshima.

⁶³ *Chaos Theory*, p. 140. Emphasis in original.

⁶⁴ *Ibid*, p. 140.

Here, the distinction between the organic and the inorganic is redrawn and Mustazza adopts a similar analytical stance when he concurs that 'Like all computers, Mandarax represents a technological extension of the human brain, but, like the big brain itself, the device is of little use to those stranded on the deserted island, much less to their refashioned descendants'.⁶⁵ Like in Ballard's *Crash*, the question of participant evolution is once again deterred by the realities of biological limitations. Furthermore, the human in *Galápagos* is conveyed as a machine that is determined just as stringently, only this time by adaptive principles.

Throughout the text, there is a palpable sense in which machines disintegrate rigid hierarchies and decentre the human. Via the portrayal of the human and the machine as interlinked, Vonnegut's texts achieve a portrayal of the human that intersects with posthumanism. The concept of evolution, and of determinism, is applied to both human and machine, resulting in a dismantling of barriers formerly reserved for the human, and hence necessitating a posthuman perspective in order to fully discuss and articulate the implications of the narrative. As in *Player Piano*, however, the transitional path towards the posthuman is plagued with anxiety.

Anxiety of the Posthuman

In addition to the continual utilization of the machine as a metaphor for the human brain, the text raises the issue of mechanization replacing human industry, echoing *Player Piano*.

⁶⁵ Leonard Mustazza, 'A Darwinian Eden: Science and Myth in Kurt Vonnegut's *Galapagos*', in *The Critical Response to Kurt Vonnegut*, ed. Leonard Mustazza (Westport, CT: Greenwood, 1994), pp. 279-289 (p. 284). [Note: Throughout Mustazza's book, a diacritical mark on the 'a' in *Galápagos* is consistently absent.]

Mary's late husband Roy Hepburn occupies an indirect role in narrating the rise of the machine in the text, as Roy loses his job due to mechanization of his factory. The narrator discloses the following:

Here was what had happened to their jobs: GEFFCo had furloughed almost its entire work force, blue-collar and white-collar alike, in order to modernize the Ilium operation [...] When the Matsumoto Corporation got through installing computers and robots, only twelve human beings would be able to run everything.

(p. 37)

In a description harkening back to Vonnegut's first novel, *Player Piano*, the gradual replacement of the human workforce by mechanized operations is briefly referred to in *Galápagos*. The text interacts with themes of the human and the machine primarily via the overriding conclusion that the human brain is a machine that can be surpassed by the invention of other machines. In this way, the text has a similar bent to the thematic concerns of *Player Piano*.

When Hisako Hiroguchi, expert in 'ikebana', discovers that her husband's invention, the portable computer known as Mandarax, is also adept in ikebana, her 'self-respect [is] severely crippled by the discovery that a little black box could not only teach what she taught, but could do so in a thousand different tongues' (pp. 60-61). The narrator continues, stating that 'Ikebana turned out to be as easily codified as the practice of modern medicine' (p. 61). Such events suggest that, first, the human brain can be considered as merely a complex mechanism—a machine—and, second, that its operations can be surpassed by the functions of other complex machines. This idea is conveyed via the discussion of the flaws of the human brain. For instance, the narrator comments:

That was another thing about those big brains: They found it easy to do what Mandarax could never do, which was lie and lie [...] Who would want to spend fourteen years with a computer like that, when you could never be sure whether it was telling the truth or not?

(p. 60)

As previously discussed above and present in this passage, the text continually draws attention to the flaws of the human species, and, as result of such a perspective, ultimately celebrates the gradual devolution of the human. Such a stance is uncharacteristic of science fiction narratives that typified the 'Golden Age', where any deterioration of the human, any intrusive elements—whether they be alien, animal, or machine—were repeatedly cultivated as a source of horror, trepidation, and disgrace for the human characters in question, thus maintaining a thoroughly humanist outlook. Contrastingly, Vonnegut's narratives enter a realm of posthumanist thinking, where the human is considered an amalgamation that need not be sanctified. The human here must always be considered transmutable. The human is continually being rewritten, in fiction and in cultural and evolutionary processes. As mentioned in the Introduction to this thesis, even the concept of 'species' cannot contain the human. The attitudes embodied within *Galápagos* also hold significance in terms of evolutionary efficiency. The narrator suggests that the 'mystifying enthusiasm a million years ago for turning over as many human activities as possible to machinery: What could that have been but yet another acknowledgement by people that their brains were no damn good?' (p. 38). Once more implying the inevitable transformation that must occur in terms of the inefficient twentieth-century human, Leon Trout relies yet again upon a consideration of evolutionary imperatives in order to describe societal trends: the evolutionary machine is always also at work in *Galápagos*.

Repeated use of the machine to describe the human implies that a shift in conceptions of the human has occurred, or is occurring, within and through the text. Mechanistic views of the human begin with Vonnegut's first novel and carry through to his final writings. Via analyses of selected narratives, it becomes apparent that the previous method of understanding the human is transformed in terms of the machinic environment in which the human now operates. Just as the human, fictionally speaking, will evolve according to its physical surroundings, so does the physical presence of the machine impose a reformed consideration upon how the human perceives the parameters of its own 'humanness'.

Presenting the human as comparable to its machinic counterparts causes the authority of the human to be called into question. In addition, presenting reality as a series of unalterable, predetermined events challenges fundamental Western conceptions of history, time and what it means to be human. In light of Vonnegut's fictional illustrations, the human must be considered as a machine—or a computer—that behaves according to certain inputs, which, as the text depicts, may not even be within the range of a specific human's control; hence, separation of the human into a distinct category becomes increasingly difficult. Thomas L. Wymer concedes that

It is easy to become a machine, easy to reject one kind of mechanism in favor of another, easy to escape responsibility in a mechanistic world view. It is terribly difficult and painful and beautiful, however, to be human, but that is what Vonnegut's best work challenges the reader to be.⁶⁶

⁶⁶ 'Machines and the Meaning of Human in the Novels of Kurt Vonnegut, Jr.', p. 51.

This thesis argues that Vonnegut's works also offer a perspective on the human that is beyond the scope of humanism. To be humanist is to delineate oneself from the other of the machine, or the liquid freight of the world,⁶⁷ as Billy Pilgrim might put it. It is far more difficult to accept that such parameters are no longer sufficient as borderzones within which the human can be defined. Texts like *Slaughterhouse-Five* and *Galápagos* provide the reader with a language via which comprehension of the human can move amidst and beyond the twentieth-century society in which the texts were written, and into the twenty-first century, in which posthumanism emerged as an academic field of enquiry. The fictions that constitute the focus of this thesis display a human in flux. Its borders are malleable. It is an adaptive and adapting creature that must be viewed in terms of transmutation, transmutability, and not in terms of fixity or certitude. Vonnegut's texts continue to evoke the posthuman in their portrayal of the evolutionary human animal.

⁶⁷ I derive this phrase from *Slaughterhouse-Five*. When the characters are being transported by train to a prisoner of war camp, the human is described as 'freight' and then as 'a liquid which could be induced to flow slowly toward cooing and light' (*Slaughterhouse-Five*, p. 58). Here, the human is not described as a 'machine', per se, but the merging of boundaries between 'human' and object, between 'inert' and 'organic' carries similar connotations.

Chapter Six

(R)evolutionary Animals in Vonnegut

Like Ballard's trilogy, Vonnegut's texts often portray the human as an evolutionary animal.

While this thesis identifies how contemporaneous trends in ethology and sociobiology

intersect with Ballard's texts, a slightly divergent trajectory emerges in Vonnegut's oeuvre.

In these texts, it is the repeated acknowledgement of evolutionary aspects of the human

that inform narrative events and character depictions. Throughout Vonnegut's oeuvre,

there is an implicit perspective on the human that presumes affiliation with the animal.

The 'evolutionary machine' defines and constructs the human, just as the concept of a pre-

conceived timeline—discussed in Chapter Five—definitively associates the human with

the machine. In this way, Vonnegut's texts provide an overt and enduring sense of the

human as both machine and evolutionary animal. This chapter focuses on the degree to

which the selected texts illustrate these affiliations. Vonnegut's *Player Piano*, *Slaughterhouse-*

Five and *Galápagos* have been overlooked critically as indicative of trends in posthumanism,

as well as having been largely neglected as sites where the theme of evolution plays a role

beyond plot device.

The fictions selected for analysis play a significant role in establishing the need for a

categorical realignment concerning the human. Characters within the texts express a

disgruntled and at times incapacitated ability to function within the parameters laid out by

humanist philosophy. Instead, what emerges are characters who *revolutionise* their

relationship to the animal by advocating and representing *evolutionary* principles. This

(r)evolution assumes various and divergent forms throughout the three texts but, in each case, the result is the same: a posthuman subjectivity emerges.

When speaking of American politics, Kurt Vonnegut comments: 'Human beings are chimpanzees who get crazy drunk on power'.¹ It is this type of sentiment that informs the plots to be analysed. There is a sense that, in the chosen narratives, the human is nothing more and nothing less than an evolved ape. The narratives, too, embody implicit assumptions about the affiliation between human and evolutionary animal. Despite this, the issue of how Vonnegut's fictions portray the animal in relation to the human is a theme that has been analysed rarely. Moreover, the analyses that do exist—for instance, Donald E. Morse's discussion of the evolutionary animal in *Galápagos*—tend to recognise evolutionary themes, rather than probing further into how inclusion of these concepts interacts with the intrusion of the animal into the human category. This chapter seeks to fill this critical gap.

The analyses included discuss the evolutionary animal in *Player Piano*, *Slaughterhouse-Five* and *Galápagos*. The evolutionary animal in *Player Piano* is considered first in terms of the 'literal' animal and how its depiction aligns the animal with the human, and then also in terms of how the protagonist's quest for an atavistic, animal past connects to the idea of the evolutionary animal. Analysis of *Slaughterhouse-Five* begins with a discussion of the 'zoo', before analysing the significance of the Tralfamadorian subplot and the presence of evolutionary themes in the text. Finally, analysis of *Galápagos* commences with the evolutionary animal, before discussing of how the concept of the evolutionary human animal intersects with the concerns of posthumanism.

¹ Kurt Vonnegut, *A Man Without a Country*, ed. Daniel Simon (London: Bloomsbury, 2006), p. 71.

Playing the Animal

An encounter with the animal initiates Vonnegut's novel, initially playing a role in (re)defining the human. Later in the narrative, the concept of the atavistic relates to the idea of the evolutionary animal. In the first chapter of the text, the narrator informs the reader that prior to arriving to work that morning, Paul Proteus had discovered a stray cat and decided to pick it up and utilise the cat as a mouse deterrent at the Ilium Works. Proteus enlists assistance from a talented young engineer, requesting that he design an electronic device that will lead the cat to mice and rats.² This scenario, depicted within the opening pages of the text, encompasses how strands of the narrative relate to the posthuman. The animal is first utilised in terms of the machine—as a functional operator that will perform a designated task within the plant. Already, too, the human has been depicted as such, with the recorded physical movements of Rudy determining the function of the machine. Yet Proteus attempts to replace the animal with the machine as well, telling his design engineer: “I want some sort of signalling device that will tell this cat where she can find a mouse” (p. 7). Interwoven into this small, yet significant scene is the fact that Proteus inadvertently attempts to replace the animal with the machine. Already expressing suspicion and mistrust, dissatisfaction and ennui towards the system of which he is a part, Proteus nonetheless continues to perpetuate the production of new devices that will eliminate tasks for the human and the animal. What is also achieved by this stance, however, is a relative association between human, animal and machine: each entity is

² Kurt Vonnegut, *Player Piano* (1959; London: Mayflower, 1962), p. 7. All further references are to this edition and will be provided parenthetically.

working together to achieve a common goal and the roles of each are conveyed as interchangeable.

The position of the human in this tri-layered hierarchy is placed under the microscope. Which entity is performing which task becomes intermingled, as Proteus programmes the machines and the cat to perform their tasks, whilst also simultaneously performing his own machinic, predictable daily habits as a human. During a routine visit to one of the plant's buildings to conduct a repair job, Proteus, cat in hand, experiences a nostalgic moment that further complicates the depictions and conceptions of past, present and future that inform the narrative. While visiting the one building on the factory premises that he has had preserved, the narrator states:

Paul felt better when he got into Building 58, a long, narrow structure four blocks long. It was a pet of his. He'd been told to have the north end of the building torn down and replaced, and he'd talked headquarters out of it. The north end was the oldest building in the plant, and Paul had saved it—because of its historical interest to visitors, he'd told headquarters. But he discouraged and disliked visitors, and he'd really saved Building 58's north end for himself [...] It was a vote of confidence from the past, he thought—where the past admitted how humble and shoddy it had been, where one could look from the old to the new and see that mankind really had come a long way. Paul needed that reassurance from time to time.

(p. 9)

Here, Proteus treats the building, a kind of machine, as a 'pet', thereby dismantling borders yet again between human and animal. It is while wandering through the new part of Building 58 that Proteus experiences his definitive animal encounter.

Walking through the revered edifice, cat cradled in his arms, the animal unexpectedly comes face to face with a mechanical sweeper:

With a bouncing, stiff-legged gait, she fled before the sweeper. Snatching, flashing, crashing, shrieking machines kept her in the middle of the aisle, yards ahead of the

sweeper's whooshing brooms. Paul looked frantically for the switch that would stop the sweeper, but before he found it, the cat made a stand. She faced the oncoming sweeper, her needle-like teeth bared, the tip of her tail snapping back and forth. The flash of a welder went off inches from her eyes, and the sweeper gobbled her up and hurled her squalling and scratching into its galvanized tin belly.

(p. 14)

Despite this dramatic confrontation between animal and machine, it is not the sweeper that performs the cat's ultimate demise. Climbing the perimeter fence in an attempt to escape after being shot out of a chute and into a freight car, the cat is finally electrocuted by the security fence: 'She dropped to the asphalt—dead and smoking, but outside' (p. 15). It is not, then, the animal or the machine that reigns triumphant, but the borderzones constructed around the human, animal and machine that ultimately inflict hardship. Peter Reed's reading of the text aligns with this issue, as he outlines that '[t]he cat [...] becomes a symbol of animal life in a world of machines, foreshadowing the eventual ill-fated rebellion against total mechanization'.³ The remainder of the narrative engages in reconsiderations of borders and limits.

Later, when Proteus finds, as he requested, the dead cat in a basket on his office chair, he is described as gently setting the basket on the floor in order that he might sit down (p. 17), and later discusses the type of burial and funeral that might be appropriate for the animal (p. 18). A confused line between the human and the animal is conveyed. This first scene establishes a triangulation between the non-human animal (cat), the human animal (Proteus) and a machine (electronic sweeper). Yet via Proteus' sympathy for the animal, the human and the animal are pitted in alliance against the machine. The status of

³ Peter J. Reed, *Kurt Vonnegut, Jr.* (New York: Warner Paperback Library, 1972), p. 30.

the machine as 'alien', or 'other', is reinforced, but the added effect is that the relationship between the human and the animal is strengthened. Stanley Schatt describes how Proteus 'loses any feelings of reassurance that the monument to technological progress should give him when he observes the efficient, utterly inhumane fashion in which his plant's mechanical sweeper disposes of his cat'.⁴ Like Ballard's reaction to the car dents created by a dead dog, the animal is further aligned with the human in this brief scene via the issue of mortality; the human and the animal can identify with one another due to their capacity for injury and elimination. Via a reminder of his evolutionary connection to the animal, Paul Proteus is given the (r)evolutionary incentive to dismantle a machine-dominated landscape.

Player Piano also conveys the issue of the evolutionary animal in a second fashion: via the theme of atavism. Proteus longs for an atavistic lifestyle throughout the text; the narrator states that 'He had never been a reading man, but now he was developing an appetite for novels wherein the hero lived vigorously and out-of-doors, dealing directly with nature, dependent upon basic cunning and physical strength for survival' (p. 119). Proteus' theory that life should be less mechanical and closer to 'nature' relates to the idea of an ancestral past in which humans lived without technological provision. The narrator summarises Proteus' belief that 'Still and all, there was a basic truth underlying the tales, a primitive ideal to which he could aspire. He wanted to deal, not with society, but only with Earth as God had given it to man' (p. 119). As in *High-Rise*, the characters in *Player Piano* have the majority of their daily tasks catered for, leaving little work to human hands. Proteus' longing for a system in which the human is allotted meaningful tasks correlates to

⁴ Stanley Schatt, *Kurt Vonnegut, Jr.* (Indianapolis: GK Hall & Co, 1976), p. 19.

the instigation of the violent trajectory of change that occurs in Ballard's text, and that leads towards a reversion to former, non-technological ways of living. The evolutionary animal emerges in such scenarios through reference to the evolutionarily-derived theories of Morris, de Waal and theorists working from within the field of sociobiology. As discussed in Chapter Three, these theories suggest that the human is an evolutionary animal for which the majority of evolutionary change occurred during the Pleistocene epoch. The human therefore remains subjected to inherited evolutionary derivatives, such as the need to participate in its own survival. The scenarios outlined in Ballard and Vonnegut, conveying a disgruntled, unsatisfied human subject, entangled within a dominant mechanical system, correlate to such theories, thereby invigorating representations of the human as an evolutionary animal.

Proteus' atavistic longings hint at a desire for a previous mode of being, in terms of both a historical and an evolutionary timeline. He brings his wife Anita to the other side of the river in order to convince her to abandon machine-derived comforts in favour of fulfilling a retrograde lifestyle in a dilapidated cottage he purchases. The following statements are offered in relation to this antiquated piece of real estate: 'Somewhere, outside of society, there was a place for a man—a man and wife—to live heartily and blamelessly, *naturally*, by hands and wits' (p. 126, Emphasis in original); and '[h]ere was a place where he could work with his hands, getting life from nature without being disturbed by any human beings other than his wife [...] this completely authentic microcosm of the past' (p. 132). Although Proteus' concept of what is and is not 'natural' raises problematic issues related to defining the concept, in *Player Piano*, it is via the idea of an existence apart

from the machine that the narrative evokes the evolutionary human animal. The ancestral is summoned as a state to which the more 'advanced' Proteus can aspire. By lauding the atavistic, what is also addressed is the evolutionary history of the human. The question of the origin of the human and the lingering influence of that antecedent on human behaviour is raised by Proteus' atavistic daydreams.

Just as Proteus develops a sense of a kindred relationship to the cat that features in the initial scene of the novel, Proteus also forges a connection to his ancestral past:

Farming—now *there* was a magic word. Like so many words with a little magic from the past still clinging to them, the word "farming" was a reminder of what rugged stock the present generation had come from, of how tough a thing a human being could be if he had to. The word had little meaning in the present. There were no longer farmers, but only agricultural engineers.

(p. 127; emphasis in original)

Proteus expresses continual laudation and reverence for past methods of living, including farming and working with one's hands. After attempting a day of work at the farm adjacent to his newly purchased cottage, Proteus is described as having 'muscles [that] were tight from the unaccustomed rigours of the afternoon, and animal smells had communicated to him a feel of primitive strength' (p. 137).

Reverence for the atavistic and the animal is complicated when Proteus' colleague attempts to divide humans into categories. At one point Ed Finnerty exclaims: 'Those dumb bastards across the river—they're *my* kind of people. They're real, Paul, real!' (p. 123, Emphasis in original). Humans, in this sense, are split into two categories: 'real' (blue-collar physical labourers) and 'unreal' (white-collar office workers). The division is unsurprising at this point in the narrative, given that the first information the narrator

divulges to commence the narrative describes such partitions, noting that 'If the bridge across the Iroquois were dynamited, few daily routines would be disturbed. Not many people on either side have reasons other than curiosity for crossing' (p. 5). Having spent his life as an engineer and thus as privy to the lifestyle of the white-collar worker, Ed Finnerty and eventually Paul Proteus, too, begin to romanticise a life that rejects machines in favour of simplistic living. This reverie of reversion constructs a barrier between the idea of the machine and the idea of the human, and places the 'unreal' human with the machine, and the 'real' human with the animal. Ultimately, however, these divisions are undermined, as real, unreal, human, non-human, animal and machine ceaselessly intermingle, and even the best efforts of the revolutionary saboteurs are defeated by the already dismantled borderzones between entities. When Proteus first views the farm and cottage with the estate agent, Doctor Pond, he spots an old grandfather clock, and 'Indulging an atavistic whim, he set his watch to correspond with the hands of the relic, which grated and creaked away the seconds, sounding like a wooden ship straining in a strong wind' (p. 132). Yet, what Proteus fails to recognise is that the clock is still mechanical, it is merely an antiquated mechanism. The device is no different from any other machine against which Proteus harbours negative feelings. The scene draws attention to the relativist methods of determining hierarchies between the human and the machine. Proteus believes he is defeating the system by adhering to a grandfather clock rather than a more modern time-keeping device, but this moment merely demonstrates how the passing of time, literally and metaphorically, contributes to constantly changing

perceptions of what is and is not 'natural' or 'constructed', or even human, animal or machine.

James Mellard's interpretation of the text is conscious of the muddled space between the human, the past and the present. Mellard discusses how, formally speaking,

The language of *Player Piano* is less and less literate as we move from beginning to end [...] the mode for which Vonnegut is searching through the wreckage of *Player Piano*'s Ilium is the old popular oral mode of the storyteller expanded by the varied artifacts of print and electronic communications [...] The finale of *Player Piano*, with its blaring PA systems, omnipresent TV equipment, and radio announcements of the progress of the Ghost Dance rebellion [...] thrust us back into the circular, tribal, and acoustical world of nonliterate man.⁵

In a similar way to Ballard's *High-Rise*, Vonnegut's text has the capacity to thrust the human back into a pre-mechanized, even pre-linguistic phase, thus calling into question both the evolution of the human and the parameters that define the human category.

Mellard reinstates his argument by suggesting that

From *Player Piano* to *The Sirens of Titan*, Vonnegut moves from a traditional mode, associated with a visual model of the world, to a new mode that begins to re-create an acoustic model.⁶

Mellard's ideas reconnect to the theme of posthumanism, in that the human is questioned as a definitive category, whilst also re-intersecting with evolutionary principles regarding the human. The invasion of the human by that which is not traditionally deemed human is a major focus of *Player Piano*—one that incites rage and rejection at times, but also hesitancy and acceptance at others. As Reed puts it, '[i]n *Player Piano*, Kurt Vonnegut suggests that

⁵ James M. Mellard, 'The Modes of Vonnegut's Fiction: or, *Player Piano* Ousts Mechanical Bride and *The Sirens of Titan* Invade the Gutenberg Galaxy', in *The Vonnegut Statement*, ed. Jerome Klinkowitz (New York: Dell Publishing, 1973), pp. 178-203 (pp. 188-91).

⁶ 'The Modes of Vonnegut's Fiction', p. 201.

the system is corrupting, and that he is not very sure about man, either'.⁷ For all the overt distinctions and Cartesian confusions that plague the narrative, a blurring of boundaries ultimately informs and constructs the theoretical foundations of the text.

By the end of the novel, the saboteurs lose sight of their purposeful goal. With machine detritus strewn around them, other machines are salvaged. A group of engineers, egged on by a crowd of onlookers, are described fixing a soft-drink vending machine: 'The people applauded and lined up, eager for their Orange-O. The first man up emptied his cup, and went immediately to the end of the line for seconds' (p. 286). When Proteus rejoins his fellow leaders of the revolutionary movement, he drinks with them:

"To a better world," he started to say, but he cut the toast short, thinking of the people of Ilium, already eager to recreate the same old nightmare. He shrugged. "To the record," he said, and smashed the empty bottle on a rock.

(p. 288)

With the ultimate failure of the revolution, Proteus' atavistic daydreams are quashed by the weight of his own realisation of human transmutability. There is, the novel concludes, no real distinction between different humans, different animals and different machines.

Proteus' atavism, evoking ideas of the evolutionary animal, serves to demonstrate this point, and levels the position of the human in relation to the entities that surround it. *Player Piano* critiques the machinic system, and the characters rebel against over-lit realms.

Ultimately, however, the resultant effect of incursions on the notion of the 'natural' or the human is that the borders of the human are placed under scrutiny and left open to questioning. The revolution of the characters is located within the evolutionary concept of

⁷ Kurt Vonnegut, Jr., p. 55.

the human animal. This (r)evolutionary human is further investigated in Vonnegut's most famous text: *Slaughterhouse-Five*.

The Animal in the *Slaughterhouse*

Slaughterhouse-Five represents the human in relation to its evolutionary past and, consequently, the human can be considered an evolutionary animal. The text embodies the resultant interpretation of, or viewpoint on, the human required to conceptually assimilate evolution into comprehending the human, its environment and behaviour. This in itself is (r)evolutionary as it necessitates a reformation of the humanist conceit, while also incorporating evolution into the formulation of this altered stance. In addition, the characters' attitudes and viewpoints on the human are (r)evolutionary in their connotations.

Josh Simpson concludes his interpretation of what he calls the Troutean trilogy—*God Bless You, Mr Rosewater, Breakfast of Champions, and Slaughterhouse-Five*— with the following statement:

Vonnegut would argue that the fatal, damning flaw that resides at the heart of science fiction in general, and Kilgore Trout's novels in particular, is that, as a genre, it all too often seeks to find answers outside the universe, outside the human condition, and outside the realms of human kindness. The answers to the mysteries of the human condition, he would argue, can be found not in space or in theory, but rather, in humanity itself. As Trout ultimately learns, "We are only healthy to the extent that our ideas are humane".⁸

⁸ Josh Simpson, "'This Promising of Great Secrets': Literature, Ideas, and the (Re)Invention of Reality in Kurt Vonnegut's *God Bless You, Mr. Rosewater, Slaughterhouse-Five, and Breakfast of Champions*", or, "Fantasies of an

Though the overall sentiment of this statement poses problems for the argument constructed in this thesis—that Vonnegut’s texts move beyond the accepted parameters of humanism by incorporating posthumanist stances—the quotation is nonetheless important in that, as Simpson has identified, what is placed under the microscope in Vonnegut’s texts is the human, its social and biological construction, as well as its operational mode in the world. For the purposes of this thesis, analysis will focus on the depiction of the human as decentred, and thus in alignment with posthumanist concepts. Most notably, *Slaughterhouse-Five* depicts the concept of the evolutionary human animal in terms of the ‘zoo’.

The following description locates Billy in his zoo habitat:

And Billy travelled in time to the zoo on Tralfamadore. He was forty-four years old, on display under a geodesic dome. He was reclining on the lounge chair which had been his cradle during his trip through space. He was naked. The Tralfamadorians were interested in his body—*all* of it.⁹

Here, the human is objectified by the gaze of the ‘alien’. Vonnegut thereby inverts a common science fiction trope that portrays the alien ‘other’ as a source of curiosity and awe.¹⁰ In the most obvious sense, then, *Slaughterhouse-Five* inverts the idea of the Earth-inhabiting human population considering the zoo as a space where humans contain ‘lower’

Impossibly Hospitable World”: Science Fiction and Madness in Vonnegut’s Troutean Trilogy’, *Critique: Studies in Contemporary Fiction*, 45:3 (2004), 261-271, p. 270.

⁹ Kurt Vonnegut, *Slaughterhouse-Five*, or *The Children’s Crusade: A Duty-dance with Death* (1969; London: Vintage, 2000), pp. 80-81. Emphasis in original.

¹⁰ It should also be noted that the Tralfamadorian subplot inverts the science fiction trope of the threatening alien. Vonnegut comments, on the title page of *Slaughterhouse-Five*, that: ‘This is a novel somewhat in the telegraphic schizophrenic manner of tales of the planet Tralfamadore, where the flying saucers come from peace’ (Title page from *Slaughterhouse-Five*, no page number).

animal life forms. Yet, contrary to Sherryl Vint's point that the zoo in science fiction texts is often utilised to demonstrate an 'error in alien perception',¹¹ the zoo in Vonnegut's *Slaughterhouse-Five* is employed to identify the fallible mindset of the human characters, especially regarding their relationship to the animal and the evolutionary. The text illustrates an alien life form—the Tralfamadorians—constructing a zoo that features a human exhibit. While at first seemingly simplistic, it is this concept that underlies a general attitude represented by the narrative, most notably to do with notions of decentring the human and of transmutability, each of which connects directly the evolutionary human animal.

At one point in the narrative, Billy Pilgrim manages to share his experiences as a captive in a Tralfamadorian zoo on a public radio station. The narrator informs us:

He said, too, that he had been kidnapped by a flying saucer in 1967. The saucer was from the planet Tralfamadore, he said. He was taken to Tralfamadore, where he was displayed naked in a zoo, he said. He was mated there with a former Earthling movie star named Montana Wildhack.

(p. 19)

The presence of the Tralfamadorian subplot establishes the necessity of considering the human in conjunction with the evolutionary animal. This is achieved first in the way that the human is viewed as an animal contained in a zoo for the benefit of the curious Tralfamadorian public, a scenario that reinforces a decentred notion of humanity. In Vonnegut's *Slaughterhouse*, what is slaughtered is the provision of the humanist perspective on the human. The characters of Billy Pilgrim, as well as Montana Wildhack, are viewed as

¹¹ Sherryl Vint, *Animal Alterity, Science Fiction and the Question of the Animal* (Liverpool: Liverpool University Press, 2010), p. 173.

anomalous, as a variation from the 'normative' Tralfamadorian perspective, hence highlighting how the theme of objectification runs throughout the narrative. An example arises when Billy Pilgrim, browsing through a pornography store on Times Square in New York City, discovers the films of his fellow zoo-mate, Montana Wildhack (p. 149). Despite the fact that what lures Billy into the shop in the first place has nothing to do with the objectification of women through pornography,¹² it is this moment in the story when the parameters surrounding the idea of objectification are demonstrated. Via Wildhack's past occupation, Billy himself has the opportunity to 'objectify' Wildhack in the consumer marketplace.¹³ Yet both characters have already been scrutinised and objectified in their glass dome zoo-dwelling, under the Tralfamadorian gaze.

Here, then, the question of the human as an animal is brought to the forefront via the concept of transforming the human into the animal, theoretically speaking. The text suggests that, at this moment, the containment of the human in a zoo is not a prerequisite for exploring this process; it is, rather, the constant re-defining of the 'other' that continually establishes and reaffirms both objectification and constructs hierarchical visions of the universe. By drawing attention to the process by which objectification occurs, Vonnegut's text enables a moment of hesitation and speculation regarding this concept—both in terms of Billy and Montana's showcase display on Tralfamadore and via the sexual past of Montana Wildhack.

¹² A row of Kilgore Trout novels in the window display is responsible for enticing Billy into the shop (p. 146).

¹³ A satirical perspective on pornography is offered when the narrator notes that '[t]hey were making money running a paper-and-celluloid whorehouse. They didn't have hard-ons. Neither did Billy Pilgrim. Everybody else did. It was a ridiculous store, all about love and babies' (p. 148).

The text ultimately reverts towards a non-hierarchical vision of the universe in its precise ambivalence towards the idea of objectification. The text does not demonstrate any ire or remorse at either scenario of objectification. Peter Freese touches on the issue of acceptance in Vonnegut's text, noting that Billy 'abandons the concepts of free will and individual responsibility in favor of a resigned fatalism'.¹⁴ Similarly, Charles B. Harris claims that '[t]he main idea emerging from *Slaughterhouse-Five* seems to be that the proper response to life is one of resigned acceptance'.¹⁵ The text contains a simple, but poignant metaphor: In 'Billy's artificial habitat in a zoo on Tralfamadore' (pp. 55-56), the human is perceived by the Tralfamadorian visitors as an 'animal' in an Earth zoo would be perceived. At one point the narrator describes how 'their keepers were making the electric clocks in the dome go fast, then slow, then fast again, and watching the little Earthling family through peepholes' (p. 151). Instead of depicting horror and rage at such a scenario, however, the text employs an acceptance that comes to define the parameters of the characters' behaviours. Just as Billy Pilgrim encounters determinism in terms of his own personal timeline and this indicates a connection to the machinic human, Pilgrim's time on Tralfamadore highlights the relative relationship existing between the human and the animal on Earth. Objectification defines the parameters of the zoo and of Billy's encounter with pornography, thus instigating revised meanings of the human and the animal in the text.

¹⁴ Peter Freese, 'Kurt Vonnegut's *Slaughterhouse-Five*; or, How to Storify an Atrocity', in *Kurt Vonnegut: Modern Critical Views*, ed. Harold Bloom (Philadelphia: Chelsea House Publishers, 2000), pp. 73-87 (pp. 84-85).

¹⁵ Charles B. Harris, *Contemporary American Novelists of the Absurd*, (New Haven, Conn: College & University Press, 1971), p. 69. Harris also notes that this idea 'undercuts any anti-war sentiment found in the novel' (p. 69).

Combined with acceptance, objectification can be read as part of the thematic push towards the posthuman. In order to comprehend and inhabit the posthuman, a shift from the centrality of the human figure to a marginalization of the human's importance and authority must be achieved. The Tralfamadorian interest in the human body, exposed and unadorned, as well as their intellectual superiority, contributes to the posthuman shift. By depicting a 'human zoo', *Slaughterhouse-Five* continues its contribution to constructing the posthuman via an illustration of the human that is thoroughly unsanctified.

The All-Seeing Hand-Held Eyes of the Tralfamadorians

By placing the human in the position of animal in relation to the Tralfamadorians, the idea of human dominance is placed under scrutiny. As Jerome Klinkowitz reminds us, this particular alien species consists of 'funny little shafted figures, two feet tall and standing on green suction cups—looking for all the world like that most familiar and unglamorous of earthling devices, the plumber's helper'.¹⁶ It is first via the comedic (from the human perspective), appearance of the alien, that the idea of mastery is challenged.¹⁷ Though visibly 'inferior' (in human terms), the alien shows itself to be more 'advanced' and more capable, intellectually and philosophically. The Tralfamadorians have reached a more advantageous evolutionary stage, drawing attention to the misplaced assumption of

¹⁶ Jerome Klinkowitz, *Slaughterhouse-Five: Reforming the Novel and the World* (Boston: GK Hall, 1990), p. 56. Here, Klinkowitz is also discussing the 'aliens' of *Sirens of Titan* and *Slapstick*.

¹⁷ Klinkowitz points out that 'A very good way of disarming such pretensions is to have one's superior intelligences look like plumber's helpers' [Jerome Klinkowitz, *Structuring the Void: The Struggle for Subject in Contemporary American Fiction* (Durham: Duke University Press, 1992), p. 43].

human supremacy. The juxtaposition of human and 'alien' serves to further underscore how concepts such as human evolution and alien intelligence have the effect of displacing the human as an unquestionable arbiter of knowledge and behaviour. In Vonnegut's fictional scenario, the human can no longer be seen as the fulcrum of the system.

The narrator informs the reader of the Tralfamadorian perspective:

All moments, past, present, and future, have always existed, always will exist. The Tralfamadorians can look at all the different moments just the way we can look at a stretch of the Rocky Mountains, for instance. They can see how permanent all the moments are, and they can look at any moment that interests them. It is just an illusion we have here on Earth that one moment follows another one, like beads on a string, and that once a moment is gone it is gone forever.

(pp. 19-20)

Here, the narrative endows the 'alien' with a capacity beyond the remit of human functioning, thereby interrogating the humanist presumption of unquestioned human authority.¹⁸ Another example of hierarchical realignment can be found in the description of the Tralfamadorian perception of time:

Billy Pilgrim says that the Universe does not look like a lot of bright little dots to the creatures from Tralfamadore. The creatures can see where each star has been and where it is going, so that the heavens are filled with rarefied, luminous spaghetti.

(p. 63)

Todd F. Davis considers that Vonnegut's 'refusal to use chronological time [...] represents the dismissal of perhaps the most important totalizing myth in Western civilization. The idea behind chronological time as an organizing principle finds its impetus in our desire to

¹⁸ The Tralfamadorians also appear in Vonnegut's *The Sirens of Titan* and serve a similar role in relation to the theme of progress. In this text, for example, great human achievements, such as the construction of the pyramids or Stone Henge, are narrated as mere messages used to enable communication between two alien species.

show the orderly progression of “history”¹⁹. Here, the non-conventional, formalist features of the text relate to the re-organisation of the basic parameters that define experiences of living in the Western philosophical framework.

The mutability of time runs parallel to the mutability of the human definition emerging from a posthumanist reading of the text, and time thus serves as a gateway to discussing the text in terms of evolution and the posthuman. It is not the human outlook that prevails; it is not the human method that directs the course of events. It is even, as discussed above, the Tralfamadorian species that is ultimately responsible for the destruction of the universe. By reinstating the concept of superiority, this time in terms of the Tralfamadorians, the text calls into question the very notion of adhering unaccountably to such terminology. Also intertwined with a decentred representation of the human via the alien is a critique of the notion that human knowledge and activity is central to the Earth and the universe. The text goes so far as to imply that the human narrative is not the dominant one. The human does not write the history of the universe. That task is left to the Tralfamadorians.

Events comprising *Slaughterhouse-Five* suggest that the human is nothing more and nothing less than another element comprising the structure of the Earth and the universe it inhabits. Rackstraw relates to this aspect of the text: ‘Like Billy, we can be comforted to know that the message of the new physics and cosmology is that the elements of Earth are

¹⁹ Todd F. Davis, ‘Apocalyptic Grumbling: Postmodern Humanism in the Work of Kurt Vonnegut’, in *At Millennium’s End*, ed. Kevin A. Boon (Albany: State University of New York Press, 2001), pp. 149-65 (p. 158).

the same as those of the entire universe. We are all made of “star stuff”.²⁰ The conjoining of the human with the entire universe is at once aggrandizing and reassuring. Yet, to a humanist sentiment, it risks being interpreted as insulting or degrading. Uniqueness is supplanted by universality, thus leaving the foundations for superiority unsustainable. In response, a new language and set of terminologies emerges from Vonnegut’s texts, one through which the human can be spoken of in a non-traditional, non-humanist sense. The human depicted as evolutionary animal in the text is realized via the Tralfamadorian characters, thus enabling the human zoo thematic to converge with posthumanism, especially in its refusal to afford dominance or distinction to the human.

A host of critical responses comprise a debate that revolves around the ‘Tralfamadorian subplot’ of *Slaughterhouse-Five*, Billy Pilgrim’s sanity and the coping strategies employed as a result of wartime atrocities.²¹ This thesis argues, however, that what the subplot most succinctly demonstrates is the idea that perspectives beyond the human can and should be garnered. Freese comments that

Confronted with competing realities that depend upon the perceptions and value systems of their individual projectors, Vonnegut takes recourse to the science-fiction strategy of the Martian perspective and makes use of the opposition between

²⁰ Loree Rackstraw, ‘Quantum Leaps in the Vonnegut Mindfield’, in *At Millennium’s End: New Essays on the Work of Kurt Vonnegut*, ed. Kevin A. Boon (Albany: State University of New York Press, 2001), pp. 49-63 (p. 59).

²¹ The following critical texts contribute to a debate on this issue: Harold Bloom, ‘Introduction’, in *Kurt Vonnegut: Modern Critical Views* (Philadelphia: Chelsea House Publishers, 2000); Peter Freese, ‘Kurt Vonnegut’s *Slaughterhouse-Five*; or, How to Storify an Atrocity’; James Lundquist, *Kurt Vonnegut*; Peter J. Reed *Kurt Vonnegut, Jr.*; Josh Simpson, ‘“This Promising of Great Secrets”: Literature, Ideas, and the (Re)Invention of Reality in Kurt Vonnegut’s *God Bless You, Mr. Rosewater*, *Slaughterhouse-Five*, and *Breakfast of Champions*’; Hartley S. Spatt ‘Kurt Vonnegut: Ludic Luddite’; and Thomas L. Wymer, ‘Machines and the Meaning of Human in the Novels of Kurt Vonnegut, Jr.’, *The Mechanical God: Machines in Science Fiction*, ed. Thomas P. Dunn and Richard D. Erlich (London: Greenwood, 1982), pp. 42-52.

Earthlings and Tralfamadorians to demonstrate the dubiousness of the ontological distinction between fact and fiction.²²

Freese focuses on how the space between reality and fantasy is opened up by including the Tralfamadorian subplot as a reality experienced only by Billy Pilgrim. Yet, what the beginning of Freese's comment implies relates more directly to the argument of this thesis. It is the perceptual shifts imposed on the human by the alien that cause this subplot to have an impact beyond the narrative and into a philosophical realm that relates to posthumanism. Here, one can bear in mind Matthew Calarco's suggestion that anthropocentrism be abandoned in favour of a broadening perspective. Recalling the passage referred to in the Introduction to this thesis, when speaking of the theories of Darwin and de Waal, Calarco remarks that

The philosophical task we are presented with in the face of such discoveries consists in marking and recording these ruptures within philosophical discourse and in extending and deepening them so as to displace the anthropocentric-epistemological thrust that has dominated and continues to dominate the overwhelming majority of philosophical inquiry.²³

Cary Wolfe, too, offers a similar suggestion. Speaking of posthumanism, he states

It forces us to rethink our taken-for-granted modes of human experience, including the normal perceptual modes and affective states of *Homo sapiens* itself, by recontextualizing them in terms of the entire sensorium of other living beings and their own autopoietic ways of "bringing forth a world" — ways that are, since we ourselves are human *animals*, part of the evolutionary history and behavioral and psychological repertoire of the human itself.²⁴

²² 'Kurt Vonnegut's *Slaughterhouse-Five*; or, How to Storify an Atrocity', p. 80.

²³ Matthew Calarco, *Zoographies: The Question of the Animal from Heidegger to Derrida* (New York: Columbia University Press, 2008), p. 63.

²⁴ Cary Wolfe, *What is Posthumanism?* (Minneapolis: University of Minnesota Press, 2010), p. xxv. Emphasis in original.

Calarco and Wolfe deem the human as part of a spectrum larger than itself, and *Slaughterhouse-Five* stands as an example of a fiction that operates under these principles. This widening perspective continues to operate in the novel in terms of the evolutionary animal.

Evolution in the *Slaughterhouse*

If inclusion of the Tralfamadorian subplot reinforces the connection between *Slaughterhouse-Five* and characteristic features of posthumanism, then the evolutionary subplot of the text goes further towards establishing this link. *Slaughterhouse-Five* provides a brief foray into evolutionary concepts of adaptation. A reformed stance is required and formulated, with the assistance of an alien perspective. In this way, detecting how concepts of determinism interact with models of evolution leads to an amalgamation of these themes as complementary, contributory elements that further entrench the narrative in a posthumanist arena. In *Slaughterhouse-Five*, it is via evolutionary determinism that the text reconnects to the animal theme running throughout its pages. MacFarlane touches on this idea when he comments that:

Billy's flights of fantasy grow increasingly understandable as a human survival mechanism. There is traditional narrative cause and effect at work here. The man's amazing fortuitousness for barely surviving takes an increasing toll on his mental equilibrium.²⁵

²⁵ Scott MacFarlane, *The Hippie Narrative: A Literary Perspective on the Counterculture* (Jefferson, N.C.: McFarland & Co., 2007), p. 152.

Connecting back to the question of mental instability in relation to the Tralfamadorian subplot, MacFarlane touches on the idea of adapting to a given environment. Here, then, the text intersects yet again with the evolutionary human animal. MacFarlane's comments connect the thematic concerns of *Slaughterhouse-Five* to evolutionary theory, when, referring simultaneously to Richard Brautigan's *Trout Fishing in America* (1967) and Vonnegut's *Slaughterhouse-Five*, he states that 'Both works gained favor with a burgeoning counterculture that was open to ironic depictions of alienation where humans were trying to adapt to the modern condition'.²⁶ Such ideas are reminiscent of the discussion of adaptation in relation to Ballard's trilogy that recurred throughout Chapters Two and Three of this thesis. Once again, the human animal comes into confrontation with its own definitional parameters, but also with the margins between the human, the animal and the machine, with 'nature' versus the 'built environment'. As in Ballard, the interaction between human, animal and machine is what enables a debate regarding the human and its potential shift towards posthumanism. Evolutionary theory plays a small but significant role in *Slaughterhouse-Five*, further aligning the text with posthumanist discourse.

At one point the narrator comments that

Billy Pilgrim says that the Universe does not look like a lot of bright little dots to the creatures from Tralfamadore. The creatures can see where each star has been and where it is going, so that the heavens are filled with rarefied, luminous spaghetti. And Tralfamadorians don't see human beings as two-legged creatures, either. They see them as great millipedes—"with babies' legs at one end and old people's legs at the other," says Billy Pilgrim.

(p. 63)

²⁶ *Ibid*, p. 235.

Here, both the extracted and impenetrable perspective of the Tralfamadore and the notion of viewing the human as constantly changing and evolving are exhibited. Throughout the text, the narrator interacts with ideas based in evolutionary concepts. Later in the text, the following description is provided:

On Tralfamadore, says Billy Pilgrim, there isn't much interest in Jesus Christ. The Earthling figure who is most engaging to the Tralfamadorian mind, he says, is Charles Darwin—who taught that those who die are meant to die, that corpses are improvements. So it goes.

(p. 154)

It is unsurprising that the Tralfamadorians—notorious for their mechanistic and deterministic viewpoints—elect Darwin as their choice representative of human society. Here, the narrator presents a slightly sardonic view of evolutionary theory, but one that nonetheless attunes to the tone of the text. It is, after all, this position of the acceptance of death—of those things that one cannot change—that begins to mould Billy Pilgrim's reactions to events. The characters' acceptance of the evolutionary machine and its role in shaping their lives and environmental limits is implicit in the narrator's assumptions about the human. In this way, Vonnegut's text goes several steps beyond challenging the humanist notion of stasis and centrality regarding the human and, instead, utilises such notions as the foundation of characters' perceptions. This evolutionary in its wider theoretical applications and (r)evolutionary in terms of humanism. The vein of acceptance that runs throughout the narrative connects to a posthumanist perspective that takes into account the possibilities of evolutionary theory.

In *Slaughterhouse-Five*, humans are often viewed solely in terms of evolutionary advantage, such as the following description of a woman who attends Billy's anniversary

party: 'She was a dull person, but a sensational invitation to make babies. Men looked at her and wanted to fill her up with babies right away. She hadn't even had one baby yet. She used birth control' (p. 124). Depicting the woman, Maggie White, not as beautiful or attractive, but merely as a vessel capable of producing babies, is further indicative of how the style adopted by the text fosters a view of the human that is less sanctified and more pedantic. A similar instance occurs when Billy Pilgrim and his platoon meet two obstetricians after the bombing of Dresden. The narrator comments that: 'This couple, so involved with babies, had never reproduced themselves, though they could have. This was an interesting comment on the whole idea of reproduction' (p. 143). Genetic and evolutionary determinism are featured as matter-of-fact aspects of the human and its experience. Furthermore, the concept of adaptation plays a role in the narrative. In Billy Pilgrim's dream about giraffes, 'The giraffes accepted Billy as one of their own, as a harmless creature as preposterously specialized as themselves' (p. 72). In this deceptively simple passing comment, the idea of the human as unquestionably superior is confronted. *Slaughterhouse-Five* contains embedded notions of the human that align with posthumanist thinking. It is Vonnegut's 1985 novel, however, that contains the most overt and (r)evolutionary connections between the human, the evolutionary animal, evolutionary theory and posthumanism.

Galápagos and the Evolutionary Human Animal

Galápagos at once critiques and represents the concept of human evolution. The text narrates how environments—in this case the fictional island of Santa Rosalia—determine the trajectory of the human species, specifically over the course of one million years. Adaptability plays a significant role in the narrative. The human is once again portrayed as ‘species-ified’: subject to continual change over time and uncontainable within a specific, delimiting category. Such concepts become apparent when one recognises that underlying the narrative is a concern with inconsistency and volatility. In identifying these co-existent viewpoints as characteristics of the text, a posthumanist and a posthumanities approach can be deployed, taking into consideration both the subjectivity and the determinacy of the human species, as these ideas are represented in the text, while also integrating knowledge from beyond the text in order to interrogate the symbolic meaning of fictional occurrences.

Galápagos intersects with a posthumanities perspective in its provision of an overtly scientific rationale that functions as a foundation for plot events. As David Bianculli comments, ‘*Galapagos* is science fiction in the most literal sense: inventive speculation based upon a solid foundation of scientific knowledge’.²⁷ Thematic explorations, such as the evolution of the human, stand at the forefront of the narrative. At one point, the narrator identifies Darwin’s famous text as

the most broadly influential scientific volume produced during the entire era of great big brains. It did more to stabilize people’s volatile opinions of how to identify

²⁷ David Bianculli, ‘The Theory of Evolution, According to Vonnegut [A Review of *Galapagos* [sic]], in *The Critical Response to Kurt Vonnegut*, ed. Leonard Mustazza (Westport, CT: Greenwood, 1994), pp. 275-77, (p. 276), [Note: Bianculli’s piece fails to include a diacritical mark on the ‘a’ in *Galápagos*].

success or failure than any other tome. Imagine that! And the name of his book summed up its pitiless contents: *On the Origin of Species by Means of Natural Selection, or the Presentation of Favoured Races in the Struggle for Life*.²⁸

The above statement reinforces the idea of humans believing anything, no matter how absurd.²⁹ While it is apparent that Vonnegut critiques ‘scientific’ ideas, he also utilises them to construct his science-fiction tales. In his discussion of *Galápagos*, Donald E. Morse mentions that: ‘new theories in evolution also might account for the re-emergence of this theme in science fiction. Steven Jay Gould’s theory of “punctuated equilibrium” could, for example, provide a “rationalist discourse” for Vonnegut’s *Galápagos*’.³⁰ Vonnegut’s use of scientific theory in *Galápagos* displays precisely how evolutionary theory intersects with posthuman theory. The narrative comprises the capacity to represent a posthumanism that (r)evolutionises vistas on the human. One means of constructing this disruption of the human category is an infiltration of the evolutionary animal into the human definition.

Inevitable Adaptation: *Galápagos* and Evolutionary Determinism

Vonnegut’s selection of a title for his apocalyptic tale alludes to the evolutionary contents of the novel. While Santa Rosalia—the island named as the location for the fictional events of Vonnegut’s text—is a fabrication, the actual, existent Galápagos Islands are well known as a result of Darwin’s expedition, the ‘Voyage of the *Beagle*’ (1831-1836). As a result, the title

²⁸ Kurt Vonnegut, *Galápagos* (1985; London: Flamingo, 1994), p. 20. All further references to this text are to this edition and will be provided parenthetically.

²⁹ This concept is also represented via the narrator of *Breakfast of Champions* when he comments: ‘it was possible for a human being to believe anything, and to believe passionately in keeping with that belief—any belief’ [*Breakfast of Champions*; or, *Goodbye Blue Monday* (1973; London: Vintage, 2000), p. 25. Emphasis in original].

³⁰ Donald E. Morse, *The Novels of Kurt Vonnegut: Imagining Being an American* (Westport, Conn: Praeger, 2003), p. 152.

Galápagos has, at its foundation, an explicit relationship to Darwin and the theory of evolution.

Consequently, the thematic focuses of the novel involve evolutionary concepts, including the narrator's frequent consideration of the characters in terms of adaptive features. Like *Slaughterhouse-Five*, the connection becomes apparent in statements such as the following, which highlight, albeit comically, the evolutionary insignificance of certain characters, due to their inability to reproduce and leave offspring. When describing Selena's seeing-eye dog, Kazakh, who has been neutered, Leon Trout comments: 'Like Mary Hepburn, she was out of the evolutionary game. She wasn't going to leave her genes to anyone' (p. 45). In addition, when discussing *Sigfried von Kleist³¹—destined to be killed by a tidal wave caused by the bombing of Guayaquil by the Peruvian Air Force—the reader is informed that 'He was unmarried and had never reproduced, and so was insignificant from an evolutionary point of view' (p. 46). Finally, while Leon ponders what would have been different had all of the expected guests come aboard 'the Nature Cruise of the Century', he states that 'their survival wouldn't have amounted to a hill of beans, as far as evolution was concerned, if they didn't reproduce, and most of the women on the passenger list were past child-bearing age, and so not worth fighting for' (p. 148). In this manner, the text often provides a 'gene's eye view' of circumstances. The *Bahía de Darwin*, also referred to by the narrator as 'the new Noah's Ark' (p. 173), is at one point described as 'a ghost ship, out of sight of land and carrying the genes of her captain and seven of her ten

³¹ Vonnegut's use of an asterisk before a name denotes that the character will not survive the course of the novel.

passengers westward on an adventure which has lasted one million years so far' (p. 177). It is this delimited manner of viewing the human that persists throughout the narrative, and, while not without irony and jest, such conceptualizations come to dominate perspectives on the human espoused by the narrative. As in *Player Piano* and *Slaughterhouse-Five*, the narrator presumes that the human is an evolutionary animal. This overt and transparent treatment of the human as undeniably existing in the evolutionary spectrum is what makes Vonnegut's texts (r)evolutionary in their theoretical insinuations, and is what connects the narratives to the posthumanist realm of thinking.

Nonetheless, the idea of natural selection is not free from satire in Vonnegut's text.

In a discussion of reproductive success, the narrator comments that

Those who did reproduce a lot, though, and who might be thought to want so much property for the comfort of their descendants, commonly made psychological cripples of their own children. Their heirs were more often than not zombies, easily fleeced by men and women as greedy as the person who had left them too much of everything a human animal could ever want or need.

(p. 67)

Even if one views the text as a complete satire and lampooning of evolutionary ideas, the notions still drive the narrative events and contribute towards formulating a reformed perspective on the human. Despite repeatedly questioning one of the basic tenets of evolutionary theory, the text also relies upon its processes in order to construct the narrative, and to explain certain facets of the human. The most overt way in which the text constructs evolution as a reality, while also relating to the posthuman perspective, involves the illustration of the limited faculties of the human brain, a feature that was also discussed in Chapter Five.

Mary Hepburn's brain encourages her to commit suicide, corresponding to notions of the fallible human as frequently portrayed in *Galápagos*, from the depiction of a volatile economic system that leads to global meltdown, to the constant reminder of the human's 'oversized', yet largely unreliable brain. The narrator recounts:

Even at this late date, I am still full of rage at a natural order which would have permitted the evolution of something as distracting and irrelevant and disruptive as those great big brains of a million years ago. If they had told the truth, then I could see some point in everybody's having one. But these things lied all the time!
(p. 141)

Here, the change afforded by the process of evolution is questioned as a procedure that endows the human with a superior capacity. Since even the highly regarded human brain is depicted as faulty and unreliable in *Galápagos*, the notion of human advancement is scrutinized. The lying ability and untrustworthiness of the brain is reiterated throughout the text. Trout describes how 'brains back then were so big that they could actually deceive their owners' (p. 75); and recalls that '[t]hat was how bad things had become back in 1986. Nobody believed anybody any more, since there was so much lying going on' (p. 61). Each of these depictions recapitulates the relative lack of superiority possessed by the human, thereby lampooning the popular cultural insistence that the human species is dominant. Donald E. Morse concludes that the 'big brains' of the human characters are portrayed as 'the ultimate threat to the survival of humanity, of all life, and of the very planet itself'.³² Leonard Mustazza reinforces this idea when he states that '*Galapagos* is predicated upon the idea that the "great big brains" of which human beings are so proud really represent a

³² Morse, *The Novels of Kurt Vonnegut*, p. 152.

monstrous evolutionary error, a useless natural development that has caused people to act in self-destructive ways'.³³

The first half of the novel is entitled 'Book One: The Thing Was', in which the events preceding the sailing of the *Bahía de Darwin* are conveyed. Here, the human characters in the tale are initially portrayed as the reader would identify them, 'back in that era of big brains and fancy thinking' (p. 12). Yet still the text assumes a markedly distinct philosophical tone; glorification of the dominant Earth-bound creatures is abandoned in favour of Vonnegut's dry, witty approach to viewing the human evolutionary animal. The narrator ends the second chapter by asking: 'Can it be doubted that three-kilogramme brains were once nearly fatal defects in the evolution of the human race? [...] This was a very innocent planet, except for those great big brains' (p. 16). And, later in the narrative, the narrator, Leon Trout, describes the 'oversize human brain' as 'the only real villain in my story' (p. 216). The text, then, offers a thoroughly anti-human perspective on the human, and the narration does not disguise the notion that a degenerative process might in fact be considered an improvement for the human as it is known in the twentieth century.

The text intersects with posthumanist notions as the narrative reiterates the lack of supremacy possessed by the human, recounting instances where an adaptive feature resulting from evolutionary processes—the human brain—can be considered defective. One such example arrives via Mary Hepburn's husband Roy, who is deceased due to 'an inoperable brain tumour'. For Mary, Roy demonstrates 'how misleading a brain could be' (p. 41), thus calling into question the construction of knowledge, if one can never be sure

³³ Leonard Mustazza, 'A Darwinian Eden: Science and Myth in Kurt Vonnegut's *Galapagos*', p. 279.

whether the brain of a human is completely functional or not.³⁴ Mary reflects on this dilemma, speculating 'about all the supposedly great teachers of the past, who, although their brains were healthy, had turned out to be as wrong as Roy about what was really going on' (p. 41). Here, the construction of knowledge in society is also questioned. The narrative insists on the unreliability of the human organ—the brain—thereby questioning how a society can rely upon knowledge determined by such a device.

This question is posed prominently via the impetus that enables the narrative to proceed as a far-reaching evolutionary tale: a systemic economic crisis. Here, opinion is once again satirized as a human construction produced by the over-sized brains of twentieth-century *Homo sapiens*. The narrator describes the economic apocalypse as

a worldwide financial crisis, a sudden revision of human opinions as to the value of money and stocks and bonds and mortgages and so on, bits of paper, had ruined the tourist business not only in Ecuador but practically everywhere. So that the El Dorado was the only hotel still open in Guayaquil and the *Bahía de Darwin* was the only cruise ship still prepared to sail.

(p. 24; emphasis in original)

It is the financial crisis that leads to a global meltdown, which enables the sailing of the *Bahía de Darwin* to occur under revised circumstances. Yet the very premise that leads to this occurrence is interconnected with the overall themes of the novel, namely those concerning a critique of human superiority, based partially on the unreliable human brain. Darwin's theory is brought under speculation when the narrator comments that

³⁴ As discussed in the previous chapter, the protagonist of *Breakfast of Champions*, Dwayne Hoover, also provides a connection to the theme of the human as a machine, as well as to the effects and significance of determinism and environmental impact. The presence of this concept in *Galápagos* relates closely to Hoover's untrustworthy brain.

Darwin did not change the islands, but only people's opinions of them. That was how important mere opinions used to be back in the era of great big brains.

Mere opinions, in fact, were as likely to govern people's actions as hard evidence, and were subject to sudden reversals as hard evidence could never be [...] Thanks to their deceased brainpower, people aren't diverted from the main business of life by the hobgoblins of opinions any more.

(p. 22)

It is the presence of statements such as this that leads Mustazza to conclude that

To this common-sense approach to the matter of ethical responsibility, Vonnegut comically opposes the concept of determinism, the idea that all actions are determined not by volition but by obedience to immutable natural laws and causes.³⁵

Through Vonnegut's repeated inclusion of evolutionary ideas, the evolutionary human animal becomes apparent as a thematic device used within the tale of *Galápagos*. Yet it should be noted that, whether the text supports or condones these notions, invoking these concepts already presents a posthumanist view of the human, and, as such, the text serves as a space for pertinent debate regarding the human and its environment. Even notions of scientific knowledge are posed as questionable theories, a depiction that coincides with the associated questioning strategy of the scientific method itself. That the text draws uncertainties to the attention of the reader further reinforces its potential as a site for speculation and debate. The themes of 'opinion' and 'volatility' contribute to such debates.

Opinions about economic security and what constitutes value are satirized as fickle constructions dictated by trends in human society and subject to dramatic shifts according

³⁵ Leonard Mustazza, 'A Darwinian Eden: Science and Myth in Kurt Vonnegut's *Galápagos*', p. 281.

to human opinion. Here, the machine of the economy is placed under analysis. The situation is satirized when Leon Trout recounts:

They were suddenly saying to people with nothing but paper representations of wealth, “Wake up, you idiots! Whatever made you think paper was so valuable?” [...] It was all in people’s heads. People had simply changed their opinions of paper wealth, but, for all practical purposes, the planet might as well have been knocked out of orbit by a meteor the size of Luxembourg.

(p. 27)

Once again, then, a product of the functions of the human brain—opinion—is placed under scrutiny. Hence, the economic crisis that instigates the survival crisis that occurs on the *Bahía de Darwin* and Santa Rosalia is consociated with the themes of volatility and unreliability that also typify the text’s treatment of the idea of the human species. It is in this way that the narrative interacts with the posthuman position yet again, this time by highlighting the irregularity and capriciousness of the human. A further example occurs when Leon Trout narrates the unstable feelings between two characters, a husband and wife named Zenji and Hisako Hiroguchi:

In one second, *Zenji was inwardly cursing her for her helplessness, for being such a dead weight, and in the next he was vowing in his head to die, if necessary, for this goddess and her unborn daughter.

Of what possible use was such emotional volatility, not to say craziness, in the heads of animals who were supposed to stay together long enough, at least, to raise a human child, which took about fourteen years or so?

(p. 59)

The above passage contains a fragment of Vonnegut’s evolutionary critique. Throughout the text, the narrator questions the use of the big brains of humans, thus also questioning the evolutionary process that enabled these physical features to emerge. The following passage exhibits such a sentiment:

And if I were criticizing human bodies as they were a million years ago, the kind of body I had, as though they were machines somebody intended to put on the market, I would have two main points to make—one of which I have surely made by now in my story: “The brain is much too big to be practical.” The other would be: “Something is always going wrong with our teeth. They don’t last anything like a lifetime, usually. What chain of events in evolution should we thank for our mouthfuls of rotting crockery?”

It would be nice to say that the Law of Natural Selection, which has done people so many favours in such a short time, has taken care of the tooth problem, too. In a way it has, but its solution has been draconian. It hasn’t made teeth more durable. It has simply cut the average human life span down to about thirty years.
(p. 70)

The laws of natural selection are brought to bear in a satirical manner. Once again, it is suggested that the human species as it was in the twentieth century harbours many features extraneous to survival. Commentary also involves the narrator’s discussion of reproduction:

So I have to say that human brains back then had become such copious and irresponsible generators of suggestions as to what might be done with life, that they made acting for the benefit of future generations seem one of many arbitrary games which might be played by narrow enthusiasts—like poker or polo or the bond market, or the writing of science-fiction novels.

More and more people back then, and not just *Andrew MacIntosh, had found ensuring the survival of the human race a total bore.

It was a lot more fun, so to speak, to hit and hit a tennis ball.

(pp. 67-68)

Through comedic turns, the text combines a commentary on transmutability of the human species—via illustrations of evolution and adaptation—with a commentary on the volatility of human opinions, including those that determine definitions and comprehensions of concepts such as progress and the parameters of the concept of improvement, themes that will be discussed in more detail in the subsequent section of this chapter.

From one perspective, the limits of knowledge construction are challenged by the text's critique of an unreliable human organ capable of producing fabrications. From another perspective, however, the brain is construed as an evolutionary inevitability. Like Ballard's trilogy, Vonnegut's novels necessitate an amalgamation of theoretical approaches in order to draw out the meaning of the fictional representations contained within the narratives. Such a realisation intersects with Loree Rackstraw's remarks on Vonnegut. When drawing connections between *Slaughterhouse-Five* and Fred Allen Wolf's *Taking the Quantum Leap*, Rackstraw comments that Vonnegut's book 'intensified [her] long-time fascination with the interrelationship of the sciences and the humanities'.³⁶ It is at the precise intersection between evolutionary theory and posthumanist thinking that a posthumanities approach can be advanced.

In *Galápagos*, the characters are described in terms of their genetics; hence the gene is viewed as a determining characteristic of the human. Also, however, the circumstances that lead to certain events are seen as being determined by environmental and genetic factors beyond the possibility of conscious control. Throughout the text, environment and genetic pre-determinism combine frequently, presenting a thoroughly posthumanist and posthumanities representation of the human. An example arrives via the brief appearance of a character named Eduardo Ximénez, a pilot who transports six orphan girls of the Kanka-bono tribe from the Ecuadorian rainforest to the city of Guayaquil, and whom Trout therefore recognizes as contributing to the future trajectory of the human species:

³⁶ 'Quantum Leaps in the Vonnegut Mindfield', p. 49.

Ximénez was one aviator who had quite a lot to do with the future of humanity. And another one was an American named Paul W. Tibbets. It was Tibbets who had dropped an atomic bomb on Hisako Hiroguchi's mother during World War Two. People would probably be as furry as they are today, even if Tibbets hadn't dropped the bomb. But they certainly got furrer faster because of him.

(pp. 127-28)

This complicated sequence of events is implicated as a partial cause for the resultant transmutation of the human. Several other key players in the unfolding events are also described, including the paranoid schizophrenic soldier, Private Geraldo Delgado. During the course of his 'big brain [...] telling him all sorts of things that were not true' (p. 122), Delgado breaks into a shop that has formed part of the barricade blocking the citizens of Guayaquil from entering the resource-rife Hotel El Dorado. As a result of these actions, he unwittingly transforms the course of humankind for the next million years. In relation to these events, the narrator first comments that 'Everybody alive today should thank God that this soldier was insane' (p. 122), and later remarks that 'This breach was his contribution to the future of humankind, since very important people would pass through it in a very short while, and reach the hotel' (p. 124). The fragile chain of events leading to a particular outcome is thus narrated. Here, Trout is speaking of the six Kanka-bono girls, the homeless orphans who enter the shop seeking food, and hence enter the hotel and later the ship bound for Santa Rosalia, where they alter the genetic, cultural and sociolinguistic makeup of future generations of humans. Here, the idea of the evolutionary machine impacting upon the evolutionary human animal intersects with notions of a machinic determinism that informs the trajectories of events, as discussed in Chapter Five.

Regardless of whether the reader assumes a theoretical stance derived from the text's intersections with scientific theories of evolution, or via the text's interaction with principles of social constructionism, it is the concept of change that perseveres and unites these seemingly conflicting viewpoints. The tale of *Galápagos* most prominently plays with ideas surrounding evolution and posthumanism via the concept of adaptation. As Trout informs the reader: 'the Law of Natural Selection did the repair job without outside assistance of any kind' (p. 234). The story is a balanced combination that both critiques and utilizes evolutionary concepts. Via the theoretical standpoints that underpin the narrative, the text converges with posthumanist theory as outlined in terms of the three criteria discussed in this thesis. In addition, a posthumanities approach is warranted by the inclusion of scientific concepts, and, as such, enables a multi-faceted, enriched perspective on the human to emerge.

Galápagos recounts the process of survival through adaptation that occurs on the island of Santa Rosalia; hence, the text continually stresses the role of the environment, of events coinciding, and of adaptation to a specific task associated with survival as contributing factors for evolutionary continuation.³⁷ At one point, Trout comments that

Dogs back then were far superior to people when it came to distinguishing between different odours. Thanks to Darwin's Law of Natural Selection, all human beings now have senses of smell as acute as Kazakh's. And they have surpassed dogs in one respect: They can smell things underwater.

(p. 68)

Here, the notion of human superiority is once again reversed as Trout suggests that twentieth-century dogs have features that might be deemed more useful than anything a

³⁷ This concept is reminiscent of the evolutionary depictions that characterize Ballard's trilogy

human could claim as a skill. Yet also implied by this statement is that the future human has adapted a skill that has enabled it to survive in an aquatic environment. Trout notes that

A million years ago, there were passionate arguments about whether it was right or wrong for people to use mechanical means to keep sperm from fertilizing ova or to dislodge fertilized ova from uteri—in order to keep the number of people from exceeding the food supply.

That problem is all taken care of nowadays, without anybody's having to do anything unnatural. Killer whales and sharks keep the human population nice and manageable, and nobody starves.

(p. 101)

A degree of inevitability is implied regarding evolution; the environment will dictate what organism emerges and survives on its turf. Due to a sequence of events and coinciding factors, the future human of *Galápagos* is a more peaceful, though less machinically-inclined organism. Leon Trout questions:

Why so many of us a million years ago purposely knocked out major chunks of our brains with alcohol from time to time remains an interesting mystery. It may be that we were trying to give evolution a shove in the right direction—in the direction of smaller brains.

(p. 168)

The text narrates the conversion of the human species from big-brained bipedal primate to flipper-wielding amphibian as advantageous, not only due to the environment in which this evolution occurs—which implies the necessity of the change—but also because of the destruction that the twentieth-century human produced and fostered. Morse comments on this phenomenon, stating that

This chimera of a world without machines, without modern technology, will be further explored even more imaginatively in *Galápagos*, where human beings will

reduce, or have reduced for them by evolution, their needs to the basic ones of food, safety, and reproduction.³⁸

This reduction of humans to survivalist and evolutionary imperatives is conveyed as a positive transmutation for the twentieth-century human. Morse supports this notion, noting that 'In *Galápagos* latter-day human beings slowly evolve over eons into less destructive and far more loveable, furry, polymorphously perverse, aquatic creatures, thus ensuring their own survival in the far future, along with that of other beings and of the very planet itself'.³⁹ These ideas draw attention to the critique of progress contained in the text, which will be discussed in the subsequent section of this chapter.

Ultimately, *Galápagos* shows how a series of random events can inaugurate the process of 'survival of the fittest', thereby speculating that the notion of 'efficiency' is completely interdependent with particular circumstances, environments and activities. Determinism, in other words, has many different faces, from the genetic to the environmental to the circumstantial. The text balances determinism with constructionism in these precise instances. When speculating whether the outcome might have been different had more males been present on Santa Rosalia to participate in the process of reproduction, Trout concludes that 'In the long run, the survivors would still have been not the most ferocious strugglers but the most efficient fisherfolk. That's how things work in the islands here' (p. 149). Again, a degree of inevitability presents itself in relation to

³⁸ Donald E. Morse, *The Novels of Kurt Vonnegut: Imagining Being an American* (Westport, Conn: Praeger, 2003), p. 109. Here, too, Morse discusses how *Slapstick* returns to this theme of a world without machines, as it was first portrayed in *Player Piano*.

³⁹ Donald E. Morse, 'Thinking Intelligently about Science and Art: Kurt Vonnegut's *Galápagos* and *Bluebeard*', in *Kurt Vonnegut: Modern Critical Views*, ed. Harold Bloom (Philadelphia: Chelsea House Publishers, 2000), pp. 125-135 (p. 135).

evolutionary processes, but, at the same time, expectation is also entangled with environment and genetics. As Trout reports:

And now it appears to me that the tale I have to tell, spanning a million years, doesn't change all that much from beginning to end. In the beginning, as in the end, I find myself speaking of human beings, regardless of their brain size, as fisherfolk.
(p. 49)

The changing human is depicted, determined by its environment to transmute into a 'fit', or adapted, organism, hence making the theme of evolution essential to the plot of *Galápagos*.

In his discussion of the text, Leonard Mustazza invokes J. Norman King's idea that humanity now looks to the future as much as to the past, supplanting fixity with creation and change,⁴⁰ a statement which relates to the prevalence of adaptation as a theme in Vonnegut's text, and also to the transmutability of the human. In *Galápagos*, the future is looked to, but only in terms of how the human will adapt to its environmental needs in order to survive. Not only is the human considered as indistinct, in terms of efficiency or authority, from other animal species, but also the human is portrayed as incapable of affecting its own evolutionary trajectory. Recalling the discussion centred on participant evolution outlined in Chapter Two, consider Brian Baxter's notion of controlling evolution, when he questions: 'Should we not seek rather to escape the nightmare of natural selection, and put as much distance as possible between ourselves and natural processes/entities?'⁴¹

Considering evolutionary processes as nightmarish possibilities is exactly what Vonnegut's

⁴⁰ Paraphrased from Leonard Mustazza, 'A Darwinian Eden: Science and Myth in Kurt Vonnegut's *Galápagos*', in *The Critical Response to Kurt Vonnegut*, ed. Leonard Mustazza (Westport, CT: Greenwood, 1994), pp. 279-289, (pp. 285-286). This, in turn, is a reference to J. Norman King's 'Theology, Science Fiction and Man's Future Orientation', in *Many Futures, Many Worlds: Theme and Form in Science Fiction*, ed. Thomas D. Clareson (Kent State University Press, 1977).

⁴¹ Brian Baxter, *A Darwinian Worldview: Sociobiology, Environmental Ethics and the Work of Edward O. Wilson* (Aldershot; Burlington, VT: Ashgate, 2007), p. 12.

text seeks to redress. *Galápagos* inverts notions of evolution as a gradual progression towards 'higher', or more 'advanced' organic systems and instead suggests that the evolutionary trajectories of the human are determined by adaptive measures. Participant evolution is present in Vonnegut's texts only insofar as the characters have the power to select a given environment. In *Galápagos* that power is nonexistent, as chance and accident strand the ship on Santa Rosalia. Instead, a combination of environmental factors and genetic determiners act together in the narrative to produce a transmuted human entity. The human, as twentieth- and twenty-first-century readers might understand it, does not survive. Yet this is largely because the human as understood from a humanist perspective relies upon a conception of fixity. The human does survive, but only because it adapts and only because it becomes, in humanist terms, 'other' than human. Stasis as an idea is not viable in the settings provided by Vonnegut. The evolutionary human animal thereby becomes the fulcrum around which Vonnegut's plot revolves. Of all the texts analysed throughout this thesis, it is *Galápagos* that most overtly explicates and represents how the evolutionary animal conjoins with the human, thus destabilising traditional perceptions of the human and necessitating a (r)evolutionary theoretical shift.

Adaptation and the Critique of Progress

The tale outlined in *Galápagos* suggests that complete and blind adherence to the idea of natural selection as always affording ultimate 'progress' — as a twentieth- or twenty-first-

century reader might understand the term—is a misguided means of comprehending evolutionary theory. After narrating the deaths of two athletic, intelligent and successful men—the multi-millionaire Andrew MacIntosh and the inventor of Mandarax, Zenji Hiroguchi—Trout offers a satirical commentary, observing that ‘the sun was going down on a world where so many people believed, a million years ago, that only the fit survived’ (p. 124). Here, Vonnegut is playing with the turn of phrase: Darwin’s notion of natural selection discussed the best fit for the given environment, not merely arbitrary notions of ‘fitness’ as a universal principle that exceeds time and place. Survival of the fittest as a notion is very much interconnected with both time and place, in both Vonnegut’s and Darwin’s accounts. In a discussion of the ‘flightless cormorant’ that inhabits the Galápagos Islands, the narrator comments that

Somewhere along the line of evolution, the ancestors of such a bird must have begun to doubt the value of their wings, just as, in 1986, human beings were beginning to question seriously the desirability of big brains.

(p. 35)

The narrator continues, discussing the shift from flight to flightlessness that, according to Darwin, influenced the selection of the cormorant’s features. A parallel is made to the fictionalized evolution of the human:

Now the very same sort of thing has happened to people, but not with respect to their wings, of course, since they never had wings—but with respect to their hands and brains instead. And people don’t have to wait any more for fish to nibble on baited hooks or blunder into nets or whatever. A person who wants a fish nowadays just goes after one like a shark in the deep blue sea.

It’s so easy now.

(p. 35)

Just as in Ballard's texts, the human survives; simply in a different form. Once again, it is not the human that is under scrutiny, *per se*, but the consideration of any category as necessarily 'fixed' once determined as sharing defining features. The human must, yet again, be seen transmutable.

Leon Trout summarises the plot of a Kilgore Trout science fiction novel called *The Era of Hopeful Monsters*:

It was about a planet where the humanoids ignored their most serious survival problems until the last possible moment. And then, with all the forests being killed and all the lakes being poisoned by acid rain, and all the ground-water made unpotable by industrial wastes and so on, the humanoids found themselves the parents of children with wings or antlers or fins, with a hundred eyes, with no eyes, with huge brains, with no brains, and on and on. These were Nature's experiments with creatures which might, as a matter of luck, be better planetary citizens than the humanoids. Most died, or had to be shot, or whatever, but a few were really quite promising, and they intermarried and had young like themselves.

(p. 71)

Similar to Kilgore Trout's plotline, *Galápagos* depicts the human animal adapting to its surroundings. The conclusion of both tales involves the 'humanoid' form being supplanted by an improved model with a better chance of surviving. *Galápagos* narrates an alternative evolutionary trajectory by locating the surviving human characters in a specific environmental space: the fictional Galápagos island of Santa Rosalia. Evolution is not portrayed as necessarily synonymous with current definitions and notions of 'improvement' or 'progress'. Evolution is synonymous only with adaptation—improvement for surviving in a specific milieu. Oliver Ferguson reminds us that 'through the inexorable process of natural selection, the inhabitants of Santa Rosalia underwent physiological and behavioral modifications that brought them into perfect harmony with

their environment'.⁴² Progress and evolution are interrelated in *Galápagos*, each contributing to an inversion of the notion of forward advancement.

In this sense, what can be considered a critique of progress in Vonnegut's text can also be related back to Ballard's critique of systemic progress. Discussed in Chapter Two in terms of the machine and maladaptation, Ballard's texts scrutinize the parameters of 'progress' by implying that the human tendency to move 'forward' and advance technologically is not necessarily conducive to the existent biological and inherited social systems of the evolutionary human animal. Vonnegut's texts identify problematic assumptions underpinning humanist philosophy and, through the voice of a disenchanted narrator, Leon Trout, *Galápagos* is able to question humanist assumptions regarding progress. Evolution is the vehicle by which this critique is enacted.

In *Player Piano*, the scrutiny of progressive notions is highlighted by the machinic system, while the events that transpire in *Galápagos* construct the critique via evolutionary themes. If the human cannot be considered more 'advanced' due to its technology, as *Player Piano* suggests; and, if the human cannot be considered more 'advanced' because of its evolutionary adaptations, as *Galápagos* suggests, then what is called for is a realignment of theoretical stances that assume human superiority. The fictional scenarios depicted in these texts, and in *Slaughterhouse-Five* as well, indicate the need for such a reconfiguration.

Considering the critique of progress that sits at the centre of *Galápagos*, the text does not illustrate a scenario that is retrograde; rather, it is evolution moving along its own

⁴² Oliver W. Ferguson, 'History and Story: Leon Trout's Double Narrative in *Galápagos*', in *Critique: Studies in Contemporary Fiction*, 40:3 (1999), 230-38 (p. 230).

trajectory. Notions of progress defined by human means do not necessarily hold up under the scrutiny of evolutionary transmutation. The texts that comprise J.G. Ballard's trilogy suggest that the human species has not (and potentially cannot) change as rapidly as the artificial terrain they have constructed and continue to construct around themselves, hence leading to a problematic relationship between adapting organism and machinic setting. Vonnegut, too, touches upon this problematic relationship between the human and aspects of the technological milieu it has constructed around itself. The text addresses the relative inability of the human species to adapt to a situation that is artificially constructed. When discussing war technology, the narrator intones that 'the Law of Natural Selection was powerless to respond to such new technologies. No female of any species [...] could expect to give birth to a baby who was fireproof, bomb-proof, or bullet-proof' (p. 120). When it comes to the theme of adaptation to non human-made environments, however, the narrative suggests that the evolutionary human animal will change to suit its own survival. Such is the case in *Galápagos*, where the arrival of the *Bahía de Darwin* on the island of Santa Rosalia spurs the process of adaptation to commence.

Morse provides an interpretation of *Galápagos* that is integral to this discussion, successfully connecting Vonnegut's utilisation of evolutionary tropes to the misplaced notions of both evolution and progress that plague cultural understandings and are largely based on humanist thinking, theoretically speaking. For this reason, of the six texts selected for analysis throughout this thesis, *Galápagos* stands as the most direct representation of a critique of humanism. *Galápagos* most clearly contains and depicts the (r)evolutionary features of Vonnegut's oeuvre. Morse's interpretation unwittingly relates to the

significance of evolutionary theory, as well as to its interaction with posthumanism. Morse invokes the misreading of Darwinian 'progress' that often afflicts understandings of evolutionary theory, commenting that

Popular views of progress often equate it with increasing complexity as well as with motion and speed. The notion of life ever advancing toward more complexity comes about in part through misconstruing Darwin's observation that local adaptability to changed or changing conditions leads to the establishment of new species.⁴³

This position is exhibited in *Galápagos*; the human characters evolve, but only insofar as they adapt to their surrounding environment. Robert Foley discusses the dilemma of representing evolution as strictly progressive, commenting that

Naturally, in this progression, humans—or more objectively, intelligent social beings—are a progression from unintelligent, solitary ones. Humans represent the next or most recent stage of evolutionary progression. It is only natural, given the complexity of the human world, to place them at the top of the evolutionary scale, and that evolution should be seen as a ladder leading to ourselves perched, albeit precariously, on the top rung.

The problem is that while there may be directional trends in evolution that we can observe from the vantage point of hindsight, there is a logical error in inferring from this that the mechanism of change is also a progressive one...the process [of evolution is] rather contrary to the idea of a ladder.⁴⁴

Foley proceeds to draw on Stephen Jay Gould's consideration of evolutionary change as a 'bush' rather than a ladder,⁴⁵ an approach that challenges the notion that evolution is necessarily 'progressive', thus calling into question the notion of progress itself, as well as the relationship between progress and the human. Foley notes that '[F]ar from being a

⁴³ Donald E. Morse, 'You Cannot Win, You Cannot Break Even, You Cannot Get Out of the Game: Kurt Vonnegut and the Notion of Progress', in *At Millennium's End: New Essays on the Work of Kurt Vonnegut*, ed. Kevin A. Boon (Albany: State University of New York Press, 2001), pp. 91-104 (p. 93).

⁴⁴ Robert Foley, *Humans Before Humanity, An Evolutionary Perspective* (Oxford; Cambridge, MA: Blackwell Publishers, 1995), p. 94.

⁴⁵ Stephen Jay Gould, *Ever Since Darwin: Reflections in Natural History* (New York: W. W. Norton & Company, 1977), pp. 61-62.

simple linear progression, the line leading to humans is itself made up of a number of branching events',⁴⁶ and, [T]he path from *Homo erectus* to *Homo sapiens* is not quite as straightforward as it seemed'.⁴⁷ Stephen Jay Gould supports this notion, postulating that

the Darwinian revolution remains woefully incomplete because, even though thinking humanity accepts the fact of evolution, most of us are still unwilling to abandon the comforting view that evolution means (or at least embodies a central principle of) progress defined to render the appearance of something like human consciousness either virtually inevitable or at least predictable. The pedestal is not smashed until we abandon progress or complexification as a central principle and come to entertain the strong possibility that *H. [Homo] sapiens* is but a tiny, late-arising twig on life's enormously arborescent bush — a small bud that would almost surely not appear a second time if we could replant the bush from seed and let it grow again.⁴⁸

The above statements redress the concept of humanity as either inevitable or superior, hence relating directly to the narrative functions of Ballard and Vonnegut. Robert Foley expresses a similar notion when he says that 'Put simply, the characteristics that are "human", both behaviourally and anatomically, are nothing more than the solutions preferred by natural selection out of the many strategies possible in the world of biological problems'.⁴⁹ Perspectives such as this reconfigure attitudes towards humans and humanity by proposing the possibility that evolution cannot be considered in terms of 'progress'; therefore, humans cannot be perceived as the 'highest' species on an evolutionary ladder. This notion is overtly represented in Vonnegut's narrative.

⁴⁶ *Humans Before Humanity*, p. 72.

⁴⁷ *Ibid*, p. 90.

⁴⁸ Stephen Jay Gould, 'The Evolution of Life on Earth', *Scientific American*, 4 (1994), 85-91 (p. 91).

⁴⁹ *Humans Before Humanity*, p. 135.

In Morse's analysis of the text, he indicates that there is no 'evidence for assuming that humans are indeed the goal of evolution rather than an adaptation to local conditions'.⁵⁰ The result of evolution, in Vonnegut's text, is not a 'superior' species' —in most cases it would be viewed as 'inferior', even—but with the guidance of Leon Trout's narrative voice, the plot propels interpretative possibilities towards regarding devolution as a necessary, or even positive transmutation for the human species. Morse continues his discussion of *Galápagos* by quoting Stephen Jay Gould and invoking his idea that humans are merely an unpredictable accident.⁵¹ Morse asserts that, '[i]n *Galápagos*, Vonnegut reverses the cliché of humanity marching ever onward and upward'.⁵² The text illustrates a process whereby humans are 'adapting to local conditions [...] Neither the strongest nor the most complex survive, but the fastest and best at adaptation'.⁵³ Again, Morse highlights the idea that '[r]ather than viewing species as superior or inferior, Darwin emphasized their differences, especially those differences that enabled certain species to survive changing conditions'.⁵⁴ It is this very premise on which Vonnegut rests *Galápagos'* narrative events, hence calling attention to critiques of progress, in both the societal and the evolutionary sense. It is the distinction between progress and adaptation that Vonnegut's stories stress time and again. These ideas relate to the critiques of progress outlined in Ballard's trilogy, as well as in *Player Piano* and *Slaughterhouse-Five*. Theories regarding the evolutionary human animal are thus called into action, including those of Morris and de Waal

⁵⁰ 'You Cannot Win, You Cannot Break Even', p. 93.

⁵¹ *Ibid*, pp. 93-94.

⁵² *Ibid*, p. 94.

⁵³ 'You Cannot Win, You Cannot Break Even', p. 94.

⁵⁴ *Ibid*, p. 94.

concerning the relationship between the evolutionary human animal and the artificial environments of twentieth-century Western societies. Vonnegut's texts thus contribute to the formation of a posthumanist perspective. Via the notion of 'progress', especially in terms of evolution, the text calls into question social and evolutionary interpretations regarding the human, reinforcing the human as an evolutionary animal. Finally, *Galápagos*, like the texts of Ballard's trilogy, illustrates the positive change that arises from the evolutionary, devolutionary, or (r)evolutionary shifts contained within its plotline.

'[A]ll because evolution took their hands away'⁵⁵: A Positive Perspective on Degeneration

Instead of narrating the fictionalized devolution of the human species from big-brained primates to flipper-wielding amphibians as apocalyptic, the event is accompanied by sentiments of relief. As Morse notes, '*Galápagos* retains an air of optimism and joy'.⁵⁶ Similar to characters in Ballard's texts, acceptance accompanies what might otherwise be construed as devastating change and traumatic upheaval. As outlined in the Introduction to this thesis, as well as in the analyses of Ballard's fiction, this notion of acceptance tends to characterise 'posthuman science fiction'.

Leon Trout recounts an enquiry posed to his father regarding family lineage, to which Kilgore Trout responds: "'you are descended from a long line of determined, resourceful, microscopic tadpoles—champions every one'" (p. 128). The angle exemplified

⁵⁵ See *Galápagos*, p. 151 for full quotation.

⁵⁶ *The Novels of Kurt Vonnegut*, p. 145.

in Trout's reminder of the miniscule derivations for the human prototype could be said to characterize *Galápagos*; the text constantly incorporates reminders that the human is just another organism, with constituent beginnings and no definitive access to privileged status. David Bianculli notes that *Galápagos* proceeds in 'treating the disappearance of the humanity we know as no more emotionally meaningful than the plight of the *Galapagos* tortoise. Which, of course, is precisely the point'.⁵⁷ Here, Bianculli calls attention to the idea that the human can be likened to the animal, but also that the human is not an object to be revered, but just one more animal surviving and evolving amidst many other species.

The captain of the *Bahía de Darwin*, Adolf von Kleist reinforces this sentiment:

The Captain looked up at the stars, and his big brain told him that his planet was an insignificant speck of dust in the cosmos, and that he was a germ on that speck, and that nothing could matter less than what became of him. That was what those big brains used to do with their excess capacity: blather on like that. To what purpose? You won't catch anybody thinking thoughts like that today.

(pp. 160-61)

On the one hand, this passage reiterates the outlook of the narrator: the human is insignificant in relation to its surroundings. Yet at the moment that the narrator, a human, gives credence to such notions, he rescinds any possibility of immunity from fault; he himself uses his oversize brain—albeit spectrally—for wasting time and energy on philosophical speculation. The moment that the human is aware of its own insignificance is exactly the moment when the parameters of that insignificance become even more pronounced. In his discussion of *Galápagos*, Boon suggests that

The way to limit inhumanity is to simply stop being human. Without our big brains we do not perceive chaos (though chaos is still occurring in the form of "natural"

⁵⁷ 'The Theory of Evolution, According to Vonnegut', p. 277.

weather) and we cannot create artifactual laws to mandate the shape of order. In effect, what Vonnegut is telling us is that life becomes simple when we become simple.⁵⁸

In a similar sense, then, instead of praising the 'big-brained' human for realising its own triviality, Trout instead attacks the human for its ability to construct complicated thought patterns.

Trout looks to the literal post-human future of which he has foreknowledge—in other words, the evolved human on Santa Rosalia—in order to assess what he considers to be the dysfunctional qualities of the twentieth-century human. To Trout, 'The Thing Was' is synonymous with, for example, the thing was horrific, wasteful, cruel and maladapted; and, 'And the Thing Became'—the title of 'Book Two'—is synonymous with the thing became a peaceful, sustainable organism living in harmony with its environment. Rather than depicting the degeneration of the human species, as fictionally narrated herein, as a travesty or a dystopic outcome, the text raises the tenets of evolutionary theory in order to satirize the perception of evolution that tends to dominate popular cultural understandings of the process. Continually, survival is discussed in the text as a process of adaptation, rather than as a continual accrual of more 'advanced' bodily and technological features. Rackstraw proposes that 'Vonnegut suggests a sense of levity and an adaptive mode of behavior to cope with a paradoxical cosmos'.⁵⁹ Ballard's texts can be read as critiquing notions of machinic progress, causing readers to pause and speculate where and when,

⁵⁸ Kevin A. Boon, *Chaos Theory and the Interpretation of Literary Texts, The Case of Kurt Vonnegut* (Lampeter: Edwin Mellen Press, 1997), p. 137.

⁵⁹ 'Quantum Leaps in the Vonnegut Mindfield', p. 61. [Note: As this is a publication originating from the United States, the American spelling of 'behavior' has been maintained.]

exactly, advancement became synonymous and inextricably linked with evolutionary progress. In addition, Ballard's trilogy raises the question of whether survival becomes a less prominent consideration the more technological innovation cloaks the human user and inhabitant. Vonnegut's texts perform similar interrogations, especially concerning the matter of how the human itself, and necessarily the human perspective on existence, influences the way society changes and is changed. Yet instead of adhering strictly to the New Wave trend of scientific critique, the texts utilize scientific thought in order to provoke critiques of resultant theories and the attitudes such findings might incite.

Specifically, the narrative of *Galápagos* reminds readers of the miniscule time periods that can be witnessed and comprehended by the human. As Leon Trout notes, when attempting to make conclusive statements about evolution and the human species: 'Then again, I've only been here for a million years—no time at all, really' (p. 235).⁶⁰ *Galápagos* purports that humans, as they exist during the time of the text's publication, are misfits with their environment, and that their eventual transformation into 'flippered fisherfolk' is a positive change. As discussed earlier, the big brain of the human is portrayed as a questionable evolutionary advantage. The narrator describes as a key to survival on Santa Rosalia, the absence of tools:

If the Captain had had any decent tools, crowbars and picks and shovels and so on, he surely would have found a way, in the name of science and progress, to clog the spring, or to cause it to vomit the entire contents of the crater in only a week or two.
(p. 217)

⁶⁰ This statement can be related to Vonnegut's earlier novel, *Slaughterhouse-Five*, where the Tralfamadorian perspective of viewing all 'time' simultaneously is presented in comparison to the human conception of time as linear.

Acceptance defines the parameters of transmutation in *Galápagos*. Bianculli reiterates this idea when he comments that 'Vonnegut's conclusion is disheartening only if the reader brings to the book a rooting interest in the human race. Otherwise, the demise of mankind's incredibly destructive rule can persuasively be called a step forward'.⁶¹ Again invoking notions of progress to critique perspectives on the human, Bianculli identifies the theme of the decentred human in *Galápagos*. It is worth noting also that Bianculli begins to hint closely at an aspect of posthumanism when he notes: 'Nature, not man, will ultimately rule the planet. Without mankind's "big brains" to worry about, the world can set out, once again, to renew itself into a Darwinistic paradise'.⁶² *Galápagos* employs 'the Law of Natural Selection' to play a significant role in luring the human away from a destructive past and into a no-handed future. Kurt Vonnegut himself provides a commentary on the subject, when he writes:

Evolution can go to hell as far as I am concerned. What a mistake we are. We have mortally wounded this sweet life-supporting planet—the only one in the whole Milky Way—with a century of transportation whoopee [...] Hey as long as we are stuck being *Homo sapiens*, why mess around? Let's wreck the whole joint.⁶³

It is precisely this sentiment which informs the plot of *Galápagos*. The narrator states that

Those parts of people's brains which used to control their hands, moreover, simply don't exist any more, and human skulls are now much more streamlined on that account. The more streamlined the skull, the more successful the fisher person.
(pp. 150-51)

⁶¹ 'The Theory of Evolution, According to Vonnegut [A Review of *Galapagos* [sic]]', p. 277.

⁶² 'The Theory of Evolution, According to Vonnegut', p. 277.

⁶³ *A Man Without a Country*, p. 9.

Throughout the narrative, evolutionary events are illustrated, and various negative aspects of human history are reflected upon, and the transformed human is comically described as being incapable of carrying out the monstrous feats that characterized the past. At one point, Trout comments: 'Now, there is a big-brain idea I haven't heard much about lately: human slavery. How could you ever hold somebody in bondage with nothing but your flippers and your mouth?' (p. 143); and at another, he states: '[e]ven if they found a grenade or a machine gun or a knife or whatever left over from olden times, how could they ever make use of it with just their flippers and their mouths?' (p. 123). The overall inclination of the text, then, might be described as an advocacy for degeneration. Devolution is conflated with evolution. Notions of 'forward' and 'backward' progress are confused as the characters in *Galápagos* evolve to become less evolved, or, what might be considered less than human. This scenario calls into question the notion of progress, but also the issue of how definitions of the human are constructed. The text questions whether moving away from the human and towards the animal is in fact a process of becoming less human, or merely an evolutionary process of change and shifting parameters. Ultimately, the question is raised of how the human can be located and strictly defined amidst a continual process of change. Again, the concept of 'species' is overturned in favour of a term that might describe a continual 'becoming' species, such as that suggested in this thesis 'speciesified'. In short, the category of the human as understood by humanism is continually placed under scrutiny.

The characters in Ballard's trilogy find a semblance of satisfaction in their newly found posthuman circumstances; so, too, do the characters in *Galápagos* revel in the features

granted them by the process of evolutionary adaptation. The narrator comments that ‘all the people are so innocent and relaxed now, all because evolution took their hands away’ (p. 151). While essentially constructing a fictional scenario where the human undergoes a transmutation that entails a shift from bipedal, big-brained primate to flipper-handed, fishing amphibian, the text demonstrates an overall predilection for viewing this evolutionary shift as a positive outcome. Especially exhibited via the notion that the brain is ineffectual and cumbersome, *Galápagos* displaces notions of human superiority and rewrites viewpoints on the human in terms of the notion of transmutation.

Importantly, the text also calls into question the possibility of limits to the human perspective. Mustazza invokes Stephen Jay Gould’s idea that perhaps an inability to find notions of ‘morality’ or ‘sin’ in nature, merely points to the idea that nature does not contain morals that can be comprehended in human terms.⁶⁴ Gould’s and Mustazza’s point, then, asks the human to seek principles from beyond its own remit. For all the potential that a text like *Galápagos* has to interject with an overtly moralistic message, the lack of moral authority—in either nature or the narrator—draws attention to the peril of relying on conclusive, unchangeable perspectives. Morse comments that ‘Vonnegut’s comedy reflects human shortcomings and failures; it warns humanity against approaching disaster, yet does so without moralizing, preaching, or declaiming’.⁶⁵ These components work together to situate the text of *Galápagos* in the realm of posthumanist theoretical discourse.

⁶⁴ ‘A Darwinian Eden: Science and Myth in Kurt Vonnegut’s *Galápagos*’, p. 281.

⁶⁵ ‘Thinking Intelligently about Science and Art’, p. 130.

In Vonnegut's tale, evolutionary forces act upon the human animal in what might be considered a degenerative manner that extends beyond theoretical speculation to include a bodily transformation occurring over the span of one million years. In this way, Vonnegut's portrayal of evolutionary processes differs markedly from that of Ballard. What the two authors have in common, however, is that their texts espouse the idea that the human can no longer be perceived as an unquestionably dominant species. In Vonnegut's case, even, there is a perpetual regret associated with depictions of the human species. The narrator of *Galápagos* intones that, 'A million years later, I feel like apologizing for the human race. That's all I can say' (p. 71).

Conclusion

Literary Methodology: Beyond the Humanities

The texts analysed in this thesis disrupt the model for comprehending the human offered by Renaissance Humanism. In its place, a posthumanist conception of the human informs the narratives in question, primarily by enabling what were formerly considered invasive components to become necessary and viable constituents of the human. Selected narratives by Ballard and Vonnegut tend to portray the human in terms of an enduring ambiguity that threatens definitional clarity as well as one-dimensional approaches. If an overriding statement could be made regarding the 'survival' of the human in these narratives, it is that the human may survive as a species, but one that countermands the limits of categorization.

Badmington implies that the Cartesian method of viewing the human delineates that which is deemed human from those entities defined as machine and animal, and the fictions in question call for a renewed stance on this human, one that enables borders to be breached indefinitely.

Posthumanism intersects with the posthumanities when one considers that the tenets of evolutionary theory complement a theory of the human as decentred and displaced. In the foreword to the first edition of Richard Dawkins's *The Selfish Gene*, (1976), Robert L. Trivers asserts:

The chimpanzee and the human share about 99.5 per cent of their evolutionary history, yet most human thinkers regard the chimp as a malformed, irrelevant oddity while seeing themselves as stepping-

stones to the Almighty. To an evolutionist this cannot be so. There exists no objective basis on which to elevate one species above another. Chimp and human, lizard and fungus, we have all evolved over some three billion years by a process known as natural selection. Within each species some individuals leave more surviving offspring than others, so that inheritable traits (genes) of the reproductively successful become more numerous in the next generation. This is natural selection: the non-random differential reproduction in genes. Natural selection has built us, and it is natural selection we must understand if we are to comprehend our own identities.¹

The problem of identifying the human as a 'superior' species is demonstrated by inciting perspectives offered by evolutionary theorists, as well as those of posthuman theorists. If the human cannot definitively be considered the most 'progressed', the most 'advanced' species on the planet, then the premise upon which the Western philosophical tradition is based is called into question, as Matthew Calarco acknowledges when he comments that

in rethinking the way in which the human-animal distinction has been drawn, we are confronted with the fact that Western philosophy—which from its origins in Greek thought has grounded itself on a hierarchical version of the human-animal distinction—is constituted irreducibly and essentially as an anthropocentric ethical and political discourse.²

The potential perspectives offered by integrated philosophical perspectives can be reconsidered in terms of both evolutionary theory and posthumanism.

Andy Miah comments on the ability of posthumanism to span disciplinary concerns and backgrounds: 'To its advantage, authors from

¹ Robert L. Trivers, 'Foreword to the First Edition', in *The Selfish Gene* (1976; Oxford: Oxford University Press, 2006), pp. xix-xx (p. xix).

² Matthew Calarco, *Zoographies: The Question of the Animal from Heidegger to Derrida* (New York: Columbia University Press, 2008), p. 63.

across disciplinary boundaries have theorised posthumanism, which suggests its capacity to become a relevant philosophical paradigm'.³ Similarly,

Badmington observes that

Posthumanism, in short, would seem to be enjoying considerable success, and its growth seems to have little respect for traditional disciplinary boundaries. It has certainly made an impact in my own field, which is probably best described as an uneasy hybrid of cultural criticism and English literature. But it has made waves in other places, too, for scholars working in science studies, theology, visual culture, geography, architecture, philosophy, political theory, gender studies, media studies, and computer science, have all recently begun to discuss and discuss with each other the possibilities of the posthuman.⁴

In addition to demonstrating the posthumanist themes present in the fiction of Ballard and Vonnegut, this thesis demonstrates how the scientific notions described within the texts intersect with the discourse of the posthuman, thereby constructing a space for the posthumanities. The science fiction genre, especially, necessitates such boundary breaking perspectives, already being composed of differing influences from the 'sciences' and 'literature'. The genre provides a welcome space in which literary studies can enter pertinent and pressing debates regarding society and culture beyond the text.

Underpinning this thesis, as well as the broad basis of humanities scholarship, is the question of what it means to be human. The ontological

³ Andy Miah, 'Posthumanism: A Critical History', in *Medical Enhancements and Posthumanity*, ed. B. Gordijn and Ruth Chadwick (New York: Routledge, 2007), pp. 1-28 (p. 20).

⁴ Neil Badmington, 'Mapping Posthumanism', in 'Mapping Posthumanism: An Exchange', *Environment and Planning A*, 36 (2004), 1344-1351 (p. 1344), <www.environment-and-planning.com/epa/fulltext/a36/a37127.pdf>.

strategy of posthumanism is a viable starting point for addressing this query. Posthumanism advocates integrative approaches. On the one hand, we can refer to Badmington's discussion of the emergence of posthumanism: 'The figure of "Man" has, accordingly, been cut down to size, opened to intimate invasions from what once lay only on the side of the inhuman'.⁵ These invasions are depicted in the fictions selected, via the machine and the animal, and thus necessitate a revised categorical assignation for the human. This revision requires consideration of theories beyond the scope of the humanities. From the foundations of posthumanism emerge the posthumanities: a knowledge-seeking space in which a dialogue between humanism, scientific theory, posthumanism and literary and cultural theory is sought in order to bridge the gap between the two cultures, as well as to establish, generate and sustain a discourse based on knowledge acquisition and exchange without disciplinary borders.

⁵ Neil Badmington, 'Cultural Studies and the Posthumanities', in *New Cultural Studies: Adventures in Theory*, ed. Gary Hall and Clare Birchall (Edinburgh: Edinburgh University Press, 2006), pp. 260-272 (pp. 263-64).

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