THE CYBORG AND THE HUMAN:

ORIGINS, CREATURELINESS, AND HYBRIDITY IN THEOLOGICAL ANTHROPOLOGY

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Contents

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PART IV
From Theological Anthropology to Cyborgology?

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Word count: 79,916

List of Figures

List of Abbreviations

Citations of Donna Haraway's works are abbreviated as follows when referred to throughout the thesis:

CFF   Haraway, D. J, *Crystals, Fabrics, and Fields: Metaphors that Shape Embryos*, (Berkeley, CA: North Atlantic Books, 2004[1976])

'CaL'   Penley, C., Ross, A. and Haraway, D. 'Cyborgs at Large: Interview with Donna Haraway', *Social Text*, No. 25/6 (1990), 8-23.

'Manifesto'   Haraway, D. J. 'A Cyborg Manifesto: Science, Technology, and Socialist-Feminism in the Late Twentieth Century', *Simians, Cyborgs and Women: The Reinvention of Nature*, (London: Free Association Books, 1991), 149-181.

SCW   Haraway, D. J. *Simians, Cyborgs, and Women: The Reinvention of Nature*, (London: Free Association Books, 1991)

PV   Haraway, D. J. *Primate Visions: Gender, Race, and Nature in the World of Modern Science*, (London/New York: Verso, 1992)

'EH'   Haraway, D. 'Ecce Homo, Ain't (Ar'n't) I a Woman, and Inappropriate/d Others: The Human in a Post-Humanist Landscape', in Butler, J. and Scott, J. W. (eds.), *Feminists Theorise the Political*, (London: Routledge, 1992), 86-100.

'CaS'   Haraway, D. J. 'Foreword: Cyborgs and Symbionts: Living Together in the New World Order', in Gray, C. H. (ed.), *The Cyborg Handbook* (New York/London: Routledge, 1995), xi-xx.

'MiW'   Haraway, D. J. 'Mice Into Wormholes: A Comment on the Nature of No Nature', in Downey, G. L. and Dumit, J. (eds.), *Cyborgs & Citadels: Anthropological Interventions in Emerging Sciences and Technologies*, (New Mexico: School of American Research Press, 1997), 209-43.

MW@SM   Haraway, D. J. *Modest_Witness@Second_Millennium.*
        Femaleman©_Meets_OncoMouse™, (New York/London: Routledge,
        1997)

HLaL   Haraway, D. J. *How Like a Leaf: An Interview with Thyrza Nichols*
        Goodeve, (Oxon/New York: Routledge, 2000)

'D'   Haraway, D. 'Deanimations: Maps and Portraits of Life Itself', in
        Brah, A. and Coombes, A. E. (eds.), *Hybridity and its Discontents:*
        Politics, Science, Culture, (London/New York: Routledge, 2000), 111-
        36.

CSM   Haraway, D. J. *The Companion Species Manifesto: Dogs, People, and*
        Significant Otherness, (Chicago: Prickly Paradigm Press, 2003)

HR   Haraway, D. J. *The Haraway Reader*, (New York/London: Routledge,
        2004)

LT   Schneider, J. 'Conversations with Donna Haraway', *Donna Haraway:*
        Live Theory, (New York/London: Continuum, 2005), 114-56.

'NBH'   Gane, N. 'When We Have Never Been Human, What Is to Be Done?
        Interview with Donna Haraway', *Theory, Culture & Society*, Vol. 23,
        No. 7-8 (2006), 135-58.

WSM   Haraway, D. J. *When Species Meet*, (Minneapolis/London: University
        of Minnesota Press, 2008)

'SW'   Haraway, D. J. 'Sowing Worlds: A Seed Bag for Terraforming with
        Earth Others', in Grebowicz, M. and Merrick, H. (eds.), *Beyond the*
        Cyborg: Adventures with Donna Haraway, (New York: Columbia
        University Press, 2013), 137-46.

'SF'   Haraway, D. 'SF: Science Fiction, Speculative Fabulation, String
        Figures, So Far', *Ada: A Journal of Gender, New Media, and*
        Technology, No. 3, http://adanewmedia.org/2013/11/issue3-
        haraway/ (November 2013) (date accessed: 20/8/15)

All biblical passages used in this thesis, unless otherwise stated, are taken from the New Revised Standard Version (NRSV).

I use the abbreviation 'SF' (rather than 'sci-fi') to refer to science fiction throughout this thesis, for reasons explained on page 22. Briefly, the term better encapsulates the diversity of sub-types within and surrounding 'science fiction', including 'speculative fiction', 'speculative fabulation', 'speculative feminism', 'science fantasy', 'string figures', 'so far' (cf. Haraway, 'SF').

Abstract

Are we cyborgs or humans? This question is at the heart of this investigation, and the implications of it are all around us. In Christian theology, humans are seen as uniquely made in the image of God (*imago dei*). This has been taken to mean various things, but broadly, it suggests an understanding of humans as somehow discrete from, and elevated above, other creatures in how they resemble God. Cyborgs mark a provocative attempt to challenge such notions, especially in the work of Donna Haraway, whose influential 'Cyborg Manifesto' (1991) elaborated a way of understanding cyborgs as figures for the way we live our lives not as discrete or elevated, but as deeply *hybridised* and involved in complex ways with technologies, as well as with other beings. Significantly, Haraway uses the cyborg to critique notions of the human rooted in theological anthropology and anthropogeny: *the cyborg was not created in Eden*. This assertion is the starting point of my investigation of cyborgs and humans in theological anthropology.

Analysis of this position is broken down into three key concepts throughout the investigation that form the three main parts of the structure:

(1) What is the significance of Eden, specifically as a point of origin? What ideas do we inherit from Genesis mythologies, and how do they influence our multitudinous understandings of not only humans, but also cyborgs, that range from the Terminator, to astronauts, to hospital patients? What does it mean to say that the cyborg cannot recognise Eden or even dream of the possibility of return?

(2) If the cyborg was not created in Eden, then is it still to be considered as creaturely? How does this figure tessellate into, or challenge, notions of human nature and sin in the absence of an origin or teleology in a Garden? What commentaries of the human as created in God's image can we compare this to, and how do all of these readings bear on how we see ourselves and technologies?

(3) More constructively, given that the cyborg amalgamates the organic and the mechanic, and discusses hybridity, how might this be appropriated by theological anthropology? What does it mean to say that we are hybrids?

From these questions, I reflect on tensions between the cyborg and the human, and make suggestions for a theological appropriation of the cyborg figure that takes heed of the emphasis on hybridity by applying it to notions of Eden and *imago dei*. The overarching aim is to decentre and destabilise the human, and to refigure it within its broader networks that are *inclusive* of other creatures, technologies, and God.

Declaration

No portion of the work referred to in the thesis has been submitted in support of an application for another degree or qualification of this or any other university or other institute of learning.

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Acknowledgements

In this investigation, I argue in favour of the importance of relationalities and against attempts to abstract people, beings, and things from the complex networks and milieus in which we are all firmly embedded. The writing of this thesis is a particularly strong testament to this philosophical attitude. It would have been impossible to complete this investigation without the strong support of friends, colleagues, and family, and in all areas I have been especially fortunate.

I will start off broadly and kindly thank anyone and everyone who has ever had a conversation with me about my work at schools, conferences, events, over coffees, over the coffee counter, or over other drinks. Every discussion I have had about my research has helped me to clarify my ideas, to explain them in different and (hopefully) more accessible ways, and to develop them in different directions. The number of these conversation partners would probably demand a list as long as the thesis itself, but I gratefully acknowledge their influence and help here.

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None of this doctoral work would have at all been possible without the generous financial support of the Arts Histories Research Council (AHRC), and the President's Doctoral Scholarship (PDS) initiative of the University of Manchester

that launched in 2012 as I commenced my PhD. I am extremely grateful for the contributions from both groups, and particularly being a PDS scholar has enabled me to meet a range of researchers across the University, and to engage in projects beyond but related to the thesis that have been a necessary distraction at times!

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But perhaps the biggest thank you goes to my main supervisor, Prof. Peter Scott, who has patiently supported and guided my ideas and research not only throughout the PhD but also in my previous study at the University of Manchester. He has inspired and encouraged me to develop and articulate my ideas, and I cannot express my gratitude for his assistance deeply enough.

Finally, I thank my family for their unconditional loving and support in the last three years more than ever. I would never have imagined getting this far without the strongest of encouragement from my Mom, who always knows what to say to keep me grounded and level-headed, whatever the situation.

It is, in truth, with family in mind – both 'parental' and 'urban' – that I wrote this thesis, being surrounded by the most inspirational and caring of people, while also remembering family sadly no longer with me. With that in mind, I dedicate this thesis to my late grandparents, Margaret and Murray Midson, who taught me the value of hard work and the importance of a nurturing environment from a young age; lessons that I continue to apply to everything I do, think, and write, in the most cyborgian of ways.

About the Author

I am primarily interested in the complex relationships between religion, culture, society, and nature. Having originally completed an undergraduate degree, **BA (Hons) Religions & Theology (Religion & Society)**, at the University of Manchester in 2010, where I undertook modules in a range of topics and subjects including Anthropology and Sociology, and wrote a dissertation exploring the links between atheist identities and the internet (as a form of new media), I began to refine my research interests under the issue of technology.

At postgraduate level, I completed a degree, **MA Religion & Political Life**, also at the University of Manchester, where I began to familiarise myself with the notion of 'posthumanism'. Here, I wrote a dissertation exploring 'reality TV' and simulacra, relating these ideas to theology via an analysis of *imago dei* and investigating concerns over a depthless culture that can no longer (adequately) reflect God. All of this work and experience has informed and influenced my present research on theological anthropology and cyborgs as an alternative way of exploring *imago dei*.

Throughout my work, I maintain a strongly interdisciplinary perspective that is undergirded by an endeavour to demonstrate the ongoing influence of theological motifs and ideas (such as Eden) even in an apparently secular culture.

CHAPTER 1

Introduction

This is a theological investigation primarily about the *cyborg*. That figure has experienced various representations throughout its relatively short history: from the Terminator to astronauts; from RoboCop to prosthetically enhanced people; from 'OncoMouse™'[1] to internet users. The common strand to these iterations seems to be that the cyborg brings together technologies and organisms (hence 'cyborg', a compound of 'cybernetic' and 'organism') in diverse, multiform, and thereby complex ways. Although this problematises a definition of the cyborg, cyborgs highlight the range of our attitudes to technologies including extension and annihilation. These will be explored in understanding the cyborg and what it represents or implies.

This is also an investigation about the *human*. By and large, that figure is at the forefront of our thinking and is difficult to evade. This is the case even where we try to conceive of other beings that comprise a category of 'nonhumans' defined against the 'human' such as animals, plants, or even monsters, and aliens. These differences between humans and nonhumans will be assessed in questioning what it means to be human.

Finally, this investigation brings together ideas about the cyborg and the human. Do we see 'cyborgian' technologies as part of the category of 'humans', or are they more 'nonhuman'? Should we fear cyborgs; are they something that we will become; or are we already in a sense cyborgs? In asking these sorts of questions, we are exposed to ideas about *nature*, specifically *(non)human nature*, and as such, these ideas will be an important part of this investigation.

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[1] 'Testing Methods Using OncoMouse® Transgenic Models of Cancer', *DuPont Technology Bank*, http://dupont.t2h.yet2.com/t2h/page/techpak?id=26128 (date accessed: 28/7/15).

The lens through which these questions are raised and explored is a predominantly Christian theological anthropology that places emphasis on Eden and Genesis. Humans, in short, were created in the mythological Garden and so can be said to be 'natural'. According to some writers, "the deep impact of this belief on our understanding of what it is to be human is hard to overstate."[2] Cyborgs, however, according to Donna Haraway, were not created in the Garden.[3] I take this as the starting point of my analysis: *(how) do cyborgs challenge fundamental and theological ideas about what it is to be human, and to be created by God?*

1.1   Orientations: Meeting the Cyborg

Already, we encounter something of the paradoxes and controversies inherent in the figure, or notion, of the cyborg: should we see it as an object of fear, or hope? Does it reveal to us something of our own future, or is it something that, by virtue of our creation as human, we should not share in? And how far back can we trace the cyborg, if not to Genesis? Ultimately, these questions pertain to a querying of what it is to be human: the cyborg, like so many of its technological cousins, including the robot, clone, and avatar, is a 'diffraction' of the human in some way. This involves a displacement of our self-understandings stimulated through the production of difference.[4] In other words, technobeings such as cyborgs bear a close proximity to the human while altering parts of it. This can cause us unease but also prompts us to interrogate at a deeper level what is diffracted in the first place, and how.[5]

Donna Haraway famously elaborated a certain reading of the cyborg in her 1985 'Cyborg Manifesto', which was reprinted as part of a collection of her essays in *Simians, Cyborgs and Women* in 1991. Provocatively, she claimed, "At the centre of

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[2] Robert Pepperell, *The Posthuman Condition*, (Bristol: Intellect, 2003), 155.
[3] Haraway, 'Manifesto', 151.
[4] Haraway, *MW@SM*, 268.
[5] See Chapter 6.2.1 for accounts of unease, and 6.2.2 for interrogation.

my ironic faith, my blasphemy, is the image of the cyborg." [6] Haraway's 'blasphemy' is reflected in how the cyborg challenges key attitudes to the human that she sees as rooted in theology. In particular, Haraway queries:

(1) The strong anthropocentric tendency inherent in Christianity;

(2) The overemphasis on nature as discrete and as opposed to technology or artifice.

In my view, these challenges have thus far been inadequately responded to in theology, and so this project will attempt to correct and expand upon our current understandings by drawing on interdisciplinary insights. The cyborg cannot be contained or 'resolved' by any singular discipline; it challenges disciplinary boundaries through its challenging of ontological ones. Concerning the latter, the cyborg is emblematic of how technologies are closing in on the permeable watershed between the human and nonhuman. (For example, how 'human' is a pig with human DNA? Or a cloned human? Or an enhanced human? Or a sociable robot?) Technologies do this in a number of ways, which I explore throughout the investigation via the multitude of different cyborg iterations.

Given the complexity and range of the technologies, I do not develop a comprehensive theory of technologies but rather explore how they are approached by cyborgs and humans. I contrast and favour perspectives that are open to technologies, which are seen as ubiquitous, against perspectives that reify the category of 'technology' by marking it in contradistinction to nature, such as non/human nature, or nature-versus-artificial. Between these perspectives, technologies can affirm, reshape, or challenge boundaries. Haraway's cyborg, I propose, does the latter, which prompts my investigation. Put briefly, *if the cyborg challenges boundaries, then can theology – specifically theological anthropology –*

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[6] Haraway, 'Manifesto', 149.

accommodate for such challenges; and if so, what would such a theological anthropology look like?

1.2   Methodology: Exploring (Hi)stories

In order to explore these issues, a certain theoretical foundation needs to be established. Before exploring an interaction of the cyborg and the human, and investigating our understandings of technology and theological anthropology and how they might co-shape one another, there needs to be groundwork to express *how* that interaction is to be considered.

Every approach, every position, and every perspective is inseparable from its context, and has necessary, inevitable methodological constraints. By highlighting this, I state my methodological orientation to the present investigation. We cannot escape the influence that our surroundings have on us in how they shape our attitudes; to this extent, we are firmly embedded in a contextual milieu. A useful way to conceive of this relationship between us, our ideas, and our surroundings might be to metaphorically envision how we literally embody such contextual relations. Thus, for Katherine Hayles, "we do not leave our history behind but rather, like snails, carry it around with us in the sedimented and enculturated instantiations of our pasts we call our bodies."[7] In this example, contexts – in terms of the ideas that shape us – are very much a part of us, and we cannot deny or escape them.

Tropes like this of snails are a powerful tool for articulating the way we understand and relate to the world. Haraway uses them widely in her writing, as a means of reminding us "that we might have been otherwise, and might yet be,

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[7] Katherine Hayles, 'Afterword: The Human in the Posthuman', *Cultural Critique*, No. 53 (2003), 137.

as a matter of embodied fact."[8] Haraway takes the etymological 'swerving' associated with tropes "to mark the nonliteral quality of being,"[9] by which she seeks to develop a means of critiquing that which is immediately present. For example, humans are seen as a dominant species, as justified in using technological means to enact that dominance over other species, and yet also as fearing technologies that may dominate them. Using tropes, Haraway investigates alternative ways of exploring our self-conceptions and our interactions with technologies and other species.

This is part of where the cyborg enters our theorising: Haraway suggests that the cyborg is a figure for our lives; it is metaphorical for how we are interconnected in the world.[10]While the cyborg is a powerful trope in Haraway's work, it cannot be overlooked that the cyborg has also been passed down to us in sci-fi as a hyper-masculinist killing machine, the Terminator. That iconic figure itself wears as the 'shell on its back' the earlier developments of cyborgs for military purposes: it has 'layers of histories'.[11] Equally, though, the Terminator is part of our collective imaginary. It is fictional, and it may be tempting to contrast it against the 'real'. However, crucially, this does not mean that it influences our attitudes any less. Likewise, to return to Hayles' comments, we are not literally snails, but such metaphorical language is no less 'real' in its bearing on our self-conceptions.

My point is that the fact that something is fictional is irrelevant when it comes to understanding how we relate to and approach the world. Elaine Graham discusses this in terms of 'fabulation': "by creating alternative narratives through fantastic or utopian writing, fabulation enables its readers to consider the possibility that, like its fictional alternatives, the known present is also an artifice."[12] While

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[8] Haraway, *MW@SM*, 39.

[9] Ibid., 135.

[10] Ibid., 12, 14.

[11] Haraway, *HLaL*, 128.

[12] Elaine Graham, *Representations of the Post/Human: Monsters, Aliens and Others in Popular Culture*, (Manchester: Manchester University Press, 2002), 58.

'artifice' may overstate the point, fabulation nonetheless deconstructs the assumptions that we have of ourselves and the world in a manner concordant with Haraway's methodology of troping and diffraction. Developing this, Haraway (and other writers, including Margaret Atwood) advocate the use of alternative terms rather than 'science fiction' to refer to the genre from which characters such as the Terminator derive. They emphasise not the fictional component but the 'speculative', the 'fabulated', the 'fantasy', the 'figurative', the 'fact', the openness (the 'so far').[13] Effectively, these writers broaden out the genre and emphasise its connections with our own lives by labelling it 'SF' to encapsulate these alternative terms alongside the 'science' and the 'fiction'. According to Haraway, bringing these notions together, we live "non-optionally, in really real SF histories."[14] 'Fact' and 'fiction' interweave and are of equal significance in shaping histories. My own methodology accords with this by emphasising the importance of stories that sediment and become histories, and so I also employ the term 'SF' throughout this investigation.

SF presents stories in a world of stories, and we cannot help but continue to tell stories.[15] The context that informs our attitudes, sedimented as the shell on our backs, is a composition of stories and narratives, *both* non-fictional *and* fictional. We cannot escape these stories but must make ourselves aware of them in order to critically examine them. This expresses my methodological orientation in the present investigation, which explores, via the cyborg figure, the stories that we use to narrate and articulate our relationship with ourselves, the world, and God.

The significance of theology here is in how it tells particularly pervasive stories that shape our attitudes and understandings, even without us perhaps realising so

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[13] Haraway, 'SF'; Margaret Atwood, *In Other Worlds: SF and the Human Imagination*, (London: Virago, 2011), 1-14.
[14] Haraway, 'SF'.
[15] Cf. Noreen Herzfeld, *Technology and Religion: Remaining Human in a Co-Created World*, (Pennsylvania: Templeton Press, 2009), 77-8.

at a more manifest level. We tell ourselves stories about how we are secular, for example, but this does not negate the theological stories, such as the Edenic myth of origins, that continue to underwrite our outlook to things like technologies or other animals, both of which are important to the cyborg that tells a different story about our relationship to these beings. Haraway narrates through the cyborg how the distinction between humans, animals and technologies is misguided, but she is equally aware of the narratives that prefigure her critiques.[16] Pithily, she writes how, "just as the cyborg is a child of militarism and Big Science, I am a child of Catholicism and the Cold War." [17] Working with these mythological and metaphorical narratives of theology and the cyborg (respectively) is at the heart of my analytical framework. Although it relates to Haraway's own methodology, it will not prescribe a reading of theology but, as I will demonstrate over the investigation, offers a level playing field upon which all of the various narratives, of theology and of other disciplines, can be usefully and critically interacted.

Finally, I have opted for the term '(hi)stories' to describe my methodology because it captures something of the centrality of stories, even at the meta-level of bigger histories. We cannot understand either the cyborg or the human aside from these histories,[18] and they are constantly reshaped and retold through stories that are non-fictional, fictional, mythological, metaphorical, and everything in between.[19] Again, Haraway:

> Metaphorically speaking, I imagine a historical person as being somehow like a hermit crab that's encrusted with barnacles. And I see myself and everybody else as sort of switching shells as we grow. *But every shell we pick up has its*

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[16] Haraway states her method as follows: "I […] take my own polluted inheritance – cyborg is one of them – and try to rework it. […] I take the tropic systems that I have inherited and try to do something with them against the grain" (*HLaL*, 103).

[17] Haraway, *HLaL*, 107; cf. Haraway, *SCW*, 1.

[18] Cf. Haraway, *HR*, 245.

[19] Cf. Haraway, 'MiW', 236.

histories, and you certainly don't choose those histories […]. You have to account for the incrustations and the inertias, just as you have to remain accountable to each other through learning how to remember, if you will, which barnacles you're carrying.[20]

The point is that these (hi)stories impact us (and others) almost in the same instance that we narrate them, and that is inescapable. We can become aware of the stories and re-articulate them, and this is the approach that underlies my constructive analytical work towards the end of this investigation, but first we must be attentive to them.

1.3   Context: Narrating Theology

What stories, then, does theology tell about us and the world? And how might these impact our understandings of the cyborg and the human?

For the purposes of this investigation, I have identified three key strands to categorise and explore these theological (hi)stories that are most relevant to an understanding of both the cyborg and the human. They are: (1) *origins*; (2) *creatureliness*; and (3) *hybridity*. They are significant because the cyborg, articulated by Haraway, rejects discrete notions of humanness and human nature in favour of an emphasis on mixity and non-separation. In other words, for Haraway, "cyborg anthropology attempts to refigure provocatively the border relations among specific humans, other organisms, and machines."[21] A main part of this endeavour, and underscoring the provocativeness of the cyborg figure, is the rejection of origin stories, specifically Eden. Implied here is the significance of

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[20] Haraway, 'CaL', 10 (original emphasis).
[21] Haraway, 'MiW', 211.

Eden in the stories that theology tells that pertain to how we understand the cyborg and the human. My analysis thus begins with an examination of Eden.

1.3.1   Origins & Nature

Central to (Judeo-)Christian theology is its doctrine of Creation,[22] and specifically the creation of the human ('anthropogenesis'), outlined in Genesis. As is well-known, this act of creation occurred in Eden, the paradisiacal garden, and this has been significantly used as a basis to contrast and critique urban environments.[23] Technology, in this view, is aligned with the urban and the artificial in opposition to the natural, and as such it is demonised. Through its increasing prevalence and potency, technology seems to be, for some commentators, jeopardising and destroying the natural environment.[24]

The emphasis on nature in theology, as Bronislaw Szerszynski notes, is connected with and rooted in descriptions of Eden in Genesis:

> From the late eighteenth century nature started to be seen in various ways as the unspoilt, as an Edenic arena of goodness and innocence, unsullied by the artifice, alienation and corruption of modern life […] nature came to take on new

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[22] Although there are clear resonances between Jewish and Christian beliefs given their shared use of Genesis and the Old Testament/Hebrew Bible, the majority of my analysis will focus on specifically Christian theology, referring also to other doctrines such as Christology.

[23] Jeremy Benstein, 'Tzedek and the City: Justice, Land Use and Urban Life', in Richard Bohannon (ed.), *Religions and Environments: A Reader in Religion, Nature and Ecology*, (London/New York: Bloomsbury, 2014), 315.

[24] Jacques Ellul, *The Technological Society*, (New York: Vintage Books, 1964[1954]), 79; also consider here the portrayal of technologies in the Industrial Age in discussions of anthropogenic climate change, cf. Atwood, 'It's Not Climate Change, It's Everything Change', *Matter*, https://medium.com/matter/it-s-not-climate-change-it-s-everything-change-8fd9aa671804 (27th July 2015) (date accessed: 29/7/15).

sacral meanings, as a counterpoint to the increased technologisation of society.[25]

'Nature' here emerges as a meaningful notion. The story that we are told of nature through Edenic mythology offers us an imaginary utopia against which we can measure and judge our technological world, replete with factories, cities, and uprooted trees. Nature is that 'other' place that once was our place, before humans were evicted from the Garden, and so it is made particularly meaningful in our longings to return to that pristine, innocent and harmonious state.

In this reading of nature, a certain reading of technology as opposed to nature and thereby as artifice is implied. Nature appears as that which is given, and technology as that which tampers with the given and threatens to irreversibly change it.[26] This simplistic dichotomy, however, needs to be nuanced. Technology itself is not a clear-cut epistemological category as is suggested by its opposition to nature, but is better conceptualised as a way of transforming the world (of which it is also a part). [27] Technologies, moreover, are complex and expansive, particularly as they rapidly advance, and we need to take their complexity on board in our theorising of them.

By becoming attentive to the multiple stories that we tell ourselves of technologies, we can reflect on our relationships with them in more responsive ways, rather than relying on one particular story to inform all of our attitude-shaping. This may be one way that we have 'left the Garden' and cannot return, because we realise that technologies are complex and yet they are inseparable from who we are. Our existence is – and it always has been, contrary to the

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[25] Bronislaw Szerszynski, *Nature, Technology and the Sacred*, (Malden/Oxford/Carlton: Blackwell Publishing, 2005), 102; cf. *The Tree of Life*, Malick (dir.), (2011); *The New World*, Malick (dir.), (2005).
[26] Cf. Bill McKibben, *The End of Nature*, (London: Viking, 1990), 60; Francis Fukuyama, *Our Posthuman Future: Consequences of the Biotechnology Revolution*, (London: Profile Books, 2003), 72, 78.
[27] Graham, 'Being, Making and Imagining: Toward a Practical Theology of Technology', *Culture and Religion*, Vol. 10, No. 2 (2009), 223.

'natural' symbolism of Eden – 'technologically textured'.[28] In other words, we question how compelling one story is by recognising alternative ones. This has consequences for how we figure both the human and the cyborg, where technologies are an important part of both.

1.3.2   Creatureliness & Human Nature

Not only do we get notions of nature from Eden, but that myth also influences our understandings of human nature. From this, ecotheologian Peter Scott usefully identifies three different categorisations of nature:

1. Nature as *other* to the human;
2. Nature as *inclusive* of the human;
3. Nature as the *essence* of a thing.[29]

Where technologies are opposed to nature-as-other, then, in terms of artifice, they may be read as having a nature in the third sense as being artificial. Whether or not this is relatable to human nature in the first or second sense remains open for discussion.

For some, human engagement with technology is a natural expression of what it is to be human,[30] which suggests (human) nature in the third sense. Here, to use technology can mean to create, innovate, and to change the world in ways congruent with God's plan for creation that humans are a part of, and this

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[28] Don Ihde, *Technology and the Lifeworld: From Garden to Earth*, (Bloomington/Indianapolis: Indiana University Press, 1990), 1, 20.

[29] Adapted from Peter Scott, *Anti-Human Theology: Nature, Technology and the Postnatural*, (London: SCM Press, 2010), 1.

[30] Cf. Andy Clark, *Natural-Born Cyborgs: Minds, Technologies, and the Future of Human Intelligence*, (Oxford: Oxford University Press, 2003), 6-7, 10; Harold Hatt, *Cybernetics and the Image of Man: A Study of Freedom and Responsibility in Man and Machine*, (Nashville/New York: Abingdon Press, 1968), 57, 67; Philip Hefner, *The Human Factor: Evolution, Culture and Religion*, (Minneapolis: Fortress Press, 1993), 19, 27.

suggests nature in the second sense. These readings are deducible in Genesis, where God created humans in His image (*imago dei*), which is taken to be somehow indicative of human nature. Insofar as God created the world, and humans bear His image, we could mimic God's creativity in accordance with our created nature.

If this is the case, though, nature remains somewhat 'other' to the human in how it is made the object of technological change or augmentation, and so nature in the first sense is affirmed. Put differently, technologies may be regarded as 'other' to human nature: we see this particularly clearly when technologies are applied to our own bodies and identities, and allegedly threaten to fundamentally change who we are.[31] These broadly technophobic attitudes make assumptions about nature-as-given, and this is how human nature is fundamentally similar to notions of Edenic nature. Both are resistive or deeply sceptical of technological change. In these narratives, technologies are applied to (human) nature and what emerges is a clash between the created and the recreated; between the natural and the technological; between *the human and the cyborg*.

The tensions of conceptualising nature simultaneously in the first and second senses manifest in the fraught understandings of creatureliness, where to be creaturely is often paralleled with an adherence to one's created nature. With this in mind, we are compelled to ask: to what extent can humans be regarded as creaturely or natural, if technologies allow us to transcend created order in some way?[32] Alternatively, the question could be rephrased: to what extent should technologies be regarded as part of (human) nature?

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[31] Daniel Dinello, *Technophobia! Science Fiction Visions of Posthuman Technology*, (Austin: University of Texas Press, 2006), 2; Fukuyama, *Our Posthuman Future*, 101; Brent Waters, *From Human to Posthuman: Christian Theology and Technology in a Postmodern World*, (Hampshire: Ashgate, 2006), 25.
[32] Cf. Waters, 'Whose Salvation? Whose Eschatology?', in Ronald Cole-Turner (ed.), *Transhumanism and Transcendence: Christian Hope in an Age of Technological Enhancement*, (Washington, DC: Georgetown University Press, 2011), 171.

Jacques Ellul demonstrates the difficulty of answering this question. On the one hand, he acknowledges that "technical activity is the most primitive activity of man,"[33] yet on the other, as a result of technological change, "men now live in conditions that are less than human."[34] Ellul is not alone in discussing the ambiguities of how we relate to technologies. Philosopher of technology Don Ihde identifies four different phenomenological ways that we relate to technology. Ihde specifies, for example, 'alterity relations' that connote how we regard technologies antithetically to (Edenic) notions of (human) nature.[35] He also discusses 'embodiment relations' where technologies expand the reach of the human and mediate the world to us;[36] 'hermeneutic relations' where technologies such as texts require an active interaction or, in other words, "the technology goes unnoticed until critical reflection isolates its salient features;"[37] and 'background relations' where technologies are non-focal.[38]

In these plural ways of relating to technology, we find different stories that emerge out of, undergird, and shape our experiences. Technologies are not necessarily oppositional to the natural because both 'technology' and 'nature' have multiple meanings and applications in different contexts. We need to debunk all of these stories in order to fully understand and articulate theological attitudes to the cyborg and the human. If, for example, in theology *imago dei* has been taken as an identifier of human nature, and this impacts assessments of other creatures (such as animals) and technology, then is there an alternative way that the tensions suggested by naturalness and creatureliness between the given and the (re)made can be narrated?

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[33] Ellul, *The Technological Society*, 23.

[34] Ibid., 4.

[35] Ihde, *Technology and the Lifeworld*, 106-7.

[36] Ibid., 72-80.

[37] Ibid., 84.

[38] Ibid., 108-12.

1.3.3 Hybridity & Cyborgs

The cyborg that Haraway advocates narrates one such alternative story. Rather than separations predicated on different understandings of nature(s) (such as human nature; the nature of technology; creation as nature – both including and excluding humans), as renowned cyborg theorist Chris Hables Gray notes, "cyborgism can be seen as a full-scale assault on traditional divisions (such as machine, human, animal) with an inevitable proliferation of cyborgs and other monsters."[39] This story demands a scrutinising and rethinking of our other stories that narrate divisions, such as Edenic mythology.[40]

This endeavour can be aided by placing the cyborg more fully in its theoretical context. Earlier, I touched on how the cyborg is the progeny of Cold War militarism and early astronautics, but Haraway refigured the cyborg so that it bears those (hi)stories whilst also telling another story. That story can be located within *posthumanist* discourse, where "posthuman has become a way of naming the unknown possible, (perhaps) future, altered identity of human beings, as we incorporate various technologies into our human bodies and selves." [41] Posthumanism is a vast set of ideas that responds to the challenges that (chiefly) technologies bring about to our self-conceptions. Some strands offer stories that develop notions of (human) nature in different ways, as will be demonstrated throughout this investigation, but the cyborg offers a critical way of exploring the stories that underwrite notions of (human) nature in the first place.

The cyborg emphasises 'hybridity', which expresses something of how apparently discrete phenomena are by no means discrete, and in fact all things are mutually

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[39] Chris Hables Gray, *Cyborg Citizen: Politics in the Posthuman Age*, (New York/London: Routledge, 2002), 84.

[40] Ivan Csicsery-Ronay, Jr., 'The SF of Theory: Baudrillard and Haraway', *Science Fiction Studies*, Vol. 18, No. 3 (1991), 396.

[41] Jeanine Thweatt-Bates, *Cyborg Selves: A Theological Anthropology of the Posthuman*, (Surrey: Ashgate, 2012), 1.

co-constitutive. We see something of this in how both fictional and non-fictional stories influence our perceptions of the 'real', as discussed earlier. The 'real' is a hybrid composed of multiple (types of) stories that have concrete, material consequences.[42]

In a technological context, 'hybridity' speaks of many beings and characters – '(id)entities' [43] – that reside on the fringes of our classifications, in turn problematizing the neatness and validity of such classifications in the first place. Bruno Latour considers technological hybridity at length:

> When we find ourselves invaded by frozen embryos, expert systems, digital machines, sensor-equipped robots, hybrid corn, data banks, psychotropic drugs, whales outfitted with radar sounding devices, gene synthesisers, audience analysers, and so on, when our daily newspapers display all these monsters on page after page, and when none of these chimera can be properly on the object side or on the subject side, or even in between, something has to be done. […] It is as if there were no longer enough judges and critics to partition the hybrids. The purification system has become as clogged as our judicial system.[44]

Latour's point is that the proliferation of these hybrid beings exposes the shortcomings of our classification system that was overlaid onto reality, ironically

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[42] Haraway, *MW@SM*, 2.

[43] I shall adopt this term throughout the so as to emphasise (a) 'entities' as the beings in how they present themselves to us; and (b) 'identities' as suggesting something more of how there is a dialogic construction of different understandings of those beings. These understandings correspond to a discursive and even fictional, yet always real and consequential framework.

[44] Bruno Latour, *We Have Never Been Modern*, (Cambridge, MA: Harvard University Press, 1993[1991]), 49-50.

providing us with artificial notions of 'nature'. This is clearly a different story to that which is told by Eden myths.

There is debate among theologians as to how well theology can incorporate, or account for the stories told by the cyborg and hybridity about humans, technologies, and the world. Many attempts misinterpret hybridity or rely too heavily on stories relating to notions of nature, and these will be discussed throughout this investigation. This does not mean to say that the task should be abandoned, though. The cyborg offers a significant story based on hybridity that can potentially refigure much of our worldview. This has a strong impact on theology,[45] and so without this constructive and investigative work, theology may be at risk of clinging to stories that are no longer credible, such as 'nature' in an increasingly undeniably hybridised world (as Latour and others consider it).

To be sure, though, the challenge is not to absorb theology entirely within notions of hybridity, but to find a way for the two and their (hi)stories to interact so that insights into both the cyborg and the human can be gleaned. The challenge, then, is to investigate the ideas that underpin both the cyborg and the human with regards to technologies and theological anthropology. This involves firstly exploring the narratives, and then cross-analysing them to assess a viable way of considering the cyborg theologically.

1.4   Overview: Investigating Theological Anthropology

1.4.1   Key Questions

The way that this investigation is framed takes the cyborg, as described by Haraway, as its starting point. Determining how that cyborg is figured and why it

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[45] Brenda Brasher, 'Thoughts on the Status of the Cyborg: On Technological Socialisation and Its Link to the Religious Function of Popular Culture', *Journal of the American Academy of Religion*, Vol. 64, No. 4 (1996), 814.

is significant in terms of the (hi)stories it interacts with (such as militarism, astronautics, and posthumanism), and the stories it tells, is therefore an important initial step of this investigation. The (hi)stories that the cyborg interacts with each have their own narrative contexts, and these relate to certain ideas of the human that are also explored here.

Then, given that Haraway's cyborg raises questions specifically about theological anthropology, such as what it is to be human and what we mean by (human) nature, the investigation will move to consider these questions in greater detail. As previously stated, this will be broken down into three key themes:

(1) *Origins*: Taking Haraway's claim that the cyborg does not recognise the Garden of Eden, what are the implications of this for an understanding of (non)human nature rooted in Genesis and Edenic mythology?

(2) *Creatureliness*: Referring also to other creatures, and God, do technological developments undermine the 'creatureliness' of humans, taking us further away from Eden? Or, do they enable us to fulfil *imago dei* in creative and godly ways?

(3) *Hybridity*: How does the cyborg's refusal of binaries and its emphasis on liminal, hybrid (id)entities impact upon our understandings of humans, technology, and the world?

Such questions will inform an understanding of theological anthropology as considered through the lens of the cyborg.

In order to make constructive and ongoing critical reflections on both the cyborg and the human in theological anthropology, however, the next question surveys

how the cyborg has been appropriated by theological anthropology. This will allow me to ascertain, in the light of the analysis of the three themes above, what was more and less successful in these previous attempts, and what lessons we can learn for articulating an alternative theological engagement of the cyborg that is adequately responsive to all (hi)stories.

Finally, as part of the interaction of different narratives and (hi)stories, I will ask questions of the cyborg in light of insights gained from a critical assessment of theological anthropology. Given that the point of this investigation is not to assimilate the cyborg to theology or vice versa, it is necessary to critically analyse all stories. In so doing, we will learn new things about the cyborg as well as the human, and technology as well as theological anthropology.

1.4.2   Structure

Briefly, I will ask these questions over the next eight chapters and conclusion. The investigation is divided into three sections that broadly correspond to the three cumulative key themes of the analysis (origins, creatureliness, and hybridity), although the ideas are mutually informative and key questions span the whole thesis, rather than being confined to individual chapters or sections.

Firstly, in Part I, I investigate the cyborg and trace its (hi)stories in different contexts ranging from concrete technological developments, to the ideologies that undergird them in terms of posthumanism and humanism.

Then, in Part II, I consider how theological anthropology and its notions of the human and (human) nature dovetail with these (hi)stories. Resultantly, I will have ascertained a foundation for understanding our attitudes to both the cyborg and the human at present.

Part III of the investigation in particular then makes more constructive and suggestive reflections on an engagement of the cyborg and the human in theological anthropology by a close analysis of the concept of hybridity. Questions about how hybridity can be figured and what its implications for our relations with technologies, other creatures, the world, God, and other (hi)stories will be the focus in these chapters, with particular reference to the myth of Eden that is significant for both the cyborg in Haraway's articulation of it, and for theological anthropology.

The culmination of this critical investigative work will be a set of suggestions, found in the conclusion (Part IV), for further work on cyborgs and theology in what we could refer to as a 'theological cyborgology', a specifically hybrid coming together of narratives of the human, the cyborg, technology, and theological anthropology.

Tech-No Origins?

The range of human-machine couplings almost defies definition: […] there is an incredible array of ways of categorising cyborgs, and renaming them.

Chris Gray, Steven Mentor and Heidi Figueroa-Sarriera, in Gray (ed.), *The Cyborg Handbook*, (1995), 4.

The real issue is what kinds of cyborgisations we will have.

Chris Gray, in Joanna Zylinska (ed.), *The Cyborg Experiments*, (2002), 183.

Cyborgs are most commonly found in films and other fiction, but they can also be found in space, in hospitals, in cyberspace, and even – as some theorists propose – in everyday mirrors. Bringing cyborgs dramatically closer to home in this way, by positing that *we are cyborgs*, challenges the surety with which we can claim that we are human. Put briefly, what does it mean to say that we are human …or cyborg?

In theological anthropology, humans are often understood as those beings that are specially created in the image of God (*imago dei*) (Gen. 1:26). This view of humans places the essence of what and who we are at our genesis; our *origin* gives us our *originality*. To say that we are cyborg, by contrast, particularly as Donna Haraway does in her influential book *Simians, Cyborgs and Women*, calls into question who we are in terms of our mythological accounts of origin (i.e. with reference to Eden).[1]

What is the cyborg, though? And why does it take issue with certain key tenets of theological anthropology? Part I of this investigation responds to these questions by establishing a framework for analysis that emphasises the significance of stories in revealing and narrating the cyborg to us in its various forms over time. It is noted how cyborgs, stated in the plural, themselves tell certain stories about the human. These are then taken as a foundation for more theological investigation in subsequent chapters.

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[1] Haraway, 'Manifesto', 151.

Cyb/orgs I: First Contact

What is the cyborg? Although this figure is one of the central components of the present analysis, there is nothing about this short question that is easy to answer. To begin with, we are mistaken if we assume that the cyborg is a singular figure. As I will emphasise over the next two chapters, in order to understand cyborgs, it is imperative that we understand the multiform ways in which they have been understood over time. This chapter begins by looking at early cyborgs that I argue are chiefly concerned with extensions and augmentations to a central human subject. These initial trends underpin a tension between different understandings of the human and the cyborg that I return to throughout my investigation.

The cyborg has a complex genealogy. Indeed, the label 'cyborg' has been used to mean various things by different commentators and at different times, in response to the numerous ways of conceiving of human-machine fusions. Problematically, however, certain understandings of the cyborg have become more commonplace than others, and consequently, we are both *over*familiar and *un*familiar with the figure overall. This is attributable largely to SF and the popularity of characters such as the Terminator and Robocop. Such characters, though, interact with pre-existing notions of cyborgs, in turn continually changing our understandings of those figures.

Of course, there are a range of (hi)stories that influence our attitudes to cyborgs, and rather than attempt to consider all of these here, I will begin by sketching out an illustration of the genealogy of cyborgs to serve as a foundation for further theological analysis in later sections and chapters. How we understand the human, for example, influences how we understand the cyborg, and the cyborg in turn reshapes how we understand the human. Tracing this further back, how we understand the human is theologically informed, and theology itself is

additionally informed by our shifting notions of the human. In short, it is difficult to know where to begin. Without meaning to overload the investigation at this stage, I will begin – for sake of clarity – with the first known use of the term 'cyborg', in mid-twentieth century astronautics.

2.1   Cyb-ernetics and Org-anisms

At a rudimentary level, in sketching out what is generally implied by the term 'cyborg' before tracing out its more detailed history, the cyborg can be defined as:

> A self-regulating organism that combines the natural and artificial together in one system. Cyborgs do not have to be part human, for any organism/system that mixes the evolved and the made, the living and the intimate, is technically a cyborg.[1]

Although this is a basic definition, and I shall demonstrate in due course how this has been problematised in various ways by various theorists, it is sufficient at this stage in introducing the overall concept. The cyborg is a portmanteau of 'cybernetic organism', and it thereby suggests a meeting between the biological – i.e. the organic – and the mechanical. What remains open to interpretation here is how much the two components are fused in this meeting, and to what extent they may retain their distinctness even in spite of their amalgamation.

The cyborg emerged out of the cybernetics movement associated with the work of Norbert Wiener, who in the mid-twentieth century appropriated early Hellenistic ideas about governance (deriving from 'κυβερνητικη'), and combined them with new ideas emerging in the field of computer science to form a new,

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[1] Gray, *Cyborg Citizen*, 2.

transdisciplinary approach to systems.[2] The focus in cybernetics was on flows of information across systems at various levels that, crucially, spanned organic and computational components. [3] The significance of this was profound, as posthumanist theorist Katherine Hayles notes:

> Of all the implications that first-wave cybernetics conveyed, perhaps none was more disturbing and potentially revolutionary than the idea that the boundaries of the human subject are constructed rather than given. Conceptualising control, communication, and information as an integrated system, cybernetics radically changed how boundaries were conceived.[4]

Cyborgs, then, have their roots in a movement that rendered previously embedded and fixed boundaries as altogether more plastic and malleable, if not entirely mutable.

That said, there was a surprising reluctance to the redrawing of these boundaries amongst leading cyberneticists that spearheaded the movement. Wiener, for example, in a text that mused on the religious and theological significance of his work, commented on how "one of the great future problems which we must face is that of the relation between man and the machine,"[5] suggesting a clear-cut distinction that remains between the two. Indeed, in the same text, it is revealed

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[2] Norbert Wiener, *Cybernetics: Or Control and Communication in the Animal and the Machine*, (Cambridge, MA: MIT Press, 1965[1948]); *Plug & Pray*, Schanze (dir.), (2010).

[3] For a detailed discussion of systems theory from its roots in the work of Wiener, through to its second iteration in Niklas Luhmann's writings, where communication is more explicitly reified as holding together and working between different components, see Cary Wolfe, 'Meaning and Event; or, Systems Theory, and "The Reconstruction of Deconstruction"', *What is Posthumanism?*, (Minneapolis/London: University of Minnesota Press, 2009), 3-29.

[4] Katherine Hayles, *How We Became Posthuman: Virtual Bodies in Cybernetics, Literature, and Informatics*, (London: University of Chicago Press, 1999), 84.

[5] Norbert Wiener, *God and Golem, Inc. A Comment on Certain Points Where Cybernetics Impinges on Religion*, (Cambridge, MA: Massachusetts Institute of Technology Press, 1964), 71.

that the boundaries that Wiener seems most comfortable to redraw are the ones that concern human knowledge, where it is our curiosity that impels us to push back these frontiers.[6] All of this relies on ideas of the human as being explorative and masterful of technologies. The 'integrated system' that Wiener's work sketches out begins with these assumptions, treating certain parts of the human as given and unchallenged and working out from there,[7] rather than beginning with the system itself.[8] In other words, even at its roots, cybernetics was deeply influenced by certain attitudes to the human that have in turn influenced its subsequent attitudes to technologies. Cybernetics in this sense only selectively redraws boundaries in accordance with the vision of the human that remains central.

Following on from this, it is my contention that many conceptualisations of cyborgs – particularly the earliest ones – place little to no emphasis on an ontological amalgamation of the organic and the machinic, where the fusion would be such that the components are indissoluble and cannot be pulled apart or identified distinctly from one another. For this reason, I have made use of a linguistic splice in the title of this chapter, 'Cyb/orgs', in order to draw attention to the significance of hybridity and mixity. The early cyborgs identified and explored in this chapter demonstrate a characteristic reluctance to efface or deconstruct the distinction between the organic and the mechanic (or 'cybernetic').[9] By this, I mean to suggest that there is a certain sense in which the human figure that the cyborg interacts with in these early cases is left intact. This will be an important consideration in later chapters.

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[6] Wiener, *God and Golem, Inc.*, 52-3.

[7] Hayles, *How We Became Posthuman*, 7.

[8] Wolfe discusses how this has become increasingly the case in later work on cybernetics: see Wolfe, *What is Posthumanism?*, 3.

[9] This touches on a similar point made by Hayles; for her, "the linguistic splice that created it (cyb/org) metonymically points toward the simultaneous collaboration and displacement of new/old, even as it instantiates this same dynamic" ('The Life Cycle of Cyborgs: Writing the Posthuman', in Gray [ed.], *The Cyborg Handbook*, [New York/London: Routledge, 1995], 323). In other words, there is a sense in which the old, i.e. the human, remains even in the cyb/org construction, and this is emphasised by the forward slash.

2.2   Trans/human Cyborgs

Drawing on these roots in cybernetics, the first use of the term 'cyborg' to describe a figure located within the technologically augmented, cybernetic systems was in astronautics. The cyborg was originally proposed by Manfred Clynes and Nathan Kline as a means of sending man (the gendered subject) [10] into space by technologically augmenting his body. In Clynes and Kline's own words,

> The purpose of the Cyborg, as well as his own homeostatic systems, is to provide an organisational system in which such robot-like problems are taken care of automatically and unconsciously, leaving man free to explore, to create, to think, and to feel. [11]

What is important to note here is that, although there is a physical fusion of man and machine in this notion of the cyborg, there remains a sense of distinction in that the machinic elements supplant workings of the body that are *already* regarded as robot-like. Cognitive elements become the seat of humanness and are involved in the drive to expansion, while the more blatantly machinic 'organisational system' takes care of the mundane things that are already automated in the body insofar as we do not need to exercise regular conscious thought over them.

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[10] There is a substantial amount of research on gender and the cyborg; indeed, Haraway herself constructs her notion of the cyborg in response to the previously androcentric notions largely considered in this chapter. Although my research necessarily touches on such gender discussions, arguably, this bank of scholarship comprises a standalone sub-discipline of cyborg studies that sits outside the remit of my investigation. My sidestepping of it is by no means an attempt to downplay the importance of such research, but rather seeks to outline a strong foundation to interact the cyborg with theology; from here, subsequent studies could reappraise the question of gender in light of theological cyborgology (see Parts III and IV). For more detailed discussion of gender and the cyborg, see: Gill Kirkup et al. (eds.), *The Gendered Cyborg: A Reader*, (London/New York: Routledge, 2000).

[11] Manfred Clynes and Nathan Kline, 'Cyborgs and Space', *Astronautics* (1960), 27.

Spiritually, then, in Clynes and Kline's formulation, man is able to drift off into space and to explore. This strikingly resembles 'transhumanism', a movement that advocates the use of technology to enhance the human as according to its undergirding belief that "humanity's potential is still mostly unrealised."[12] In transhumanism, technology is applied to the human, and although the human is obviously to be physically changed as a result of techno-improvements, these changes nonetheless stem from impulses deep and intrinsic to the human. In short, the human is seemingly left overall intact, which strongly parallels Clynes and Kline's view of a cyborg. Here, there is a physical sense of hybridity, yet the normative human remains as the subject who is bettered by the corporeal merging with technology. Because something of the human remains, I see it as apt and useful to incorporate a linguistic splice into the term 'trans/human' just as I have suggested with regards to the 'cyb/org' – the sense of mixity is not complete or totalised, and the human figure is identifiable (even if not definable)[13] within the trans/human construct.[14]

Of particular note here is the relationship between materiality and figuration. With regards to this early cyb/org, which demonstrates many trans/human traits, there is something of a disjunction between the hybridity implied by the physical fusion on the one hand, and the conceptual separation of the human against such fusions on the other. Although in an empirical sense astronauts are, in Clynes and Kline's account, annexing technologies to their bodies and inserting themselves within broader cybernetic systems, cognitively and conceptually, the human spirit is unchanged and free to explore in its pristine state.[15]

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[12] Nick Bostrom, 'Transhumanist Declaration', *Humanity+*, http://humanityplus.org/philosophy/transhumanist-declaration/, (1998) (accessed 27/8/13).

[13] Pepperell, *The Posthuman Condition*, 178.

[14] See also Chapter 6.1.

[15] Ironically, the exploration itself would have an impact on the astronaut's outlook and perspective (countless SF films set in space attest to this, including Stanley Kubrick's classic *2001: A Space Odyssey* [1968] and Christopher Nolan's more recent *Interstellar* [2014]), but this is not seen as being in the same way as physical cyborgian technologies change the person.

These trends arguably underwrite the trans/human from its inception, which espouses the claim presented here that the early cyborg, proposed by Clynes and Kline, has much in common with this figure. The term 'transhumanism' was originally coined in 1957 by Julian Huxley, who defined it as "man remaining man, but transcending himself, by realising new possibilities of and for his human nature."[16] The cyborg figure can be seen as something of an expression, or a means of realising, the idealised transhumanist subject as Huxley envisaged. In this way, although the original cyborg bears the name 'cyborg', given that the human component of the hybrid being is preserved, it is trans/human in a sense. Indeed, the mechanical system that Clynes and Kline termed 'cyborg' is specifically about sustaining that humanness.[17] The issue here is that such a vision of humanness is predicated on the idealised human subject, which has been typically defined by excluding others on the basis of sexism, racism, classism, heteronormativity, and more broadly, anthropocentrism.[18] The cyborg theoretically offers a way of circumventing these issues by rethinking the separation of human and machine. This would call into question 'the human', but such questioning is muted in Clynes and Kline's work in favour of an expansionist reading of technologies.[19]

To recapitulate, the term 'cyborg' features no punctuation, which suggests seamless integration of organic and mechanic, yet this is not apparent with Clynes and Kline's positing of that figure. I would add, in fact, that Clynes and Kline's cyborg is related to other cyborgs only nominally, and is more a direct relative of the trans/human instead. These thoughts can be traced in the comments made by Jack Steele (who was a forerunner in the 'bionics'[20] movement), in an interview

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[16] Julian Huxley, *New Bottles for New Wine*, (London: Chatto & Windus, 1957), 17.

[17] Manfred Clynes, 'Cyborg II: Sentic Space Travel', in Gray (ed.), *The Cyborg Handbook*, 35.

[18] Francesca Ferrando, 'Posthumanism, Transhumanism, Antihumanism, Metahumanism, and New Materialisms', *Existenz*, Vol. 8, No. 2 (2013), 28.

[19] Cf. Ihde, *Technology and the Lifeworld*, 72-80.

[20] 'Bionics' is defined as "the discipline of using principles derived from living systems in the solution of design problems" (Gray, 'An Interview with Jack E. Steele', in Gray [ed.], *Cyborg Handbook*, 62), and so it continues in the trend of early cyb/org theories that make bridges between the organic and material, without problematising or questioning the pre-existent categories.

conducted by Gray that referred to Clynes and Kline's cyborg: "I'm not sure I know what you mean by a cyborg. […] Oh yeah. Specifically an amplifier of human beings?"[21] The cyb/org, in this sense, only changes man to the extent that it *augments* him. This, in my view, is as strong a statement of transhumanism as any.

The resonance of the cyb/org with the trans/human can be extended to include how both figures are interpreted theologically. As Daniel Dinello pithily writes,

> Originally imagined to adapt the body for space travel and fulfil divine aspirations of reaching the heavens, the cyborg also reflects the religious desire for godlike perfection, immortality, and – as a weapons system – omnipotence.[22]

From this, it appears that there is a negative side to the cyborg in that it perpetuates, at least in this early manifestation, dualisms that ultimately seek to elevate the idealised human subject, who is figured in divinised terms, over its suppressed others. Technology is a means to this godly perfectibility,[23] suggesting that godliness does not discriminate between organism and mechanism, but crucially, technology also remains subservient to humanist ends. Even when what Clynes and Kline regard as cyborg technologies traverse the skin barrier, they do not encroach upon the mind, as the sacred seat of humanness.[24] This remains intact, and so what this 'cyb/org' refers to is a human biological system that has been *augmented* by machines and technology, but, consonant with the original etymology of the 'cybernetic' aspect of the cyb/org construct, man remains the

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[21] Ibid., 64.

[22] Dinello, *Technophobia!*, 119.

[23] See Chapters 4.3, 6.1, and 8.2.3.

[24] Cf. Erik Davis, *TechGnosis: Myth, Magic and Mysticism in the Age of Information*, (London: Serpents Tail, 1999), 123, 155.

'steersman'.[25] It is the totalisation of this level of control that is sought in transhumanist models of apotheosis.[26]

Astronautic cyb/orgs and trans/humans, then, share in the characteristic distinction of the idealised, largely pristine, and discernibly human consciousness. This reveals a set of narratives that reflect and guide our attitudes to technologies and self-conceptions. The form of cyborgian technologies is not enough to consider by itself, but the guiding principles and designs behind the technologies, indicative of larger attitudes to humans and technology, are crucial – particularly here, in devising a taxonomy of different figurations of cyborgs.

In common with other figures of the posthumanities,[27] the cyborg can lead us to question certain assumptions previously taken-for-granted about who we are and what it is to be 'human', which is useful to critique the exclusivist politics of the latter figure. As I have suggested, though, this early conceptualisation of the cyborg evinces the transhumanist tendency to leave certain tenets about the human largely intact, which assimilates the cyborg to the human, rather than using it to build a critique of anthropocentrism and its associated discriminations. For example, a Cartesian understanding of the human as dualistic, a deeply embedded notion in humanism,[28] can be discerned in Clynes and Kline's distinction between robot-like functions and man's desire to explore. Here, the body is seen as necessary for space exploration, but is of a lower ranking than the mind so that it can be governed and maintained by automatons. Deducible from Clynes and Kline's explication of the cyb/org is that our humanness is locatable in

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[25] As Davis writes, "cybernetics is thus a science of control, which explains the etymological root of the term: *kubernetes*, the Greek word for steersman, and the source as well for our word 'governor'" (*TechGnosis*, 108).

[26] Cf. Sven Wagner, *The Scientist as God: A Typological Study of a Literary Motif*, (Heidelberg: Universitätsverlag Winter Heidelberg, 2012), 232; see Chapters 6.1-6.2.1.

[27] See Chapter 6.2.2.

[28] In demonstrating this, Hayles cites Gillian Brown's work on the link between humanism and anorexia, noting that "the body is understood as an object for control and mastery rather than as an intrinsic part of the self" (Hayles, *How We Became Posthuman*, 5).

our minds, or at least in our passion and drive to further ourselves, which affirms conventional notions of humanness. The cyborg, broadly conceived, can espouse or challenge these notions depending on how it is articulated. This highlights the need to trace the (hi)stories of the cyborg, in order to identify its trends of relating to the human and to determine what relations are to be avoided, and how.

2.3   Medical Cyborgs

Moving from Clynes and Kline's emphasis on space travel and exploration in their trans/human cyborgs, the question next shifts to one about cyborgs closer to home and rooted firmly in the quotidian. The significance of the space setting, for Clynes and Kline, manifested in how the cyborg systems were designed and integrated into the body so that 'man' could explore a world beyond himself, in the pursuit of some form of transcendence. How does this translate on earth, though? What is there for the cyborg systems to enhance, improve, or transcend?

Finn Bowring muses on this:

> What is desired by the cyborg enthusiasts is, in effect, the elimination or revision of those features of human existence which, being censored, repressed, harmed and alienated by modern social conditions, lead to disempowerment, frustration and suffering. The elimination of our capacity to suffer is not, however, a satisfactory answer to suffering – or at least not a *human* one.[29]

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[29] Finn Bowring, 'The Cyborg Solution', *Science, Seeds and Cyborgs: Biotechnology and the Appropriation of Life*, (London/New York: Verso, 2003), 274 (original emphasis).

The cyborg desire to transcend the human (although not in as complete a way as some claim,[30] particularly in terms of the organic/machinic distinction that largely remains) is here, according to Bowring, mapped onto the deficiencies that we find within ourselves under social conditions.[31] Although the context is notably different to astronautic cyborgs, it seems that the undergirding attitudes remain somewhat similar in terms of an attempt to improve, or rework a part of what it is to be human via a rigorous application of technologies.

The most common cyborgs that we experience on an everyday basis, though, are not technologically enhanced superheroes (or villains for that matter), as various comic series and SF works would have us believe,[32] but rather they emerge from surgical theatres, hospital wards and even various clinics globally.[33] These 'cyborgs' have any number of prostheses, ranging from contact lenses, to surgical scars, to pacemakers and transplanted organs.[34] To what extent have these technologies changed the human?[35] For Elaine Graham, "technology has moved from being an instrument or tool in the hands of human agents, or even a means to transform the natural environment, and has become a series of processes or

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[30] Gray, *Cyborg Citizen*, 183.

[31] Cf. Ellul, *The Technological Society*, for a discussion about the dehumanised and technologised world in which we supposedly find ourselves; where "men now live in conditions that are less than human" (4).

[32] Mark Oehlert, 'From Captain America to Wolverine: Cyborgs in Comic Books, Alternative Images of Cybernetic Heroes and Villains', in Gray (ed.), *The Cyborg Handbook*, 219-32.

[33] Cf. Gill Haddow et al., 'Cyborgs in the Everyday: Masculinity and Biosensing Prostate Cancer', *Science as Culture*, http://www.tandfonline.com/doi/full/10.1080/09505431.2015.1063597 (2015) (date accessed: 10/9/15).

[34] Here, with Linda Hogle ('Tales From the Cryptic: Technology Meets Organism in the Living Cadaver', in Gray [ed.], *The Cyborg Handbook*, 203-216), I take transplanted organs as indicative of (medical) cyborg technologies because their transfer from one body to another necessitates surgical technologies, and the bringing into the body something external. Recently, face transplants have become a possibility, which may involve a more critical questioning of 'self' and 'other' (see Chapters 2.4 and 7.2.2), but that depends on how the technology is appropriated over time.

[35] Admittedly, this question may be difficult to answer given the vast range of medical cyborg technologies (cf. Kevin Warwick, 'The Cyborg Revolution', *NanoEthics: Studies of New and Emerging Technologies*, Vol. 8, No. 3 [2014], 266-72). My purpose in this section is to introduce rather than resolve the overarching trends and issues that this group of cyborgs touches upon.

interventions capable of reshaping human ontology."[36] This connotes Bowring's concern cited above that the ends, the *teloi*, of such cyborg amendments and augmentations are not in themselves human and perhaps thereby embody an element of fear and technophobia.

For Bowring (it is worth citing him again at length here):

> Because the elimination of the human's capacity to suffer would mean the creation of a post-human being, the goal and beneficiary of this solution *cannot be humanity itself*. The need for the cyborg, in other words, is not a *human* need, a need whose satisfaction would reaffirm the essence of humanity. It is, rather a *technological imperative*, for the true purpose of the re-engineering of the human being is the abolition of the obstacles presented by people to the reproduction of machines.[37]

Bowring here perpetuates the organic/machinic distinction that was tacit in Clynes and Kline's trans/human cyborgs. As part of this, qualities of humanness are exclusively projected on to the organic side of the distinction, rendering machines as enemies of humans, and as a threat to the whole human enterprise. It seems that cyborgs far less remote than in space are too close to home for many, and the promise of fantastic cyborgian technologies becomes overshadowed by concerns over the status and the sovereignty of the human. Putting this in cybernetic terms,

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[36] Elaine Graham, 'In Whose Image? Representations of Technology and the 'Ends' of Humanity', in Celia Deane-Drummond, and Peter Scott (eds.), *Future Perfect? God, Medicine and Human Identity*, (London: T&T Clark, 2006), 58.
[37] Bowring, 'The Cyborg Solution', 274 (original emphasis).

we find ourselves asking: are humans still the steersmen of these technologies; are humans still in control?[38]

Against this fear, though, there are strong ethical reasons for the employment of cyborg technologies on medical grounds, and theology can be, indeed it has been, an informative contributor to these discussions.[39] Where technology is accepted under medical grounds, in particular by theology, it is largely with a strict emphasis on therapy. For Lutheran theologian Ted Peters:

> In Christian perfection, the vision of a loving heart draws the person of faith toward increased caring, toward transformation from selfishness to selflessness. In medical therapy, the vision of good health directs the steps to be taken by doctor and patient.[40]

Here, the ethic of compassion and healing is broadly used to legitimise medical cyborg technologies in the everyday. The focus is taken away from the isolated individual and it is replaced by an ethics of 'togetherness' based on relations between doctors and patients. Of course, fears do still abound and the 'togetherness' of humans and machines is something that we still largely find difficult to reconcile ourselves to.[41]

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[38] For posthumanist theologian Jeanine Thweatt-Bates, this total control is impossible to achieve for medical cyborgs, given how there is a "dependence on mechanism that cannot be ignored or denied" (Thweatt-Bates, *Cyborg Selves*, 19).

[39] See, for example, Deane-Drummond and Scott (eds.), *Future Perfect*; Brian Brock, *Christian Ethics in a Technological Age*, (Grand Rapids/Cambridge: William B. Eerdmans Publishing Co, 2010); Cole-Turner (ed.), *Transhumanism and Transcendence*.

[40] Ted Peters, 'Perfect Humans or Trans-Humans?', in Deane-Drummond and Scott (eds.), *Future Perfect?*, 15.

[41] Related to this, other forms of 'togetherness' are often overlooked: for example, animals on whom experimental treatments are tested; companies who design and sell medical and pharmaceutical technologies; donors of transplanted organs and their families; etc. These complex forms of 'togetherness' will become central to my investigation, particularly when it considers 'hybridity' in greater detail (see Part III).

What is fraught in notions of medical cyborgs is the idea and ideal of 'health': it is a desirable state that we are in seemingly perpetual pursuit of. The trouble with the concept, particularly relevant to a discussion of cyborgs, though, is that technologies are constantly shifting the baseline of what we recognise as 'healthiness'. Is health about having a fully functional body and mind in accordance with the model of how humans were originally made in God's image, in an originary Garden? Or is health about finding ways to improve that original design by using, for example, neural implants to enhance cognitive functioning? These questions expose, in a theological framework, fraught attitudes to technologies in a medical sense where 'health' can be taken to mean either 'therapy', associated with a reparative objective; or 'enhancement', associated with an evolutionary and developmental (even transhumanist) objective. Briefly, 'therapy' is about returning to a state of healthiness; 'enhancement' is about going beyond that state to improve upon it. Common to both principles is an assumption about health as a normative state that is sought or that is improved upon, but like all normative-based attitudes, certain users will be excluded on the basis of, for example, disability.[42] Cyborgs seek to challenge such exclusions in order to develop a more inclusive ethics; they do this by denying normative notions of healthiness. This in part underscores Haraway's critique of Eden and the natural state that it depicts, which I consider in further detail later in this investigation.

Returning to medical cyborgs, though, it is these tensions, between health as therapy and as enhancement, that underline concerns about iatric technologies. These technologies are open to both interpretations, and they thus complicate our understandings of what it is to be both normal and healthy. For Andy Miah,

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[42] Consider here the vagueness of prosthetics as both compensating for a lack in the body, or as enhancing something beyond an accepted level of 'normalcy'. Disability studies explore these sorts of issues; of these, I am particularly convinced by Dan Goodley et al.'s work on the 'dishuman' (see http://dishuman.com/ [date accessed: 11/9/15]). Cf. Anne Foerst, *God in the Machine: What Robots Teach Us About Humanity and God*, (London: Plume, 2005), 158-90; Søren Holm, 'The Nature of Human Welfare', in Deane-Drummond and Scott (eds.), *Future Perfect*, 45-55.

however, who theorises much on transhumanism, the question of therapy and enhancement in medicine is a trivial matter:

> Medical technology is not able to support transhumanist ideals precisely because it normalises technology, bringing it under the humanist guise of therapy. In contrast, the requirement of the transhumanist is to make sense of these technologies as transcending humanism, as becoming something beyond humanness (not nonhuman, but posthuman).[43]

While I agree with Miah in part, noting the normalising tendency applied to medical cyborgs, I would dispute his identification of transhumanism as fully humanism. I have demonstrated in the previous section that the trans/human draws out certain humanistic notions and attitudes, rather than transcending and surpassing the human entirely.[44] Contrary to Miah's comments, I contend that trans(/)humanism normalises technology in the same way that humanism does, albeit by using technology to go beyond foundational norms of health in pursuit of new norms and ideals (such as Clynes and Kline's model of the astronautic cyborg to venture into space). Normative notions are deeply influential in both views, which suggests that they stem from the same humanistic root, although they develop in different directions towards therapy and enhancement in medical cyborgs and trans/human cyborgs, respectively.

From this, we can see how the trans/human and the medical cyborgs reinforce and challenge our structured notions of health, therapy and enhancement. Common to both of these cyborg iterations is a reluctance to lose sight of the human steersman at the helm of technological developments and fusions. Eugene Thacker

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[43] Andy Miah, 'Be Very Afraid: Cyborg Athletes, Transhuman Ideals & Posthumanity', *Journal of Evolution and Technology*, Vol. 13 (2003).
[44] See also Chapter 6.1.

characterises this particularly well in discussing the transhuman, which I have expressed here as trans/human to give more appropriate emphasis to the human subject at the root of that movement. For Thacker, the transhuman:

> […] necessitates an ontological separation between human and machine. It needs this segregation in order to guarantee the agency of human subjects in determining their own future and in using new technologies to attain that future.[45]

Pithily, Thacker underscores how the steersman is preserved in all kinds of medical cyborgian fusions: there is a conceptual difference maintained between the human and the machine, even in spite of physical fusions.

This observation directly connotes the conclusion made of Clynes and Kline's astronautic cyborgs in the previous section, and we are thereby returned to the initial paradox that insists upon the demarcation of humans from machines, of the organic from the machinic, contrary to their apparent mixity. As Manfred Clynes goes on to say, in a statement that can be applied to both trans/human and medical cyborgs equally:

> *Homo sapiens*, when he puts on a pair of glasses, *has* already changed. When he rides a bicycle he virtually has become a cyborg. […] In no way has that altered [his] ability to experience emotions, no more than riding a bicycle does. And even more importantly, it hasn't altered [his] essential identity.[46]

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[45] Eugene Thacker, 'Data Made Flesh: Biotechnology and the Discourse of the Posthuman', *Cultural Critique*, No. 53 (2003), 77.

[46] Chris Gray, 'An Interview with Manfred Clynes', in Gray (ed.), *The Cyborg Handbook*, 49.

I suspect that this is the undergirding logic of medical cyborgs, and is that which allows them to be incorporated within the everyday.

To summarise, with medical cyborgs, the fusions may be more commonplace and more intensive than those envisaged of early astronautic cyborgs, and they may be more permanent. They may extend even to that sacred and neurological seat of the self, but concerns about the human are commonly allayed by the sustenance of an ontological difference, out of which the human is preserved and is able to maintain at least a degree of 'control'. Physically, the human body may undergo alterations, amendments and augmentations, yet conceptually, for Clynes and Kline's designs and for medical cyborgs, the human (self) is intact.

2.4   SF Cyborgs

> *In a world replete with images and representations, whom can we*
> *not see or grasp, and what are the consequences of such selective*
> *blindness?*[47]

There seems to be something of a reluctance to fully accept mixity in all of these discussions of the cyborg that have been considered thus far. In part, this can be accounted for by popular culture, where, to reiterate, (generally limited) portrayals of cyborgs alongside those in the 'real world' inevitably impact our broader understandings of that figure. The images that we commonly have through SF tend to 'other' the cyborg, by and large resulting in an "anxiety in popular culture that robotic and technological implants or enhancements not only turn us into something other than ourselves but also put us under the control of outside agents."[48] Of course, there are examples of less hostile depictions of

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[47] Haraway, *MW@SM*, 202.

[48] Simon Bacon, '"We Can Rebuild Him!" The Essentialisation of the Human/Cyborg Interface in the Twenty-First Century, or Whatever Happened to *The Six Million Dollar Man*?', *AI & Society* (2012), 9.

cyborgs in SF,[49] but they are nonetheless portrayed as distinct from the human in one way or another.

On one basic level, there are countless examples of 'cyborgs'[50] that abound in SF, and that are presented as markedly different from humans. In *Star Trek*, for example, the 'Borg' are a sinister alien race that threaten to subsume humans on board the Enterprise, thus marking their otherness as the enemy. In the *Terminator* films, Arnold Schwarzenegger's hyper-masculine character, although eventually coming to demonstrate more humanistic traits over the series, is consistently referred to as 'other' to the human, often leading to mildly comic scenes of misunderstandings and miscommunications. Even films that are adaptations of early modern fictions, or that draw on historical tropes and ideas, have a tendency to other the cyborgian as the not-quite-human.[51] In Spielberg's *A.I. Artificial Intelligence* (2001), for example, arguably a derivative of Shelley's infamous *Frankenstein* story, the main character, David, becomes the lens through which we are brought to critically consider the exclusivist and destructive tendencies of humans. David, who is also a contemporary Pinocchio, is the robot who dreams of becoming a real boy, but humans reject him and his kind, seeking to destroy them in carnival-esque 'flesh fairs' at the same time that they live out hyper-technologised lives in terrifying cyber-cities. In these 'techno-mirrors', who is more human(e)? Who is (more) cyborg?[52]

Although SF may seem to raise such important questions as these, there is also a sense in which those questions are distilled and allayed by the technologies that

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[49] Consider, for example, *Chappie*, Blomkamp (dir.), (2015); or *RoboCop*, Verhoeven (dir.), (1987).

[50] I wish to claim here that I reserve a certain amount of distance from these labels of characters as 'cyborgs'; I would regard them more so, for reasons to be discussed in due course, as posthumans. However, given that this section deals with popular conceptions of cyborgs, and these popular conceptions draw on cyborg identities applied to these characters, I am seeing through the implications of those labels here.

[51] Kevin LaGrandeur, *Androids and Intelligent Networks in Early Modern Literature and Culture: Artificial Slaves*, (New York/London: Routledge, 2013), 61.

[52] Philip Hefner, *Technology and Human Becoming*, (Minneapolis: Fortress Press, 2003), 31-42.

convey them. Expressing this notion, renowned media theorist Marshall McLuhan wrote fifty years ago that 'the medium is the message'. [53] Here, McLuhan emphasises, in what was at the time a novel theory, that attention needs to be given not only to the *content* of media transmissions, but also to the *form* of the media technologies themselves. We are arguably distanced from any of the cyborgs on the screen, even the most humanoid and humane ones, because "nothing impedes the subtle integration of human, natural, and artificial systems more than the present crudity of our technological interfaces – whether keyboard, screen, data suit, or visor." [54] The implication here is that such technological devices that we associate with cyborgisation are ironically too clunky to lead us to accept that we are cyborgs. In other words, as with cyborgs in space or in hospital beds, we do not find a convincing account of fusion between organism and machine as the label 'cyborg' implies. In this sense, media technologies may depict certain fabulated images and mediate the imaginary to us, but they also maintain a sense of distance by sustaining the realm between virtual and actual.

Indeed, as esteemed SF writer and theorist Margaret Atwood notes, this distancing may even be a crucial ploy in maintaining the appeal of SF: "Perhaps, by imagining scientists and then letting them do their worst within the boundaries of our fictions, we hope to keep the real ones sane." [55] The element of distance surrounding us from SF functions here as a sort of safety valve, as a sort of magic mirror where we can act out our deepest nightmares so that we do not allow ourselves to let them become reality. It is this distinction, between virtual and actual that operates across the screen, and that allows us the perspective of the allegedly detached. We are the spectators of these SF scenarios, and as spectators, we are purely observing, rather than being drawn into the drama.

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[53] Marshall McLuhan, *Understanding Media: The Extensions of Man*, (Abingdon: Routledge, 2001[1964]), 9.

[54] Roy Ascott, 'Back to Nature II: Art and Technology in the Twenty-First Century', in Max More and Natasha Vita-More (eds.), *The Transhumanist Reader: Classical and Contemporary Essays on the Science, Technology, and Philosophy of the Human Future*, (Chichester: Wiley-Blackwell, 2013), 444.

[55] Atwood, *In Other Worlds,* 211.

McLuhan's views are now arguably dated, though, and may not correspond fully to the complexities of the technologies that we engage with. Maintaining McLuhan's emphasis on the media technologies themselves, given the pervasiveness of these technologies in everyday life (such as smartphones, 'intelligent software', or the internet more generally),[56] the screen may no longer be sufficient as a clear divider. Jean Baudrillard develops McLuhan's theories here with a more contemporary, postmodern focus by emphasising the 'ecstasy of communication'. According to this theory, our engagements with technologies are so immersive that "there is no more discrete subject as the distinctions between the real and the medium dissolve."[57] Through Baudrillard's work that reinterprets many of McLuhan's key principles, we realise that when we are watching cyborg images in SF, we are engaging both with the images or content, and also with the technology that presents them. To this extent, we *are* cyborgs.

There is, however, a key difference between McLuhan and Baudrillard's work on media technologies and the human that needs to be noted. For McLuhan, media technologies are prosthetic 'extensions of [the hu]man',[58] which emphasises how the human is central to technological augmentation, in a similar way to how other cyborgs in this chapter have established a technological layer upon the foundational human subject. For Baudrillard, though, media technologies are 'expulsions of man'[59] in a process of transference of our identities to the machine. McLuhan's cyborgs are based on a principle of augmentation; Baudrillard's on one of self-loss that may parallel SF narratives of humans succumbing to machines (consider here *The Matrix*, or *RoboCop*). What do we gain from either perspective,

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[56] Paul Teusner, 'New Thoughts on the Status of the Religious Cyborg', *Journal of Technology, Theology, and Religion*, Vol. 1, No. 2 (2010).

[57] Kim Toffoletti, *Cyborgs and Barbie Dolls: Feminism, Popular Culture and the Posthuman Body*, (London/New York: I.B. Tauris, 2007), 120.

[58] McLuhan, *Understanding Media*, 7. The androcentric language of McLuhan's analysis can be appropriated here but would also be worthy of a gender-based analysis alongside that of the cyborg more generally.

[59] Jean Baudrillard, *The Perfect Crime*, (London/New York: Verso, 2008[1995]), 37.

though? Is it better to see technologies as able to perfect the human, or is it better to fear them? What is the human at the centre of these questions?

I contend that the last question is the most overlooked, and yet is also the most important one in our relationships and engagements with technologies. Pushing beyond a celebrating or fearing of technologies allows us to reflect on questions about our self-understandings, our place in the world, as well as our ethical models that enmesh other species and beings. SF is equipped to deal with such questions, but only if audiences ensure that they are open to the reflection and interrogation of ourselves that these stories demand. As media theorist Scott Bukatman notes, "SF frequently posits a reconception of the human and the ability to interface with the new terminal experience." [60] The 'terminal identity' experienced here is "an unmistakably doubled articulation in which we find both the end of the subject and a new subjectivity constructed at the computer station or television screen." [61] It suggests a more complex interaction of human and technological than McLuhan or Baudrillard develop. The human, we find, is *deconstructed* rather than *transcended* or *dissolved*, [62] and this marks a new, interrogative way in which we can be considered cyborgs.

Bukatman figures cyborgs in this way by placing emphasis on *both* media technologies and the narratives that they convey, whereas McLuhan and Baudrillard give greater weight to the technologies, and other SF commentators have focused more exclusively on the content. For Bukatman, there is a crucial narrative dimension not only to the content of SF but also to the media technologies. [63] To illustrate this, Bukatman notes how "the illusion of subject

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[60] Scott Bukatman, *Terminal Identity: The Virtual Subject in Post-Modern Science Fiction*, (Durham/London: Duke University Press, 1993), 118.
[61] Ibid., 9.
[62] Ibid., 320.
[63] Margaret Atwood also suggests something to this end in reflecting on 'our robotic future' through SF narratives and the technologies that we use to imagine or develop them. (Atwood, 'Are

empowerment depends upon the invisibility of the apparatus."[64] By highlighting this, Bukatman is able to deconstruct and critically investigate the complex relations at play between humans and technology, and between content and form. SF presents a powerful way through which to develop this deconstructive methodology because it recognises and reflects parts of our own culture while engaging in practices of fabulation by using alternative worlds and technologies to scrutinise our own. To be sure, Bukatman does not downplay the power struggles of subjects (i.e. tensions between self and 'other') as part of this bricolage of narratives, but seeks to displace and refigure those subjects and their struggles in decentralised, cyborgian ways. [65] This is the groundwork for an alternative figuration of the cyborg that is particularly significant for the work of Donna Haraway and for theology, which I begin to elaborate in the next chapter.

We then have, from Bukatman's work on SF, a new conceptualisation of the cyborg, and with it, potentially a new way of conceptualising – or at least interrogating – the human. SF narratives can allow us to establish a critical distance from our technologies at the same time that we closely engage with them as audiences (and participants) in those narratives. This demands a new way of considering closeness and distance that takes us beyond the more simplistic models of early cyborgs that are predicated on a human foundational subject. I take this complex connectivity with technologies expressed in SF as the starting point for a way to usefully begin to rethink how we see ourselves in relation to technologies in ways that do not prefigure the (ideal) human through practices of exclusion. In the next chapters, I develop this position with further exploration of cyborgs and their implications for our understandings of the human, with specific reference to theological anthropology.

Humans Necessary? Margaret Atwood on Our Robotic Future', *The New York Times*, http://nyti.ms/1yUD3zU, [2014] [date accessed: 9/12/2014].)

[64] Bukatman, *Terminal Identity*, 196.

[65] Ibid., 296, 301; cf. Ferrando, 'Posthumanism, Transhumanism, Antihumanism', 30.

Cyb/orgs II: Donna Haraway and Beyond

The previous chapter explored how early ideas of the cyborg interact with popular culture. These ideas shape and are shaped by technological trends and undergirding attitudes. For example, many cyborg developments have been affirmative of the human and its ability to explore, to learn, to heal, and to (be) enhance(d). This human element remains strong even amidst literal fusions between organism and machine, and so there is an important conceptual dimension to considering cyborgs and humans. An examination of SF makes this clear by referring to both the narratives-as-content, and the narratives of the media technologies revealing the SF plots. Here, a more intricate understanding of fusion between human and cyborg identities becomes apparent. With this realisation, cyborgs are being thrust more and more into the everyday: out of the rocketships and hospital beds, and onto the computer screens, desks, and into the world.

Donna Haraway analyses cyborgs within this context; she places them firmly in the quotidian to articulate how we are all cyborgs. This, of course, is a bold claim, and Haraway would be unable to make it without reference to the (hi)stories of cyborgs, explored in the previous chapter, that prefigure her own articulations. Haraway draws together practices of technology in the everyday, including our interactions with media technologies touched on by Marshall McLuhan and his followers, with notions of cyborgs typically found in SF. These SF cyborgs themselves draw on ideas of astronautic cyborgs, such as those conceived by Clynes and Kline, but they are also interlaced and obfuscated with other technological beings such as robots and monstrous creations.[1]

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[1] See Chapter 6 for a more detailed discussion of these figures and how they resound with, but also cruicially differ from, cyborgs.

The coming together of all of these attitudes and conceptions informs our overall understanding of the cyborg, but Haraway's approach is unique in addressing that history, whilst significantly reworking and re-articulating it on a metaphorical and narratival level. Exactly what this means will be significant for the rest of this investigation, and will be the focus of this chapter.

3.1   Figurative Cyborgs

Common to the early conceptions of cyborgs in astronautic, medical, and SF terms is a preconception of the human. Especially with Clynes and Kline's cyborgs in space, the human was taken as the springboard for technological augmentations that allow specifically human exploration. Increasingly over time, though, and this is discernible in both medical and SF renditions of cyborgs to a limited extent, cyborgs have scrutinised our understandings of the human. Medical cyborgs, for example, invite questions about 'natural' death via the technological creation and sustenance of new, comatose states;[2] or they invite other questions about 'natural' birth with new technologies such as IVF (*in vitro* fertilisation) allowing for the possibility of 'test tube' or 'designer' babies, or even three-parent families.[3] Similarly, SF cyborgs ask us how our relations with technology might have already changed us. Can we still speak of 'human nature' in this technologised and cyborgian context?

Anne Kull makes a strong case criticising discussions of naturalness. She argues that, instead of the cyborg reaffirming naturalness in terms of being incorporated into human nature, the figure should be interpreted as challenging those ideas from the offset:

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[2] Hogle, 'Tales From the Cryptic', 203-18.

[3] Sarah Knapton, 'Three-parent babies: House of Lords approves law despite fears children could be born sterile', http://www.telegraph.co.uk/news/science/science-news/11432058/Three-parent-babies-House-of-Lords-approves-law-despite-fears-children-could-be-sterile.html (24/2/15) (date accessed: 23/3/15).

The cyborg is an attempt to understand nature in a way that challenges the features of the culturally authorised concepts of nature; it is an attempt to free ourselves from conventional ideas of nature. The problem with conventional ideas is that they tend to become oppressive and normative – especially when a situation is perceived to be one of crisis. Then the nature of nature is denied change.[4]

In this understanding, close to Haraway's views on nature, the cyborg becomes a way to actively challenge what it is to be 'natural' in the first place. This is useful because notions of the 'natural' guide so many of our attitudes and practices. At present, our technological engagements are informed by notions of human nature as capable of changing the world for the better, or in need of augmenting, or in need of protecting and conserving against technological amendments. As will be discussed throughout this investigation, the cyborg scrutinises these assumptions about (human) nature. It thereby allows us to critically reflect on the things that we value, those that we *should* value, and how we might connect the dots between the two.

A useful starting point here is how the cyborg rejects notions of an independent or pre-existent nature that is defined against the technologised human who distances his/herself from the state of non-technological 'naturalness'.[5] Instead, "the certainty of what counts as nature – a source of insight and promise of innocence – is undermined, probably fatally."[6] Relating to this, via a breakdown of the dichotomy between nature and culture, or nature and technology, is a closely related challenge that the cyborg figure makes of 'human nature'.[7] We cannot, in

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[4] Anne Kull, 'The Cyborg as an Interpretation of Culture-Nature', *Zygon*, Vol. 36, No. 1 (2001), 50.

[5] See Chapter 1.3.

[6] Haraway, 'Manifesto', 152-3.

[7] Cf. Jeanine Thweatt-Bates, 'Artificial Wombs and Cyborg Births: Postgenderism and Theology', in Cole-Turner (ed.), *Transhumanism and Transcendence*, 106.

short, idealise or envision any normative or 'innocent' aspects of humanness. The underlying principle here is an ethics of inclusion, which questions how normative notions of humanness have been used to exclude different groups, both 'human' and 'nonhuman'.[8] Cyborg figures draw on the dynamism brought about by technologies to challenge assumptions we have of ourselves, and encourage openness to the implications of living in an equally dynamic world. Because of the significance of this challenge, it can be argued that Haraway's cyborg figure is not merely auxiliary to the human as the cyborg previously has been for other theorists. It is, rather, a powerful hermeneutic figure and a trope through which we critically interrogate our relationship to the world and to other technologies.[9]

The division between humans and cyborgs characteristic of early cyborg designs, by this stage, becomes increasingly difficult to uphold. Cyborg figures undercut discrete notions of human nature, but this presents a particular theoretical quandary given that cyborgs are conceived of by humans, and they are born out of a human world.[10] One of the main arguments that Haraway wants to emphasise with her vision of the cyborg is that there is a way out of the so-called 'border war' primarily between organism and machine. This border war, I have demonstrated, has been a strong undercurrent in early notions of the cyborg. For Haraway, it represents a number of other disparities and binarised oppositions that she sees as problematic:

> In the traditions of 'Western' science and politics – the tradition of racist, male-dominant capitalism; the tradition of progress; the tradition of the appropriation of nature as resource for the productions of culture; the tradition of

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[8] Ibid.

[9] To this end, Haraway's cyborg can be seen to parallel Ihde's theory of hermeneutic relations with technology (*Technology and the Lifeworld*, 80-97).

[10] I have elsewhere referred to technology emerging from a human world as '*ex anthropos*'; see Scott Midson, '"*Ex Anthropos*": Implications of the Creation of the "Posthuman" for the (Created) "Human"', *Journal for the Academic Study of Religion*, Vol. 26, No. 3 (2013), 270-87.

reproduction of self from the reflections of the other – the relation between organism and machine has been a border war.[11]

Haraway's cyborg, in short, is locatable as the critique of these interlinking philosophies.

What is interesting, though, is that these attitudes are all embedded in earlier narratives and forms of the cyborg, and yet Haraway radically reinterprets that figure to challenge such attitudes. Arguably, what Haraway is doing, to return to the notion and quandary of 'beginnings', is not starting with the human as previous work on the cyborg has done. Instead, she is starting with the cyborg and elaborating a perspective based on that methodological position. This involves an appeal to the (hi)stories of the cyborg that I have traced in the previous chapter, but also incorporates practices of fabulation. Elaborating on this, in an essay arguing for the significance of SF,[12] Haraway writes:

It matters what matters we use to think other matters with; it matters what stories we tell to tell other stories with; it matters what knots knot knots, what thoughts think thoughts, what ties tie ties. It matters what stories make worlds, what worlds make stories.[13]

Fabulation here involves an appeal to alternative narratives that are caught up in the 'cat's cradle' of (hi)stories. It is part of the way that the cyborg invites reflection on the non-discreteness of beings, including the human. Technologies are not ancillary to the human, as was the case with earlier cyborgs and removable

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[11] Haraway, 'Manifesto', 150.
[12] See Chapter 2.4.
[13] Haraway, 'SF'; cf. Chapter 1.2.

(or at least identifiable) prostheses, but are inseparable from how we understand ourselves.

To elaborate this point somewhat, Haraway uses her cyborg figure to call for a new *articulation*, rather than *representation*, of the mixity of beings. This is a significant (albeit perhaps subtle) distinction. In Haraway's own words, "I have framed the issue in terms of articulation rather than representation. Human beings use names to point to themselves and other actors and easily mistake the names for the things."' [14] The underlying attitude here is that representation has a tendency towards nominalism, which has traditionally and theologically manifested in Adamic and *humanocentric* terms, where the author of the name exerts a power over the named being. In Genesis, this was expressed as a form of domin(at)ion over animals. [15]

Articulation does not let the human tell the story of the cyborg through representation as an act of ventriloquising. [16] As we have seen with the (hi)stories of the cyborg in the previous chapter, this has always resulted in the cyborg being eschewed in favour of the human or humanocentrism. Articulation instead provides a way of rethinking and reflecting on the (hi)stories we inherit, by responding more fully and openly to the figure of the cyborg. For Haraway, this means that articulation is necessarily 'non-innocent'; it "is work, and it may fail. All the people who care, cognitively emotionally, and politically, must articulate their position in a field […] made up of indigenous people and other human and unhuman actors."[17] Articulation shifts our focus to the broader field and involves acknowledgement of the multiple and complex narratives, and realising how they work together in telling new stories rather than retelling old stories in different ways. This is fundamentally a critical as well as a constructive undertaking.

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[14] Haraway, *HR*, 89.
[15] Genesis 2:19; see Chapters 5.1 and 5.2.
[16] Haraway, *HR*, 87.
[17] Ibid., 91.

The cyborg, then, as Haraway articulates it, can be read on one level as a mode of critique of humanocentric thought. For posthumanist theologian Stephen Garner, "the [cyborg] metaphor stands against perspectives that divide the world into overly simplistic dualisms and hierarchies that are used by those in power to maintain control."[18] But this is only one dimension of Haraway's cyborg, and to take this alone would be misleading and incomplete because something that is merely a critical device is abstract and free-floating. In the light of the genealogy of the cyborg, this solely metaphorical use would perhaps ironically risk a conceptual return to the original free-floating and deeply humanocentric cyborg deployed by Clynes and Kline, which is something that Haraway is critical of.[19] According to Haraway, "the cyborg is a cybernetic organism, a fusion of the organic and the technical forged in particular, historical, cultural practices. Cyborgs are not about The Machine and The Human, as if such things and subjects universally existed."[20] Haraway uses an emphasis on the complex (hi)stories of cyborgs to highlight the fusions of different practices, which call into question the universal categories of 'The Machine' and 'The Human'. Previous cyborg figures have inadequately relied on these broad notions in maintaining the unique human at the centre of mechanical and technological augmentations. Thus, we need to recognise that the cyborg, for Haraway, is more nuanced than merely being a metaphor. Instead, "the cyborg is not only an image or figure, an entity in fact or imagination, but it is also a positioning, a way of thinking and seeing."[21]

In short, for Haraway, the cyborg is not merely a hermeneutic tool but it can, indeed it must, be located within narrative and historical frameworks. Haraway's understanding of the cyborg, in dealing with story and narrative, allows for a different articulation of ourselves *in situ* rather than as conceptually discrete or

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[18] Stephen Garner, 'The Hopeful Cyborg', in Cole-Turner (ed.), *Transhumanism and Transcendence*, 91.
[19] Haraway, 'Manifesto', 150-1.
[20] Haraway, 'MiW', 210-1.
[21] Joseph Schneider, *Donna Haraway: Live Theory*, (New York/London: Continuum, 2005), 61.

isolatable from the world and from technologies. It is thus not about *representing* our technologies to ourselves, but about *articulating* everything together.

3.1.1   Cyborgs in Sticky (Hi)stories

Although Haraway's work advocates a move towards articulation and away from representations that retell the same stories in uncritical and unconstructive fashion, the aim with articulation is not to deny or abandon the (hi)stories that we inherit. Whilst Haraway's cyborg critiques the validity of certain assumptions within narratives, it cannot pretend that those narratives never existed. Graham is attentive to this point:

> Haraway cannot claim a monopoly on cyborgs, or assume
> that they are innocent of contrary readings. They can only be
> used as a heuristic device to think beyond the polarities of
> technophilia and technophobia in the service of genealogical
> critique and fabulation.[22]

Haraway herself is aware of this, as she develops the cyborg figure in the light of the ways that it had previously been figured, in order to make a feminist subversion of the masculine figure that dreamed of technological production and challenged 'natural' female reproduction.[23]

As Joseph Schneider writes in his analysis of Haraway's work, "Haraway says again that all her figures are located and have particular histories. Her famous quip regarding the cyborg – 'it wasn't born in a garden but it definitely has a history' – makes this point."[24] It is this taking into account of (hi)stories, and constructing an alternative articulation, that is integral to an understanding of

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[22] Graham, *Representations of the Post/Human*, 210.
[23] Haraway, *HLaL*, 103.
[24] Schneider, *Donna Haraway*, 23.

Haraway's cyborg. By presenting the genealogy of the cyborg here, I hope to have outlined some of the tensions that Haraway's cyborg works both with and against, thereby making further analysis of that figure possible.

Not only does the cyborg interact with (hi)stories but also, significant to this investigation, it interacts with the sense of origin conveyed by these narratives. The cyborg's origins, as we saw from Clynes and Kline's account, concerned the human (and specifically masculine) drive to expand one's own horizons and to venture into space. Although Haraway may not have been specifically aware of Clynes and Kline's work at the time of writing her Manifesto,[25] she is certainly aware of how these origin stories have influenced the cyborg's genealogy. For Jeanine Thweatt-Bates, Haraway "never forgets this dubious original conception of the cyborg as the ultimate Man, even while she argues that the cyborg, as the 'illegitimate offspring' of the Enlightenment, may very well be unfaithful to its origins."[26] The cyborg seems to both inherit and challenge its sense of past and origins.

The tension between the cyborg and the human figures that has been discussed at length throughout this chapter and the previous one, in short, manifests in Haraway's work as a tension between different (hi)stories and narratives: on the one hand, those that belong to the human, or a humanocentric frame of thought, and that *represent* the cyborg; and on the other hand, those that attempt to circumvent such conservative patterns of thinking, and that are more keen to *articulate* a new and more radical understanding of the cyborg.

The cyborg, to be sure, cannot deny or abandon its past, because to do so would be to uproot it from its situatedness, and it would ironically return it to its original

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[25] Haraway, *HR*, 324.
[26] Thweatt-Bates, 'Artificial Wombs and Cyborg Births', 107.

and problematic position of being a 'man in space'.[27] Equally, though, by affirming the narratives that have shaped and formed it, the cyborg is in some way affirming the human subject that it is working against. What we can perhaps deduce from Haraway's paradoxical figuration and articulation of the cyborg is that she is specifically not trying to oppose it to the human, though. Rather, Haraway is trying to problematise the separation of (hi)stories narrating 'The Human' and 'The Machine'. This separation, as the last chapter demonstrated, has typified the cyborg's own genealogy. To oppose the cyborg to the human is to perpetuate the humanocentric patterns of thought that 'othered' the cyborg in the first place, even marking it as a threat to be controlled.[28]

Haraway, contrary to these previous efforts and understandings, renders the human as a question to be perpetually raised, and this is why her cyborg figure is able to make a deep interrogation of the human. The cyborg situates itself within human (hi)stories, and from this position is able to critique them and articulate them differently. Indeed, as Sadie Plant astutely suggests, "the cyborg has no history, but that of the human is rewritten as its past."[29] The cyborg, then, for Haraway, is not to be read antithetically to the human. It is similarly not to be read as merely an abstract critique of the human, but it can be situated and placed in the technologies and practices through which we live out our lives in the everyday sense. Cyborgs, in this approach, demand an awareness of multiple (hi)stories and their complexity.

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[27] Cf. Monica Casper, 'Fetal Cyborgs and Technomoms on the Reproductive Frontier: Which Way to the Carnival?', in Gray (ed.), *The Cyborg Handbook*, 185.

[28] Csicsery-Ronay Jr, 'The SF of Theory', 396.

[29] Sadie Plant, 'Coming Across the Future', in Joan Broadhurst-Dixon and Eric Cassidy (eds.), *Virtual Futures: Cybernetics, Technology and Post-Human Pragmatism*, (London/New York: Routledge, 1998), 31.

3.2 We, Cyborgs

These fusions, though, remain open to many interpretations. Not all theorists necessarily agree with or follow Haraway's articulation of the cyborg. Another notable technologist working in this field is Kevin Warwick, who gained media attention after he implanted a technological device into his arm that allowed him to control various external devices, to automatically open doors in his office when approaching them, and various other experiments.[30] Interestingly, some have regarded Warwick's experiments as the first examples of "oneness between living, breathing human beings and the machines we have built,"[31] meaning that Warwick himself has been accredited as 'the world's first cyborg'.[32]

On closer inspection, however, particularly in the light of the multifaceted motley crew of cyborg figures, it is possible to question the assumptions behind the heralding of Warwick as 'Captain Cyborg'.[33] To begin with, Warwick works with a certain definition of the cyborg, where he sees that figure as "something that is part-animal, part-machine, and whose capabilities are extended beyond normal limits. This is much more general than other definitions and includes creatures other than humans."[34] At first glance, Warwick's definition seems broad and inclusive, going beyond the human to consider animals as well as machines, which is also something that Haraway takes seriously in her work on cyborgs.[35] Yet equally, Warwick makes significant use of the notion of normalness, and this limits his understanding of the cyborg within the parameters of what he understands as 'normal'. This may seem counterintuitive; Warwick claims that his cyborgs are about going beyond normal limits, but this definition assumes a pre-

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[30] Kevin Warwick, *I, Cyborg*, (London: Century, 2002).

[31] Oliver, cited in Warwick, *I, Cyborg*, 237.

[32] Arthur House, 'The Real Cyborgs', http://s.telegraph.co.uk/graphics/projects/the-future-is-android/ (20/10/14) (date accessed: 24/3/15).

[33] Andrew Orlowski, 'Captain Cyborg accepts another degree from puny humans', http://www.theregister.co.uk/2012/07/26/captain_cyborg_gong (26/7/12) (date accessed: 24/3/15).

[34] Warwick, *I, Cyborg*, 61.

[35] Haraway, *PV*, 102-3.

established notion of what is normal as the baseline for enhancements. In short, Warwick starts, in a similar way as do trans/human theories of the cyborg (such as Clynes and Kline's), with the organism as the 'norm' that technologies are built upon.

Transhumanism and cyborgs are very often conflated in literature on the subject. In these cases, cyborgs are vaguely taken as the figures that have somehow advanced beyond the normal human and lead towards a posthuman future.[36] In other words, cyborgs are a kind of stepping stone from human to transhuman to posthuman, where etymologically the emphasis on the 'human' figure is blatant.

To elaborate on some of these connections between Warwick's work and trans/human cyborgs, one needs only to heed Warwick's warning at the start of his autobiographical recount of his cyborgian experiences. He writes that, "just as we humans split from our chimpanzee cousins years ago, so cyborgs will split from humans. Those who remain as mere humans are likely to become a sub-species."[37] There is an evolutionary trajectory mapped out here, where cyborgs are seen as taxonomically different from humans, as a sort of posthuman species akin to how humans differ from apes.

It is this evolutionary kind of mentality, though, that distinguishes Warwick's attitudes to cyborgs from Clynes and Kline's. While the latter recognise removable technology such as astronautic spacesuits as cyborgian, for Warwick it is the permanence of fusions that will constitute evolutionary technological development. Speaking of his own experience as a temporary cyborg, for example, Warwick notes how "certainly, from the very start, I regarded the array and wires as being a part of me. Having it extracted, I knew, would be like losing a part of

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[36] House, 'The Real Cyborgs'.
[37] Warwick, *I, Cyborg*, 4.

my body, almost an amputation."[38] Warwick extends his perception of himself so that it includes technologies, and they become a literal and conceptual part of his body and identity.[39]

On the one hand, this more inclusive and embracing approach to technology is yet another understanding of the cyborg that seems to take seriously Haraway's refutation of human and machine divisions. The cyborg body incorporates technological components such that they are as embedded and constitutive of the self as any organic parts. On the other hand, though, Warwick's evolutionary-based analysis necessitates a division between humans and cyborgs that is difficult to reconcile with his notion of fusion. By the end of his book, for example, Warwick envisions:

> Those who predicted that humans would stay in control [will] have certainly been proved wrong. The earth [will be] dominated by cyborgs – upgraded human/machine combines that have managed to harness the new-found super intelligence of machines and use it for their own ends.[40]

The power here has been shifted away from humans to an 'othered' form of the cyborg that we typically associate with SF.

But even this would be a misleading conclusion to make of Warwick's work. Warwick actively seeks to apply technology to therapeutic projects such as tackling Parkinson's disease,[41] where therapy is about achieving a 'normal' state of

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[38] Ibid., 292.

[39] Kevin Warwick, 'Cyborg Morals, Cyborg Values, Cyborg Ethics', *Ethics and Information Technology*, Vol. 5 (2003), 134; cf. Ihde, *Technology and the Lifeworld*, 72-80.

[40] Warwick, *I, Cyborg*, 298.

[41] http://www.kevinwarwick.com/ (date accessed: 24/3/15).

'health'.[42] The problem here is that cyborgs are vague enough to refer to both therapeutic applications of technology and enhancements. In both cases, as with medical cyborgs, the human 'norm' is affirmed and challenged. Warwick overall mutes this challenging: "the cyborg provided our main hope of staying in control."[43] By looking forwards rather than inwards, though, Warwick does not dispel the challenges that the cyborg raises of the human. They remain, and it is necessary to be attentive to them by asking, for example, more critical questions about what it *means* to be in control.

Given this emphasis on and striving for control, Warwick advocates the cyborg as more optimal for us than remaining, by proxy, 'naturally' human in terms of being non-augmented by technologies. In emphasising the choice that we can become cyborgs, Warwick shifts focus away from our origin and nature as humans. He declares, "I was born human. This was merely due to the hand of fate acting at a particular place and time."[44] While downplaying this part of our origin though, Warwick nonetheless grounds the choice to become cyborg in our natures. He continues, "But while fate made me human, it also gave me the power to do something about it."[45] In this context, staying human is a choice that Warwick sees as contrary to our developmental nature that is also discernible in Clynes and Kline's earlier astronautic cyborgs. Becoming cyborg is thus more in-keeping with our expansive human nature, and could itself be considered as 'natural'.[46]

Here, Warwick's discussion of the cyborg reminds us that cyborg projects that start with the human (i.e. trans/human cyborgs) do not stray too far in one way or another from that figure. Although Warwick accepts a deeper sense of fusion than other cyborg writers, he still maintains a sense of human nature as a foundation

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[42] See Chapter 2.3.

[43] Warwick, *I, Cyborg*, 151.

[44] Ibid., 1.

[45] Ibid.

[46] Ibid., 303.

for his technological augmentations. This contrasts Haraway's articulation of the cyborg, which "develops directly out of the postmodern sensibilities of a critique of essentialism in second-wave feminist discourse."[47] Transhumanism, on the other hand, "relies directly on rationalist and Enlightenment articulations of human personhood,"[48] and so it expands certain principles rather than interrogating them.

In short, the legacy of the early humanocentric (and androcentric) cyborgs, particularly those in space, remains deeply instructive in many scientific advancements such as Warwick's that lead towards a technologisation of the human. It seems that certain understandings of the human prevail even when the body is blatantly fused with technology. The 'cyborg' becomes merely another way of looking at the human-as-steersman. "*Plus ça change, plus c'est le même chose. Plus ça change, plus c'est les mêmes* shows."[49]

3.3   Natural-Born Cyborgs

On the one hand, then, we have the trans/human set of cyborgs that start with the human and typically carry some normative part of the human, either as an explorative drive or as a baseline for enhancement, along its course of modifications. Here, the human figure is able to incorporate the cyborg technologies and prostheses within itself. On the other hand, cyborg technologies *can* prompt us to question the plasticity of the human, as Haraway's account shows. They allow us to deconstruct that human figure in scrutinising where, if at all, we can locate our understanding of what it is to be human (in terms of human nature, for example). Both of these tendencies – of accommodation and critique –

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[47] Adam Pryor, 'Jeanine Thweatt-Bates. Cyborg Selves: A Theological Anthropology of the Posthuman', *Theology and Science*, Vol. 11, No. 2 (2013), 162.
[48] Ibid.
[49] Bernard Wolfe, *Limbo '90*, (Middlesex: Penguin, 1961[1952]), 116.

are arguably continued in a further iteration of the cyborg figure, which is Andy Clark's conceptualisation of the 'natural-born' cyborg.

Outlining his position, Clark writes:

> We shall not be cyborgs in the merely superficial sense of combining flesh and wires but in the more profound sense of being human-technology symbionts: thinking and reasoning systems whose minds and selves are spread across biological brain and nonbiological circuitry.[50]

Clark attempts to outline a seemingly radical new conceptualisation of the human that emphasises our connectivity with tools. Its strikingness emerges out of its emphasis on fusion, and rather than continuing to mark technologies as 'other', Clark depicts them as a fundamental part of being human.

Although this seems to be similar to Warwick's work, and indeed there are notable resonances such as a deep sense of fusion, Clark goes beyond this and begins to deconstruct the notion of the human. Whereas, for Warwick, cyborgs are our future, for Clark, arguably as for Haraway, cyborgs are also part of our present and our past. In this way, Clark connotes Erik Davis, for whom, "human beings have been cyborgs from year zero. It is our lot to live in societies that invent tools that shape society and the individuals in it."[51] If this is the case, though – if humans have indeed always been cyborgs, as Clark (and Davis) would have us believe – then in what sense can we affirm the radicalness of their critique? What has changed about humans, or about our understanding of them, if anything?

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[50] Clark, *Natural-Born Cyborgs*, 3.
[51] Davis, *TechGnosis*, 14.

Clark posits, "we have been designed, by Mother Nature, to exploit deep neural plasticity in order to become one with our best and most reliable tools. Minds like ours were made for mergers."[52] What is interesting about Clark's vision of the cyborg is not only that it means that we are, and always have been cyborgs, but that it *naturalises* notions of technology so that technologies are not read in antithetical ways to the human, as previous iterations of cyborgs (such as cyborgs in space and medical cyborgs) have supposed.

An understanding of technology-as-naturalised would mean that "cyborgisation transcends the human, dissolving old distinctions between nature and culture or organic and mechanic."[53] What we would have is an understanding of the cyborg that is more attentive to the fusion between cybernetics and organism rather than the need for a linguistic splice in previous understandings of that figure. The separation of organic and mechanic parts leaves us with a lingering sense of the human, but this would be undercut by a vision of the cyborg, as Clark suggests, that is more embracing of deep-seated fusions that are already a part of who we are rather than being stalled to a point in our cyborgian, trans/human future.

That said, we cannot celebrate the conceptual overcoming of the human with regards to Clark's interpretation of the cyborg too hastily because the naturalisation of prosthetics and technologies may be misguided. To elucidate, on the one hand, Clark offers an account that claims to blend cybernetics with the organism, noting that "it is just tools all the way down"[54] in a manner that refutes the notion of "the mind and the self as a wafer-thin inner essence." [55] This interpretation of humans and technology necessitates an emphasis on fusions that coincides well with Haraway's own conviction that "humans are congeries of

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[52] Clark, *Natural-Born Cyborgs*, 6-7.
[53] Gray, *Cyborg Citizen*, 183.
[54] Clark, *Natural-Born Cyborgs*, 136.
[55] Ibid., 198.

things that are not us. We are not self-identical."[56] On the other hand, Clark arguably restricts himself by naturalising technology, such that it is constrained to a specifically *human* nature.[57] Effectively, this undermines much of the critical investigative work that Haraway does with her account of cyborgs. Crucially, Haraway takes heed of not only technological crossovers, but also crossovers with other organisms, which is why, for Haraway, "there could be no more iconic cyborg than a telemetrically implanted chimpanzee."[58] Because Clark restricts his understanding of cyborgs specifically to humans, such a 'nonhuman cyborg' would be impossible to identify in his work.[59]

Haraway's cyborg, unlike Clark's, is a *figure*, and figures "must involve at least some kind of displacement that can trouble identifications and certainties."[60] Clark's cyborg, by contrast, continues to offer certainties by telling the same stories that we are accustomed to about human nature but with a different label. Nothing particularly changes in Clark's account. Clark naturalises technological and trans/humanist visionary drives such as to venture into space, or to prosthetically extend ourselves by rendering them as central to human nature. Clark, in my reading, re-presents the figure of the human under the guise of the cyborg rather than offering us any critical exploration of our relationship with technologies. Contrariwise, Haraway's methodology of *articulation* draws upon tropes, metaphors and figures such as primates, OncoMouse™ or computer-using-cyborgs to offer us critical perspectives on our own relationship with technology that undermine the stability of our narratives.[61] It is articulation, rather than

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[56] Haraway, *HR*, 328.

[57] Clark, *Natural-Born Cyborgs*, 86.

[58] Cf. Haraway, *PV*, 138-9.

[59] Clark, *Natural-Born Cyborgs*, 197. Interestingly, this distinction overlooks the fact that the first cyborg was an animal; it was a murine subject fitted with a 'Rose osmotic pump' (Clynes and Kline, 'Cyborgs in Space', 27). Cyborgs seem to ironically perpetuate a trend where they subvert origins, including their own.

[60] Haraway, *MW@SM*, 11.

[61] Cf. Hayles, 'The Life Cycle of Cyborgs', 321.

representation, that enables critical and reflexive reflection on the (hi)stories that shape us, as well as being shaped by us.

Clark's natural-born cyborgs are perhaps, then, only a slight variation of their trans/human and medical forerunners, and his book can be subsequently read as an attempt – albeit a convincing one – to allay technophobia and cyborg fears. The fact that Clark is able to make assertions such as that "it is our basic *human* nature to annex, exploit, and incorporate nonbiological stuff deep into our mental profiles,"[62] demonstrates that his work maintains a strong allegiance to the human subject.

The human is preserved as central in a technologised world, and though humans are deeply connected to those technologies, in Clark's depiction, they remain in the driving seat. This identification ultimately betrays the deep sense of fusion that Clark insists upon. If humans are regarded as central and controlling, then they have been distinguished above and against their surroundings, in particular against nonhuman animals and nature. There is less scope for critical reflection in Clark's account compared to Haraway's because Clark works with the same anthropocentric framework that uses technologies to legitimise human uniqueness and dominance rather than challenge it.

3.4   Cyborg Tensions

We have thus far considered the tensions that have riddled the fraught and tenuous relationship between humans and cyborgs throughout the cyborg's genealogy. Where the two are able to be distinguished, as I have argued that they have consistently been thus far, troubling questions are opened up that are ultimately sealed by a persistency of the human subject and figure. Clynes and Kline's original cyborg left 'man' largely intact by distinguishing that subject from

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[62] Clark, *Natural-Born Cyborgs*, 198 (original emphasis).

his technological augmentations. Medical cyborgs then brought the human under further scrutiny, particularly in terms of what is normalised and 'healthy', and what falls under the titles of 'therapy' and 'enhancement'.

In each of these cases, technophobia is allayed by subjugating the technological components and prostheses to human control. Of course, there are fears about prostheses-gone-awry, [63] but these fears nonetheless espouse the human-technology control dynamic by inverting it. Put differently, they reveal that physical cyborgs are not conceptually fused systems. There is integration of organism and mechanism, yes, but there is also a power imbalance where tools remain subservient to the essentially human self. This exposes a fine line between augmentation and annihilation that I touched on with reference to McLuhan and Baudrillard. [64] Cusack aptly describes this: "while we view the cyborg as a violation of humanity's special status, we will hate and fear it, and perhaps be more vulnerable to being taken over by it. However, closer contact with the cyborg reveals that, although modified, it is still human, "one of us.""[65] Again, attitudes to the cyborg are dependent on how the human is initially regarded, and as with prostheses, even when humans and technologies appear fused, the technologies are actually incorporated into a specifically human system. Although technically anybody with an artificial limb, pacemaker, or even contact lenses is a cyborg, common parlance does not regard them as such, and this demonstrates the absorbing power of the 'human' label.

With these important definition issues in mind, it is perhaps not difficult to see why Haraway, who began with the question of boundaries between humans and animals as well as humans and machines, has moved away from the question of

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[63] See Kaayk (dir.), 'Metalosis Maligna. An Extraordinary Diease' (http://www.metalosis.com/video.html) (accessed 29/9/12).
[64] See Chapter 2.4.
[65] Carole Cusack, 'The End of the Human? The Cyborg Past and Present', in Christopher Hartney and Andrew McGarity (eds.), *The Dark Side: Proceedings of the VIIth International Conference for Religion, Literature and the Arts 2002*, (RLA Press, 2004), 234.

the cyborg in her later works. Before conducting an exploration of a theological response to Haraway's cyborg at greater length, Haraway's later work on 'companion species' needs to be considered as it provides a valuable critique and commentary of the cyborg that will be useful to my analysis. Why, for example, has the cyborg become a "somewhat less useful resource for provocative criticism in the multiple and ever-shifting worlds of global technosciences and cultures?"[66]

3.4.1   Post-Cyborgs: Companion Species

> *We are face-to-face, in the company of significant others, companion species to one another. That is not romantic or idealist but mundane and consequential in the little things that make lives.*[67]

In brief, the cyborg is refigured, in Haraway's more recent work, as one member of a "bigger, queer family of companion species,"[68] which concerns itself more with the *network* of figures and entities that we relate to. 'Companion species', then, continue in the cyborg's trend of working across borders,[69] but they do so in a different way, namely, by retaining a notion of *difference* across the beings with which we relate. Haraway's cyborg made fusions between organism and mechanism, but her companion species make altogether different kinds of connections. The technological focus of the cyborg, as well as its (hi)stories rooted in SF, cybernetics and space, is de-emphasised, and instead Haraway's 'companion species' looks at relationships between species. Put succinctly, the focus is shifted and made to cover an alternative range of networks than we find with cyborgs.

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[66] Schneider, *Donna Haraway*, 58.
[67] Haraway, *WSM*, 93.
[68] Haraway, *CSM*, 11.
[69] Ibid., 21.

Haraway's turn away from the cyborg is a move attributed to the narrow inclusivity of the figure compared to its broader family of companion species. In an important essay detailing the shift from cyborgs to companion species, Haraway writes that, "by the end of the millennium, […] cyborgs could no longer do the work of a proper herding dog to gather up the threads needed for serious critical inquiry." [70] The implication is that the cyborg foregrounds certain relationships over others. In focusing on overcoming what Bruce Mazlish terms the 'fourth discontinuity', namely that between humans and machines, [71] Haraway's cyborg may arguably detract attention away from other fundamental and problematic discontinuities, such as between humans and animals, which takes the forefront of Haraway's companion species work.

To be sure, Haraway does touch on a key divide between humans and animals in the 'Cyborg Manifesto', but this is part of an arguably different focus on technology. In the Manifesto, Haraway begins by noting that the human-animal distinction is overcome, but this informs a second and more prominent 'leaky distinction' between "animal-human (organism) and machine" (as well as a third between the physical and non-physical) that is emphasised via the cyborg.[72] Work clearly needs to be done to overcome this human-animal boundary as much as others, as to uncritically reaffirm the supposedly axial difference between humans and animals would vindicate an outworking of the human. This would be problematic insofar as animals, across this divide, are commonly regarded as ancillary to the central welfare and importance of the human.[73]

Haraway is cautious to resist this tendency to elevate the human across her work by reading different species into one another in such a way that they co-constitute one another. Even in her earliest work, she quips that "life is process, not

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[70] Haraway, *HR*, 297.

[71] Bruce Mazlish, 'The Fourth Discontinuity', *Technology and Culture*, Vol. 8, No. 1 (1967), 3.

[72] Haraway, 'Manifesto', 151-2.

[73] Cf. *Earthlings*, Monson (dir.), (2005).

substance,"[74] referring to the fluidity and plasticity of categories and taxonomies. Haraway consistently addresses the notion that "there are all kinds of nonhumans with whom we are woven together,"[75] demonstrating her commitment to overcoming fables of human uniqueness. For Haraway, the human cannot be distinguished from its fellow species or surroundings. This is similar to the cyborg, but with companion species, the emphasis is on how the human cannot be fundamentally divided from the animal because we bear parts of different species within ourselves. Just as, for example, dogs' histories are shaped by interactions with humans and other species,[76] so too we find that "encountering an animal is not about facing the wild, the non-human, the stranger. It is about relating to the unknown, about 'becoming with' and remembering that, in any case, 'we have never been human'."[77] In this approach, species are radically co-constitutive, but their difference is preserved. Cyborgs, on the other hand, have a tendency towards homogenisation because everything is churned together in hybridised ways that, as previously discussed, challenge notions of discreteness.[78] In short, everything becomes cyborgian, which has prompted some to voice concern over the analytical value of the cyborg figure,[79] similarly to how I have questioned Clark's 'natural-born' cyborgs as being merely a relabelling of the human without enriching our critical insights.

As part of an attempt to avoid this, Haraway turns to the concreteness of other animals in their otherness. This marks a radical departure from the cyborgian ontology, which begins not with concrete differences, but with 'diffractions'.[80] Diffractions do not suggest concrete differences but touch on tropological

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[74] Haraway, *CFF*, 185.

[75] Haraway, *HLaL*, 87.

[76] This is the overarching narrative through which Haraway articulates what it is to a companion species (*WSM*).

[77] Lucile Desblache, 'Writing Relations', in Charlie Blake, Claire Molloy and Steven Shakespeare (eds.), *Beyond Human? From Animality to Transhumanism*, (London: Continuum, 2012), 135.

[78] See also Chapter 7.1.

[79] Casper, 'Fetal Cyborgs and Technomoms', 185.

[80] See Chapter 1.1.

practices that reflexively question that which they are diffracted from. Diffraction, Haraway explains, is about being "in critical, deconstructive relationality […] as the means of making potent connection that exceeds domination."[81] To illustrate, consider how, as "shape-shifting, […] interfering cyborgs might craft a diffracted logic of sameness and difference."[82] This diffracted logic is useful because it compels us to ask who 'we' really are by recognising how we are intricately constituted in networks with other actants in non-humanocentric terms, which can inspire a creaturely ethics beyond the human. Companion species may struggle to articulate this diffracted logic, though, because it starts with difference,[83] which is also incidentally how the human was problematically (pre-)defined *against* cyborgian technologies in early iterations of the cyborg. Haraway posits that, with companion species, "the partners do not precede the meeting,"[84] but as Pramod Nayar notes, "species cosmopolitanism sees all species as *always already nodes and intersections along a continuum, full of borrowed characteristics, genes and behaviour.*"[85] Companion species, in my estimation, rely on certain assumptions in maintaining the difference between species, even in spite of emphasising 'borrowed characteristics' that are already figured as borrowed. Cyborgs, by not starting with difference, but seeking to figure it differently, can more powerfully challenge our notions of human uniqueness and anthropocentrism.

That said, companion species, like the cyborg, nonetheless attempt to express a way of evading the trappings of anthropocentrism that, in theological terms, advocate a shift towards a creaturely ethic. They can be seen as coinciding with a recent ecological consciousness such as that explored by Gordon Kaufman, for whom:

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[81] Haraway, *HR*, 69.
[82] Ibid., 77.
[83] Haraway, *CSM*, 15.
[84] Haraway, *WSM*, 4.
[85] Pramod Nayar, *Posthumanism*, (Cambridge/Malden, MA: Polity Press, 2014), 152 (original emphasis).

We humans are indissolubly a part of the created order, and not in any way to be confused with the serendipitous creativity which has produced not only us but the entire cosmos, in all its complexity, order, and beauty. So in the picture I am sketching here the too-easy anthropocentrism of traditional Christian thinking is thoroughly undercut. But it is undercut in a nonreductive way.[86]

Both Haraway and Kaufman consider other beings as a way of decentring the human, and of recognising our deep interconnectivities with the world. This involves an emphasis on how historical specificity is what marks uniqueness of species in contextual, yet connected ways.[87] Haraway, using companion species, thus articulates a position that reflects more accurately on the ways that we are inseparably bound to other species in complex and nonreductive terms.

While I have many sympathies for 'companion species' and can note its appeal, particularly insofar as it preserves a common sense understanding of species difference but uses it to decentre the human, I am cautious about how much these differences between species can be overstated. Theologian Wentzel van Huyssteen, for example, notes:

[V]arious animals, and certainly *Homo sapiens*, do seem to possess at least a small number of unique qualities that are not present in others: snakes shed their skin, dogs do not; bears hibernate, cats do not; monkeys form dominance hierarchies, mice do not.[88]

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[86] Gordon Kaufman, 'Ecological Consciousness and the Symbol "God"', *Buddhist-Christian Studies*, Vol. 20 (2000), 18.

[87] Ibid., 12.

[88] Wentzel van Huyssteen, *Alone in the World? Human Uniqueness in Science and Theology*, (Grand Rapids/Cambridge: William B. Eerdmans Publishing Company, 2006), 36.

Huyssteen here notes species-specific differences that are compared on a one-to-one basis with other individual species. When it comes to humans, though, van Huyssteen speaks of qualities that "no other species, including the great apes, apparently possesses."[89] This indicates an overemphasis on the line of human uniqueness even while noting other differences in a way concordant with the notion of 'companion species'.

The crux of the problem may be the biological foundations of 'companion species' as a concept,[90] which suggests an emphasis on the biological, natural, and organic. Although Haraway then goes on to say that, "post-cyborg, what counts as biological kind troubles previous categories of organism. The machinic and the textual are internal to the organic and vice versa in irreversible ways,"[91] I find there to be a muting of the fuller range of issues highlighted by the cyborg and its associated technologies. These technologies are not limited to biology but interact with it in complex ways, and so while cyborgs may well "fit within the taxon of companion species,"[92] I would argue that there is still a great deal more work to be done with the cyborg before completely shifting our analysis and risking 'alienating' the cyborg in favour of the 'restless exuberance of gene flow'[93] that companion species more concisely contends with.

Cyborg figures continue to raise important questions about animality, divinity, virtuality, and humanity by bringing to our attention our full interaction with the technological, and articulating it in a richer and potentially more ethical way. Cyborgs, more so than animals or companion species, are tropological and allow us to reflect on 'fabulated' narratives that undermine the certainty of phenomena and ideas. [94] As Haraway reflects, "cyborgs were always simultaneously

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[89] Ibid.

[90] Haraway, *CSM*, 15.

[91] Ibid.

[92] Ibid., 21.

[93] Ibid., 9.

[94] Graham, *Representations of the Post/Human*, 58; see Chapter 1.2.

relentlessly real and inescapably fabulated."[95] Companion species, by contrast, are about "*actual animals and people looking back at each other*, sticky with all their muddled histories."[96] What this comparison reveals is that, although companion species draw on (hi)stories like the cyborg, they place a greater emphasis on the concrete and material embodiments of those narratives than cyborgs. Cyborgs, as figures, are more able to touch on how presence is telepresence; how 'actual' is 'virtual'; and they can emphasise how 'animals' and 'people' are always already interfused with the 'technological'. Cyborgs, in my view, probe deeper into the fundamental question of how we exist and relate with technologies as much as anything else. They thereby remain a significant figure to contend with, particularly in theological anthropology where assessments of technologies are polarised and largely inconsistent.[97]

To be sure, by no means do I want to imply here that we should not look at our interspecies relations with animals. Companion species, as I have discussed here, raise some important issues concerning other discontinuities that the human erects to mark itself as unique and privileged. What I am instead arguing is that we are not anywhere near ready to close the chapter on the cyborg. Echoing Haraway's own sentiments (admittedly given in an interview that predates the work on companion species, but that I nonetheless feel remains pertinent):

> I think the cyborg still has so much potential. […] 'Cyborg' is
> a way to get at all the multiple layers of life and liveliness as
> well as deathliness within which we live each day. So instead
> on giving up because it has become too famous let's keep
> pushing and filling it.[98]

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[95] Haraway, 'SF'.
[96] Haraway, *WSM*, 42 (my emphasis).
[97] See Chapter 4.
[98] Haraway, *HLaL*, 136; cf. Haraway, *PV*, 314.

The cyborg began as a figure within certain scientific and technological circles, and Haraway was successfully able to appropriate the cyborg figure so that it was able to disengage somewhat from that (hi)story to the extent that it could critique it. Similarly now, there is no reason to discard the cyborg because of a polluted (hi)story that it has acquired, that has been seen through the lens of companion species.

What I find particularly useful about Haraway's articulation of the cyborg is its ability to radically question and destabilise both categories and boundaries, such that no actor or subject is 'clean' or 'uncontaminated' by its interactions and relations. Although we may find similar traits in companion species, we need to pursue the ramifications of literal and conceptual fusions *all the way down*, rather than allow ourselves to stay on safer ground of species difference, particularly when technology is consistently and rapidly forcing us to rethink such difference.

Having now established the significance of the cyborg as a figure locatable within convoluted (hi)stories, in the rest of this investigation, I will consider the more specifically theological (hi)stories that inform and can interact with this figure. These (hi)stories are equally important for our understandings, and we must be attentive to them in order to fully and appropriately engage with the cyborg.

Humans and/as Creatures

[B]ecause we cannot think and act apart from our embeddedness in tradition(s) and worldviews, our epistemic task is to stand in a critical relationship to our tradition(s) and worldviews.

Wentzel van Huyssteen, *Alone in the World?*, (2006), 46.

When we touch another animal; when we incorporate technology into our bodies and into our identities; when we move beyond our bodies to consider spirits demonic and divine – then we are at the end. A threshold has been reached, but that is where all thinking begins.

Jennifer Koosed, *The Bible and Posthumanism*, (2014), 11-2.

As Part I of this investigation has shown, cyborgs problematise our understanding of the human by emphasis on the technocultural world in which we exist. The cyborg marks a challenge to theology, where certain understandings of the human have been arguably central. Donna Haraway declares this specific challenge by

denying that the cyborg would recognise Eden or could have even the imagined possibility of return. Eden represents God's original intention in creation as described in the Genesis narrative, and is the site of human origin. Eden is influential in our understandings of humans and human nature, and so its significance for theological anthropology cannot be understated – likewise, the significance of Haraway's cyborgian critique of it also cannot be understated.

How are we to understand humans, or theological anthropology, without reference to Eden? What is lost in the process? What, in short, is the significance of Eden (and origin stories) for our self-understanding? Although Haraway's cyborg undercuts origin stories, it is necessary to trace these stories in their theological context in order to understand the nuanced ways that the cyborg critiques them, as the basis for an interaction of theology and the cyborg. The tracing of Christian accounts of anthropogeny will be the focus of the following chapters of Part II of the investigation.

Eden & Human Nature

Hebrew and Christian Scripture places humans originally in the Garden of Eden, which is significant for how theology more broadly figures the human in terms of creation, sin, redemption, salvation, and eschatology. This emphasis upon origins is central to how much theological anthropology understands human nature, as the basis for not only religious, but also secular political, philosophical, and social thought. Western society typically centralises the human in its outlooks, or at least marks that figure as distinct and unique,[1] and so if Donna Haraway is right that "the cyborg is our ontology" in a "world without genesis" (or indeed ending),[2] then the cyborg undermines much of this theological, mythological understanding of the human.

This chapter continues to explore questions that have been ongoing in the analysis thus far, namely asking in what sense we are cyborgs and what this means for our understandings of humans and humanness. Specifically, I here query the 'nature' of our origins: how, and why, does Eden continue to inform our popular and even seemingly secular imaginary? And why is this problematic for Haraway, and others?

I explore these questions with reference to a theological framework informed by Eden and the Fall. I argue that the post-Enlightenment, western context has strong notions of progress and development that are forward-looking, but these are rooted in a theological sense of origin that needs to be critically considered.[3] Haraway suggests something to this effect where she links 'epistemophilia' with an omnipresent "lusty search for knowledge of origins" in reference to an

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[1] Giorgio Agamben, *The Open*, (Stanford: Stanford University Press, 2004[2002]), 12; cf. Blake, Molloy and Shakespeare (eds.), *Beyond Human*.

[2] Haraway, 'Manifesto', 150.

[3] See Chapter 5.5.

advertisement for Du Pont's OncoMouse™. Here, the murine subject is depicted as emerging from a Platonic cave-like darkness, a 'night birth', into the light of science.[4] Although the etymology of 'epistemophilia' doesn't necessarily suggest anything about origins, our infatuation with that mystery of origins as always enmeshed with our quest for knowledge is what is emphasised here. This is reflected in what I have classified as trans/human understandings of the cyborg, where the human compulsion for exploration and knowledge is underwritten by a sense of human nature as expansive and creative (i.e. in creating cyborgian spacesuits).[5]

There is, in short, something significant about human nature as unique that impacts our views of technology and the world. This interpretation of human nature is inseparable from the (hi)stories that narrate it, and for theologian Wentzel van Huyssteen, "the problem of human uniqueness is directly related to the problem of human origins."[6] This is why such a high interpretive and theological value is given to the first chapters of Genesis. These texts that themselves begin the Pentateuch depict the beginnings of humans and the world,[7] and it is here where we find some of the most explicit and problematic discussions of human nature in Scripture. Indeed, as many writers would concur given the vast amount of literature on the subject, "there is no more important issue for Christian theology than the question of the nature of human being."[8] The task here is to trace the (hi)stories that influence our understandings of that human nature, in order to investigate ways of rearticulating it in the light of the challenges posed by Haraway's cyborg figure.

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[4] Haraway, *HR*, 275.

[5] See Chapter 2.2.

[6] Van Huyssteen, *Alone in the World?*, xv-xvi.

[7] Mark Harris, *The Nature of Creation: Examining the Bible and Science*, (Durham: Acumen, 2013), 56.

[8] Ray Anderson, *On Being Human: Essays in Theological Anthropology*, (Grand Rapids: William B. Eerdmans Publishing Company, 1982), 215.

4.1 Anthropogeny: The Root of the Issue

In Christian anthropology, there is a spectrum of understandings of human nature ranging from good, or graced, through to sinful; from united to alienated; from lovable to punishable. All of these conceptions are brought out in theological discussions of technology: are technologies, for example, about achieving a less sinful state, or do they alienate us from a prior sinless state? Do they bring us closer together, or further apart? Do they express benevolent aspects of ourselves as humans, or do they encourage more sinister or even immoral activities? In all of these questions, we ultimately find ourselves asking: *how can we ever be sure?*

The uncertainty exposed by this question and additionally through our ever-increasing and ever-advancing technological engagements underwrites many of our anxieties about technologies. With technologies, we are confronted with conflicting narratives about who we are and what we should (not) do or aspire to, and these (hi)stories resonate particularly strongly with theology. For example, certain transhumanists who seek to better humans by making them immortal via technology operate with an understanding of human nature as self-sufficient yet perfectible.[9] This can be contrasted against those who emphasise human sinfulness as a warning of 'hubris' and (self-)destruction.[10] The trouble is that our starting point is always certain assumptions about the human and human nature, and so that which our technologies expand upon and seek to grant us more control over (i.e. with the trans/human), or that which they challenge and undermine (i.e. with opponents to the trans/human), is difficult to determine.[11] Because of our inability to fully account for the diversity of so-called 'human nature' in insisting upon

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[9] Peters talks about this in terms of '*futurum*', i.e. a human becoming, but he also distinguishes it from '*adventus*', which is a coming that only God can make happen. ('Progress and Provolution: Will Transhumanism Leave Sin Behind?', in Cole-Turner [ed.], *Transhumanism and Transcendence*, 74.)

[10] Wagner, *The Scientist as God*, 232; cf. Karel Čapek, *R.U.R: Rossum's Universal Robots*, (London: Oxford University Press, 1936[1921]), 68-9.

[11] Cf. Steve Fuller, *Humanity 2.0: What it Means to be Human Past, Present and Future*, (Basingstoke: Palgrave Macmillan, 2011), 74.

snapshots and static ideas of what it is to be human when faced with different technologies and predicaments, it seems likely that *the origin of our problems is itself the problem of our origins.*

With this in mind, it is fitting to consider theological accounts of anthropogeny, which refers to how the first humans were created. Theological discussion of human nature is largely inseparable from Genesis, and this may be somewhat owing to the gravity of the concept of 'nature' which etymologically hearkens back to a sense of birth and origin.[12] Both of these notions resonate with the organic paradise that is the Garden of Eden, which is a particularly influential myth on not only our self-understandings, but also our assessments of technologies.

4.1.1 *Augustine, Technology & The Fall*

One of the most enduring and dominant interpretations of both human nature and Eden that come together in theological anthropogeny is that which is narrated by Augustine of Hippo, an influential Church Father of the Patristic period.[13] Augustine, in his theological anthropology, places emphasis on how humans inherit the consequences of 'original sin' (Genesis 3), with specific reference to how they were cast out of Eden. Although, from this brief description of Augustine's theological anthropology, it seems negative and fixated on narratives of human folly and sin, such views are compelling because they offer a sense of concreteness in terms of the upper limits of human action.[14] This, in turn, provides a stable notion of human nature: "a western or Augustinian view has a place for a natural (e.g. internal and real) substance view of the image that truly refers to

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[12] Cf. Kaufman, 'A Problem for Theology: The Concept of Nature', *Harvard Theological Review*, Vol. 65 (1972), 339; see also Chapters 1.3.1 and 1.3.2.

[13] Dominic Robinson, 'Ecclesial-Narratival Model of the *Imago Dei*, in Joshua Farris and Charles Taliaferro (eds.), *The Ashgate Research Companion to Theological Anthropology*, (Surrey/Burlington: Ashgate, 2015), 207-8.

[14] Such views are particularly influential for Reformed Christians, including Calvinists (cf. Richard Muller, *Calvin and the Reformed Tradition*, [Grand Rapids: Baker Academic, 2012], 51).

individual human substances." [15] In a time where technologies increasingly confound us with questions pertaining to fundamental uncertainties in the world, a theological view that offers comparatively more clarity and moral resolution, such as that derived from Augustine, can certainly appear desirable.

Augustine, of course, does not discuss artificial intelligence, gene manipulation, or technologies of cyborgisation. Instead, it is possible to appropriate a degree of moral clarity concerning these technologies and others from Augustine's overarching theological anthropological framework. Augustine, for example, writes:

> And so no one can stop us from interpreting paradise symbolically as the life of the blessed; its four rivers as the four virtues, prudence, courage, temperance, and justice; its trees as all the beneficial disciplines; the fruit of the trees as the character of the righteous; and the tree of the knowledge of good and evil as the experience of disobedience to a commandment. For it was certainly a good thing, because it was just, that God should have imposed a punishment for sinners; but it is not a good thing for man himself that he experiences it.[16]

Eden, in this view, directly contrasts a fallen world in which we now dwell, and humans must contend with the consequences of their sin for which, according to Augustine, they were justly punished. Technologies are part of the latter world, and so an Augustinian reading of Eden and human nature would appear to cultivate a broadly technophobic attitude.

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[15] Joshua Farris, 'A Substantive (Soul) Model of the *Imago Dei*: A Rich Property View', in Farris and Taliaferro (eds.), *The Ashgate Research Companion to Theological Anthropology*, 168. For further discussion of humans imaging God in substantive ways, see Chapter 5.2.

[16] Augustine, *City of God*, (Middlesex: Penguin, 1972[1467]), Book XIII, Chapter 21, 535.

Throughout this emphasis on the Fall, however, Augustine maintains an interpretation of human nature that endures from how it was originally created in Eden. Augustine discusses how "the fault of the first sin could not abolish the marvellous power of seed," [17] which informs a more positive appraisal of technologies, "the wonderful inventions of clothing and building, the astounding achievements of human industry."[18] Here, humans were made according to God's image, which, although a vague and controversial theological notion,[19] Augustine takes to indicate how:

> [God] created man's nature as a kind of mean between angels and beasts, so that if he submitted to his Creator, as to his true sovereign Lord, and observed his instructions with dutiful obedience, he should pass over into the fellowship of the angels, attaining an immortality of endless felicity, without an intervening death; but if he used his free will in arrogance and disobedience, and thus offended God, his Lord, he should live like the beasts, under sentence of death, should be the slave of his desires, and destined after death for eternal punishment.[20]

Human nature is, for Augustine, suspended between angels and beasts, and what underwrites this is an emphasis on humans as naturally having, by virtue of their creation, free will. On a moral plane, Augustine contends that humans are to willingly obey God in order to pursue their higher natures. The fact that humans disobeyed God in committing the original sin highlights the severity of this act and its implications for subsequent generations of humans.

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[17] Ibid., Book XXII, Chapter 24, 1070.
[18] Ibid., 1072.
[19] This is central to the investigation in Chapter 5 (and Chapter 8).
[20] Augustine, *City of God*, Book XII, Chapter 22, 502.

Notions of creation and 'fall' are evidently instructive in Augustine's interpretation of theological anthropology. Indeed, both doctrines intermingle, and particularly in a technocultural milieu, doctrines of 'fall' and sin take on especial importance. Consider, in more recent examples, the significance of the forbidden fruit as a symbolic resource we frequently pick at. In 'The Second Renaissance', a short film of *The Animatrix* series, an image of the apple becomes rotten and metamorphoses into a brain to depict the promise and perils of a pursuit of knowledge and the destruction that it can bring in *The Matrix* franchise.[21] This is a purposive hearkening back to particularly what Augustine saw as the spiritual destruction brought about by the act of original sin as a disobeying of God's command.[22] Similarly, in recent Channel 4 drama series *Humans*, the coding for synthetic consciousness is depicted through the imagery of a tree connoting the Tree of Knowledge. Here, the ritual around the tree is presented as decisively risky for humans and synths alike. In Augustine's work, the technologies that he praises[23] are more commonly scrutinised today: the "ingenious devices for the capturing, killing, or taming of wild animals" may alienate us from compassionate interspecies relations;[24] the "medical resources for preserving or restoring health" lead us to ask what is the nature of healthiness and whether, for example, immortality is healthy or desirable;[25] the "multitudinous variety of the means of information and persuasion" prompt concern about the influence of media technologies and democracy in the social media age.[26] Technologies, in these depictions and figurations, tread a tightrope between our sinful state and our imaging of God, both of which are associated with humanness in various ways.

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[21] Cf. Caroline Stichele and Todd Penner, 'Terminatrix: Visualising the End of Creation in *The Animatrix*', in Caroline Stichele and Alastair Hunter (eds.), *Creation & Creativity: From Genesis to Genetics and Back*, (Sheffield: Sheffield Phoenix Press, 2006), 149.

[22] Augustine, *City of God*, Book XII, Chapter 1, 471.

[23] Ibid., Book XXII, Chapter 24, 1072-3.

[24] Cf. Melanie Joy, *Why We Eat Pigs, Love Dogs, and Wear Cows: An Introduction to Carnism*, (San Francisco, CA: Conari Press, 2010); see Chapter 5.2 and 5.3.

[25] Cf. Deane-Drummond and Scott (eds.), *Future Perfect?*; see Chapter 2.3.

[26] Cf. Jean Baudrillard, *Screened Out*, (London/New York: Verso, 2002[2000]); 'The Waldo Moment', *Black Mirror*, [TV Programme] (2013).

Regarding technology and the Fall, we are compelled to ask how much we should associate technologies with our sinful state, and how much we should, on the other hand, celebrate them as part of our created nature. These questions are important for a theological assessment of the cyborg because they impact how we perceive the technologies that we define ourselves alongside or against. By and large, because of the ambiguities suggested of humanness as suspended between being created in the image of God (*imago dei*) and the Fall, we have equally ambiguous attitudes to technology. These attitudes need to be considered in terms of the (hi)stories that shape them, as well as how they may shape, or be reshaped by, Haraway's figuration of the cyborg.

4.2   Technophobia & Alienation

A useful indication of the appeal of Eden can be found in the mythological melodrama that reveals how we have since been alienated from it. As novelist Margaret Atwood writes in her exploration of quasi-Edenic tropes in literature, specifically in SF, "narratives of fall feature separation from loved ones, calamities, imprisonments, tortures, mechanical beings that mimic life, dehumanisations, and deaths." [27] These are undesirable traits that can be discerned in the present technoculture, and they parallel and are traceable back to the Genesis myth.[28] Eden is therefore, in the context of the Fall, the unreachable paradise that, like a carrot dangling on a string just before our eyes, we constantly carry and yearn for. Furthermore, these negative attitudes can be contrasted with alternative narratives of ascent that "feature reunion with loved ones, getting out of the bellies of whales, *healing, nature in its more benevolent aspects*, life abundant, and birth."[29] Significantly, technology is absent from these symbolic connotations that focus on notions of triumph, holism, and naturalness. What is thus elucidated is something

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[27] Atwood, *In Other Worlds*, 48-9.

[28] Peter Scott, 'The Resurrection of Nature? Problems in the Theology of Nature', *Theology in Green*, Vol. 4, No. 2 (1994), 33.

[29] Atwood, *In Other Worlds*, 49 (my emphasis).

along the lines of an Augustinian conception of Eden and human nature sketched out above.

Underwriting an interpretation of Augustine as critical of technology in this way is an emphasis on how, against the Manicheans, "Augustine wanted to defend the goodness of God's finite and material creation. To do so, he painted a glowing picture of paradise in the garden of Eden, and the glory and beauty of Adam and Eve."[30] The assumption is that, although humans were created with free will, they were most perfected and harmonious with created order and God's will when they were obedient. Technologies are fundamentally about change and innovation, and this contrasts a sense of stasis that Augustine's vision of Paradise from which we fell suggests.

Non-theological corollaries of Augustine's views are not difficult to discern in contemporary culture. I have suggested some of the anxieties we have of technologies in popular culture that hearken back to Eden symbolism. Going beyond this, philosopher, sociologist, and Reformed theologian Jacques Ellul develops a potent critique of technology in his sociological work *The Technological Society*:

> Today the sharp knife of specialisation has passed like a razor into the living flesh. It has cut the umbilical cord which linked men with each other and with nature. The man of today is no longer able to understand his neighbour because his profession is his whole life […] Technique has become the bond between men.[31]

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[30] F. LeRon Shults, *Reforming Theological Anthropology: After the Philosophical Turn to Relationality*, (Grand Rapids, Michigan/Cambridge, UK: William B. Eerdmans Publishing Company, 2003), 196.
[31] Ellul, *The Technological Society*, 132.

Ellul laments the ways that technologies sever connections between people, as well as between humans and nature. Technologies are here equated with alienation, and they suggest a time before alienation from which such critiques of them are made. It is the conceptualisation of this time that corresponds to an Augustinian theological anthropogeny rooted in Edenic paradise.

Interpretations of the Fall narrative in terms of alienation are a common trend in theology. As Anne Foerst writes, post-Fall, humans are "deeply estranged and alienated and there is no way out of it. Such is the human condition."[32] Here, the sense of alienation that derives from the Fall is read into a feeling of contemporary alienation, where not necessarily mythological, but "historical and cultural forces have served to construct a self increasingly alienated from community, from tradition, and from shared meaning, as these social wholes are increasingly eroded and fragmented by the emergence of postmodern culture."[33] There is an indication here that the postmodern age characterised by flux and advanced technologies, such as media and genetic interventions, perpetuate conditions of the Fall by uprooting our sense of stability in place, time, and essence. The counterpoint to this alienation is a longing for the idealised notion of the prelapsarian human figure that is associated with an Augustinian view of Eden, human nature and the Fall. Technologies are thereby dichotomised against notions of paradise, and so are seen as sinful. This is reflected in broadly technophobic attitudes.

4.3   Technophilia & Hubris

It would be misleading, however, to conclude that an Augustinian-inspired reading of anthropogeny prompts only technophobic attitudes. This is because, as well as dichotomised readings of Eden and the Fall, where the Fall takes on axial significance for Augustine's interpretation of theological anthropology, Augustine

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[32] Foerst, *God in the Machine*, 162.

[33] John Teske, 'The Social Construction of the Human Spirit', in Niels Gregersen, Willem Drees and Ulf Görman (eds.), *The Human Person in Science and Theology*, (Edinburgh: T&T Clark, 2000), 200.

also emphatically notes continuities in terms of human nature from Eden to the expulsion from the Garden. In short, something of human nature remains. As David Vincent Meconi notes:

> St Augustine was the first to notice that the original images, Adam and Eve, created on the sixth day were created incompletely. […] Adam and Eve were created incompletely because as images of God, that image had still to be fulfilled. Augustine goes on to note that this promise was also the cause of humanity's downfall.[34]

The Fall here is read as consistent with the way that humans were originally created as bearing the image of God. In spite of this incompleteness of human nature underlining human downfall, then, there is nonetheless something about this human nature that was part of the originary paradise of Eden.

That said, Augustine tends to place greater emphasis on the Fall than on these prior natures: in the wake of original sin, "human nature in him ['the first man'] was vitiated and altered, so that he experienced the rebellion and disobedience of desire in his body, and was bound by the necessity of dying."[35] Human nature, for Augustine, changed following the effects of consuming the fruits of the Tree of Knowledge of Good and Evil, and this change was irreversible. Our only chance of redemption and return to Paradise is now through Christ, who became human, as is presented in the doctrine of the Incarnation, in a soteriological move. The tendency for Augustinian readings of theological anthropogeny and anthropology is to see technologies as corrupting and further alienating us from human nature

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[34] David Meconi, 'The Dual-Functionality of the *Imago Dei* as Human Flourishing in the Church Fathers', in Farris and Taliaferro (eds.), *The Ashgate Research Companion to Theological Anthropology*, 200.
[35] Augustine, *City of God*, Book XIII, Chapter 3, 513.

in the manner of the Fall. This tendency thereby largely favours technophobic attitudes.

Given that Augustine does not discuss technologies at length, however, any appropriation of his work in a specific direction such as technophobia is necessarily limited. A technophilic position, for example, is also discernible in emphasising the divine goodness of human nature. Focusing on Augustine's reading of human nature reminds us that this was created as incomplete, and thus we cannot entirely know it, which also means that we cannot entirely measure technology against it. Technophobic attitudes may be overly simplistic both of assessments of human nature, and of technological nature.

Significantly, at the heart of human nature in the Augustinian account is a lack and a longing for it to be fulfilled, and this facilitates an alternative reading of technology because technologies may be able to offer a sense of completion. As Meconi writes of Augustine's theological anthropogeny,

> Made to be like God, the one thing which Adam and Eve lacked was the very one thing the Enemy could have used to entice Adam and Eve's disobedience. According to Augustine, every image longs to be like the Model from whence it comes.[36]

In short, humans, according to Augustine, bear God's image from their creation, which means that there is something godly about them. However, that image is unfulfilled insofar as humans are not themselves gods. It is, ultimately, this lacking of the fullness of godliness via *imago dei* that tempted humans to sin in the first place. Technologies may figure into this as expressing something of the desire to be godly that is central to human nature.

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[36] Meconi, 'The Dual-Functionality of the *Imago Dei*', 200.

Of course, Augustine emphasises that we can only achieve godliness via Christ and not via ourselves, which would obviate technology being a means to fulfilling it. However, Augustine's reading of a degree of godliness that lies at the centre of our human being has been influential, particularly in the bourgeoning scientific movement of the seventeenth century. In this era, as historian David Noble notes, scientists such as Francis Bacon sought to recapture, via technological means, our prelapsarian natures as found in the Garden:

> Bacon's transcendent goal, like that of his medieval precursors, entailed the recovery of mankind's original image-likeness to God. […] In historian Frances Yates' words, Bacon sought 'a return to the state of Adam before the Fall, a state of pure and sinless contact with nature and knowledge of her powers.'[37]

What Bacon is striving for here is a way of using technology to *combat* the alienation that was brought about by the Fall rather than perpetuate it. Put differently, the Fall is seen as partial, and so such a use of technology may be permissible within an Augustinian framework. Bacon's reading of human nature as being in the image of God is largely consistent with Augustine's account, albeit being framed in natural rather than supernatural terms. Once more, we appreciate the ambivalence of technology and human nature as bearing *imago dei*: Bacon's comments may suggest a way of adapting Augustine's position to one not so readily or incontrovertibly of facilitating technophobia.

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[37] Yates, 'The Rosicrucian Enlightenment', cited in David Noble, *The Religion of Technology: The Divinity of Man and the Spirit of Invention*, (New York: Alfred A. Knopf, 1998), 50.

4.3.1   Technology and Nature: Humanness or Godliness?

Technology, in the Baconian view, becomes a way of realising the potential godliness and goodness of human nature. By recognising alienation as that which underwrites sin, technology moreover offers us a way of addressing "our first responsibility to creation: the need to restore the oneness whose tragic division is so graphically portrayed in the myth of the Garden." [38] In this narratival framework that parallels trans/humanism,[39] technologies are necessarily seen as able to impact upon natures, specifically our fallen human nature that needs to be returned to its pre-fallen state. Given the allegedly benevolent intentions behind such applications of technologies for humans, proponents of this view assert:

> It is often right to tamper with nature. One could say that
> manipulating nature is an important part of what civilisation
> and human intelligence is all about; we have been doing it
> since the invention of the wheel. […] Changing nature for the
> better is a noble and glorious thing for humans to do.[40]

This claim is common among transhumanists who have visions of human perfection and perfectibility via technological means that seek to overcome alienation and return to an idealised 'wholeness' and godliness. Such claims, I contend, parallel readings of the Eden myth such as Augustine's.

In these transhumanist interpretations, what is acknowledged is not only our fallen human nature that is the object of technological change, but also our perfectible human nature that is the agential force able to develop such visionary

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[38] Alastair Hunter, 'Creation out of (Almost) Nothing *or* Does G*d Wear Genes?', in Stichele and Hunter (eds.), *Creation & Creativity*, 86.

[39] Cf. Max More, 'The Philosophy of Transhumanism', in More and Vita-More (eds.), *The Transhumanist Reader*, 8; Fuller, *Humanity 2.0*, 202-4, 209; Davis, *TechGnosis*, 97.

[40] Nick Bostrom, 'Transhumanism FAQ 3.0', *h+*,
http://humanityplus.org/philosophy/transhumanist-faq/ (accessed 20/12/12).

and powerful technologies in the first place. In other words, as Finn Bowring notes, "to exercise our rational nature, we must defy nature in a natural way."[41] Technologies are seen as corresponding exclusively to our pre-fallen natures in making these claims, defying only our postlapsarian nature in the interests of return to originary holism as expressed in the Edenic myth.

The trouble with this view is that technologies are not explicitly described in Eden. As such, they more readily correspond to an already alienated postlapsarian nature that threatens to alienate us further from originary perfection and Eden. We see this most clearly in concerns such as Francis Fukuyama's about technology threatening to change the core of human nature. Here, human nature is taken as stable, meaningful concept, and "a technology powerful enough to reshape what we are will have possibly malign consequences for liberal democracy and the nature of politics itself."[42] For Fukuyama and for others, technologies are what mark the difference between our pre-fallen and fallen natures: the more we engage with technologies, particularly when applied to ourselves, the more we distance ourselves from our own (created) natures.[43]

Accompanying this emphasis on the Fall is a fear of humans overreaching themselves through their technologies and engaging in acts of *hubris*, also referred to as 'playing God'.[44] What this term suggests is that there are limits to what

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[41] Bowring, 'The Cyborg Solution', 268.

[42] Fukuyama, *Our Posthuman Future*, 7; cf. Dinello, *Technophobia!*, 2, 161, 247.

[43] Somewhat oddly, Fukuyama makes his claims about human nature while concomitantly discarding the ongoing influence of religion (*Our Posthuman Future*, 91). Through an attentiveness to (hi)stories in this investigation, though, I intend to challenge this hostility to theological insight.

[44] A cursory glance at online news headlines reveals that 'playing God' is cited in topics ranging from creating anthropomorphic robots (Hongo, http://blogs.wsj.com/japanrealtime/2015/06/19/the-faces-of-japans-humanoid-robots/), to using technology to regulate global climates ('geoengineering') (Hall, http://scienceline.org/2015/06/recklessly-playing-god-with-the-planet/), to selection of genes in embryos ('genetic engineering') (Cullinan, http://lenews.ch/2015/06/11/swiss-vote-on-genetic-selection-of-embryos-playing-god-or-playing-fair/), to a review of the latest *Jurassic World* film, where geneticists use technology to bring back dinosaurs (Olszyk, http://www.catholicworldreport.com/Blog/3957/jurassic_family.aspx) (date accessed all: 19/6/15).

humans can or, more aptly, *should* seek to achieve.[45] Technologies, for example, do not make humans omnipotent, and nor are they the products of, or means towards, omniscience. How does this correspond to relations between God and humans, expressed via *imago dei*?

To reiterate, Augustine saw humans as suspended between God and 'beasts'. Technologies seem to pull us towards either the godly or the beastly depending on how human nature is read alongside the Fall, which overall prompts anxieties about our place along this metaphysical continuum. For Augustine, this notion of human nature traces back to an 'unfulfilled promise'[46] where we catch a glimpse of godliness without fully ascertaining it. Resultantly, we are left struggling: "the creation *cannot* challenge the creator; instead we are doomed to a perpetual and futile desire to dominate each other."[47] By being constrained to this continuum between God and beasts, we are always trying to determine our uniquely human and rightful place; this is exacerbated by technology and its ambiguities. In other words, the original incompleteness of human nature and the framework that Augustine offers us to contend with it, caught between Creation and Fall, and between God and the beasts, always leaves us wanting, and never quite comfortable with ourselves. Perhaps this is why theologians such as Meconi highlight Augustine's anthropogeny as clearly influential at the root of many of our concerns and tensions regarding human nature.[48]

4.4   Alternative Views of Technology & The Fall

Other writers and theologians, though, have taken the notion of an original incompleteness of human nature referred to in Augustine's works as the starting point of alternative theological anthropologies. In seventeenth-century writer John

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[45] Ted Peters, *Playing God? Genetic Determinism and Human Freedom*, (New York/London: Routledge, 2003), 12.

[46] Meconi, 'The Dual Functionality of the *Imago Dei*', 200.

[47] Hunter, 'Creation out of (Almost) Nothing', 87.

[48] Meconi, 'The Dual Functionality of the *Imago Dei*', 202.

Milton's epic poem *Paradise Lost*, Adam and Eve underwent a dramatic and overall positive transformation after having eaten the forbidden fruit. They went from being 'innocent' and 'frail',[49] to having their 'eyes opened' to a world void of 'innocence, faith, and purity'.[50] This is different to Augustine's favourable presentation of Eden. For Milton, we should be celebrating the complexity of the world in which we can realise ourselves rather than the docility demanded in Eden.

Tracing this attitude expressed in Milton's work back further, another Church Father, St. Irenaeus of Lyon, sees humanness as something that emerges through the world, developed out of a capacity for positive moral conduct. This links to notions of *imago dei*, as with Augustine, via an emphasis on free will. Irenaeus, though, explicitly differentiates the image of God in terms of *image* and *likeness*. As Dominic Robinson summarises,

> Whereas Augustine emphasises how the Fall led to God's punishment and damnation of the human race, for Irenaeus the Fall leads to negative consequences as we lose our 'likeness' to God; and this is all part of the necessary environment for human growth. […] For Augustine the emphasis here is on our redemption to our lost former state. For Irenaeus it is a constant renewal and regeneration…[51]

Both Augustine and Irenaeus seem to regard the 'image' as something intrinsic to humans, but for Augustine, while this is negatively impacted by the Fall, Irenaeus offers that it is in fact only our 'likeness' to God that is affected, and this is something that we can work towards through our conduct in the world. Our image, then, is unaffected.

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[49] John Milton, *Paradise Lost*, (Oxford/New York: Oxford University Press, 2004[1667]), 85.
[50] Ibid., 236.
[51] Robinson, 'Ecclesial-Narratival Model of the *Imago Dei*', 209-10.

Both Milton and Irenaeus place arguably greater emphasis on human activity in the world than an Augustinian view that focuses more on the theological anthropological significance of the Fall. This latter attitude is subject to increasing critique, though; "scholarly consensus holds that the Augustinian idea of a 'fall' from a state of original perfection is not present in Genesis."[52] Rather than defining human nature predominantly in terms of its origin, these alternative views tend to use the incompleteness of this Edenic anthropogeny, touched on in discussions of Augustine's work, to highlight the fundamental *openness* of humanness as it stumbles through the world. As Milton scripts for Adam and Eve, "here let us live, though in fallen state, content."[53]

While the Fall is still recognised in these alternative accounts, the shift from a strong emphasis on Eden to one on the world has notable impacts for derivative assessments of technology. Because the world is considered as an ambiguous arena for actions that are both good and/or bad, technologies are likewise seen as ambiguous, and this discourages more exacerbated technophobic or technophilic attitudes. In the light of this, greater emphasis is given to our own conduct rather than our origin or abstracted nature as we find with Augustinian accounts. For theologian Willem Drees,

> [...] in biblical language the good is not only to be found in the past but also in the future; humans, even when considered as stewards, can be active and even ought to be active although the initiative is with God, and this activity is normatively determined as care for the weak and needy. One might summarise this as 'We ought to play God'.[54]

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[52] Shults, *Reforming Theological Anthropology*, 202.

[53] Milton, *Paradise Lost*, 278.

[54] Willem Drees, 'Introduction: Technological and Moral Creatures or Creators?', in Gorman, Drees and Meisinger (eds.), *Creative Creatures: Values and Ethical Issues in Theology, Science and Technology*, (London/New York: T&T Clark, 2005), 7-8.

'Playing God' is not rendered a concern as it is with the Augustinian view, because it is realised that such straw conceptions of God and humans are too restrictive for our richer understandings of both. Humans, for example, are enterprising and creative, and a theological anthropology needs to be able to acknowledge this in order to respond more adequately to our existence vis-à-vis technologies.

Such a theology, I contend, can better engage with Donna Haraway's articulation of the cyborg because it is not as restricted to closed notions of what it is to be human that are determined by origins. As Haraway notes, "theories of origins quickly become theories of essences and limits," [55] and this underscores her attempts to explore an alternative figuration of the cyborg. Origins, essences, and limits clearly come together in an Augustinian theological anthropology. Here, to be human is to be created in God's image, but humans are suspended between divinity and animality, and are limited by that betwixt nature. This nature manifests in fears about 'playing God' that ultimately pertain to the static ordering of the world in which human nature is acutely defined, rather than concerns of human wrongdoing *per se*.[56] In accounts such as Irenaeus' and Milton's, where greater emphasis is given to what comes *after* the Fall, there is greater scope to see the cyborg without judging it according to assumptions about anthropogeny.

On the other hand, accounts of Eden and anthropogeny remain significant in these alternative views. This is subtly reflected in how prioritisation is given to the human according to how humans were created uniquely in God's image. As such, origins are still instructive. Even though these alternative accounts emphasise human openness, it is *specifically human* openness that they emphasise, which

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[55] Haraway, *SCW*, 25.
[56] Drees, 'Introduction', 8.

demonstrates an *a priori* assumption about what it is to be human.[57] Instead, as Haraway states, "what constitutes a group must be understood as a function of the question asked, not of an essential property of an innocently observed nature."[58] Haraway's concern with approaches that prefigure the human in some way is the disservice that it does to the nonhuman, such as the technological or the animal (both of which are notable in Augustinian assessments). If these alternative theological anthropologies still maintain something fundamental or *substantive* to human nature, though, then they risk perpetuating the shortcomings of an Augustinian approach as discussed in this chapter. What is needed here is a way of considering our openness in a way that is not restrictive to or prescriptive of accounts of specifically human nature.

Over the next set of chapters, I will explore in further detail this notion of a substantive core of human nature and why this is problematic according to a cyborgian critique, as well as alternative ways of articulating it. As this chapter has demonstrated, an Augustinian view relies on a set of assumptions about the human that derive from theological anthropogeny. Given its emphasis on the Fall, human nature is seen by Augustine as ruptured, and technologies are polarised between our two natures as perfectible (in terms of technophilia) and sinful (in terms of technophobia). While alternative ways of figuring ourselves and technologies have been posited, namely those that place less emphasis on the Fall, the Augustinian view remains strongly pervasive as we continue to place our hopes for salvation in technology, at the same time that we attribute many of our wrongdoings (such as anthropogenic climate change that spouted out of the heavily technologized factories of the industrial revolution) and fears (such as losing our own human identities or organic form through invasive

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[57] To be sure, such openness can also be found in Augustine's work, cf. Brian Stock, *Augustine the Reader: Meditation, Self-Knowledge, and the Ethics of Interpretation*, (Cambridge, MA: Harvard University Press, 1996), 35.

[58] Haraway, *PV*, 202.

technologisation)[59] to it. Clearly, more work needs to be done to move beyond these polarised attitudes, and with that in mind, the next set of chapters press on in exploring the (hi)stories that underwrite theological anthropology, interacting with insights from theological anthropogeny in various ways.

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[59] 'Body horror' is a cinematic genre that most aptly depicts these fears; cf. Cronenberg (dir.), *Videodrome*, (1983).

CHAPTER 5

Human(ism)

If you were asked to describe or explain humans, what words would you use? Would you emphasise human uniqueness against other animals, appealing to traits such as language, bipedalism, the ability to develop more abstract things like culture and religiosity or spirituality? Or would you draw attention to human craftsmanship and tool use that enables construction of the world? Or would you suggest instead that humans cannot be separated or abstracted from their surroundings in terms of the networks in which we find them? Are any of these a truly satisfactory answer to the question 'what are humans'?

Whether or not we find any definition of humans truly compelling, we certainly find a resonance of all of these concepts – as well as their problematisations – in theological anthropology. In the last chapter, I presented and discussed how nature plays a key role in theological accounts of the human insofar as these accounts are so closely linked with anthropogeny. The human can be interpreted in different ways in theology, and in this chapter I expand on some of these understandings. On the one hand, humans bear God's image, but on the other hand, humans are also impacted by original sin. Each of these impact our moral assessments of technology because technology is seen as the product of a godly or a fallen human nature. I link these understandings to our current conceptions of the human, as a foundation for understanding the human in the context of posthumanism in the next chapter, where I also locate and contextualise the cyborg, rounding off an understanding of the (hi)stories that (continue to) shape that figure.

5.1   Theological Models of the Human: *Imago Dei*

Christian theology features a number of images of the human. These range from being workers to being neighbourly, and from being fighters to being loving. Arguably, though, all of these labels can be related to the notion of *imago dei*, which encapsulates the idea that humans were made in the 'image of God', and so in some way they bear a resemblance or 'likeness' to their Creator.

What is striking about the significance of *imago dei* for Christian theological anthropology is that the concept itself features little in Scripture, and particularly not beyond the first chapters of Genesis.[1] Asides from the plainly stated notion, then, that "God created mankind in his own image, in the image of God he created them; male and female he created them,"[2] we know little of anthropology through anthropogeny. And yet, as an exploration of the latter in the last chapter demonstrated, *imago dei* remains an influential theological concept expressing what it means to be (created as) human.

Given that it is uniquely humans who are seen as made according to, or bearing, God's image, the notion of *imago dei* has typically been used to support claims of human uniqueness.[3] Humans are linked to God in a vague way, yet also, as we saw in the last chapter, are kept distinct from Him. Exactly what that degree of similitude or difference is, however, has been a contentious notion throughout theology. The previous chapter explored the doctrine of sin as read through the Fall, and it was noted how human nature had changed as a result of original sin and expulsion from Eden. If humans are made in the image of God, though, how (if at all) is this image impacted by the Fall: what does this do to the difference and similarities between humans and God?

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[1] Anderson, *On Being Human*, 215.
[2] Genesis 1:27.
[3] Van Huyssteen, *Alone in the World?*, xvi.

For Marc Cortez, emphasis in theological anthropology on sin means that we are working with a 'broken reality' and 'broken and often confusing data', which complicate our attempts to fully understand human nature.[4] With this in mind, Cortez refers to 'prototypical' (i.e. persons at creation) and 'eschatological' (i.e. humanity's goal) visions of humanity that are both deducible in a theological narrative but that offer different accounts of humans in terms of longing and fulfilment,[5] as was touched on in the last chapter. The variance between creation and eschatology exposes tensions in theological anthropology (and anthropogeny), where *imago dei* is significant. As Cortez aptly states, the question before us that relates these ideas is: "When and how were humans created? How do different creation stories influence our understanding of what it means to be human?"[6]

David Clines touches on these questions in his 1967 Tyndale Old Testament lecture where he provides a useful overview of the concept of *imago dei*, following Barth's point that these views can be contextualised.[7] Drawing on Stamm's historical survey of *imago dei*, Clines identifies five classifications of the theological concept in terms of how it has been interpreted and applied to notions of human nature:

> (1) It corresponds to a spiritual quality, or faculty, of man;
>
> (2) It legitimises human ruling over other creatures;
>
> (3) It speaks of an immediate relationship between God and
>
>   man;
>
> (4) It relates in some way to man's form;
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> (5) It is concerned with external, physical form.[8]

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[4] Marc Cortez, *Theological Anthropology: A Guide for the Perplexed*, (London/New York: T&T Clark, 2010), 8-9.

[5] Ibid.

[6] Ibid., 11.

[7] David Clines, 'The Image of God in Man', *Tyndale Bulletin*, Vol. 19 (1968), 54.

[8] Ibid., 55-61.

Clines then notes how Stamm drew a dividing line in 1940 (between [4] and [5]): everything prior to this dealt with intangible, spiritual qualities; and things after this take physicality more into account.

At the risk of perpetuating a dualistic approach in the classification of interpretations of *imago dei* – particularly as, like Clines himself notes,[9] it is difficult to uphold the distinction between spiritual and material when they are both so co-informative – I will not be sustaining Stamm's typology entirely here. Instead, I shall develop his first three classifications into a working typology, taking (1) as indicative of a *substantive* account; (2) as indicative of a *functional* account; and (3) as indicative of a *relational* account. From Clines' article alone, it is clear that these adequately account for many of the tensions and interpretations of *imago dei*. Looking more specifically at theology and technology, various writers have fairly consistently applied this threefold typology,[10] and so it seems useful to adopt it here also. The remaining subparts of this section will now expand upon each of these three classifications in turn. Here, I suggest how the cyborg criticises specifically substantive interpretations, whereas there is scope to engage with cyborg figures via relational interpretations.

5.2   Substantive Interpretations

One of the earliest and arguably most pervasive interpretations of *imago dei* is known as the substantive interpretation. It is so titled because this view regards humans as bearing *imago dei* innately, by virtue of their creation by God. As Noreen Herzfeld astutely notes, "the divine image, as a human quality, becomes a part *of the substance* of our very being."[11] There is, in short, something perhaps

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[9] Ibid., 60-1.

[10] Noreen Herzfeld, *In Our Image: Artificial Intelligence and the Human Spirit* (Minneapolis: Augsburg Fortress, 2002), 10-32; Cortez, *Theological Anthropology*, 18-27. Although Cortez notes a fourth model, this is termed 'multifaceted' and involves the threefold model in plural combinations, which I consider further in Chapter 8.

[11] Herzfeld, *In Our Image*, 16 (my emphasis).

intangible yet intrinsic to, and constitutive of, the human that defines it, and this is how humans were created.

Exactly what that quality is that the *imago dei* represents has been much scrutinised, but due to the fact that it is only humans who bear *imago dei*, theologians have looked to the differences between humans and nonhumans in identifying this imaged quality. Typically, that difference has been read on the grounds of rationality,[12] which in turn has helped to cultivate an understanding of humans and God as cognitive beings, over animals and others, which, lacking the *imago dei*, are regarded as lesser, material beings.[13]

The logic of substantive interpretations of *imago dei* here with regards to animals is that "animals are included inside the system as a figure of the outside."[14] Animals, in short, exist as a broad category as a foil to the human. In demonstrating what the human is not, animals and other 'othered' groups, such as those with physical or cognitive disabilities,[15] fulfil a negative dialectic that allows the human to ascertain what it *is*. That substance, though, that essence, exists only insofar as the 'other' does. In this sense, substantive interpretations of *imago dei* necessitate difference in coming to any kind of affirmative identity, which is exposed as only affirmative in the light of the negative dialectic means of revealing it. Theologically, this view can be linked to Augustine, for whom "beasts, trees, and

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[12] Cortez, *Theological Anthropology*, 18-21.

[13] Jacques Derrida usefully reflects on theology, logocentrism, and dualism with regards to the 'essential' difference between the human and the animal that I explore here. For Derrida, language creates a difference and enacts a power over animals (*The Animal That Therefore I Am* [New York: Fordham University Press, 2008(2006)]). Cf. Thomas Suddendorf, *The Gap: The Science of What Separates Us from Other Animals*, (New York: Basic Books, 2013), 3; Augustine, *City of God*, Book XII, Chapter 2, 473; Andrew Linzey, *Animal Theology*, (Illinois: University of Illinois Press, 1994), 18.

[14] Ron Broglio, 'When Animals and Technology are Beyond Human Grasping', *Angelaki*, Vol. 18, No. 1 (2013), 2.

[15] The lines of personhood here drawn on grounds of rationality, agency, and accountability may problematically exclude some humans with Alzheimer's or other neurological conditions. Cf. Gregersen, 'Varieties of Personhood: Mapping the Issues', in Gregersen, Drees, and Gorman (eds.), *The Human Person in Science and Theology*, 1-20.

stones are incapable of enjoying this blessing."[16] This depicts a clear demarcation between humans and nonhumans in theological terms.

It is also possible to discern this view, as animal rights advocate and theologian Andrew Linzey does, in the popularised scholastic work of Thomas Aquinas, as well as to trace this view further back to the Hellenistic philosophy of Aristotle.[17] The significance of this lineage (shared with Judaism) is that it demonstrates how:

> Genesis is interpreted in terms of the Aristotelean pattern which sees nature as a hierarchical system in which it is assumed – as with human society – that the male is superior to the female, the female to the slave, and the slave to the beast and so on in declining intellectual order.[18]

Not only here do we see how the necessitation of difference between humans and 'beasts' is most prevalent and discernible, as well as most destructive, but we see it manifest in multiple kinds of paralleling dichotomies and hierarchies that imply subservience.

Indeed, in all of these hierarchies, we can ask on what grounds they are predicated. Feminism and abolitionism (and disability activists) have challenged the ranking of human subjects, and now animal and posthuman studies are making similar critiques *beyond* that fraught category. The issue is commonly one of a limited idea(l) of which subject is worthy of ethical rights: for feminists that subject has been androcentric; for abolitionists it has been western-centric or has been closely affiliated with 'white privilege'; for animal rights writers, it has been always too narrowly human. History, religion, and science are identified as being

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[16] Augustine, *City of God*, Book XII, Chapter 1, 472.
[17] Linzey, *Animal Theology*, 12-19; cf. Aquinas, *Politics*, Book I, Chapters 2 and 13.
[18] Ibid., 18.

at the root of these attitudes,[19] and theologically, a substantive interpretation of *imago dei* seems a viable culprit. For Bret Stephenson, "the *imago dei* all too often has been associated with internal and ultimately static qualities of the human mind, namely a disembodied rationality."[20] There is not only a humanocentrism operative here which underscores perceptions of animals as 'other', but there is also a dualism where abstract and intangible qualities are favoured as uniquely defining human nature. The human, we can deduce, is typically split within itself as well as from others such as animals, in a hierarchy rooted in abstract and idealised types and models.[21]

5.2.1   Machine (/) Men?[22]

Human/nonhuman demarcations based upon a substantive interpretation of *imago dei*, then, range from mind-body dualism on the one hand, to gender hierarchies, to discriminations against other species that apparently lack such advanced cognitive functioning. Needless to say, in light of these demarcations, recent theological critiques of substantive interpretations of the *imago dei* have been commonplace. This partly owes, among other things, to the fact that, through developments in biology, any strong distinctions between humans and animals have been genetically disproven, or in the least sense, severely undermined.[23]

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[19] Joy, *Why We Love Dogs*, 108.

[20] Bret Stephenson, 'Nature, Technology and the *Imago Dei*: Mediating the Nonhuman Through the Practice of Science', *Perspectives on Science and Christian Faith*, Vol. 57, No. 1 (2005), 6. This also coincides with a feminist critique of the western intellectual tradition that is significant in posthumanism (see Chapter 6.2.2), cf. Rosi Braidotti, *The Posthuman*, (Cambridge: Polity Press, 2013), 27-8.

[21] Cf. Aquinas, *Politics*, Book I, Chapter 5.

[22] This subheading is adapted from 'Iron Sky' by Paolo Nutini (2014), which samples a clip from *The Great Dictator* (1940), where Charlie Chaplin cautions people, "don't give yourselves to these unnatural men – machine men with machine minds and machine hearts! You are not machines! You are not cattle! You are men!" The song, with the soundbite, critiques the contemporary Weberian iron cage of bureaucracy, and sees machines (as well as animals) as impinging on humanity.

[23] Cf. Yuval Harari, *Sapiens: A Brief History of Humankind*, (London: Vintage Books, 2014[2011]), 5-9.

Even prior to this, though, philosophers have long queried the human/animal distinction, particularly as grounded in *imago dei*:

> Have we ever had a single experience which convinces us
> that man alone has been enlightened by a ray denied all
> other animals? If there is no such experience, we can no more
> know what goes on in animals' minds or even in the minds
> of other men, than we can help feeling what affects the inner
> part of our own being.[24]

The above quotation is taken from Julian Offray de la Mettrie, for whom the human is not unique, which undercuts some of the force of *imago dei*. Offray himself was an atheist, which transpires in his philosophies as a radical turn to the immanent and imminent, away from grander metaphysical concerns about the existence of God or our relationship to Him.[25] As such, Offray recommends letting go of anxieties about human nature as unique or as bearing the image of God: these make us no happier or more self-aware overall.[26]

Perhaps yet more provocatively, for Offray, writing against a substantive theological anthropology, not only is there no identifiable difference between humans and animals, but this is also the case for humans and machines. In essence, humans and machines are the same: the title of Offray's essay reveals this in referring to '*L'homme Machine*', or 'Man a Machine'. In making this parallel, Offray posits a deeply materialistic account of the human that was intended to counteract the Christian spiritual account. Offray critiques those who "have taken for granted two distinct substances in man, as if they had seen them, and

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[24] Julian Offray de la Mettrie, 'Man a Machine', http://www.marxists.org/reference/archive/la-mettrie/1748/man-machine.htm (1748) (accessed 12/3/13).
[25] This may parallel Haraway's radical immanence; see Chapters 8.3 and 9.1.
[26] Offray de la Mettrie, 'Man a Machine'.

positively counted them,"[27] which was notably the case in Augustinian theology. By rejecting this premise, Offray concomitantly rejects distinctions between humans, animals, and even machines, because there is no hierarchy of natures upon which to oppose them. Instead, Offray uses mechanism to guide his monistic materialism.

Offray's opinions were controversial at the time of his writing, and even now remain largely unpopular.[28] This demonstrates something of our ongoing need to recognise the uniqueness of humanity. For example, humans are seen as 'persons' who "share in a common rationality; therefore, they are legally accountable agents."[29] This is a cornerstone of ethics and politics insofar as agential, rational subjects are held accountable for their actions. The question of agency and accountability of machines and robots, closely related to a question of free will or 'personhood',[30] highlights our reservations about being unable to distinguish ourselves from machines as Offray proposes, because this would undermine a fundamental part of our political foundations.

Even so, works such as Offray's that undermined the difference between humans and nonhumans were compelling – albeit concerning – enough to disrepute the substantive assumptions that mark the uniqueness of the human. In theological anthropology, it was increasingly noted, as David Fergusson writes, that "the *imago* concept does not enable […] some shortcut to identifying a single property or function that differentiates us from the other animals,"[31] and I would add, in the light of Offray's comments, from machines also. If human uniqueness was still to be upheld, it would seem, the boundary between humans and nonhumans would

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[27] Ibid.

[28] Charlie McCarron, 'Apes to Androids: Is Man a Machine as La Mettrie Suggests?', http://www.charliemccarron.com/man_a_machine/ (2006) (date accessed: 20/4/15).

[29] Niels Gregerson, 'Varieties of Personhood: Mapping the Issues', 2.

[30] Foerst, *God in the Machine*, 160-1, 188-9; Gray, *Cyborg Citizen*, 30, 92, 108; Hatt, *Cybernetics and the Image of Man*, 253.

[31] David Fergusson, 'Humans Created According to the *Imago Dei*: An Alternative Proposal', *Zygon*, Vol. 48, No. 2 (2013), 449.

need to be policed rather than merely assumed, and this more active interpretation opened the way to functional accounts of theological anthropology.

5.3   Functional Interpretations

Taking heed of many of the critiques of substantive interpretations of *imago dei*, theologians began to turn towards functional interpretations that were more engaged with ongoing human activity in the world rather than focusing only on origins. Alistair McFadyen characterises the shift as moving from the image-as-noun to image-as-verb, where action rather than essence becomes more emphasised.[32] Functional accounts of theological anthropogeny thereby provide a way of grounding ethical judgements on human activity in the world, rather than being concerned with abstract, static qualities.

In particular, functional interpretations of *imago dei* address more fully the task of stewardship that God commanded of humans. This derives from Genesis 1:26:

> Then God said, 'Let us make humankind in our image, according to our likeness; and let them have dominion over the fish of the sea, and over the birds of the air, and over the cattle, and over all the wild animals of the earth, and over every creeping thing that creeps upon the earth.'[33]

Functional approaches take scriptural insights such as this, and apply them to how humans interact with, and 'rule over' other animals. They deal with a notion of humanity defined by what it *does* according to God's will, rather than what it *is* according to His creative command.

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[32] Alistair McFadyen, 'Imaging God: A Theological Answer to the Anthropological Question', *Zygon*, Vol. 47, No. 4 (2012), 918-9.

[33] Genesis 1:26.

One of the key merits of the functional approach over that of the substantive one is that humans are not seen as predesigned with any kind of divine essence. Under the substantive view, this aspect of predesign potentially permits a hubristic arrogance, leading some to criticise Christianity with the charge of being the root cause of our present ecological crisis.[34] Instead, in the functional approach, "man is not simply to reflect, but to realise the image of God."[35] Humans must enact *imago dei* through their charge, which is commonly taken as one of duty and compassion towards animals and their environment.

However, on closer analysis, the functional interpretation does not correct the key shortcomings of the substantive view, and instead perpetuates them. Most notably, regarding the charge of care over animals, this duty begins by granting a degree of power to the human over their animal kin. This arguably presupposes a latent sense of essential difference between humans and animals, and in this sense, *imago dei* is not properly transferred to something performed but remains predicated on the ability to enact it in the first place.

In other words, although it may seem that "this obsession with performance shows a shift from understanding ourselves in terms of who we are to understanding ourselves in terms of what we do,"[36] what we do is still ultimately who we are, and what we do is measured against predetermined and expected norms that define who we are. Thus, we have not circumvented essentialism or substantiality; we are merely expressing, or performing it differently.[37] The

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[34] Lynn White, Jr. 'The Historical Roots of Our Ecological Crisis', *Science*, Vol. 155, No. 3767 (1967), 1205.

[35] Hatt, *Cybernetics and the Image of Man*, 209.

[36] Herzfeld, *Technology and Religion*, 44.

[37] An alternative way of showing this might be the way that, in social theory, Erving Goffman adopts a dramaturgical analogy in order to demonstrate how people interact with performances of characters, but behind the roles, there is an acting self. (*The Presentation of Self in Everyday Life*, [London: Penguin, 1971(1959)], 13-27.) The actor in Goffman's philosophy, I contend, is akin to the substantive self that undergirds the performances of *imago dei* discussed by the functional interpretations.

functional view, then, I propose, is best seen as an extension, rather than a correction, of the substantive view.

5.3.1 Ethical Technologies?

The point where the functional interpretation of *imago dei* becomes more significant is when it is read in the context of a technocultural milieu. If the functional view addresses human action as enacting or indeed as defying *imago dei*, then human action regarding the development and use of technology is a central theological concern. If "to be created in the image of God implies that humans can be the vehicle for grace toward the creation, in a way that is somehow reminiscent of God's graciousness,"[38] then how are we to gauge what is acceptable within the bounds of *imago dei*, and what practices take us beyond it, in turn jeopardising the image? In other words, how are we to understand God's graciousness, and our role as a vehicle for grace, as a prescription for ethical activity in the world?

Technologies problematise our ability to rely on an originary set of ethics because of how it transforms, to various degrees depending on the technology in question, the environment around it.[39] That is not to say, of course, that technologies are incompatible with thinking about origins. As I have suggested in the previous section and the previous chapter, time after time we rely on mythical-theological assumptions to make assessments of ourselves and nonhuman others. Many technologies are actually produced out of these assumptions and worldviews.[40] For Linzey, genetic engineering of animals is a prime example of this. He writes,

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[38] Hefner, *The Human Factor*, 238; Daniel Halacy, Jr. *Cyborg: Evolution of the Superman*, (New York/Evanston: Harper & Row Publishers, 1965), 14.

[39] Brock, *Christian Ethics in a Technological Age*, 2.

[40] E. F. Schumacher notes this, commenting that technologies emerge out of an anthropocentric worldview (in what Ihde terms an 'embodiment relation' that extends the human), but they have since, in an Ellulian fashion, developed their own ends that are detrimental to the human (Schumacher, *Small is Beautiful: Economics as if People Mattered*, [London: Blond & Briggs Ltd, 1973], 54).

"genetic engineering represents the concretisation of the *absolute* claim that animals belong to and exist for us. […] Biotechnology in animal farming represents the apotheosis of human domination."[41] Here, a substantive view that discriminates humans from animals informs a use of technology that is accordant with a functional view of humans as enacting domin(at)ion over nonhuman creation.

Alternatively, though, the functional view can also be taken in a different direction, namely one that Linzey sees as evading the trappings of the anthropocentric, substantive view. Linzey, for example, writes against the patenting of animals, as this would be to confirm their nature as property for humans (and that would accord with the substantive view by discriminating between persons and property as sharply-defined categories).[42] Instead, for Linzey, "maintaining and promoting the good that already exists [in creation] is an essential task of stewardship."[43] Here, the shift is away from a humanocentric view of stewardship to a creation-centric one, where technological change for the sake of the stewards alone is condemned. Even in this view, though, the burden is placed on the stewards alone, who are divided from the rest of creation in a decisive manner. It is difficult, in other words, to ascertain with a functional interpretation of *imago dei* what the best ethical practice is for humans and for creation, as distinguished groups.

Maintaining the focus on care of animals, and developing this discussion, Paul Hansen discusses intensely technological milk farms in Hokkaido, Japan, where he regards cattle as hybridised entities through their literal and extensive connectivity with machines.[44] Do these practices enact *imago dei*? Or, from the fact

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[41] Linzey, *Animal Theology*, 143.

[42] Ibid., 144-6.

[43] Ibid., 145.

[44] Paul Hansen, 'Becoming Bovine: Mechanics and Metamorphosis in Hokkaido's Animal-Human-Machine', conference paper given at 'Animals in Asian History, Society, Thought', University of Manchester, 25/1/13.

that the public image of these farms downplays the technological element and suggests 'natural', free-roaming cows happily choosing to give away their milk,[45] should we be alert to practices that in fact are a detriment to *imago dei*, as read in a functional sense? Put differently, are humans being 'good stewards' by using technology to manage these cows and their resources, or does the nonreality of the public façade betray our confidence in using technologies responsibly in this way?[46] Again, with the functional interpretation of *imago dei*, we lose the ethical measuring sticks with which to discern the answers to these sorts of questions. Effectively, humans become the judges rather than God.[47]

However, in an advanced technological world that humans steered with their developing of tools, where human enhancements are now a very real possibility, the identity of 'the human' is problematised. As Linda Woodhead puts it, the tensions arise because the starting point of a 'cataphatic anthropology' such as the substantive one I discuss "often becomes self-fulfilling, fixing us in the nature it claims to describe." Technologies change us and the world at the same time that we struggle to maintain a clear self-identity. These tensions underlie the fraught ways we see ourselves as rooted in a certain nature, and as developing towards certain ends. Broadly, these are substantive accounts that underwrite any functional view of ourselves, and they are strongly influential on how we interact with technologies and other animals.

To elucidate this point with more specific regards to technology, consider Asimov's relatively well-known and influential Three Laws of Robotics. First presented in *Astounding Science Fiction* and popularised through *I, Robot* (2004), these Laws were intended to set out an ethical code in the interests of harmonious human-robot relations:

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[45] Ibid.

[46] Cf. Joy, *Why We Love Dogs*, 71-2, 124-5.

[47] For further exploration of *imago dei*, technology, and the links between humans and God, see Chapter 8.

(1) A robot may not injure a human being or, through inaction, allow a human being to come to harm.

(2) A robot must obey the orders given it by human beings, except where such orders would conflict with the First Law.

(3) A robot must protect its own existence as long as such protection does not conflict with the First or Second Laws.[48]

At first glance, the Three Laws correspond with a functional approach because they provide ethical instruction and contend with a dynamic set of technologies and beings. On closer inspection, though, the laws are founded on key differences between robots and humans, where robots are presented as subservient to masterful humans. This reveals assumptions about humans that are rooted in something more abstract and unchanging. Humans are unique, for example, not only because they create robots, but because they have the capacity to maintain control. It is specifically this *capacity* that connects substantive and functional interpretations: only humans have such a capacity for creation and control (this is substantive); but what we do with that capacity remains open (this is functional).

This emphasis on openness hearkens back to Hellenistic Church Fathers' ideas about humans being made with an original incompleteness in the *image* of God, but coming to the *likeness* of God through navigating their own path. In the first instance, there is the image (*imago*) that action subsequently builds upon; this is briefly the logic of functional interpretations of *imago dei*. In short, they draw on pre-existing assumptions about the human that are largely substantive in character.[49] The more that we can make ourselves aware of these substantive

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[48] Isaac Asimov, 'Runaround', https://www.5novels.com/ScienceFiction/Asimov33/27210.html (1942) (date accessed: 10/9/15).

[49] Robert Geraci explicitly notes how stories about robots and biblical anthropogenic stories intertwine, resulting in the coinciding of substantive and functional interpretations but that are

assumptions, the more that we can critique them and seek alternative articulations of our conduct in the world. For Joy, writing in support of veganism but whose arguments nonetheless apply to the present discussion of human, animal, and technology relations, this is about challenging the narratives of 'naturalisation'.[50]

In short, what is required is a stronger focus on our ongoing engagements with technologies that does not presume human dominance. Theologically, to reiterate, this will necessitate an emphasis on openness or incompleteness. In my estimation, the most viable resource or approach that can offer this in non-substantive terms is a relational interpretation of *imago dei*, which I now consider.

5.4   Relational Interpretations

A third categorisation of the ways of interpreting *imago dei* is known as the relational view. Here, theologians attempt to move more emphatically away from the shortfalls of substantivism that, as I have attempted to show, are mostly continued rather than corrected in the functional interpretation. As Noreen Herzfeld writes in her detailed excursus of these three models of theological anthropology,

> A relational interpretation of the *imago dei* obviates these criticisms. First, it presupposes no *essential* difference between humans and other creatures, just as it does not posit an *essential* similarity between humans and God. Instead, it focuses on the calling of human beings to be in *relationship*.[51]

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layered in the way I have suggested here. (Geraci, 'Robots and the Sacred in Science and Science Fiction: Theological Implications of Artificial Intelligence', *Zygon*, Vol. 42, No. 4 [2007], 963.)

[50] Joy, *Why We Love Dogs*, 107-8.

[51] Noreen Herzfeld, *In Our Image*, 90 (my emphasis).

The focus in a relational view is no longer on a distinguished identity, for example of beings that bear *imago dei* versus those that don't. Approaches rooted in substantive interpretations of *imago dei*, as Herzfeld usefully indicates, tend to dramatically overemphasise a sense of difference between humans and God at the expense of other creatures.

The relational approach attempts to correct this overemphasis on difference by reworking what it is to be different and similar through the multiple relationalities and networks in which we immerse ourselves. In this sense, "human beings, like every other reality, are co-constituted by their relationships. Relations are internal." [52] This suggests a deep and critical evaluation of substantive interpretations of *imago dei*, and while the relational turn is not hostile to Christian theology, it certainly demands careful consideration. [53]

The notion that humans, as well as all other species, are formed by their relations is particularly redolent of Donna Haraway's concept of 'companion species'. [54] For Haraway, companion species place equal emphasis on all relating actors and parties, rather than reducing the 'other' to a mere object against which the subject is dialectically defined. Companion species as a concept looks critically at the "webbed bio-social-technical apparatuses of humans, animals, artefacts, and institutions in which particular ways of being emerge and are sustained. Or not." [55] Power and focus are shifted from the subject in question, typically the human, and are dispersed throughout networks of relations. In the networks, nothing can be abstracted, including the human, in the light of the connections that shaped species' (hi)stories as coincident with each other. Indeed, as Haraway goes on to say, "once 'we' have been met, we can never be 'the same' again." [56]

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[52] Anna Case-Winters, 'Rethinking the Image of God', *Zygon*, Vol. 39, No. 4 (2004), 818.
[53] Shults, *Reforming Theological Anthropology*, 35.
[54] See Chapter 3.4.1.
[55] Haraway, *WSM*, 134.
[56] Ibid., 287.

The same as what, though? Does this assertion not presuppose a human figure that has been met prior to its relationships, a notion that would risk veering back into a substantive view of humanness?[57] Following along this line of argument, a relational approach to *imago dei* could in fact be used to perpetuate or emphasise human difference rather than challenge or overcome it. For example, as one theologian working in this direction suggests, "what will count as human and as nonhuman emerges only from relations, by engagement in situated, worldly encounters, where boundaries take shape and categories sediment."[58] Notions of the human and the categorically broad and abstract 'nonhuman' remain in this relational depiction of (id)entities. A relational interpretation, then, may have the merit of uncovering the plasticity of difference, as something that is contingent upon the connections that we forge, but it does not necessarily do anything to overcome that difference. For example, we exist in and define ourselves through relationships with animals,[59] but according to a functional account of *imago dei*, we meet (meat?)[60] animals in ways that we determine and control using technology.[61] This masks a more complex set of relations that Haraway refers to across her work and characterises as 'ontological choreography',[62] which emphasises the dynamism of interacting (id)entities over inertial substantive assumptions.

Of course, a functional-substantive interpretation of *imago dei* is not the only way relationality is discernible in theological anthropology, and to conclude otherwise would be reductive and misleading. Some theologians, such as David Cunningham, note that "the biblical text never denies the attribution of 'image of

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[57] According to Herzfeld's interpretation of relational approaches to *imago dei*, for Karl Barth, relationship demands otherness modelled on the alterity between creator and created (*In Our Image*, 25-31).

[58] Anne Kull, 'Cyborg Embodiment and the Incarnation', *Currents in Theology and Mission*, Vol. 28, No. 3/4 (2001), 283.

[59] Joy, *Why We Love Dogs*, 142-4.

[60] Broglio, 'When Animals and Technology are Beyond Human Grasping', 8.

[61] Joy, *Why We Love Dogs*, 37-72.

[62] Haraway, *CSM*, 11; see Chapter 8.3.1.

God' to any other element of creation."[63] Although the significance of the Bible's silence on the matter of extending *imago dei* to nonhumans cannot be downplayed, we must equally bear in mind that, in support of Cunningham's claims, beyond Genesis, the Bible remains also largely silent on the matter of humans bearing *imago dei*. This may be the impetus for a more creaturely ethic, where, as Philip Hefner suggests, "human beings, who are of much more worth than the birds and the lilies and the grass, ought nevertheless to identify more closely with these lower kin."[64] Although I take issue with the derogatory tone applied here to nonhumans, which betrays the call being made for a more considered sense of relationality,[65] the gesture towards creatures that takes account of a broader creaturely relationality with God is compelling. This is not about seeking to 'play God' or worrying about sliding down to the bestial level along a metaphysical continuum identified in Augustinian accounts of theological anthropogeny and anthropology.[66] Instead, relationality and relational accounts of *imago dei* rethink these concepts in less linear fashion.

Gesturing towards creatureliness and accounting for the whole of creation is a necessary move in overcoming anthropocentric interpretations of *imago dei*. We need, in short, to move beyond a strictly theological *anthropology* and consider the relations that co-constitute not only us, but also others. Part of this anti-anthropocentric endeavour must entail a refusal to rank creatures. Even if all creatures are understood to represent the goodness of God's creation or, as Cunningham suggests, if they all manifest the *imago dei* in some way, this is not enough justification to continue to rank and discriminate. As Celia Deane-Drummond writes, "if other animals are to be thought of as only weakly bearing

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[63] David Cunningham, 'The Way of All Flesh: Rethinking the *Imago Dei*', in Celia Deane-Drummond and David Clough (eds.), *Creaturely Theology: On God, Humans and Other Animals*, (London: SCM Press, 2009), 106.

[64] Hefner, *The Human Factor*, 85.

[65] This may be demonstrative of Hefner's overall approach to theological anthropology, which I consider in more detail in Chapter 8.

[66] See Chapter 4.1.

the image of God, it still seems to put other animals on the same hierarchical scale as humans, and they are then found wanting."[67] It is the Augustinian sense of hierarchy[68] that needs to be combatted in truly relational accounts of creation, going beyond a strict anthropocentrism.

5.4.1 Rewiring Ourselves?

There is, however, a further sense in which the relational view is tested in a technocultural context, and that is in terms of our relationality with our own creations – from golems to robots, and from tools to artefacts. Even though animals are not necessarily, as Cunningham suggests, excluded from *imago dei*, particularly not in a relational (or even functional) view where humans must enact that image through their relationships with them, the same cannot be said of our own 'artificial' technological creations,[69] which are not referred to in the Genesis chapters at all. As Anderson observes, "there are no categories within natural creatureliness to deal with unnatural behaviour in a positive sense."[70] What we need to do is rethink on a deep and fundamental level what we mean by 'natural' and ask how useful the concept is, given its stretched and various meanings.[71]

Our techno-creations can on the one hand make us anxious about how we see ourselves as either creaturely or creative,[72] or alternatively they can pose an opportunity to rethink these substantive accounts of theological anthropology. In the former view, "a society that focuses primarily on the work accomplished

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[67] Celia Deane-Drummond, 'In God's Image and Likeness: From Reason to Revelation in Humans and Other Animals', in Lieven Boeve, Yves de Maeseneer, and Ellen van Stichel (eds.), *Questioning the Human: Toward a Theological Anthropology for the Twenty-First Century*, (New York: Fordham University Press, 2014), 61.

[68] Augustine, *City of God*, Book XII, Chapter 2, 473.

[69] Jan-Olav Henriksen presents this artifice alongside questions of *imago dei* in the figure of the cloned human: 'The Human Being as a Co-Creator? Theological Reflections on Reproductive Cloning of Human Individuals', in Gorman, Drees and Meisinger (eds.), *Creative Creatures*, 158.

[70] Anderson, *On Being Human*, 30.

[71] See Chapter 1.3.

[72] See Chapter 8.

through the use of computers runs the danger of viewing humans through the lens of our own creation."[73] This approach gives priority to one lens, namely one that excludes technology from our self-conceptions in accordance with God's creation. In the latter view, though, we accept that there are necessarily different lenses and stories, and they allow us to articulate a different account of the ways that we relate to ourselves, animals, technologies, and God. Relationality with technologies (such as robots or artificial intelligence) is not to be singled out as detrimental to our created nature as Anderson intimates, but is to be seen as an expression of a longing for partnership in many forms.[74]

It is not, therefore, a matter of technology posing a specific problem for theological anthropology: it should be the relations that are the first part of an analysis, rather than the essence or substance of any of the beings or things that are interacting. This consequently means blurring the lines between humans, animals, and technologies in favour of an emphasis on the way that relationalities are both constructive *and deconstructive* of (id)entities. Haraway makes this point clear: "the fleshly body and the human histories are always and everywhere enmeshed in the tissue of interrelationship where all the relators aren't human."[75] Recognition of this point means that engagement with technology isn't limited to robots or clones, but is dispersed among our relationalities with every aspect of our world, including ourselves, and we cannot thus make neat taxonomical distinctions.

Many approaches notably fail on this point, though, even before technology is factored in. Underscoring this point, Kirchhoffer notes:

> We are so fundamentally bound up in an infinite network of
> relationships (the turtles all the way down) that to even
> conceive of some sort of objective self or human essence

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[73] Herzfeld, *In Our Image*, 80.
[74] Foerst, *God in the Machine*, 8.
[75] Haraway, *HLaL*, 106.

verges on the absurd. And yet, here we are, doing exactly that.[76]

Teasing ourselves away from the lure of convenient, stable, but inaccurate substantive notions of humans and nonhumans will be a difficult, but fruitful task. Indeed, relationality seems to have the capacity for a more radical rethinking of *imago dei*, especially if we take heed of our multiple fusions with other beings, which would in turn make us not only in the image of God, but also "in the image of animals and machines [...] *imago bestiae et ferae*, and *imago artis* as well as *imago mundi* and *imago dei*."[77]

This sort of view coincides with a companion species mentality where, to reiterate a point made in Chapter 3, the focus is on the ways that beings co-constitute one another, rather than seeing any one figure (such as the human) as necessarily central. That said, it was also noted out of the comparison between companion species and cyborgs that companion species have a tendency to reify the relations in forging essential and discrete identities. F. LeRon Shults makes this point in his exploration of relational theological anthropologies: "If being is essentially relational, however, we may still speak of the 'self' as substantial and real – precisely because of the intensity of its self-relationality."[78] What is needed is a relational approach to theological anthropology that can more strongly resist the pull of substantive notions altogether. This is what the cyborg critique of both technology and theological anthropology seems to demand.

For relationality, and for relational approaches to *imago dei*, to adequately respond to the challenge posed by Haraway's cyborg, then, the negative dialectic

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[76] David Kirchhoffer, 'Turtles All the Way Down? Pressing Questions for Theological Anthropology in the Twenty-First Century', in Boeve, de Maeseneer, and van Stichel (eds.), *Questioning the Human*, 185.

[77] Peter Scott, 'The Postnatural as Anti-Human? Resurrection, Natality and Creatureliness', in Elaine Graham, (ed.), *Grace Jantzen: Redeeming the Present*, (Surrey: Ashgate, 2009), 224.

[78] Shults, *Reforming Theological Anthropology*, 181.

production of the human needs to be abandoned, as well as appeals to radical alterity as the means by which we distinguish what is (non)human. Carole Cusack discusses how, "in direct opposition to the cyborg theorists, Christian theologians uphold the uniqueness of the human, and the necessity of a relationship with nature to cure the malaise of an era of 'technology gone mad'."[79] Here, human nature is understood through appeals to a discrete nature that is dichotomised from technology. The relationship with nature is one that others technology, regarded as a 'malaise', but technologies such as writing are often assimilated within understandings of human nature.[80] Humans in this sense would not be recognisable without technologies; this suggests an inconsistent reading of 'nature'. I have indicated that relational approaches, by abandoning such closed or discrete readings of nature, have the potential to give due attention to our 'togetherness' with various nonhumans who are, after all, not 'nonhuman' in the first place. This is in the same way that, according to the cyborg critique considered at length in Chapter 3, we have never been 'human' in any discrete or substantive sense.[81]

With the cyborg, relationality is foregrounded to highlight the dynamic ways that we continually shape and reshape (id)entities in an ongoing 'ontological choreography'. Theological resources that start with an openness and an incompleteness of the human – as well as of other interactors – can accommodate for this open-ended relationality and further our critique of substantive accounts of (non)human nature. We need, in short, to move on from how:

> It's as if the question is still about 'the human', as if that is
>
> what is under question, and categories like 'the animal' are

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[79] Cusack, 'The End of the Human?', 226.

[80] Margaret Atwood presents how stories define humanness, while also noting that stories are technologically mediated and influenced. ('A State of Wonder: How Technology Shapes Story', https://vimeo.com/138888472 [date accessed: 23/9/15].)

[81] Cf. David Gunkel, 'We Are Borg: Cyborgs and the Subject of Communication', *Communication Theory*, Vol. 10, No. 3 (2000), 335.

used in juxtaposition in these enquiries. But 'the animal' is every as much a humanist abstraction, a universal, an empty, a misplaced concreteness issue, but it's worse than that. It's stripped of all particularity and reality and most of all, from my point of view, stripped of relationality.[82]

In order to take heed of these comments, we need to embrace the cyborg and genuine relationality, over substantive interpretations and their legacy. This is evidently a sizeable, but not impossible, task for theology.

5.5   Secularisation of the Human: Humanism

We have now seen how the cyborg challenges certain notions of the human discernible in theological anthropology. I now link these theological attitudes with more general anxieties about being human by briefly highlighting how theological attitudes to the human impact upon apparently secular attitudes in sometimes problematic ways. Although the present western context is often characterised as 'secular',[83] given the parallels between Edenic narratives and general attitudes to humans and the world, it is clear that theological resonances are ongoing. This should come as no particular surprise, given that we live in a context crucially shaped by (as well as continuing to shape) (hi)stories,[84] and of these, theology is a significant mythological narrative.

I argued above that the substantive interpretation of *imago dei* was the most compelling and influential of the three approaches to theological anthropology (involving also functional and relational approaches). Humans in this view are

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[82] Haraway, *LT*, 140.

[83] An excursus of the secularisation is beyond the parameters of the present investigation; for a useful overview of this, see: Linda Woodhead and Rebecca Catto (eds.), *Religion and Change in Modern Britain*, (Oxon: Routledge, 2012).

[84] See Chapter 1.2.

seen as inherently bearing the image of God, which underscores traits such as uniqueness, dominance, and powerfulness. Steve Fuller links these attitudes to the present day by asserting that we have a "lingering sense of theologically-based ontological privilege." [85] Effectively, our self-appointed elevated status directly corresponds to a substantive interpretation of *imago dei*. Thus, when we engage in activities such as changing ecosystems and climates in the interests of obtaining depleting stocks of fossil fuels for economic and industrial development,[86] or even when trying to apply technological fixes to the consequences of our actions,[87] we enact a certain interpretation of what it is to be human. This is theological, whether or not we believe we were made in God's image. Either way, we nonetheless operate in the context shaped by (hi)stories that have told us so and have informed our conduct.

That there are numerous critics of this humanocentrism, particularly prompted by pressing contemporary concerns such as climate change, means that we must address the roots and dynamics of these trends. For many, these trends can be referred to as 'humanism', which, like the cyborg, has branched off into many forms and variations. Overall, though, humanism places humans as central and declares a marked commitment to the welfare of that figure, often at the detriment of other species and beings.

For John Gray, the link between theology and humanism is blatant: "humanism is a secular religion thrown together from the decaying scraps of Christian myth."[88] Humanism, for Gray and others, cannot be understood without its Christian

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[85] Fuller, *Humanity 2.0*, 182.

[86] Atwood, 'It's Not Climate Change, It's Everything Change'.

[87] To see technology as able to 'fix' our problems is to operate with assumptions about technologies serving humans, about humans as able to competently develop such technologies, and about humans as able to confidently understand the processes and outcomes of their intervention. All of this suggests a functional interpretation of *imago dei* that relies fundamentally upon a substantive view, because humans are seen as having the *capacity* to enact change via technological means.

[88] John Gray, *Straw Dogs: Thoughts on Humans and Other Animals*, (London: Granta Books, 2002), 31.

heritage,[89] and so it may usefully be labelled 'post-Christian', where the term 'Christian' remains in order to demonstrate that it still is significant. Attentiveness to the resonances of this theological tradition challenges the notion it is 'decaying' but invites us to question our relationship to it. Within a post-Christian framework, the uniqueness of the human (against the animal or machinic) is regarded by Gray (among others)[90] as "Christianity's cardinal error."[91] It is so considered because of the embeddedness of this uniqueness in our general attitudes. Gray takes this substantive human core as a root of humanism, because humanism outworks a human identity that is predicated on difference and the ability to discern the non/human.[92]

With regards to technology, as previously intimated with reference to substantive accounts of theological anthropology, humanism can vacillate between positive, or technophilic, attitudes on the one hand, and negative, or technophobic, attitudes on the other.

Technophilia is expressed when we employ technologies to further human development, both epistemologically (in terms of increasing our knowledge and understanding) and demographically (in terms of accommodating for a rapidly expanding population, *contra* Malthus).[93] Fuller links this explicitly to theological (hi)stories:

> [T]his Abrahamic heritage […] accounts for our fixation on
> science as a long-term collective quest for the ultimate truth
> about everything, which looks suspiciously like a secular
> version of Christianity's salvation narrative, especially when

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[89] Gerald McKenny, 'Transcendence, Technological Enhancement, and Christian Theology', in Cole-Turner (ed.), *Transhumanism and Transcendence*, 185; Plant, 'Coming Across the Future', 30.

[90] Linzey, *Animal Theology*, 59; White Jr, 'The Historical Roots of Our Ecological Crisis', 1205.

[91] Gray, *Straw Dogs*, 37.

[92] Cf. Braidotti, *The Posthuman*, 15.

[93] Cf. More, 'The Philosophy of Transhumanism', 3-17.

science is viewed as a political technology to install a 'heaven on earth'.[94]

The key element here is that technology interacts with notions of perfectibility, which corresponds to theological narratives of Eden and utopia. The substantive human is depicted as central to both visions (theological and technological), particularly where humans deploy their technologies towards lofty aims such as "a truly divine understanding of creation rather than its mere Adamic reflection."[95]

It is these lofty aims that also underwrite technophobic attitudes, particularly when they propel us at a dizzying rate beyond notions of the human to which we have gradually accustomed ourselves over time. Where these advanced technologies threaten to alienate us from ourselves, we perceive them in terms of a shift away from creative and humanocentric to destructive and technocentric.[96] For historian of technology David Noble,

> On a deeper cultural level, these technologies have not met basic human needs because, at bottom, they have never really been about meeting them. They have been aimed rather at the loftier goal of transcending such mortal concerns altogether.[97]

According to this narrative, technologies (and the technologists developing them) adopt their own agenda that is distinct and alienated from everything that came before it, which parallels a vision of Eden and natural created order. Technologies

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[94] Fuller, *Humanity 2.0*, 163.

[95] Noble, *The Religion of Technology*, 62.

[96] The Tower of Babel (Genesis 11) is often cited in theological discussions of hubris and technological excess to encourage humans to keep their feet literally and metaphorically 'on the ground'.

[97] Ibid., 206-7.

are considered artificial, and insofar as we succumb to them, we too cut ourselves off from our own natures, from Eden, and from God.

Alongside this reading of technology, the secularisation thesis may become morally charged with notions of alienation from religion and God. And yet, attentiveness to the technophilic attitudes where technologies interact with notions of salvation and human capability to bring about a utopic condition through their technologies reminds us that the seeds for such alienation are also discernible in substantive theological anthropology.[98] In other words, technophilia and technophobia share a common root in Edenic mythology: we cannot understand such attitudes to technology without placing them in a theological context.[99]

The cyborg, though, as Haraway articulates it, makes a significant rupture with this particular Christian legacy that deals in substantive notions of humans, nature, and technology: "Haraway is looking for a figure of humanity outside the narratives of humanism. Cyborg myth is a narrative of permanent possibility, of accommodation of the nonhuman in the fabric of the social."[100] Where Haraway declares that she rejects the notion that we are human,[101] she is using this as shorthand for rejecting the embedded legacy of humanism that our understandings of the human are so caught up with.

Developing this notion, Rosi Braidotti writes, "the human of humanism […] spells out a systematised standard of recognisability – of Sameness – by which all others can be assessed, regulated and allotted to a designated social location. The human

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[98] See Chapter 9.1.

[99] John Milbank develops this argument clearly with regards to the 'secular' by claiming that its seeds are found in theology, and so the two are inseparable (*Theology and Social Theory*, [Malden/Oxford/Carlton: Blackwell, 2006], 1-6). While I am drawing resonances with secularity and technology here, my argument more explicitly claims that technology and theology, in terms of the intermingling attitudes narrating them, are inseparable as contextual (hi)stories.

[100] Kull, 'Speaking Cyborg: Technoculture and Technonature', *Zygon*, Vol. 37, No. 2 (2002), 285.

[101] Haraway, *WSM*, 82.

is a normative convention."[102] The cyborg, on the other hand, de-centres the human, who can no longer be regarded as 'human' in the humanist sense against its background cast of nonhuman objects that now share in the limelight rather than being relegated to the periphery. What is to be emphasised, though, in this dramaturgical analogy is that it is the stage dynamics that have changed: 'we' still act, but we are not enacting the humanist drama by ourselves any longer. The cyborg narratives that Haraway articulates give due emphasis to the diffusion of roles and performances across networks of actors, who are no longer humanocentric or humanist.

And yet, we return to the troubling quandary expanded in the previous chapter, concerning the resonance of the human in the cyborg figure. To return to a quotation by Sadie Plant, "*the cyborg has no history, but that of the human is rewritten as its past.*"[103] By this, Plant refers to Haraway's methodology of taking up a polluted history and trying "to do something with [it] against the grain,"[104] where here the (hi)story of the human (appropriately to be read as narrative) cannot be merely discarded. What *does* need to be discarded, however, is the destructive legacy of humanism, and it is in this sense that Christianity, insofar as its substantive interpretation has informed much of humanism, is most jeopardised by the cyborg figure and critique.[105] From this, the cyborg must radically rework and articulate differently the humanist figure of the human. This is not an outright rejection of the human, however. To reject it would be to affirm its prior existence to the cyborg in an evolutionary, genealogical understanding that can be seen with other manifestations and interpretations of the posthuman, as will be demonstrated in the next chapter. The cyborg must work more intricately, and it does so at the level of narratives with an alternative articulation of the human that is not substantive.

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[102] Braidotti, *The Posthuman*, 26.
[103] Plant, 'Coming Across the Future', 31 (my emphasis).
[104] Haraway, *HLaL*, 103.
[105] Thweatt-Bates, *Cyborg Selves*, 148.

Part of this intricate work also signifies an interesting way in which the force of Haraway's refutation of Christian origin stories rooted in Genesis is somewhat undercut – like the human, Haraway must inherit certain (hi)stories rather than outright reject them. Haraway's (necessary) inheritance of Christian stories and tropes beyond Genesis can enrich our understandings of the cyborg as a figure that already bears within itself certain contradictions and problematisations in relation to the human figure, which is no longer to be read in substantive or humanist terms. This is the reason that I see some promise in the relational approach to *imago dei*: when it is not reverted to substantive interpretations, as has been overwhelmingly the case in much of (post-)Christian humanism, relational interpretations can allow us to rework and articulate the human in radically different, yet promising, cyborgian terms.

CHAPTER 6

Posthuman(ism)

The cyborg, in all of its guises, is taken to be a *posthumanist* figure because of how it involves changes brought about to the human by technology. Although 'posthumanism' is a notably broad and perhaps too encompassing term, the consensus on the emerging field of study is that it addresses technologies, or at least the dynamism highlighted in a technocultural context, and how these change our conceptions of humans and others.[1]

The trouble with 'posthumanism', though, is that the dynamism it attends to is so vast that its ability to function as a coherent, useful label is undermined. As Jeanine Thweatt-Bates notes, "there are multiple possibilities, and some visions of posthumanity are more human than others."[2] It is important to be aware of the multiplicity of these visions because slippages between figures or a poorly defined posthumanist subject will result in erroneous conclusions. My task in this chapter is to highlight the different interpretations of posthumanism and the complex ways these interpretations interlace, in order to further sharpen a critical understanding of the cyborg. As part of this, I comment on theological (mis)understandings of posthumanism. Brent Waters, for example, in spite of recognising that posthumanism and the posthuman "resists any common definition," responds to a fearful vision of "a day when humans will virtually merge with their technology, thereby creating a new and superior posthuman species."[3] To be fair, there is a branch of posthumanism that seeks the future that Waters fears, but not all portrayals are consistent in seeing that future as including humans or not; or as utopic or not.

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[1] Nayar, *Posthumanism*, 2.

[2] Thweatt-Bates, *Cyborg Selves*, 192.

[3] Waters, *From Human to Posthuman*, x.

Even how the human is understood is vague and debatable within posthumanist circles. This has left some to refer to the "impossibly slippery, unstable notion of the human, the risky entanglement par excellence."[4] Effectively, Waters' bait-and-switch tactic regarding the posthuman means that his conclusion responds to one specific understanding of posthumanism, but he attempts to stretch out his response to cover the broader field. This totalisation of a particular narrative cannot be a tenable grounding for an interaction of theology and posthumanism, and I avoid it here by acknowledging the multitude of narratives and (hi)stories.

I have previously demonstrated how various manifestations and articulations of the cyborg convey it in a different way with regards to the human and to technology.[5] The same can also be said of the cyborg's posthumanist cousins; each of which marks an identifiable sub-movement within posthumanism. A brief analysis of these can solidify our understanding of the cyborg by placing it – and theological anthropology (or *imago dei*, to be more concise) – within the broader (hi)stories of posthumanism. This theoretical context will then enable a more rigorous and specific interaction of Haraway's cyborg and Genesis-based theological anthropology in the third and final part of this investigation.

6.1 Expansions of the Human: Trans(/)humanism

So far, throughout this investigation, I have suggested resonances between theological anthropology, humanism, and technologically altered understandings of humans. The main argument has looked at how the cyborg, notably our early understandings of it, corresponds to transhumanist ideals insofar as various cyborgian technologies have emphasised the expansion of the human, rather than the questioning of it. We encounter such questioning much later in the cyborg's history with the writings of Donna Haraway.

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[4] Margret Grebowicz and Helen Merrick, *Beyond the Cyborg: Adventures with Donna Haraway*, (New York: Columbia University Press, 2013), 76. See also Chapters 4 and 5.
[5] See Chapters 2 and 3.

Transhumanism, then, has much to do with the central concept of the human, and indeed it expands and builds upon that human figure via technology. The prevalent secular understanding of the human can be shown to have resonances with, and derive from, the theological anthropological figure presented in the first chapters of Genesis, where God created humans 'in His image'. Connecting these arguments, then, it seems that there is a trajectory from Christian anthropogeny to transhumanism, via secularised notions of the substantive human in humanism. The link that I offer between Christianity and transhumanism corresponds to my broader argument about the trans/human that makes use of a linguistic splice to emphasise the human.[6] We have seen throughout much of the investigation so far how the human is able to be distinguished in much transhumanist and Christian thought, where in both cases, a substantive view is instructive. Similarly, there is a humanism in transhumanism that also remains.[7] For Thacker,

> The humanism of extropianism [which is a key strand of transhumanism] places at its centre certain unique qualities of the human […] just as the human will be transformed through these technologies, it will also maintain, assumedly, something essential of itself.[8]

That essential part, I have argued, can be traced back to Christianity and to substantive interpretations of *imago dei*, demonstrating that the Christian legacy is far from over in our post-Christian context.[9]

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[6] See Chapters 2.2 and 5.2.

[7] Bostrom usefully claims that "transhumanism can be viewed as an extension of humanism, from which it is partially derived" ('Transhumanist FAQ').

[8] Thacker, 'Data Made Flesh', 75.

[9] See Chapter 5.5; cf. Steve Fuller, 'How to Play God', http://iai.tv/video/how-to-play-god?utm_content=bufferc3f6f&utm_medium=social&utm_source=twitter.com&utm_campaign=buffer (accessed 24/4/14).

At the root of the parallel between trans/humanism and Christian anthropology is how the trans/human fulfils the criteria that theologians have long read out of (or into) *imago dei*, such as creativity, rationality, and intellect. The trans/human therefore cannot be read as disjointed from the human figure that it allegedly attempts to surpass. Rather, there is continuity between humans and trans/humans, and traits such as the insatiable human quest for continually more knowledge are uncompromised.

Overall, the human remains, and it is specifically a dualistic, abstract, and substantive understanding of the human that endures: the working notion of the human is cognitive and closely linked to the mind and to knowledge and reasoning.[10] This explains why Stephen Garner is able to develop an appraisal of Christian trans(/)humanism by appeal to *imago dei.* Garner claims that "in the transhuman differences or demarcations are blurred or obliterated." [11] The difference between the transhuman and human is certainly overcome with an emphasis on the expansive core to the human and humanism.[12] That said, given that conceptually human traits still remain central to the trans/humanist project, certain demarcations and differences, namely between the human and nonhuman are maintained. This is concordant with the substantive human figure of Genesis and theological anthropology, interpreted through *imago dei*.

Many trans(/)humanists, however, reject the idea of theology or religiosity in their writings: unlike Christianity, "transhumanism posits no 'beyond': there are no gods, or supernatural powers or principles. Most typically, transhumanists

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[10] Oliver Davies uses dualism to link theological anthropology, through humanism, to trans/humanism in discussing how the mind is the seat of control of the body and the wider material world in accordance with the logic of *homo faber* (see Chapter 9.2). ('Neuroscience, Self, and Jesus Christ', in Boeve, de Maeseneer, and van Stichel [eds.], *Questioning the Human*, 80.)

[11] Stephen Garner, *Transhumanism and the* Imago Dei*: Narratives of Apprehension and Hope* [PhD Dissertation], (University of Auckland, 2006), 36.

[12] Indeed, the transhumanist movement tellingly has developed a public image of itself as 'Humanity+'. (See http://www.humanityplus.org, where the tagline is "elevating the human condition" [date accessed: 20/4/15].)

embrace a naturalistic and purely secular worldview."[13] On the other hand, though, transhumanism places great faith in the human powers of progress and in the capability for technology to deliver it. In this sense, it cannot be overlooked that "transhumanism has emerged from a culture shaped by Christianity."[14] The conflict between transhumanism and Christianity may in fact reveal a deeper similarity between the two insofar as they both offer a totalised worldview and teleology, and trans/humanism might thereby function as a quasi-religious movement.[15]

Closer analysis of the teleology of transhumanism, however, reveals a concrete vision of the movement that can be regarded as slightly yet significantly different to the undergirding substantive interpretation of the human. While this foundational assumption of human nature can be used to link Christianity, humanism and trans/humanism, the *transhumanist* vision of the future reveals a more nuanced understanding of the human that may compete with the Christian eschatological vision. Transhumanists ultimately seek to use technology to bring about a largely humanocentric utopia, but in these futures, the human is fundamentally changed and may not be regarded as 'human' in any conventional sense any longer. In these discussions, it may be more appropriate to elide the forward slash I have been using to emphasise the 'human' in the 'trans/human', because that human figure is seemingly being replaced with something more technological and ontologically different.

To elucidate, some transhumanists advocate a future featuring human uploads to a sort of cyberspace, where we will enjoy an incorporeal existence in an alternate,

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[13] Russell Blackford, 'The Great Transition', in More and Vita-More (eds.), *The Transhumanist Reader*, 421.

[14] Ronald Cole-Turner, 'Transhumanism and Christianity', in Cole-Turner (ed.), *Transhumanism and Transcendence*, 193.

[15] Bostrom, 'Transhumanist FAQ'.

digital universe of almost infinite possibility.[16] Others discuss the 'singularity' as a point where humans are vaguely and irreversibly changed (typically for the better).[17] Others yet seek to overcome the 'evils' of ageing and strive towards immortality.[18] Common to each of these is a sense of directionality with regards to technological changes and augmentations to the human: they point towards something that is typically regarded as *post*human. In this usage, as transhumanist Nick Bostrom writes,

> It is sometimes useful to talk about possible future beings whose basic capacities so radically exceed those of present humans as to be *no longer unambiguously human by our current standards*. The standard word for such beings is 'posthuman'. (Care must be taken to avoid misinterpretation. 'Posthuman' does not denote just anything that happens to come after the human era, nor does it have anything to do with the 'posthumous'. *In particular, it does not imply that there are no humans anymore*.)[19]

Bostrom's comment suggests that humans are still present in the posthuman era, but only ambiguously so. This reference to the concrete human is different from the human subject of humanism, where the latter is still the guiding force of trans/human technologies.[20]

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[16] Margaret Wertheim, *The Pearly Gates of Cyberspace: A History of Space from Dante to the Internet*, (London: Virago, 1999), 223-308.

[17] Vernor Vinge et al., 'Future Trajectories: Singularity', in More and Vita-More (eds.), *The Transhumanist Reader*, 361-417.

[18] Aubrey de Grey, 'The Curate's Egg of Anti-Anti-Ageing Bioethics', in More and Vita-More (eds.), *The Transhumanist Reader*, 215-9.

[19] Bostrom, 'Transhumanist FAQ' (my emphasis).

[20] Michael Hauskeller, 'Nietzsche, the Overhuman and the Posthuman: A Reply to Stefan Sorgner', *Journal of Evolution and Technology*, Vol. 21, No. 1 (2010), 6.

For Bostrom, transhumanism marks the bridge between humans and posthumans – this is again different to Haraway's cyborg, which is non-teleological. The cyborg, broadly conceived, can be assimilated within *trans/humanist* narratives. We have seen this where cyborgian technologies are applied as extensions of the explorative human subject. [21] The cyborg could also be assimilated within *transhumanist* narratives as presented here. The technologies could be considered as a stepping stone towards something more radically nonhuman, i.e. something teleologically posthuman, where the technologically transformed being is seen as notably different from what we once were as humans at best merely appended by technology. If technologies are constantly changing humans though, as according to the transhumanist view, at what point do we make the transition from 'human' to 'transhuman',[22] and more particularly, from 'transhuman' to 'posthuman'? How are we to understand the posthuman?

6.2   Limits of the Human: Post(/)humanism

These questions introduce us to the figure of the posthuman, which itself is vague and malleable enough to refer to a number of often conflicting understandings and applications. Part of the confusion may result from the fact that the overarching term for the discipline, or branch of study, in which we find all of these figures, including the cyborg, the transhuman, and the posthuman, is *posthumanism*.

Conventionally, the posthuman figure is seen as 'other' to the human, but there are also senses in which the posthuman is a way of articulating a critique of humanism and of undermining our assumptions about the human. This distinction is difficult to maintain, however, and there are numerous slippages and inconsistencies in the literature on posthumanism. That said, I identify the

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[21] See Chapter 2.2.
[22] Annsell-Pearson, cited in Miah, 'Be Very Afraid'.

need for a distinction, particularly with regards to the present investigation, because of the theological significance of the human. If different posthumanist figures interact with, or articulate the human differently, then understanding these in order to contextualise more fully the cyborg, and to realise the nuances of its critique of the human, is a worthwhile undertaking. Yet, equally, I do not intend to overstate the distinction; there are still slippages between figures and technologies, and these need to be taken into consideration when making tentative, analytical commentaries.

With this need for distinction in mind, I offer two strands of posthumanism that have been influential but also conflated across other theorists' work, where the distinction can help us obtain a clearer reading of posthumanism and the posthuman, as well as its corollary figures (i.e. the human, trans/human, cyborg, etc.).

Firstly, there is '*evolutionary posthumanism*' that broadly sees that "our most powerful 21st-century technologies – robotics, genetic engineering, and nano tech – are threatening to make humans an endangered species,"[23] and within this strand there are also those, such as some transhumanists, who regard this evolutionary pattern in a more positive light.[24]

Secondly, there is a strand of '*critical post/humanism*' that picks up on Neil Badmington's work in arguing that "anthropocentrism is stalled as it is installed, rewritten as it is written, deposed as it is imposed. The subject of humanism is an impostor."[25] This sort of approach scrutinises the humanism at root in much of our thinking. It thereby places greater emphasis on analysing the 'humanism' of

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[23] Bill Joy, 'Why the Future Doesn't Need Us', *Wired*, Vol. 8, No. 4 (2000), http://www.wired.com/wired/archive/8.04/joy.html (accessed 30/9/12).
[24] Nick Bostrom, 'Existential Risk Prevention as Global Priority', *Global Policy*, Vol. 4, No. 1 (2013), 20.
[25] Neil Badmington, *Alien Chic: Posthumanism and the Other Within* (Oxon: Routledge, 2004), 145.

'posthumanism', whereas the former approach, 'evolutionary posthumanism', takes that humanism largely for granted and suggests a more linear focus implied by the 'post' of 'posthumanism'.[26]

I see the critical strand as relating closely to the cyborg, and expand on this view here also, before moving to the final part of this chapter, that attempts to tie these arguments together in questioning what, if anything, of the human remains in all of the posthumanist diffractions that have been presented.

6.2.1 Evolutionary Posthumanism

No friend of humanity cheers for a posthuman future.[27]

Perhaps the most common understanding of the posthuman, through the popularity of SF movies that require some kind of antagonistic, alien(ated) other, falls under the strand of what I term 'evolutionary posthumanism'. The 'evolutionary' label derives from the fact that the posthuman being, including robots, 'artificial intelligence', and aliens, is in some way more advanced than the human, and this underscores the threat of the posthuman in survivalist terms.[28] The 'posthuman' part of the label derives from the fact that such beings are typically born out of a human world and/or by human tools.[29]

Frankenstein's monster, then, is perhaps one of the classic archetypal evolutionary posthumans that we have become familiar with in popular culture. He was

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[26] Although this is an inconsistent categorisation in the literature on posthumanism, Nayar develops a similar distinction on non-theological terms (*Posthumanism*, 3-5); other critical posthumanists also more tacitly develop a distinction based on their close critical, as opposed to linear/temporal readings (cf. Badmington, *Alien Chic*; Stefan Herbrechter, *Posthumanism: A Critical Analysis*, [London/New York: Bloomsbury, 2013]).

[27] Leon Kass, cited in Waters, *From Human to Posthuman*, 65.

[28] This coincides with the logic of 'natural selection' while also challenging the 'naturalness' of it, given the human hand in developing the posthuman. Cf. Charles Darwin, *On the Origin of Species*, (Cambridge, MA/London: Harvard University Press, 1964[1859]).

[29] I have developed this idea elsewhere; see Midson, '*Ex Anthropos*', 270-87.

described, by his creator nonetheless, as "a depraved wretch, whose delight was in carnage and misery,"[30] and who had also embarked upon a path of murder and destruction. Closer inspection of the *Frankenstein* story, however, reveals a certain misunderstanding of the monster, leading us to question who was truly monstrous: the creator, or the created? The reader is invited, throughout the text, into the creature's consciousness (a telling move) to discover his antipathy for his creator: "Unfeeling, heartless creator! you had endowed me with perceptions and passions, and then cast me abroad an object for the scorn and horror of mankind."[31] Shelley pithily pre-empts here the evolutionary posthuman, as well as both the threat and purpose that it marks for humans.

The threat of the posthuman in this sense is relatively obvious from the creator's perspective. There is a risk of human extinction, and this is a theme that is common to SF explorations of the posthuman in calling human troops (with all of their military zeal) to face up to and annihilate this posthuman predator.[32] Humans find themselves combating posthuman antagonists, such as: the eponymous Terminator and his techno-brethren in various sequels; machines and Agents in *The Matrix* franchise; undesirable and disposable 'mechas' in *A.I.*; malevolent artificial intelligences such as Ultron (Marvel's *The Avengers* series) or Ava (*Ex Machina*); technologically altered species in the *Jurassic Park* or *The Planet of the Apes* series (particularly the prequels of the latter); a digitally uploaded and unstable consciousness such as in *Transcendence*; rampant tracker robots called 'Sentinels' in Marvel's *X-Men* series; and so on.

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[30] Mary Shelley, *Frankenstein – or The Modern Prometheus*, (New York: Oxford University Press, 2008[1818]), 57.

[31] Ibid., 114.

[32] It should be noted that these fears are deeply western-centric and are far less prominent in, for example, Japan, where robotics is bourgeoning. This underscores my argument about Christian theological anthropology and attitudes to technology. Cf. Ana Matronic, 'Why We Should Raise Our Robots Like Children', *The Guardian*, http://www.theguardian.com/technology/2015/sep/14/ana-matronic-why-we-should-raise-robots-like-children, (14/9/15) (date accessed: 17/9/15); Frederik Schodt, *Inside the Robot Kingdom: Japan, Mechatronics, and the Coming Robotopia*, (Tokyo/New York: Kodansha International Ltd, 1988).

We also find in these films conveying popular culture posthumans a strong sense of the anthropological genesis of the posthuman that is opposed and portrayed as the true object of fear.[33] Margaret Atwood, for example, explicitly explores this in her *MaddAddam* trilogy, which follows a small group of humans who have survived 'The Flood', a virulent 'bioform' pandemic. In the first book of the series, *Oryx and Crake*, human society is likened to "a sort of monster, its main by-products being corpses and rubble. It never learned, it made the same cretinous mistakes over and over."[34] The threat of the posthuman here becomes the threat of the *human*. It is the creator's will to create, rather than the posthuman's will to destroy, that is threatening.[35]

The human that is threatened by evolutionary posthumanism has its roots in theological anthropology, and the threat is thereby one pertaining to the ethical upholding of *imago dei*. Operative here is a functional approach that sees the image as somehow viable to collapse, but that is also deeply informed by substantive interpretations, which, as we have seen, are persuasive even in apparently secular arguments, such as those forwarded by Francis Fukuyama. For Fukuyama, there is a fear of technology insofar as it threatens to change who we are:

> Biotechnology will cause us in some way to lose our humanity – that is, some essential quality that has always underpinned our sense of who we are and where we are going, despite all of the evident changes that have taken place in the human condition throughout the course of history. Worse yet, we might make this change without recognising that we had lost something of great value. We

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[33] Frequently, the critique is centred on dehumanised corporations, where the lure of technology or profit has taken companies' interests away from humanity. (Dinello, *Technophobia!*, 202.)

[34] Margaret Atwood, *Oryx and Crake*, (London: Virago, 2004), 285.

[35] Not all posthumans, of course, have a will to destroy; the posthumans in Atwood's novels, for example, the 'Crakers', are child-like and harmless, which further foregrounds the human destructiveness throughout the saga. (Cf. Wagner, *The Scientist as God*, 171-2, 182-5.)

might thus emerge on the other side of a great divide
between human and posthuman history and not even see
that the watershed had been breached because we lost sight
of what that essence was.[36]

In this sense, the shift from human to posthuman is a linear transition, but in the process, as Fukuyama fears, we lose something that makes us *essentially* human.

Fukuyama's comments, characteristic of others who voice fears and concerns about the (evolutionary) posthuman, demonstrate a strong sense of boundaries. While my argument of substantive interpretations of the human means that something of 'the human' in terms of creativity is carried as a (hi)story into the posthuman, Fukuyama fears the loss of something human in another sense. In the division between humans and posthumans, Fukuyama does not see a continuation of the substantive self throughout technological changes, as trans/humanism would emphasise, but he sees something as catastrophically lost. What is the 'thing of great value' that does not cross the technological gulf into posthumanism, though?

In order to answer this question, we might usefully compare Fukuyama's fears about changes to human nature with Augustine's reading of original sin and the changes it brought about to a fallen human nature. Both arguments connote discussions around 'hubris' as an alienating, disruptive, and sinful act. In contemporary terms, it corresponds to the charge frequently lodged against scientists that they are 'playing God'.[37] This supposes a different assessment of human nature, of course, to the substantive understanding of humans that

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[36] Fukuyama, *Our Posthuman Future*, 101.

[37] Cf. Maria Wiering, 'Playing God', *The Catholic Review*, http://www.catholicreview.org/article/news/local-news/making-babies-in-vitro-fertilizations-pandoras-box (2013 – 2014) (accessed 10/1/14).

connects Christian anthropogeny to humanism and trans/humanism. As Ted Peters notes of this predicament,

> The single concept of nature has performed a double duty over the centuries, pointing to the goodness of God's creation while locating as inborn at least some of the temptations towards sin. No wonder confusion has occasionally appeared.[38]

From theological anthropology, we inherit a conflicting account of human nature that leaves us with a troubling sense of unease and ambiguity when approaching technologies. The tensions between these substantive interpretations of human nature emphasise a human proclivity to sin that emerges between creatureliness (i.e. the goodness of creation) and godliness (i.e. human nature bearing *imago dei*). These tensions are exposed via a functional reading of humans and technology, where our activities cause us to vacillate between the two natures.

Creatureliness can be traced back to a theological doctrine of creation, where the posthuman, being exempt from the original Garden, and thereby from created order, becomes the truly alien and external threat. Yet because the posthuman has been created by human tools or imagination, we become the biggest threat unto ourselves because of sin and hubris. For Brent Waters, this underscores a Christian-based rejection of the posthuman: "The issue at stake is not that in pursuing the postmodern or posthuman projects humans may cease to be human, but that they will cease to be creatures bearing the *imago dei* in effectively rejecting their election." [39] Creatureliness thus becomes shorthand for adhering to boundaries set by God's will and command, and provides a different

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[38] Peters, *Playing God?*, 89.
[39] Waters, *From Human to Posthuman*, 144.

interpretation of (human) nature alongside accounts of *imago dei* that emphasise human uniqueness.

Where creatureliness is lacking in this shorthand usage, though, is where it continues to evince a sense of human uniqueness, in spite of creatureliness being a common condition among animals that are also God's creatures. The gates of human difference are movable (although apparently not removable). The posthuman is discerned from the human in terms of creation and creator. Humans are problematically both in this figuration, though. Here, reference to Edenic origins is significant. In Eden, in common with animals, humans were created by God. Yet even so, animals are typically regarded as lesser creatures,[40] and the argument of common creatureliness is undercut.

Technologies, at the same time, are forcing us to rethink the difference between human, animal, and machine. Is OncoMouse™ an animal or a patent, for example? [41] Is selective breeding any different from eugenics or genetic engineering?[42] Would a vegetarian want to eat lab-grown meat?[43] While we seek refuge in notions of creatureliness against antagonistic evolutionary posthumans, the same technological practices as are involved in bringing about the posthuman are reconfiguring what it is to be 'created' and by whom. We fear that we are 'playing God' but, theologically speaking, where are we supposed to draw the lines between creatures, creator(s), animals, and machines…? It appears that what we may fear more than 'playing God' is that we cannot, with any certainty, answer these questions.[44]

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[40] See Chapter 5.2.

[41] Haraway, 'MiW'; cf. Linzey, *Animal Theology*, 144-6.

[42] Cf. Haraway, *WSM*, 296-301.

[43] Barbara Tunick, 'Meat Without Murder', *Vegetarian Times*, http://www.vegetariantimes.com/article/meat-without-murder/ (2006) (date accessed: 11/9/15).

[44] Cf. Drees, 'Introduction', 8.

Deeper theological analysis of the notion of 'playing God', in short, is needed to help us to problematise the conservative assumptions that undergird its common usage. For example, the argument of the completed goodness of creation inferred by God's blessing of it can be questioned by the repeated blessing of the different stages of creation: each day was good, but that does not mean to say that any of the days after cannot be good by adding something more to the creation. Whether or not this can be taken to vindicate human creation via technology is a somewhat moot point, but we should at least be wary and critical of assumptions such as 'playing God' that touch on theological ideas while short-circuiting their doctrinal richness. Creatureliness, in short, need not – and indeed should not – be equated with a strong conservatism, which is often the case in debates relating theology to technology.[45] Seeing these views of creatureliness and creation, with Peters, as indicative of a static nature, we are to be reminded that "we do nature no service by hallowing its past or present state."[46] Rather, creatureliness needs to be nuanced and reconsidered in the light of a technocultural milieu, where boundaries – particularly between animals and machines – are dynamic and are by no means obvious or clear-cut.

The evolutionary posthuman, however, seems to stall such reconsiderations by preoccupying us with a sustained fear of the 'threat' of the posthuman and of uncontrollable or unforeseen technological change. This is my main issue with the evolutionary posthuman (as well as the transhuman that dreams of becoming posthuman): it is an uncritical and static position; a strange sort of mirror that reflects to us what we want to see. The featuring of evolutionary posthumanism in Hollywood SF means that we are granted a point from which we can voyeuristically gaze at the near-ends of the human that are always averted.[47]

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[45] I will return to problematise creatureliness in greater detail in Part III of the investigation; see Chapter 8.

[46] Peters, *Playing God?*, 211.

[47] For Gerard Loughlin, in this fashion, "Hollywood is rigorously traditional." (*Alien Sex: The Body and Desire in Cinema and Theology*, [Malden/Oxford: Blackwell, 2004], 125.) To be sure, not all SF is

Audiences are then invited to join in with the celebration of being human and overcoming the menacing 'other' – that we create.[48] Elaine Graham thus describes this 'posthuman Other' as a figure that "both tests and commends the limits of what it means to be human."[49] In these cases, the posthuman is yet another nonhuman against which we can dialectically affirm the human, i.e. *us*. In my reading, this parallels a substantive account of theological anthropology insofar as a strong sense of human nature – even when defined by creaturely limits – is upheld. For Stefan Herbrechter and Ivan Callus, "dehumanisation and annihilation is precisely the 'terror' humanism itself helps to construct or at least to maintain,"[50] suggesting that the threat of the posthuman is also, interestingly, its humanistic purpose.

6.2.2   Critical Post/humanism

In summary, we find that the evolutionary posthuman has been produced by a humanocentric worldview, and this sort of observation is the starting point of critical post/humanism. Critical post/humanism notes that it is not only technologies that we create; we also create narratives that legitimise our central location. Regarding 'nature', for example, Bronislaw Szerszynski's suggestion that all of our approaches to it "emerge through a long historical process of

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'traditional', and it can facilitate a more critical questioning of (id)entities in the style that I am proposing throughout this investigation.

[48] To illustrate this point, consider recent films ranging from *Dawn of the Planet of the Apes*, where the scientific experiments on apes backfire for humans; to *The Avengers: Age of Ultron*, where one rich scientist's pursuits of artificial intelligence mimic Dr. Frankenstein's pursuit of artificial life, and the progeny becomes the villain who must be destroyed, neutralised, or at least quelled in order for human life to consider as 'normal'.

[49] Elaine Graham, 'The Final Frontier? Religion and Posthumanism in Film and TV', in Michael Hauskeller, Thomas Philbeck, and Curtis Carbonell (eds.), *The Palgrave Handbook of Posthumanism in Film and Television*, [forthcoming] (Palgrave Macmillan, 2015), http://chesterrep.openrepository.com/cdr/bitstream/10034/333493/6/graham-finalfrontier.pdf (date accessed: 6/9/15), 14.

[50] Stefan Herbrechter and Ivan Callus, 'What is a Posthumanist Reading?', *Angelaki*, Vol. 13, No. 1 (2008), 101.

disentanglement of what we now call the human and the natural"[51] demonstrates that our self-positioning is a construction. By exposing this, critical post/humanists work with the Foucauldian dissolution of the subject.[52] The cyborg operates in this critical field, but according to Ferrando, it engages in a deconstruction rather than a dissolution of the human subject.[53] This cyborgian critical post/humanism dismantles the frameworks of humanism and notes that "the subject of humanism is an impostor."[54] Critical post/humanism, in other words, explores a re-placing of the human rather than the glib threat of a 'replacing' of the human associated with evolutionary posthumanism, and it undertakes a deep and probing look at that human figure.

In this brief sub-section, I explore how the re-placing of ourselves outside of the deep-seated narratives of humanism demands a new understanding of both the post- and transhuman, and this is where my linguistic splices (i.e. 'trans/human'; 'post/human') are usefully deployed, given the critical posthumanist focus on linguistic forms. The cyborg, I suggest, can be placed in this broadly critical framework, which will further enrich our understandings of that figure.

Taking this tension with the human and with humanism into account, critical post/humanists have developed tools with which to express how the posthuman is an expression of, yet concomitantly makes a potent critique of, the human. Graham is one such theorist, and she develops the analytical tool and concept of the 'post/human'. By appeal to the post/human, Graham argues:

> I hope to suggest a question both of the inevitability of a
> successor species and of there being any consensus
> surrounding the effects of technologies on the future of

[51] Szerszynski, *Nature, Technology and the Sacred*, xi.

[52] Nayar, *Posthumanism*, 12-5.

[53] Ferrando, 'Posthumanism, Transhumanism, Antihumanism', 31.

[54] Badmington, *Alien Chic*, 145.

humanity. The post/human is that which both confounds but also holds up to scrutiny the terms on which the quintessentially human will be conceived.[55]

The forward slash invites a useful sense of rupture within the post/human figure. It dislodges the sense of fixity that we find with ideas of the posthuman in evolutionary terms. The post/human is a more discursive, malleable construction. Most significantly, this corresponds to how the human is equally discursive and malleable, and the linguistic splice draws on these resonances in exploring the connection between the human and posthuman in a useful manner.

A linguistic reading of the posthuman is central to critical post/humanism because of the manner in which our humanity is a (historically embedded) story that we narrate to ourselves. Language is thereby an important part of this ongoing process that must be critically considered if we are to understand the conceptual (post/ or trans/)human. Evolutionary posthumanism, although significant, particularly culturally, tends to take for granted certain assumptions about the human that can be challenged. Cary Wolfe, for example, who is a prominent critical posthumanist, asserts that "we are not we; we are not that 'auto-' of autobiography that humanism 'gives to itself.'"[56] Here, the human subject of humanism, and the starting point of trans- and posthuman evolution, is undermined from a specifically linguistic perspective.

Indeed, the identification and challenging of the human subject's self-labelling and self-authoring is specifically a Derridean move, and this is where much critical post/humanism is rooted. To this end, Wolfe notes how, for Derrida:

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[55] Graham, *Representations of the Post/Human*, 11.
[56] Wolfe, *What is Posthumanism?*, 119.

'we' are always radically other, already in- or ahuman in our very being – not just in the evolutionary, biological, and zoological fact of our physical vulnerability and mortality, our mammalian existence but also in our subjection to and constitution in the materiality and technicity of *a language that is always on the scene before we are*, as a precondition of our subjectivity.[57]

There is a sense here in which language is our means of narrating the human, and yet language is itself not human. What Derrida seeks to convey by this claim is an incompleteness of the human in and of itself. The human requires prostheses such as language in order to ascertain any of its self-understandings.

Effectively, this makes it difficult to posit a clear sense of difference between the human and nonhuman. The lines are blurred so that, as Wolfe suggests, "the human is itself a prosthetic being, who from day one is constituted *as* human by its coevolution with and co-constitution by external archival technologies of various kinds – including language itself as the first archive and prosthesis."[58] The human, in this critical post/humanist figuration, is deconstructed and rearticulated in terms of composite parts by appeal to the metaphorical language of technology and prosthesis. Language, for example, is not a literal prosthesis but is figured as such in this interpretation. To be sure, a critical and metaphorical understanding of prosthetics here prevents us from naturalising technologies or vindicating naturalised notions of the human or its form such as bipedalism,[59] where, as Sharon Betcher notes, "the science of prosthetics, in particular, and consequently cyborg incarnations may actually veil a discourse on compulsory holism."[60] The

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[57] Ibid., 89 (my emphasis).

[58] Ibid., 295.

[59] Sharon Betcher, 'Putting My Foot (Prosthesis, Crutches, Phantom) Down: Considering Technology as Transcendence in the Writings of Donna Haraway', *Women's Studies Quarterly*, Vol. 29, No. 3/4 (2001), 39.

[60] Ibid., 40.

critical post/humanist goal is not to complete the human with technological appendages. It is, rather, to observe how the human is a bricolage of technological and other conceptual parts.[61]

Critical post/humanism, in short, allows us to begin to radically deconstruct the substantive human(ist) subject, which, although perhaps posing a challenge to the legacy of Christian theology, can also provide fertile ground to rework notions of *imago dei* that give due emphasis and attention to relationality. Language, for critical post/humanists, is used to express certain stories about ourselves, although it is not inherently bound to the human and in fact it reveals certain tensions within that figure. This perspective broadly gestures "towards a conception of existence in which the human is totally integrated with the world in all its manifestations, including nature, technology, and other beings."[62] This is by no means, however, a harmonious or holistic integration. Critical post/humanism maintains this by suggesting that, amidst articulating a generally integrative account, humans are equally estranged from themselves. This is demonstrated by an undermining of many of our assumed self-understandings. Here, critical post/humanism is to be seen as most distinct from evolutionary posthumanism.

Overall, and to summarise my interpretations of posthumanism presented in this chapter, critical post/humanism can be understood as offering a sense of critical distance from the human, as denoted by the apparent oblique form of the punctuation.[63] That distance, however, is also undercut insofar as the line is affirmed by the fact that it is constantly crossed. In other words, critical post/humanism realises the endurance of the human figure in evolutionary and populist posthumanist narratives, where the figure of the posthuman 'other' is deployed to dialectically affirm the human. As with the trans/human, something of the human remains,[64] but the post/human differs from the trans/human in that

[61] Nayar, *Posthumanism*, 11.
[62] Pepperell, *The Posthuman Condition*, 100.
[63] Badmington, *Alien Chic*, 85.
[64] Cf. Ferrando, 'Posthumanism, Transhumanism, Antihumanism', 32.

the latter is more affirmative of the human, whereas the post/human is more destabilising. This derives from the fact that transhumanism involves an active outworking of humanist ideals in pursuit of the self-betterment of the human,[65] rather than encountering the 'alien forever within' the human as we find with post/humanism.[66]

One final, important question now remains to relate this discussion back to my main enquiry: where, amongst all of this, does the cyborg fit?

6.3   New Understandings of the Human: The Cyborg Remains?

David Gunkel suggests how "the cyborg exceeds the concept of the human […] it comprises an ideological implosion of the concept of the human. […] Indeed, at stake is one's very humanity."[67] The notion of simultaneous excess and implosion is a useful way of conceptualising the cyborg, for it is a figure that looks beyond the human and its fraught boundaries (hence excess), as well as a critical figure (hence an implosion). Although the end result sounds threatening to the human, and indeed this is corroborated by the level of fear and concern about the cyborg as an evolutionary posthumanist figure, Gunkel notes – supporting my claims above – that this threat only exists through the lens of humanism,[68] which the cyborg scrutinises. This is where the cyborg can be discerned from the more general figure of the post/human. Etymologically, there is nothing 'human' in the name of the cyborg, and this clearly marks an attempt to radically reformulate, or at least articulate in different terms, the problematic legacy of the human. The human becomes the crossed-out figure, but it is not excluded from how we understand the cyborg; it is part of that ontology and critique.

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[65] Wolfe, *What is Posthumanism?*, xv.
[66] Badmington, *Alien Chic*, 145.
[67] Gunkel, 'We Are Borg', 336.
[68] Ibid., 337.

Although the cyborg operates within the broader field of post/humanist critique, if my argument is correct about the trans/human accompanying the human and post/human, then the cyborg must push aside these two figures as part of its radical re-articulation of our relational ontology. Contrary to the post/human, which "does not really mean the end of humanity" but which "signals instead the end of a certain conception of the human,"[69] the cyborg goes deeper still in moving beyond a critique and making alternative, affirmative statements about our ontology as other than what we have thus far understood as 'human'.

In critical post/humanism, "the aim is not in any way to 'overcome' the human but to challenge its fundamental humanism, including its theoretical and philosophical underpinnings and allies (e.g. anthropocentrism, speciesism, universalism)."[70] The cyborg has much in common with this in terms of how it works with (hi)stories but seeks to rework and rearticulate them, but it also moves notably beyond critical post/humanism. In other words, if critical post/humanism (as well as evolutionary posthumanism) remain tethered to the human in some way, then "the posthuman is actually anything but."[71] Contrariwise, the cyborg makes a more emphatic and daring step in this anti-humanist direction.[72]

Through the cyborg, we have come a long way from the substantivist tradition that has been long influential in Christianity and in broader philosophy and anthropology, where the perception is that "the relations of a thing to other things are not essential to defining or knowing what that thing is."[73] With the cyborg, such Augustinian diminution of relationality is rejected, and relationships are emphatically foregrounded. Indeed, the whole enterprise of essentiality is

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[69] Hayles, *How We Became Posthuman*, 286.

[70] Herbrechter and Callus, 'What is a Posthumanist Reading?', 100.

[71] Annette Burfoot, 'Human Remains: Identity Politics in the Age of Biotechnology', *Cultural Critique*, No. 53 (2003), 64.

[72] See Chapter 7.3.2.

[73] Shults, *Reforming Theological Anthropology*, 15.

abandoned in favour of a critical stance to the human, which is then used to inform a new articulation of our cyborg ontology.

There is, in short, no human/nonhuman divide that we can rely upon to assure us of our unique and integral humanness, and so the cyborg is not a figure of evolutionary posthumanism, as some transhumanists would have us believe through misleading slippages in terminology.[74] Cyborgs undermine claims to discreteness and substantive (id)entities. Following on from this, if "it is precisely against the marginalised and AI that the fearful dominion-seeking Christian Self is constructed,"[75] then we find it *de*constructed in critical post/humanism. Cyborg figures, unlike artificial intelligence (AI) or other evolutionary posthumans, provide us with questions rather than answers, and that is why definitive or discrete selves are difficult to ascertain in these approaches.

Although the cyborg has resonances with this critical post/humanism, it looks beyond the human etymologically and constructively, and in this sense it makes a profound plea for a revised and radical sense of relationality. It is not, then, about locating one's "human essence and subsistence as a self, only through relation to other human beings"[76] as Pannenberg suggests, but about discovering how we have more in common with the broader spectrum of beings and (id)entities than merely humans (as defined against nonhumans).

On one level, we seem thus to have come far from the human, and from Christian workings of *imago dei* that are all rooted in a deep-seated substantialism. There is a "proliferation of definitions [that] reveals the absence of definition: our ontology is

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[74] Cf. Warwick, *I, Cyborg*; Rodney Brooks, 'Us as Them', *Flesh and Machines: How Robots Will Change Us*, (New York: Pantheon Books, 2003), 213-36. For Brooks, cyborgs emerge out of an assessment of technology that sees it as either damning or salvific ('Them and Us', *Flesh and Machines*, 197-212). I have linked these polarised attitudes to a substantive, Edenic account as something that needs problematising or rethinking (see Chapter 4).

[75] Laurence Tamatea, 'If Robots R-US, Who Am I: Online 'Christian' Responses to Artificial Intelligence', *Culture and Religion*, Vol. 9, No. 2 (2008), 156.

[76] Pannenberg, cited in Shults, *Reforming Theological Anthropology*, 136.

adrift."[77] The only way we can perhaps trace our ontology is through relations and networks, where that vague sense of identity is dispersed and is held in continual flux.

What is being called for, in theological anthropological terms, is a relational approach to *imago dei* that can account for connections between beings without discriminating based on categorical assumptions. Just as critical post/humanists emphasise language in all aspects of life, so too do we need to expand and diversify how we conceive of the image of God: relationships actively image God, and that is where we begin. We are nexuses of interweaving relationships, and this is a powerful acknowledgement of our creatureliness, of our inescapable connectedness with everything, in a technocultural milieu.

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[77] Bukatman, *Terminal Identity*, 20.

PART III
(Re)genesis:
Hybrid (Id)entities

The cyborg appears in myth precisely where the boundary between human and animal is transgressed. Far from signalling a walling off of people from other living beings, cyborgs signal disturbingly and pleasurably tight coupling.

Donna Haraway, *Simians, Cyborgs and Women*, (1991), 152.

[A]ll margins are dangerous. If they are pulled this way or that the shape of fundamental experience is altered. Any structure of ideas is vulnerable at its margins.

Mary Douglas, *Purity and Danger*, (2002[1966]), 150.

The sort of relationality that I am arguing for demands acknowledgement of the state of mixity, that binds all beings and entities together, undermining their claims to discreteness and (radical) difference. Another way of figuring this is with

reference to 'hybridity'. Hybridity can refer to humans merging with machines, whereby "the beings we are used to thinking of as individual humans are also dispersed across more than one such entity."[1] Alternatively, hybridity could with equal validity refer not to "the outworking of the human *solus/sola* but [to] the human in processes of becoming with things and by technology."[2] Hybridity, in this sense, raises more questions than it might seem to answer, and requires much more theorising and exploring than merely deploying it to resolve tensions surrounding boundaries, particularly in a technocultural age. Is it, for example, an extension of a species/individual, or an infolding? Are the boundaries in question completely overcome or are they merely rendered permeable? How 'new' is hybridity? And are there any limits to the concept (however ironically), such as, from a theological perspective, that between Eden and the world?

Clearly the scope and implications of these questions far outruns the limits of this investigation, and yet an exploration of the cyborg would be incomplete without an analysis of 'hybridity', given that the cyborg is itself a hybrid entity. I have argued in previous chapters that the cyborg challenges theologically-rooted myths of origin, and how, as part of this work, it also challenges divisions such as that between nature and culture, which suggests something of how the cyborg functions as a hybrid being. I expand on this with reference to the previous discussion of *imago dei* over the next set of chapters in looking towards an interaction of the cyborg and theological anthropology.

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[1] Graeme Kirkpatrick, *Technology and Social Power*, (Basingstoke: Palgrave Macmillan, 2008), 97.
[2] Scott, *Anti-Human Theology*, 128.

CHAPTER 7

(Con)fusions & Hybridity

The notion of 'hybridity' appears in many discourses and adopts various meanings. It has its roots in racial theory,[1] but it has also since been taken up in biology,[2] and in technological fields ranging from genetics[3] to engineering.[4] Additionally, the concept also features in literature,[5] theology,[6] and in critical theory, which includes posthumanism.[7] Common to all usages and contexts is a broad understanding of hybridity as referring to a sense of mixity of multiple parts that were typically once discrete: consider, for example, hybrid beings that crossover from different species, or hybrid cars that feature both diesel and electric parts, or hybrid words that borrow from other languages. In this chapter, I examine the hybridity expressed by the cyborg, arguing for a figuration that does not make demarcations or exclusions.[8] This, contrary to Haraway's assertion, includes Eden, and I explore the implications of that over the next few chapters.

Etymologically, 'hybridity' derives from the Latin '*hybrida*' that describes the offspring of a tame sow and a wild boar, a 'mongrel' of sorts.[9] The derogatory connotations of the label 'mongrel' are significant, and they reveal our politically charged attitudes to and understandings of hybridity more generally. For us, the

[1] Annie Coombes and Avtar Brah, 'Introduction: The Conundrum of 'Mixing'', in Avtar Brah and Annie Coombes (eds.), *Hybridity and its Discontents: Politics, Science, Culture*, (London/New York: Routledge, 2000), 3-6.

[2] Cf. David Barash, *Sociobiology: The Whispering Within*, (Great Britain: Souvenir Press Ltd, 1980[1979]), 35.

[3] Sarah Franklin, 'Origins', *Dolly Mixtures: The Remaking of Genealogy*, (Durham/London: Duke University Press, 2007), 2. To be sure, Franklin also discusses more complex forms of hybridity beyond the state of biological mixity that coincide with a 'critical hybridity' I discuss later in this chapter.

[4] Consider, for example, hybrid cars that are powered by both diesel and electricity.

[5] Cf. Octavia Butler, *Dawn*, [eBook] (Headline, 2014[1987]); *Adulthood Rites*, [eBook] (Headline, 2014[1988]); *Imago*, [eBook] (Headline, 2014[1989]).

[6] Cf. Koosed, *The Bible and Posthumanism*, (Atlanta: Society of Biblical Literature, 2014).

[7] Nayar, *Posthumanism*, 10.

[8] This coincides with Scott's view of the 'creaturely task' to distinguish between 'true and false' (or 'good and bad') 'distributions of hybridity' (*Anti-Human Theology*, 138).

[9] The canine overtones of this language are apt in resonating with Haraway's model of 'companion species' (see Chapter 3.4.1).

hybrid being appears to be the product of a difference between two parties that is irresolvable other than by recourse to the other 'other', i.e. the third party, the hybrid being itself. Hybridity is, in these cases, predicated on an original emphasis on substantive difference: be it the difference between species, or between types of fuel, or languages, for example.

And yet, with the figure of the hybrid, we have the capacity to begin to question the notion of substantive difference, and can ask how to articulate that difference differently. This perhaps illuminates Haraway's insistence on a move away from origins for her cyborg. In making this claim, the cyborg is not the product of a human and machine fusion and to be measured against those prior components, but is emblematic (in a figurative and metaphorical sense) of our broader mixed states.

To this extent, the cyborg interrogates, through deep fusions, who 'we' are, and in expressing this I have found it useful to develop the term '*(con)fusions*'. Fusions are one level of how Haraway reads and uses her cyborg, but there is also a fundamental way in which she questions and confuses the discreteness of any allegedly prior parts. If, for example and to reiterate a key point of this investigation here, the cyborg is half-human and half-machine, then the question is: what is the difference between the human and the machine in the first place? How can we define or distinguish them?[10] For Haraway, in order to answer these questions adequately, we must begin with mixity and hybridity rather than trace it back to a set of substantive assumptions about the hybrid components.

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[10] Not only are any such definitions confused with the cyborg, but the prefix 'con' has further etymological significance in this construction in suggesting companionship in the Latin for 'with', as well as indirectly calling us to the conman, a practitioner of 'confidence tricks' who may suggest something of the trickster figure that Haraway also uses to describe the cyborg (cf. Barbara Babcock-Abrahams, '"A Tolerated Margin of Mess": The Trickster and His Tales Reconsidered', *Journal of the Folklore Institute*, Vol. 11, No. 3 [1975], 147-186).

This move, and indeed the broader narratives and notions of hybridity, is of deep significance for theological enquiry. There is debate over whether Christ can be counted as a hybrid for his bearing of two natures, both human and divine, or whether his duophysite being is not synonymous with our understandings of hybridity. What is striking here is that some writers, including Anne Kull and Jeanine Thweatt-Bates, have alleged that Christ can be counted as a cyborg figure, but if Haraway's cyborg discredits notions of discrete nature(s), then how can such parallels between Christ and the cyborg be made? I shall return to these questions at the end of this chapter, following my analysis of the concept of hybridity, as an embellishment of the theological anthropological ramifications of this notion.

Another area where hybridity is significant for theology can be found in the Greek etymology of the term, where there are connections with the Koine term 'ὕβρις' ('hubris'), which suggests an overreaching pride of negative consequence.[11] One does not have to look far to find a link between hybridity and hubris: Dr. Moreau, for example, in H. G. Wells' short novel, uses vivisection to combine species. Moreau's work raises questions about whether he has a right to combine different species and 'humanise' them, or whether he is overstepping human boundaries and 'playing God'.[12] These questions pertain to deeper issues about creation and creativity between humans and God, and I consider these in the next chapter.

7.1   Haraway and Hybridity: Primates, Humans, Cyborgs

Before going into that theological analysis, it is worth exploring the nuances of Haraway's understanding of hybridity across her work, and specifically with regards to the cyborg figure. With the cyborg, Haraway gives due attention to the way that bodies, beings, and ideas all infold, the key argument here being one

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[11] Wagner, *The Scientist as God*, 54, 67.
[12] H. G. Wells, *The Island of Dr Moreau*, (London: Penguin, 2005[1896]), 59; Atwood, *In Other Worlds*, 150-67; Wagner, *The Scientist as God*, 24.

against discreteness or substantive identities. Technologies are emphasised through the figure of the cyborg, but they are not totalised. As Haraway reflects, "it was the joint implosion of human and machine, on the one hand, *and human and other organisms, on the other*, within a kind of problematic of communication that interested me about the cyborg."[13] To assume that the cyborg is merely about technology is to uphold an understanding of technology as isolatable, which underscores many of the issues with technophobia and technological determinism in the first place.[14] It is not, nor has it ever truly been (other than in our conceptual understandings) about the human *contra* its discrete others, of which technology is one, but about how *all* phenomena infold and co-shape one another.

With that in mind, a reading of Haraway's cyborg alongside her earlier work on biology and primates is not only possible, but is arguably a necessary component of a justification of her position on hybridity. For Haraway, "primates existing at the boundaries of so many hopes and interests are wonderful subjects with whom to explore the permeability of walls, the reconstitution of boundaries, the distaste for endless socially enforced dualisms."[15] This description connotes the ways that cyborgs interrogate boundaries and invite a scrutiny of the human figure. In establishing this critical perspective, Haraway is not bookending the human by placing it along an evolutionary line from primates to humans to cyborgs. Such an approach would render the cyborg an evolutionary posthumanist figure and would diminish its critical ability.[16] Put differently, to see cyborgs in evolutionary and not critical terms is to reify their difference to the human in a way not dissimilar to transhumans and posthumans. As Hugh Gusterson cautions, there is a danger here of exaggerating the cyborg's anti-essentialism to such an extent that

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[13] Haraway, *HR*, 322 (my emphasis).
[14] See Chapter 5.2.
[15] Haraway, *PV*, 3.
[16] See Chapter 6.1.

it becomes essentialised, "thus denying the full extent of its shape-shifting ability."[17]

In order to circumvent this critique, Haraway needs to emphasise the (con)fusions that hinder our ability to mark, with any clarity, the boundaries and essence of the human. A useful way of conceiving of this form of hybridity is offered by Peter Scott, for whom "we are mixed entities, participating in a wider environment of attachments (including non-human animals) by way of our machines."[18] In other words, it is not that primates and technologies are at two ends of an evolutionary spectrum, but that all parts continue to shape and reshape who we (and others) are. Technologies and primates are not mutually exclusive evolutionary categories or processes, but they (con)fuse different interconnected beings, and as such, they form part of our hybrid ontology. Moreover, these notions are not necessarily concrete but are narratival and are able to draw on fabulations from SF such as the replicant Rachel of *Blade Runner*, who for Haraway is an "image of a cyborg culture's fear, love, and confusion."[19] The cyborg ontology, characterised by Rachel, is ambiguous, complex and hybrid insofar as it brings together a range of (hi)stories by (con)fusing them. For Haraway, "there is no fundamental, ontological separation in our formal knowledge of machine and organism, of technical and organic."[20] This hybridity in terms of (con)fusions prevents the cyborg from being essentialised as Gusterson cautions against because it is never complete enough to be essentialised. Because we cannot discern with any certainty the difference between composite parts, including organism, mechanism, metaphor/trope, and material/concrete, this form of cyborgian hybridity demands ongoing reflection and interrogation.

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[17] Hugh Gusterson, 'Short Circuit: Watching Television with a Nuclear-Weapons Scientist', in Gray (ed.), *The Cyborg Handbook*, 115.

[18] Scott, 'The Postnatural as Anti-Human?', 217.

[19] Haraway, 'Manifesto', 178.

[20] Ibid.

In Haraway's later work on companion species, however, to return to a point I raised earlier, greater emphasis is given to the concrete over the fabulated.[21] Highlighting this point, Haraway writes, "I am vastly outnumbered by my tiny companions; better put, I become an adult human in company with these tiny messmates. To be one is always *to become with many*."[22] These companions are always invested in face-to-face relations,[23] and are distinguished against the interacting and emergent self. These interacting species remain somewhat distinct amidst their relationships, which conveys a less radical or potent form of hybridity as I have identified in the cyborg figure, where different parts are (con)fused. Part of this may be to do with Haraway's insistence on radical immanence that is consistent throughout her work but that culminates in her work on companion species, where her figures and "SF critters are beings of the mud, not the sky."[24] This distinction and emphasis on the earthly certainly seems to eschew Haraway's reading of hybridity in a way that occludes figures of transcendence. This sort of attitude is reflected in Haraway's rejection of Eden as 'allotopic', i.e. a "dangerous and sacred" 'elsewhere'.[25] Such an elsewhere encourages us to take our feet off the ground, which for Haraway undermines our embeddedness that finds its fullest expression in companion species.

The cyborg, on the one hand, conforms to this emphasis on immanence in Haraway's work in terms of its historical embeddedness, its permanent partiality, and its search for potent connections.[26] On the other hand, cyborgs encourage us to challenge our assumptions about that which they (con)fuse. I therefore take cyborgs as a useful opportunity to interrogate the hybridity of not only the range

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[21] See Chapter 3.4.1.
[22] Haraway, *WSM*, 4.
[23] Ibid., 93.
[24] Haraway, 'SF'.
[25] Haraway, *PV*, 137. It is interesting to note that outer space is made to parallel Eden in Haraway's writings; it is likewise figured in transcendent, dangerous and escapist terms. This marks a two-pronged critique of humanocentrism from not only its own origins, but also from how humans seek to pursue new origins beyond earth, as cyborgs (in a nonetheless humanocentric sense; cf. Chapter 2.2).
[26] Haraway, *SCW*, 1.

of (hi)stories we narrate of humans, nonhumans, organisms and machines in 'real' and fabulated terms, but also of important theological concepts such as immanence and transcendence. These concepts are clearly influential in Haraway's work, and I consider them in greater detail over the next set of chapters, arguing in favour of an expanded 'field' that does difference differently.[27]

7.1.1 Cyborgian Hybridity: Implosions and (Con)fusions

Before exploring this field of differences, it is worth summarising and reflecting on the specific hybridity that the cyborg figure introduces us to. It is an interrogative hybridity that calls into question preconceived assumptions of difference or discreteness. I maintain this position in spite of how Haraway reflects on her cyborg figure in non-hybrid terms, where she asserts:

> Cyborgs were never just about the interdigitations of humans and information machines; cyborgs were from the get-go the materialisation of *imploded (not hybridised)* human beings-information machines-multispecies organisms.[28]

The specific sort of hybridity I am gesturing towards with the cyborg figure, though, is intimated by the notion of 'implosion'. This suggests a site of concentrated activity where different things are brought together in a combustive, unstable zone. This is a useful trope for our (id)entities that negotiate imploded parts, which is what the cyborg expresses in hybrid terms that I characterise as (con)fusions.

The hybridity that cyborg figures reject, I surmise, corresponds to a logic whereby hybridity is read into a substantive context that sees hybridity as the bringing

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[27] Cf. Haraway, *PV*, 116, 381-2; Haraway, *SCW*, 225, 230.
[28] Haraway, 'SF' (my emphasis).

together of otherwise discrete parts. In this framework, the synthesised, hybrid product takes on a substantive identity as being polluting or defiling. Consider, for example, Dr. Frankenstein's anxieties about his 'monster' that straddled the boundary between life-and-death.[29] Here, the hybrid being, such as the cyborg, is 'othered' because it disrupts our categories. It is 'disorderly' and 'dirty' as structural anthropologist Mary Douglas might see it.[30] Jennifer González discusses this:

> What makes the term ['hybridity'] controversial, of course, is that it appears to assume by definition the existence of a non-hybrid state – a pure state, a pure species, a pure race – with which it is contrasted. It is the notion of purity that must, in fact, be problematised.[31]

In other words, by deploying the notion of 'hybridity', there is a tacit affirmation of non-hybrid states. This is, however, paradoxical. All beings exist in often complex and inseparable, or indiscrete, networks. Hybridity, in these networks, is critical rather than evolutionary insofar as it takes relationality rather than substantive identities as a starting point.

This is what must be favoured with a Harawayan figuration of the cyborg. This figure "inhabits a post-diaspora world that neither remembers nor believes in a time before dispersion,"[32] which suggests that it disregards any kind of pre- or non-hybrid state that might be implied by the antithesis of 'hybridity'. Indeed, the cyborg is about a radical denial of that antithetical position and marks a profound (con)fusion of the human and the technical; the organic and the machinic. Rather

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[29] Shelley, *Frankenstein*, 38-40; Graham, 'The Final Frontier?', 14; *Representations of the Post/human*, 60.

[30] Douglas, *Purity and Danger*, (London/New York: Routledge Classics, 2002[1966]), 2.

[31] Jennifer González, 'Envisioning Cyborg Bodies: Notes from Current Research', in Gray (ed.), *The Cyborg Handbook*, 275.

[32] Abigail Kluchin, 'The Cyborg and the Golem', *Metanexus* (2003), http://www.metanexus.net/essay/cyborg-and-golem (accessed 10/1/14).

than acknowledging non-hybridity – for example as is suggested by the humanist (and Edenic)[33] picture of the 'pure' human – the cyborg bears such differences and tensions within itself. David Gunkel expands on this point pithily:

> The cyborg is neither human nor its dialectically opposed other, that is, that in opposition to which the concept of the human has been initially defined and delimited (i.e. the animal and the machine). On the contrary, the cyborg comprises a monstrous hybrid, or what Siivonen calls an 'oxymoronic undecidability'.[34]

The cyborg's hybridity, then, contrary to González' point, circumvents the issue of affirming non-hybridity (i.e. purity, by means of its logical antithesis), because it bears the human within itself, rather than opposing it. In effect, what the cyborg must oppose is the notion of any purist state. The cyborg's hybridity is extensive such that it bears difference within itself by means of a (con)fusion of parts.

7.2   Purity and Hybridity: Rethinking Eden

Such an explication of (con)fusions marks a profound challenge for theology, and in particular, accounts of cosmogeny and anthropogeny, where separation is an important part of the structure and stability of created order. [35] Many commentators and theologians have since argued against this assertion, however, pointing out that "the Bible also contains multiple moments of disruption, boundary crossing, and category confusion: animals speak, God becomes man, spirits haunt the living, and monsters confound at the end."[36]

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[33] See Chapter 4.
[34] Gunkel, 'We Are Borg', 335.
[35] Claus Westermann, *Genesis 1-11: A Commentary*, (London: SPCK, 1984[1974]), 117.
[36] Jennifer Koosed, 'Humanity at its Limits', in Jennifer Koosed (ed.), *The Bible and Posthumanism*, 3.

While this is a significant and often overlooked appraisal of the Bible as dealing with hybridity, to use it in affirmation of the cyborg, as for example Stephen Garner does,[37] may be an unfounded leap. I contend that examples of hybridity and boundary crossings in the Bible function within, and are only presently meaningful for us when they are read as part of, a structured and divided context. What we find are therefore only oxymoronic *moments* of hybridity that are containable and are themselves discrete, rather than being evidence of a broader sense of hybridity that the cyborg attests to.

In this way, examples of biblical hybridity "are not mergings and meldings that obliterate difference; instead, they complicate our categories through border crossings and borrowings."[38] Such a complication cannot be read as a (con)fusion; returning to Garner's work, he himself discusses how "the Christian faith has typically seen the human person as a dualistic hybrid of some sort, a fusion of both body and soul."[39] In this construction, the two elements are fused but are notably identifiable and intact within the state in which they are mixed. Similarly to mixing chocolate chips into a batter, both become fused but clearly discernible. Instead, the hybridity that the cyborg refers to is a confusion of parts, akin to mixing melted chocolate into a marbled batter, where there is resultantly no possible separation of the chocolate and the batter, and both are mixed in more notable ways. It will be a more difficult enterprise for theological anthropology to accommodate this sense of hybridity that places relationality firmly before substance, as opposed to the 'chocolate chips' variant of hybridity that leaves substances more recognised and intact.[40] This hybridity resists a separation (let alone elevation) of the human, which is problematic for readings of *imago dei*,

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[37] Garner, *Transhumanism and the* Imago Dei, 239.
[38] Koosed, 'Humanity at its Limits', 5.
[39] Garner, *Transhumanism and the* Imago Dei, 241.
[40] The baking analogy that I employ here is limited insofar as recipes take distinct ingredients as the starting point rather than the relationality. Nonetheless, the analogy is useful in conveying something of the *type* of mixity and hybridity that I am gesturing towards.

particularly substantive ones.[41] It will require careful work between the cyborg and theological anthropology that I sketch out here.

Taking cyborgian hybridity seriously means that we cannot regard our hybrid state of being as something emergent from a set of non-hybrid identities, because, to reiterate, that affirms a substantive interpretation and renders hybridity itself as something substantive. What must be avoided is an evolutionary concretisation of the pure and discrete identities that enter into hybrid states (i.e. humans, animals, species, plants, technology, etc). This is where the culturally adapted notion of Eden is particularly significant in that it offers a stable, anchored point of origin for such (id)entities by appeal to static notions of nature.

We need, in short, to unmask how "theologically, there is little reason to hold to the view that nature is inert."[42] A critical form of hybridity that emphasises dynamism by prioritising relationality and interactions is a necessary component of this theological endeavour. We need to debunk the myth that we have substantive, discrete identities, and, stemming from this, we need to refute the notion that hybridity is a "purely contemporary concern."[43] If hybridity is seen as a relatively recent phenomenon, then we effectively vindicate a time when we were not hybrid that we can look back to, and Eden typically represents this longing. Drawing these ideas together, hybridity needs to be related to Eden so that a substantive starting point affirming identities is denied. We need, in other words, to take (con)fusions all the way down.

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[41] See Chapter 5.2.

[42] Peter Scott, 'The Human Genome and Theological Issues', in Mark Bratton (ed.), *God, Ethics and the Human Genome: Theological, Legal and Scientific Perspectives*, (Church House Publishing: London, 2009), 74.

[43] Coombes & Brah, 'Introduction', 3.

7.2.1   We Have Never Been Pure?

Bruno Latour's argument in his well-cited book, *We Have Never Been Modern*, can be useful here. The provocative title refers to Latour's central argument that, if modernity is premised on the separation and division of seemingly discrete phenomena, the falseness of these attitudes and the indivisibility of such things means that we cannot meaningfully say that we have ever been 'modern', i.e. 'pure'. This is grist to the mill for the cyborg figure: Latour's argument effectively negates the logical antithesis of hybridity, articulating hybridity as a state in which we have always already existed. The cyborg, with its hybrid ontology, is thereby "neither modern, antimodern nor postmodern but instead is posing the question of the relation between hybridisation and purification in a new form."[44] Read in this way, the cyborg is about a more radical reconfiguration of the way in which ideas, beings and phenomena (inter)relate, and it is thereby a move beyond binaries into a more extensive field of hybridity.

For Garner, the cyborg, as a hybrid being, "takes within itself these dualisms between inorganic and organic, human and nonhuman, male and female, and holds them in a tension that creates an integral being."[45] The cyborg is anti-dualistic, I contend, but excessive figuration of an 'integral being' undercuts the openness that hybridity necessitates. Haraway's blasphemous use of the cyborg was, importantly, against appeals to wholeness as much as appeals to binaries.[46] Garner seems to misapprehend both the cyborg and hybridity, which is reflected in his discussion of the hybrid Christ.[47] The cyborg must bear differences rather than perpetuate them, which means that it can never be a complete, integral or holistic figure. To assume otherwise is to fall into the trap of neatly packaged

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[44] Herbrechter, *Posthumanism*, 173.

[45] Garner, *Transhumanism and the* Imago Dei, 239.

[46] Chela Sandoval, 'New Sciences: Cyborg Feminism and the Methodology of the Oppressed', in Gray (ed.), *The Cyborg Handbook*, 411; cf. Kluchin, 'The Cyborg and the Golem'.

[47] See Chapter 7.3.2.

substantive identities, which is something that the cyborg figure emphatically moves away from.

One of the major binaries[48] that such a hybrid way of thinking problematises, if not overcomes, that is pertinent here is between the remote past and concrete present. In this construction, the past is abstracted and mythologised to become a counterpoint to the present, thereby offering an idealised state of origin or return, as for example in the compelling notions of Eden. For Latour, "when the word 'modern', 'modernisation', or 'modernity' appears, we are defining by contrast, an archaic and stable past."[49] Although Latour is referring here to a specifically pre-modern time, a meta-critical view of modernity such as Latour's actually relates modernity to that 'stable past' in terms of a sharply defined structuralism that binarises our thought. The 'modern' worldview, in my terms, still resides within an Edenic framework,[50] whereas a cyborgian perspective, by contrast, is marked by hybridity, and as such it removes the possibility of a binary epistemology.

That is not to say, of course, that hybridity is oppositional to modernity; consequently, neither can it be read as oppositional to an Edenic framework. This is perhaps a difficult paradox to reconcile: hybridity cannot outright reject anything, including what are seemingly its opposites, but must bear any differences within itself, as otherwise it effectively negates and undermines itself fundamentally. Latour is aware of this; in his argument pertaining to modernity and hybridity, he admits that "*the modern Constitution allows the expanded phenomenon of the hybrids, whose existence, whose very possibility, it denies.*"[51] Hybridity cannot be read as being opposed to modernity; indeed, the denial of hybridity by modernity seems to accelerate its prevalence. Put differently, "the

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[48] Cf. Haraway, 'Manifesto', 177.

[49] Latour, *We Have Never Been Modern*, 10.

[50] For example, in attempting a structuralist anthropological reading of Genesis as mythology, Edmund Leach writes that "binary oppositions are intrinsic to the process of human thought" ('Genesis as Myth', *Genesis as Myth and Other Essays* [London: Jonathan Cape Ltd, 1969(1962)], 9) – this contrasts Latour's appraisal of hybridity.

[51] Latour, *We Have Never Been Modern*, 34 (original emphasis).

less the moderns think they are blended, the more they blend."[52] Thus, Latour's polemical title that we have *never* been modern is not strictly true. We have certainly always been hybrid, but that does not negate the entirety of the modernist enterprise, albeit that the work towards separation in such an enterprise undoes itself and further contributes to the (con)fusions that characterise hybridity. We are, or have been, 'modern' only to the extent that we dupe ourselves, via the stories we tell ourselves, into believing the separations between entities and phenomena.[53] Insofar as techno-hybrids are becoming increasingly undeniable and proliferating,[54] though, the 'Constitution' that underpins modernity seems increasingly less convincing.

What, then, of Eden and Haraway's cyborg critique of it? Haraway's challenges to Edenic mythological narratives are underscored by how, typically, Eden is contrasted against our present trajectory.[55] In effect, this relegates Eden to a remote and mythological past but that nonetheless is instructive for our situation: "once Adam and Eve have left the Paradise – that is, the state of oneness in which man is not yet born as man – two angels with fiery swords watch the entrance and man cannot return."[56] This story gives us something, namely a state of purity and perfection, to strive for, and a counterpoint to our hybrid situation that ultimately undermines it.[57] The fact that we cannot return to Eden, or even the insistence that we should not want to,[58] does not seem to be enough. Even when it is defined in

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[52] Ibid., 43.

[53] Ibid., 132.

[54] To be sure, it is not that technologies are necessarily bringing about a new state of hybridity; rather, it is how blatant that hybridity is becoming through new technological developments. For posthuman performance artist Stelarc, "we've always been hooked up to technologies and have always been prosthetic bodies, augmented and extended" (cited in Edward Scheer, 'What Does an Avatar Want? Stelarc's E-motions', in Joanna Zylinska [ed.], *The Cyborg Experiments: The Extensions of the Body in the Media Age* [London/New York: Continuum, 2002], 87), but this was previously in perhaps less readily discernible ways.

[55] See Chapter 9.1.

[56] Erich Fromm, *On Being Human*, (New York/London: Continuum, 2005), 75.

[57] See Chapter 4.1.

[58] Stephen Orgel and Jonathan Goldberg, 'Introduction', in Milton, *Paradise Lost*, xxiii; Foerst, *God in the Machine*, 84.

contradiction to ourselves, Eden still seems to inform our predicament. For example, Harold Hatt argues:

> Modern man [sic], like all man, is in contradiction with his origin. […] Modern man has more self-consciously and more forcefully insisted upon his autonomy and self-dependence than has any other generation of man.[59]

In effect, Hatt does not deny or even question the legacy of Eden but uses it to dialectically affirm and vindicate human action in the (fallen) world.

This uncritical handling of Eden, modernity, and human nature is specifically what a more nuanced exploration of hybridity endeavours to rethink. Such a rethinking is not an outright rejection, as if it was an either-or scenario between Eden (or theology) and the cyborg; there somehow remains the possibility of a fruitful interaction between the two. After all, Haraway's cyborg may be a blasphemous figure, but as Haraway herself notes, blaspheming involves "taking things very seriously" and is therefore not apostasy.[60]

Clearly, we need to find a way of linking purity with hybridity. Any way of doing so, though, will necessarily involve a degree of mixity and fusion, which is precisely what hybridity is about. 'Purity' will therefore always be logically compromised. Taking into account the slight revision, or subtext, of Latour's book *We Have Never Been Modern* – where in fact it is just that we have never perhaps been *genuinely* modern, as hybridity persisted regardless of modernity's claims to division and discreteness – may be useful here. Modernity emerges in Latour's analysis as an incomplete metanarrative that "explained everything, but only by leaving out what was in the middle."[61] Hybridity exposes these gaps by moving

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[59] Hatt, *Cybernetics and the Image of Man*, 67.
[60] Haraway, 'Manifesto', 149.
[61] Latour, *We Have Never Been Modern*, 47.

all things into the middle, and it thereby acknowledges the widespread mixity that modernity so fervently concealed.[62] Hybridity does not oppose modernity, then, so much as it refigures it. Instead of identifying discrete natures that are then policed to maintain a sense of their discreteness as we find in modernity, hybridity accepts the non-discreteness of (id)entities and uses this to articulate the patterns of relationality associated with such (con)fusions.

'Purity', then, is never able to be altogether as pure as it claims, but whereas modernity seeks to deny the ontological leakiness between categories in an attempt to uphold the notion of pure and discrete (id)entities, 'hybridity' revels in it – and this celebration of leakiness and (con)fusion *that is already always present in purity* underscores the othering and threat of hybridity.[63] Csicsery-Ronay Jr. aptly illustrates this in relation to the cyborg:

> The cyborg generates and absorbs dread, precisely because human beings, without knowledge of the original conditions of our construction, have no way of knowing the degree to which body and mind can be considered distinct (if they can at all); and we have no other way of approaching the problem than through our constructions – i.e. our mental and physical combinatory models, our cyborgs. These are inevitably parodic, since they already assume the difference we ask them to test.[64]

What Csicsery-Ronay Jr. touches upon here is the tension between the cyborg as emerging from human modelling and intelligence that always seems to constrain the cyborg figure, against its breaking free of these humanocentric constraints

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[62] Ibid., 42.

[63] In other words, as Herbrechter notes, "the fear of the machine and of the animal is in truth a fear that the radical difference between 'us' and these other beings might not be as radical as humanism claims" (*Posthumanism*, 47).

[64] Csicsery-Ronay Jr, 'The SF of Theory', 395.

through its alternative way of being and relating that is able to absorb and thus generate dread. It is in the light of the latter part, however, that I would challenge Csicsery-Ronay Jr.'s comment about how the cyborg is parodic. I would, like Haraway, regard the cyborg as more efficacious than is implied here. Cyborgs are able to radically challenge and critique 'the difference we ask them to test' rather than assume it as Csicsery-Ronay Jr. claims, and this I suggest is through their *con*fusing which goes above and beyond relatively less complex fusing.

7.2.2   Critical Hybridity

To recapitulate, hybridity figured in non-substantive terms must be able to bear differences that are (con)fused and thereby articulated differently. Part of this involves a critical examination of notions of 'self' and 'other'. Early cyborgs appropriated rather than examined these notions insofar as they closely resembled evolutionary transhumans (that expand the 'self') and posthumans (that are expressed as 'other'). Such notions are disseminated in popular SF. Cyborg figures, however, explore how technologies reshape such (id)entities. Critical examination of SF, for example, reveals that audiences participate in the narratives by means of technologies,[65] and thus discrete identities defined by a 'self' and 'other' dialectic is challenged.[66]

Bluntly stated, the cyborg is not entirely 'other' but refigures what it is to be same or other. To regard the cyborg as 'other' is to espouse a substantive view of hybridity that, to reiterate, places emphasis on *fusions* according to a linear, evolutionary schema. The alternative form of critical hybridity that I have argued for in this chapter and indeed throughout the investigation involves a more critical exploration of *con*fusions, and coincides with an emphasis on relationalities. In this latter view, the cyborg is not 'other', yet it does not follow that the cyborg is

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[65] Atwood, 'A State of Wonder'; Loughlin, *Alien Sex*, 36; see Chapter 2.4.

[66] For Loughlin, expressing something of this notion, "we cannot catch the other – or ourself – behind or within the body, but only *between* bodies." (*Alien Sex*, 124 [my emphasis].)

necessarily entirely about 'sameness' as, to reiterate, hybridity is not about dualisms but about the bearing of difference. It is thus not a matter of 'otherness' and 'sameness',[67] but rather critical hybridity is about a refiguring of (id)entities outside of this binary trap,[68] where the two terms are not merely connected or synthesised, but are fundamentally confused.

Yet the refiguring of the human without recourse to binary notions of otherness and sameness is difficult for theology, particularly one wedded to conventional notions of Eden, to accommodate for. The human takes a central and important role in theology, and some commentators even go so far as to say that "theological affirmation is, first and most importantly, anthropological affirmation. To deny humanity is to blaspheme."[69] However, at this stage, it must be highlighted that hybridity, against common conceptions, does not seek to deny anything. With this in mind, an adequate theological response to the cyborg is possible, but it must be one that is open to notions of critical hybridity as I have expressed them here. This demands a rethinking of (hi)stories involving key notions associated with Eden, including 'nature', and it is this that I turn to address in the remainder of this chapter.

7.3   Nature(s) and Hybridity

Hybridity, I have argued, is not about the denial of oppositions, but about the bearing of differences within itself. The notion of nature is appropriated by hybridity, but as a result, it is inseparably and intricately bound and (con)fused with its previous 'others', in new and challenging ways. In this vein, a Latourian analysis of nature and hybridity reveals that 'nature' has never existed as a discrete phenomenon. Indeed, "Nature and Society have no more existence than

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[67] Toffoletti, *Cyborgs and Barbie Dolls*, 21.

[68] Fukuyama, *Our Posthuman Future*, 217; Thweatt-Bates, *Cyborg Selves*, 22.

[69] Carter Heyward, *The Redemption of God: A Theology of Mutual Relation*, (Washington, D.C: University Press of America, 1982), 92.

West and East. They become convenient and relative reference points that moderns use to differentiate intermediaries,"[70] but the enterprise of modernity assumed and required the fixity of these reference points that were mistaken for being absolute. Of course, this was never the case, which underlines Latour's central argument that we have never been modern – likewise, we have never been natural *or even unnatural*. Both of these terms presume their counterpoint, whereas no such difference is possible in a vast and broadly-encompassing hybridity.

It is difficult to fully embrace this understanding of hybridity, however, because we are so accustomed to stable notions of nature – be that human nature or non-human nature. Even more so, hybridity can be incorporated within discourses of nature as a sort of nature in itself. To illustrate this, consider Sally McFague's reflections:

> Our transformation of first nature, when we lived as hunter-gatherers, into second nature – the hybridisation of the twenty-first century – now faces us with the deterioration and destruction of everything we hold dear. The human ability to distance ourselves from first nature, both by changing and objectifying it, is causing a deep forgetfulness to overtake us.[71]

The distinction of two different 'natures' here suggests a schism between our basic nature and another nature that overlays and acts upon the first. Our 'first nature' seems to valorise a connectedness with the earth. Against this, we approach our so-called 'second nature' with hostility because of the connectedness here with

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[70] Latour, *We Have Never Been Modern*, 85.

[71] Sally McFague, 'Where we Live: Urban Ecotheology', in Bohannon (ed.), *Religions and Environments*, 223.

technologies that alienate us from the natural (i.e. first nature).[72] Hybridity is incorporated within this model, but the overarching framework is a substantive one that continues to make categorical distinctions and discriminations, namely between nature and technology. If we are to incorporate technologies in an understanding of creatureliness, which is vital for a theological approach to the cyborg, then we must find a way of reconciling, or even of (con)fusing, these notions.

Much of this endeavour, as is perhaps clear by this point, will depend on how 'nature' is defined and understood. Nature has multiple and often conflated meanings, which complicates how that term is understood. Briefly stated, though, even where a topological nature, as is suggested by Eden, is denied, nature-as-origin, which extends also to human nature, continues to be affirmed in notions of first (via second) natures.

Nature broadly seems to suggest a 'givenness',[73] which is problematic to overcome or hybridise theologically, given that Genesis and the Bible are relatively clear about what is created by God *ex nihilo*. The degree to which we affirm nature as a 'given', suggested and characterised by McFague's claims (above), may lead us to agree with Haraway where she writes that "the distinction between nature and culture in the West has been a sacred one; it lies at the heart of the great narratives of salvation history and their genetic transmutation into sagas of secular progress."[74] What is needed is a dynamic view of nature that is not entirely indebted to the remote past or to the point of creation. Is this a possible position to be developed in theology?

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[72] Underscoring the problems of this approach that clings to notions of the natural, consider how McFague's position is reversed by Roy Ascott in his discussion of 'Nature II'. Ascott (who espouses a broadly trans/humanist perspective) works with the same model as McFague, but instead celebrates second nature, using it as a call for further changes to first nature, which is now objectivised. (Ascott, 'Back to Nature II', 440.)

[73] See Chapter 1.3.

[74] Haraway, 'MiW', 217.

7.3.1 Affirming the Postnatural?

For Ted Peters, the answer is 'yes'; a non-inertial view of nature is possible and indeed desirable in theology. Peters regards nature not as sacred, but rather as that which we are in our entirety as a combination of 'soil and spirit'. As such, he emphasises that "nature is not static. It moves. It changes. It evolves. Neither its past nor its present constitute an unchangeable sacred."[75] While these reflections are certainly useful in that they suggest a dynamic understanding of nature, I still find that the label Peters uses is inseparable from its etymological inferences of natality, origin, and innateness.[76] These inferences sit at a tension with Peters' own insistence that nature is not about these things nor their supposed sacredness that, as others have observed, have become so central in theology.[77]

Correcting this misnomer, I prefer Peter Scott's use of the term 'postnatural' that touches upon some of Peters' suggestions about how to understand 'nature'. Scott's articulation of the 'postnatural', in short, refers to how "we may neither escape from nature nor are we obliged to conform to it. We are mixed entities participating in a wider environment by way of our machines."[78] Scott's understanding of 'nature', via the 'postnatural', explicitly incorporates technology, and as such, the dynamism of nature that Peters seeks to affirm is more adequately secured. Moreover, in the degree of flexibility with how we relate in/to the postnatural, there is scope for hybridity, as nothing is static or essentially placed. Instead, there is flux and movement caught within the wider postnatural state, as opposed to a more narrow and rigid understanding of nature.

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[75] Peters, *Playing God?*, 211.
[76] Cf. Scott, 'The Postnatural as Anti-Human?', 218. It should be stated here that, although the cyborg is also inseparable from its (hi)stories of militarism and astronautics that correspond to a trans/humanist view, it is worth persevering and doing critical work with that figure. Etymologically, as discussed in Chapter 2.1, 'cyborg' suggests something that lends itself to critical work; 'nature', on the other hand is tethered to particular notions of birth and origin, and so I find it more challenging to do constructive critical work with that notion.
[77] Kaufman, 'Ecological Consciousness and the Symbol "God"', 6.
[78] Scott, *Anti-Human Theology*, 39.

However, attention needs to be given to the mediative role of technology implied by Scott's elaboration of the postnatural. If it is by way of our machines that we relate to the environment, then the 'human' and the 'natural' still remain as identifiable and even discrete poles. Indeed, in this scenario, the postnatural is merely a label that can be applied at the meta-level, and within which parts are still relatively discrete, albeit symbiotic (Fig. 1). If this is the case, then Scott is right in declaring that, "although the term is new, I am not arguing that we find ourselves in a novel condition; it is likely that we have always been postnatural."[79] The scope of the object of study has merely shifted from natural to postnatural. The former, to be sure, has not necessarily been abandoned or overcome, but is part of a wider postnatural framework.
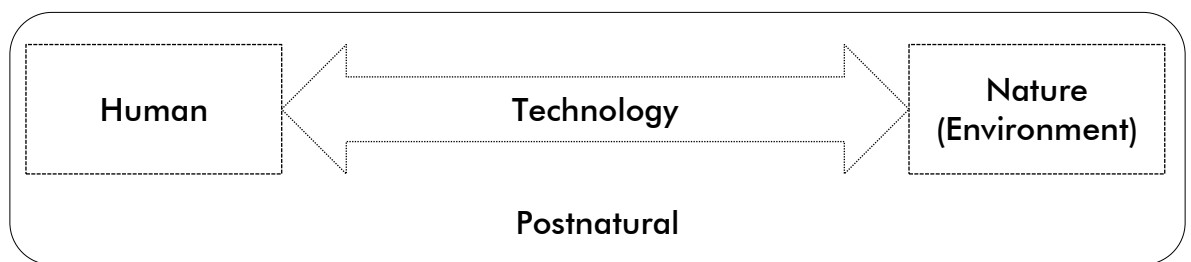
Fig. 1 – Humans and Nature in a Postnatural Condition[80]

Scott's work on the postnatural, read in this way, can arguably be seen to parallel Latour's work on hybridity. The postnatural, like hybridity, shifts our perspective to a broader awareness of the narratives shaping our world. On a deeper level, just as, for Latour, it is not that modernity is denied *per se*, but that it now forms part of a broader whole, Scott likewise does not deny the natural but sees it as part of a larger totality. For Scott, "the postnatural condition identifies our present circumstance in which the human is mixed up with nature and nature mixed up with the human."[81] A focus on the larger postnatural allows us to recognise these

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[79] Ibid., 4.
[80] This diagram is my interpretation of Scott's work on the postnatural in *Anti-Human Theology*.
[81] Ibid.

mixings, although these mixings may be different to the hybridity Latour discusses.

To elaborate, the postnatural mixing up of the human and nature is vague, especially given that both human and natural parts remain discernible. Much like how the similar (though not necessarily related) term 'posthuman' can allow emphasis on either the 'post' or the 'human', but both terms are still very much operative in the portmanteau, we find the same case with the 'postnatural'. Scott even embraces this aspect of his neologism; he writes:

> Stressing the 'post' in *post*natural indicates that the human is mixed up with nature; the separation of humanity and nature cannot be maintained. Emphasising the natural in post*natural* indicates that nature has not disappeared; nature still exceeds and encompasses the human.[82]

The human is seen as transcending non-human nature, and the postnatural as exceeding the human. From this, at least a certain sense of nature is retained within the concept of the postnatural, as well as an understanding of the human, given that its non-human others remain and are moreover transcended.[83] Resultantly, Scott's postnatural can arguably only go as far as acknowledging fusions rather than confusions. Otherwise, such terms as 'human', 'non-human', and 'nature' would become unconvincing, as indeed they are in a more cyborgian perspective that challenges binary and substantive pairs such as these.[84]

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[82] Scott, 'The Postnatural as Anti-Human?', 216-7.

[83] Haraway is deeply critical of notions of transcendence, and she builds such critiques into her articulation of the figure of the cyborg, which exists in a 'field of difference' of 'cyborg embodiments' and 'situated knowledges', but from which "there is no exit" (*SCW*, 230). I explore questions of transcendence and cyborgian hybridity in the next two chapters.

[84] It is telling, for example, that the cyborg asides itself somewhat from the 'posthumanism' label, as it seeks to move away from weighty concepts of the human, and likewise here, regarding the 'postnatural', of nature.

Despite these observations, though, Scott's work can be taken in support of hybridity, as where he clearly states:

> […] we cannot understand ourselves as we have done in the past as interacting with some separate zone called nature, usually in some attempt to get beyond nature. Neither can we understand ourselves as human for if we do that we have only two options: to consider ourselves either as gods or animals. Both options thrust us outside the God-founded and -orientated sociality of humanity and nature. Claims to divinity and animality are anyway disastrous political options as they fund idolatries and persecutions.[85]

While notions of the 'natural' and 'human' remain in Scott's coinage of the postnatural, it is clear from this passage that they are to be radically reconceptualised in fully relational terms. This endeavour is indicative of an alternative theological anthropology that can circumvent and critique the substantive legacies of humanism and anthropocentrism, and it does so "by exploring the mutual entanglements of animals, human and other."[86] Scott regards this 'postnatural anthropology'[87] as 'anti-human'.

7.3.2 Affirming the Anti-Human? (Or, Is Christ a Cyborg?)

Scott defines the 'anti-human', briefly, as a figure that "proposes that the human cannot be considered without its attachments."[88] From this, it is clear that the anti-human corresponds well to the idea of the postnatural, but focuses more specifically on how to position the human, and thereby develop a theological

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[85] Scott, *Anti-Human Theology*, 55.

[86] Ibid., 7.

[87] Ibid., 216.

[88] Peter Scott, 'Slouching Towards Jerusalem?', in Deane-Drummond and Clough (eds.), *Creaturely Theology*, 182.

anthropology, out of that approach. The 'anti-human', taking the crossed-out human as a starting point, understands that it is not surrounded by various non-humans. As it also bears many marks of the non-, in-, or anti-human, it is no more 'central' than what were previously figured as its 'others'. [89] Arguably, this perspective resonates with critical post/humanism[90] as well as Haraway's broader politics that emphasises connectivity at the expense of the substantive, humanist human,[91] and so may be a useful point to explore how the cyborg may relate to theology, which will become the focus of the following chapters.

Modelling itself on an Incarnational theology, the anti-human has a tendency to focus on the immanent, while also beginning to affirm a broader sense of hybridity between God and humans. As Scott pithily explains:

> The incarnation is neither the affirmation of materiality *simpliciter* nor the identification of a stripped-down human as the bearer of *imago dei*. The incarnation does not provide us with an image that assumes matter in the abstract nor does it propose the human form alone as theomorphic. Instead, incarnation identifies the divine action in which the freedom of God is disclosed by way of natural contingencies and the comprehensive character of creatureliness – its ecological situatedness – is disclosed *post mortem Christi*. Analogously, the human is disclosed in and through its

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[89] This resounds well with a cybernetic approach where the human is 'subsumed', decentralised, and 'fractalised' within a 'self-organising network'; cf. Brian Massumi, 'The Evolutionary Alchemy of Reason', in Marquard Smith (ed.), *Stelarc: The Monograph*, (Cambridge, MA: MIT Press, 2005), 182. What this additionally shows is that early cybernetics contains within itself the potential for anti-human cyborgs such as Haraway's, as much as trans/humanist ones such as those discussed in Chapter 2.
[90] See Chapter 6 (6.2.2 onwards).
[91] Cf. Haraway, *WSM*, 165.

attachments, and human emancipations require specific entanglements with objects rather than freedom from them.[92]

We see here that the anti-human is emphatically non-substantive in theological anthropological terms. Situated in a postnatural world, it embodies the bringing together of different parts by way of attachments and entanglements. In this predicament, we do not seek emancipation from our ties, but it is precisely through such ties, for Scott, that we image God in a fully relational way.[93] Christ-as-incarnate is important here because he foregrounds relationality in a theological sense. As Scott shows, we enact *imago dei* similarly not in anything substantive, but in how we forge, maintain, and are shaped by different connections and processes.

Jesus Christ is a transgressive figure that is both human and divine. Many theologians have taken this to be a marker of hybridity, articulated in terms of a 'trickster figure' that even Haraway concedes of Christ, on account of his ability to challenge the distinctness of the sacred and the profane; the natural and the supernatural.[94] Christ's miracles, for example, infuse a sense of mystery and inexplicability into the everyday, in principle blurring the distinction between the two. Taking this notion further, some recent posthumanist theologians such as Anne Kull and Jeanine Thweatt-Bates have offered that not only is Christ a viable figure of hybridity, but that he is, by extension, also a cyborg. For Thweatt-Bates:

> A cyborg Christ, a 'trickster figure', is a particular body, and a broken, suffering one, at that. Jesus, as a figure of humanity, is a (post)human who disrupts our assumptions about what it means to be categorically human, and (though

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[92] Scott, *Anti-Human Theology*, 88.
[93] Ibid., 135.
[94] Haraway, 'EH', 90.

Haraway keeps her distance from this affirmation) a God figure who disrupts our assumptions about God as well.[95]

Thweatt-Bates' vision of Christ-as-cyborg evidently draws together notions of the Incarnation, trickster figure, hybridity, and, without explicit reference to it, the anti-human advocated by Scott. The immanence of both Christ and the cyborg is emphasised in this view, as well as a degree of (con)fusion of parts that I have suggested is important to Haraway's reading of the cyborg and of hybridity.

Precisely the extent of the (con)fusion of parts that is discernible in Christ is a significant consideration for theological anthropology, especially if Christ is taken as an exemplar of (cyborgian critical) hybridity and as a model for the ways that humans are relational following Christ's example.[96] An exploration of Christ's relationality and hybridity in terms of the tensions that he embodies, such as between God, humans, and world, allows us to interrogate how humans likewise negotiate their own identity and place according to *imago dei*, as poised between God, animals, nature, and technology. There is scope here for a relational interpretation insofar as we must recognise that "the human finds itself already placed in diverse ensembles of interacting asymmetries." [97] For this, Scott recommends an emphasis on common creatureliness whereby 'down is the new up'.[98] Christ's immanence invites us to refocus our attitudes on this immanent and creaturely level, while also providing an opportunity to refigure transcendence and godliness through his hybridity and trickster abilities.

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[95] Thweatt-Bates, *Cyborg Selves*, 183.
[96] Thweatt-Bates, *Cyborg Selves*, 191; Hefner, *The Human Factor*, 238; cf. Oliver Crisp, 'A Christological Model of the *Imago Dei*', in Farris and Taliaferro (eds.), *The Ashgate Research Companion to Theological Anthropology*, 217-29. For Crisp, "Christ is the archetype, whose human nature is the blueprint for all other human natures" (224), but it should be noted that Crisp figures this in a substantive-relational way that marks human uniqueness over other creatures, and so his work suggests some of the critiques of Christ as a marker of hybridity and relationality (in theological anthropology) as I elaborate in this section.
[97] Peter Scott, 'Thinking Like an Animal: Theological Materialism for a Changing Climate', *Studies in Christian Ethics*, Vol. 24, No. 1 (2011), 53-4.
[98] Ibid., 66.

Closer inspection of the trickster figure, though, reveals that it is typically about a transcending of boundaries, rather than the preserving of them, and so we should question the extent to which we can deem Christ a 'trickster'.[99] What I have in mind here is the Chalcedonian Definition (451 AD) that affirms hypostasis and the distinctness of Christ's human and divine natures.[100] In this creed, it is made clear that Christ must be regarded "ἐν δύο φύσεσιν ἀσυγχύτως, ἀτρέπτως, ἀδιαιρέτως, ἀχωρίστως,"[101] and this problematises our ability to discern hybridity in Christ. Any attempts to challenge this canonised call for distinction of parts would require, as Thweatt-Bates suggests, either "to rehabilitate the classical heresy of mixture, as does Anne Kull" via her interpretation of Christ-as-cyborg; or "to interpret Chalcedon itself in terms of hybridity, as does Stephen Garner."[102] What is the difference between mixture and hybridity, though? I answer this by paralleling these terms with the notions of 'fusion' and 'confusion' (respectively) that I have deployed throughout this chapter.

Thweatt-Bates characterises Kull's Christological position as focusing on mixture, which, to return to the baking analogy deployed earlier, can be considered akin to mixing chocolate chips into a batter. Once baked, although the parts are fused, they are still discernible. For Kull, in the Incarnation, "incompatible things are held together and paradoxes do not get solved."[103] Thweatt-Bates implies that this goes far enough to allow us to conceive of Christ as a cyborg. I challenge this view, however, given that there is no *confusion* of parts in this view that a critical hybridity befitting of the cyborg figure demands. The only cyborgs that I would argue correspond to Kull's modelling of Christ are the trans/human cyb/orgs discussed in Chapter 2 (and 3) that preserve something of a distinction between the human (organic) and machinic parts, even in spite of their physical fusion.

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[99] Louise Lawrence, 'Tracing Tricksters: Creation and Creativity in John's Gospel', in Stichele and Hunter (eds.), *Creation & Creativity*, 167.
[100] Thweatt-Bates, *Cyborg Selves*, 175.
[101] Christ is taken as having two natures 'inconfusedly, unchangeably, indivisibly, inseparably' (cf. Alister McGrath, *Christian Theology: An Introduction*, [Malden/Oxford: Blackwell, 2007], 294-304).
[102] Thweatt-Bates, *Cyborg Selves*, 179-80.
[103] Kull, 'Cyborg Embodiment and the Incarnation', 284.

Turning next to Garner, who, for Thweatt-Bates, reinterprets the doctrine that underpins our canonical understandings of Christ in terms of hybridity, I also find his cyborgian interpretation of Christ somewhat lacking. Much like Kull, Garner writes, "in a hybrid tension, the source of salvation finds its locus in both the divine and human natures present in Jesus." [104] Garner still preserves the discreteness of the two natures of Christ in a reading congruent with Chalcedonian theology. Evidently, for both Garner and Kull, there is an *irresolvable* tension between the singular, composite identity of Christ, and the dis/unity of his parts (i.e. human and divine), and this tension is a viable way of acknowledging hybridity to an extent. The trouble is that, as Garner notes, this hybridity generates 'narratives of apprehension' which emerge from irresolvable tensions between different metaphysical points, [105] akin to the apprehension we face as caught between 'gods and beasts' according to Augustinian anthropogeny. [106] Such a hybridity presupposes substantive notions, and so does not particularly aid our search for a critical hybridity that deconstructs the discreteness of these points in the first place.

What is needed, I propose, in order to posit Christ as a cyborg in accordance with Haraway's articulation of the latter figure, is an interpretation of Chalcedon that rejects a dualistic ontology, but that also goes beyond a monistic ontology. [107] To appropriate Haraway here, for cyborgs in particular and hybridity more generally, it seems that "one is too few, and two are too many." [108] We need to articulate a position between the two that figure Christ's irresolvable tensions in a more dynamic way. Critical hybridity can be instructive here: to return to the cake

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[104] Garner, *Transhumanism and the* Imago Dei, 242.

[105] Ibid., 212.

[106] See Chapter 4.

[107] Heyward goes part-way here in criticising a dualistic ontology as being at the foundation of hierarchical orderings of essences (*The Redemption of God*, 192); but she then favours a monistic understanding Christ as fully human (31). To push too far in the latter direction risks glossing over the rich theological nuances that can benefit an ongoing critique of hybridity and the cyborg in the way that Kull and Garner usefully describe. See Chapter 9.4; see also Thweatt-Bates, *Cyborg Selves*, 190.

[108] Haraway, 'Manifesto', 177.

batter analogy that I drew on earlier, such a hybridity is about a sort of marble effect where there is a degree of difference between flavours, but they are also inseparably swirled together. This expresses the tension, fundamental to hybridity, between fusions and confusions that Thweatt-Bates intimates in her (albeit misplaced) reading of Garner's account of hybridity, Chalcedon, and Christ.

Developing this position, Scott's notion of the anti-human can be useful here as a lens through which we interpret Christ as inseparable from his connections:

> The crucified body of Jesus Christ – smashed against the torture instrument of the cross – is precisely a hybrid: a technobody, subjected to a killing discipline; a body reconfigured, and ended, by a piece of primitive yet effectively disciplinary technology.[109]

The significance of Christ's crucifixion for Christianity means that technology is fundamentally inseparable from the man, the figure, of Christ. From this, "all collectives find their image in the incarnate Son who assumes 'more than the human' in a redistribution of divine and natural-human agencies."[110] We find, it seems, in Christ a viable candidate to express theological espousals of hybridity in key Christological and Christian moments and symbols that readily suggest a technological (reappraisal of) creatureliness. This is significant for theological anthropology because it offers us an insight into how *imago dei* might be reworked in relational and hybrid ways that account for creatureliness without making assumptions about technology that tend towards technophobia or technophilia.[111]

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[109] Scott, *Anti-Human Theology*, 122.
[110] Scott, 'The Postnatural as Anti-Human?', 224.
[111] See Chapter 4.

Cyborgian hybridity as read alongside the figure of Christ, though, cannot be made prescriptive for the ways that we enact relationalities in our own lives. In other words, while regarding Christ as a cyborg is a useful way to appeal to the Christian (hi)stories that we necessarily inherit and interpret using different narratives,[112] we should not prioritise or totalise any of those stories by seeing Christ, as Kull and Garner do, as "the ultimate cyborg."[113] This kind of perfectibility of the cyborg idea(l) risks normalising our conceptions of it,[114] rather than allowing us to realise the fuller and broader range of our own cyborg and hybrid relationalities.[115] At best, we are to use cyborg Christ as a moment to reflect on our own hybridity according to *imago dei*, and not to suggest any kind of resolution on the figure of the cyborg, whose work is ongoing in our own enmeshed, interconnected lives.

To briefly conclude this section, then, it seems that Christ *can* be figured as a cyborg, but this is subject to different understandings of hybridity as discussed in this chapter. I employed a distinction between hybridity as (1) implying *fusions* between pre-defined phenomena; and (2) interrogating the possibility of any distinction in the first place, referring instead to *con*fusions in our broader ontology. The latter, 'critical hybridity', is a useful way of characterising the cyborg figure, particularly in terms of its repudiation of boundaries and binaries (i.e. nature/culture; human/nonhuman; pure/mixed). This hybridity denies the difference in each set, but it carries something of the line of distinction within itself. In other words, it fuses at the same time that it (con)fuses and holds in tension. This is important; *critical hybridity is not about opposition, but the bearing of difference*.

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[112] Haraway, *HR*, 243.

[113] Garner, *Transhumanism and the* Imago Dei, 199; cf. footnote 96 (this chapter).

[114] Ibid., 242-3.

[115] Haraway, *HR*, 246.

Theologically, these traits are challenging to accommodate for. While it is true that there are notable moments of hybridity in Scripture, this is never quite far-reaching or (con)fusing enough to accord with true hybridity.[116] What I thus propose is that we find ourselves always too readily relying on a worldview that places great emphasis on discreteness and nature, and this is traceable in Edenic mythology. In order to tackle this, we must not merely emphasise alternative parts at the expense of Eden. If hybridity is as far-reaching as I am claiming, then it must be able to account for Genesis and Eden. We have seen the potential in theology for hybridity, particularly through Scott's deployment of the 'postnatural' and 'anti-human', where the latter has various resonances with a controversial 'cyborg Christ' figure.

Articulating a cyborg theology is not an easy task, but then, if it was, the transgressive value of cyborgs would be questionable, if not seriously undermined. The difficulty of this task is a testament both to the hardiness of theological traditions, but also to the radicalness of the cyborg, and in the following chapters, I attempt to more closely and constructively integrate the two, focusing on creatureliness and hybridity in an Edenic perspective.

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[116] For example, Yvonne Sherwood notes that a "fundamental separation between blood and sap structures the 'Western' imaginary." She traces this biblically, noting how "God can become man, or even lamb, without us batting an eye" ('Cutting up Life: Sacrifice as a Device for Clarifying – and Tormenting – Fundamental Distinctions between Human, Animal, and Divine', in Koosed [ed.], *The Bible and Posthumanism*, 264) – while I find that this somewhat downplays the matter, it serves to demonstrate how certain distinctions remain, namely between plants and other life, thereby blockading a more holistic and truer sense of hybridity.

Cyborgs & Creator(s):
Imago Dei in a Technocultural Context

It is difficult to explore the ontological question regarding ourselves, theology and technologies, as I am doing here, without taking heed of an ethical question, which considers whether we *should* or *should not* be developing the technologies that change us and our world so much. This question guides my analysis in this chapter. The posing of this ethical question presupposes certain understandings of both humans and technology, by assuming that there is something static that technologies (threaten to) change. In a theological framework, certain assumptions about God are also revealed in terms of how creation was made and ordered, and whether humans and technologies are harmonious with creation, or whether they overreach themselves, seeking to be like God whilst alienating themselves from the world.

A relational approach, as I have been advocating throughout this investigation and as is demanded by Haraway's articulation of the cyborg, it would seem, obviates these attitudes because everything is regarded in more dynamic terms. To reiterate, Haraway's cyborg figure impels us to realise the ways that we are intimately bound – fused and confused – with all manner of (id)entities that we have thought of as 'other', including animals, technologies, and God.[1] Taking heed of these relationalities, as I propose in this chapter, allows us to constructively and critically reflect on the ways that we have previously denied them in the interests of asserting human uniqueness and dominance in accordance with other views of human nature discernible in theological anthropology, namely substantive and functional views.

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[1] Haraway considers the 'God/man' schism among her list of 'troubling dualisms' ('Manifesto', 177).

Developing this relational exploration of cyborgs, Linda Hogle reminds us:

> Cyborgs are human bodies fragmented and re-configured in another sense. If we are to study cyborgs, the technoscience that makes them possible and the phenomenon around them, we must examine our romanticism for the 'Whole', our desire for the transcendent, and our notions of the human.[2]

Cyborgs, we have established in the previous chapter, are hybrid beings that (con)fuse various components and parts, such that those parts cannot be regarded as discrete or distinguishable. Not only do cyborgs hybridise on an earthly level, but, as Hogle suggests, they also invite questioning of the transcendent and our understandings of the 'whole'. These are deeply theological questions and they lead us to reflect on our own relationship with God, our creator, in a technological world where we ourselves exhibit creative capacities. Are these positive or negative relations? Is the cyborg a theologically desirable figure?

8.1   Relating (to) Technology and Theology: Philip Hefner

A notable attempt at responding to these challenges presented by Haraway's cyborg can be discerned from the work of Lutheran theologian Philip Hefner. For Haraway, we must take heed of the confusions that arise from our deep sense of fusion with other phenomena. In other words, we cannot deny or ignore our hybrid ontologies. Taking up this point, Hefner writes that the question 'Who are we?' "is not a simple question to answer – the answer comes only through struggle."[3] Here, Hefner realises how Haraway's cyborg figure denies us the possibility of clarity or certainty in terms of who we are. The notion of 'struggle'

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[2] Hogle, 'Tales From the Cryptic', 214.

[3] Philip Hefner, 'Created to be Creators', *Metanexus*, www.metanexus.net/print/essay/created-be-creators (February 2003) (date accessed: 11/11/2014).

that Hefner refers to is important in problematising our self-understandings, and characterising the necessary difficulty of ascertaining a substantive, essentialised identity for ourselves (or, indeed, for others such as 'nonhumans' as well) that, in my reading of the cyborg, is illusory at best and destructive at worst.[4]

Significantly, though, Hefner does not seem to deny the possibility of an overall answer to the question of who we are and thereby leaves us able to strive towards an ultimate sense of identity. This is something that Haraway is more resistant to: the cyborg figure is just outside of our grasp, which underscores the way that it impels us to perennially question not just *who* we are, but *how* we are in relation to other beings and phenomena in the world.[5] Hefner gives the impression of being able to affirm at least a degree of certainty in terms of our self-understandings. Does this then undermine the extent to which we can ascertain that he has developed a viable theological appropriation of the cyborg?

Underscoring Hefner's approach to the cyborg and to our technocultural world is his theological position. This seems to require a degree of certainty in metaphysical and mythical narratives that in turn impact our (theological) notions of human nature. Most pertinent to this investigation, Hefner identifies how:

> The essential Christian myth consists of the narrative that includes at least the following events: (1) God made the world, including humans in the image of the maker. (2) Human beings were created in the garden, in unity with their maker and with one another, but they came to be alienated from both, and the alienation manifests in their actions.[6]

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[4] See Chapter 5.2.
[5] Cf. Ferrando, 'Posthumanism, Transhumanism, Antihumanism', 29.
[6] Hefner, *The Human Factor*, 189.

Specifically, it is point (2) that is problematic for an engagement of theology with the cyborg because Haraway makes it clear that the cyborg was *not* created in a garden. Within Hefner's theological framework, then, is the cyborg about alienation? Does this not denigrate the cyborg and perpetuate our attitudes to technology as destructive, alienating, and sinful?[7] These questions frame this chapter of the investigation. I analyse Hefner's approach to the cyborg that has been instructive and influential for a range of theologians looking at the dynamic between theology and technology.[8] I consider Hefner's work here with specific reference to *imago dei*, which was introduced and explored in Chapter 5 as a cornerstone of theological anthropology.

To put it briefly, the concept of *imago dei*, it has been noted, implies a relation between God and humans. While this appears to be relatively straightforward, exactly how we figure this connection amidst a broader grid of other things,[9] including animals and technologies, complicates the matter. On the one hand, the *imago dei* in humans has a tendency to bind us closer to God than to the animal and nonhuman kin with which we share the world. On the other hand, there are concerns that this is destructive and that excessive differentiation of humans in this manner gives us false assumptions of godliness and privilege.[10]

How are we to reconcile these understandings, particularly with the concept of the cyborg that seems to work difference differently by emphasising relationality, hybridity, and (con)fusions? I use these questions and tensions to frame an analysis of *imago dei* in this chapter, building on earlier discussions of that

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[7] Jacques Ellul expresses these sorts of sentiments well in his book *The Technological Society*.

[8] Thweatt-Bates, *Cyborg Selves*; Garner, *Transhumanism and the* Imago Dei; Herzfeld, *Technology and Religion*; Kull, 'The Cyborg as an Interpretation of Culture-Nature'; Foerst, *God in the Machine*.

[9] I do not mean to denigrate or imply non-subject status of these other categories of beings, but merely to emphasise that the non-relational understanding of the human has typically favoured such understandings. As is emerging in this discussion, my approach regards all such beings as actors of equal importance and not 'merely' objects or as relegated to the sidelines of humanocentric dramas. (cf. Nayar, *Posthumanism*, 25; Bruno Latour, *Reassembling the Social: An Introduction to Actor-Network Theory*, [Oxford: Oxford University Press, 2005].)

[10] Fergusson, 'Humans Created According to the *Imago Dei*', 449.

concept, [11] and exploring in particular how the cyborgian model of hybridity detailed in the last chapter has been, or might be, appropriated by theological anthropology.

8.1.1 Created Co-Creators

Hefner's theological anthropology, and his wider theological position, is explored through the figure of the 'created co-creator'. This figure, coined by Hefner in 1993, [12] features widely in subsequent discussions of theology and technology, especially where Haraway or the cyborg are mentioned because of how Hefner sketches the created co-creator as a sort of theological parallel of the cyborg figure. In a later essay by Hefner, where the created co-creator 'meets' the cyborg, it is plainly stated that both figures "are images of boundary transgression," or "images of xenogenesis." [13] This means that they both are inheritors of multiple and contested origins; they are figures comprised of borrowings and bricolages.

How is this kind of statement compatible with point (2) Hefner discussed of traditional Christian theology (above), where humans were created in a garden? In one sense, they are not entirely compatible, which is precisely the point of the cyborg being what Haraway describes as 'blasphemous':

> Blasphemy has always seemed to require taking things very seriously. I know no better stance to adopt from within the secular-religious, evangelical traditions of US politics, including the politics of socialist-feminism. Blasphemy protects one from the moral majority within, while still

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[11] See Chapter 5.1-5.4 (inclusive).

[12] Hefner, *The Human Factor*.

[13] Philip Hefner, 'The Created Co-Creator Meets Cyborg', *Metanexus*, www.metanexus.net/print/essay/created-co-creator-meets-cyborg (March 2004) (date accessed: 11/11/2014).

insisting on the need for community. Blasphemy is not apostasy.[14]

The cyborg takes seriously the traditions that it seems to critique, but it would be a mistake to see the cyborg as external to those traditions.[15] As Haraway suggests elsewhere, she works with her own 'polluted inheritance'[16] which emphasises how she, like the cyborg, is firmly embedded in a culture that is muddy with (hi)stories, including theological traditions and ideas.

Drawing on this notion, Hefner posits that "Cyborg does not fall outside theology so much as s/he requires a re-thinking of theology. Created co-creator may convey this inescapable theological dimension more forthrightly than Cyborg."[17] As part of this more explicit theologising, Hefner claims to parallel the blasphemy that Haraway builds into her articulation of the cyborg. Rather than clinging to the sureties that religion is often accredited as providing us with,[18] Hefner writes, "both Cyborg and Created Co-Creator place us in this situation of facing the tremendum, they are not benign images that provide comfort." [19] There is something fundamentally destabilising about both of these techno-savvy figures, and much of that seems to be a firm acknowledgement of the ways that technologies change (our understandings of) both us and the world, in deep and complex ways.

Technology, for both figures, is an important part of how we live our lives. For Hefner, "our journey is unavoidably technological." [20] There is, then, an inescapability of technology, which is significant given the long history of how we

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[14] Haraway, 'Manifesto', 149.

[15] Robert Campbell, 'Cyborg Salvation History', *Humboldt Journal of Social Relations*, Vol. 26, No. 1/2 (2001), 157.

[16] Haraway, *HLaL*, 103, 105.

[17] Hefner, 'The Created Co-Creator Meets Cyborg'.

[18] Cf. David Lyon, *Jesus in Disneyland: Religion in Postmodern Times*, (Cambridge: Polity Press, 2000), 49-50.

[19] Hefner, 'The Created Co-Creator Meets Cyborg'.

[20] Hefner, *Technology and Human Becoming*, 41.

have 'othered' it against the human or the natural.[21] Not only do we need to recognise how we are deeply fused with technologies, but we also need to take heed of the confusions that we dwell in alongside technologies and everything else.

And yet, Hefner does not avoid the language of 'nature', which is somewhat problematic, particularly within an anthropological framework. To restate the issue, how are we able to discern a discrete nature like non/human nature in a context marked by (con)fusions all the way down? Perhaps, on this point about nature, Hefner misappropriates Haraway's cyborg figure: in Hefner's understanding, "*Cyborg* is a relatively recent term that expresses the dimension of techno-nature within human nature." [22] Hefner locates the specifically technological within the specifically human, which does a disservice to the more complex ways in which we intermesh at multiple levels, particularly in terms of technology crossing over and impacting other 'nonhuman' species (such as chimeras, or cloned or patented animals). There are, it seems, certain undertones that slant Hefner's theological appropriation of the cyborg figure in the direction of (human) nature. This 'nature' is associated with substantive identities and anthropocentrism, which Haraway emphatically seeks to overcome with her original articulation of the cyborg figure.[23] I explore these undertones to Hefner's work with reference to *imago dei* as a way of theologically approaching questions of (human) nature and the cyborg.

8.2 *Imago Dei* and Creativity

Hefner's theological parallel of the cyborg, embodied in the figure of the created co-creator, as its name implies, addresses specifically the question of creativity. The human act of creation, considered in the light of God's original creation, is

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[21] Szerszynski, *Nature, Technology and the Sacred*, xi. See also Chapter 1.3.
[22] Hefner, *Technology and Human Becoming*, 74.
[23] Haraway, *WSM*, 165; 'F', xvi.

Hefner's starting point, and this forms the basis of his controversial appraisal of technologies. Technologies, for Hefner, are the fruits of our creative labours. Such creativity is the focus of Hefner's coinage:

> Human beings are God's created co-creators whose purpose is to be *the agency, acting in freedom*, to birth the future that is most wholesome for the nature that has birthed us – *the nature that is not only our own genetic heritage*, but also the *entire human community* and the evolutionary and ecological reality in which and to which we belong. Exercising this will is said to be God's will for humans.[24]

This passage demonstrates many of the key theological and metaphysical underpinnings of Hefner's work, which many writers have raised concerns about. I consider some of these critiques alongside the threefold model of theological anthropology and *imago dei* in order to learn from some of the shortcomings (and strengths) of Hefner's influential model, and to look at how an alternative theological appraisal of Haraway's cyborg might be developed. Hefner, for example, claims to articulate a relational theological anthropology that is able to adequately appropriate the hybridity and relationality of the cyborg, but insofar as he recourses to particularly substantive interpretations (as well as functional interpretations)[25] and affirms a sense of human nature, I question the validity of his figurations.

As a brief reminder of the threefold approaches to *imago dei*, as well as an overview of the rest of this chapter, I analyse and assess:

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[24] Hefner, *The Human Factor*, 27 (my emphasis).

[25] Stephen Garner also pithily states how Hefner's created co-creators draw on all three aspects of *imago dei* (*Transhumanism and the* Imago Dei, 29).

(1) *Relational* models, where the connections between and among beings and phenomena are foregrounded. Hefner alludes to above in terms of '*co*-creators', as well as recognising a sense of 'community' (albeit an exclusively human one);

(2) *Functional* models, where emphasis is given to action and engagement with technology. Hefner refers to this above in terms of 'agency' and 'acting in freedom';

(3) *Substantive* models, where concepts of 'nature' are operative and influential. Hefner touches on this above in terms of 'our own genetic heritage'.[26]

I then reflect on Haraway's own emphasis on relationality in a theological sense with her elaboration of the cyborg/goddess division. These comments will inform the next, penultimate chapter that suggests how Edenic figurations of (human) nature might be figured in a theological framework that is sensitive and responsive to the 'blasphemous' position of the cyborg.

8.2.1   Relational Modelling?

Although, as has been suggested above, Hefner's theory of created co-creators problematically draws on substantive notions of (human) nature, Hefner foregrounds relationality in his theological appropriation of Haraway's cyborg. This is built into the 'co-' component of Hefner's coinage, where a collaborative partnership is sketched out that involves humans actively and dynamically in God's broader plan for creation.

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[26] I invert the ordering of this model so as to emphasise my argument about the substantive tendencies in Hefner's account.

One way that Hefner presents relationality refers to the partnerships among creatures. All creatures, including humans, are bound in a theological sense: "Because the human is made up of the basic stuff of the planet, the image of God in that human being indicates that the world itself is capable of that special relationship to which the image of God points."[27] In one sense, the connection between the human and the world means that all of creation is bound together. Relationality across all of creation is emphasised here: what is implied is a sense in which, as Terence Fretheim suggests, "interrelatedness is basic to this community of God's creatures."[28] A relational interpretation of *imago dei* necessarily expands beyond the solely human by looking at commonalities across creation, including 'the basic stuff' creatures (and technologies) are all made of. For F. LeRon Shults, theological relationality in this sense is modelled on pluralistic Trinitarian accounts. Shults writes, "the glory of God is not about the self-glorification of an autonomous divine Individual but about the mutual glorification of the three persons of the Trinity."[29] In terms of theological anthropology, this suggests that humans are not to be regarded as superior to their fellow creatures but emphasises that they are "wholly embedded in creation."[30] This account parallels Haraway's emphasis on immanence across her work, but that is perhaps most clearly expressed in 'companion species'.[31]

While Hefner recognises something of this relationality with other creatures, noting that "humans fully implicate the rest of nature in the human adventure,"[32] he nonetheless conveys a strong sense of anthropocentrism insofar as there is a specifically human adventure contrastable against 'the rest of nature'. This adventure is expansive from the locus of the human and *impacts* rather than

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[27] Hefner, *The Human Factor*, 239.
[28] Terence Fretheim, *God and World in the Old Testament: A Relational Theology of Creation*, (Nashville: Abingdon Press, 2005), 19.
[29] Shults, *Reforming Theological Anthropology*, 240, cf. 239.
[30] Ibid., 164.
[31] See Chapters 3.4, 7.1, and 10.2.3.
[32] Hefner, *The Human Factor*, 73-4.

accounts for nonhuman nature, having notably destructive effects that render the 'created co-creator' coinage as dangerous. For Hefner, though:

> [T]his risk is unavoidable. History, from the Stone Age to the present, testifies to this fact. *Homo sapiens*, following the lead of its genetic programming and its neurobiological possibilities – that is, taking advantage of its distinctive qualities – has become the dominator of the planet and the destroyer of it.[33]

Oddly, in an essay that emphasises how "a reorganisation of consciousness is called for,"[34] Hefner clings to deeply rooted and naturalised notions of what it is to be human as dominant in a way that typically leads to 'violence'.[35] To be sure, Hefner seeks to readdress the relations that result in such violence, but by grounding his ideas in a more substantive account of human nature as rooted in biological genetics and theological anthropogeny (via an account of *imago dei* that underscores 'distinctive qualities'), he limits the extent to which we can truly reassess our relationality and relationships with others.

That said, given the emphasis that Hefner places on human action and creativity (or destruction) in the world, there is a deeper interrogation not only of the modelling of anthropology based on relational theological structures such as the Trinity (as we find with Shults), but also of the ways that humans relate to God in terms of creativity and transcendence via technologies. According to Hefner, "technology is itself a medium of divine action, because technology is about the freedom of imagination that constitutes our self-transcendence."[36] Technology, in this reading, is what brings together the human and the divine because humans

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[33] Ibid., 237.
[34] Ibid., 155.
[35] Ibid., 161.
[36] Hefner, *Technology and Human Becoming*, 88.

assert themselves and thereby enact their vocation in a manner concordant with how they are created. Hefner implies this by stating,

> Transcendence is a fundamental element of both *human nature* and technology – transcendence in the sense of imagining and believing and cocreating what is not actual, and creating the meaning of what is imagined, as well.[37]

This is, according to Hefner, a naturally creative transcendence, and it conveys a close sense of relationality between God and humans who share in this creative capacity.

Arguably, putting aside how 'natural' Hefner figures this creative transcendence for humans, this is relational in a cyborgian sense. Boundaries are here interrogated not only at the creaturely level, discussed in the previous chapter as hybridity between technologies and organisms, but also in terms of transcendence, fabulation (i.e. the 'not actual'), and creativity. Haraway, making a theologically significant comment about cyborgs, writes that they are illegitimate offspring, and "illegitimate offspring are often exceedingly unfaithful to their origins. *Their fathers, after all, are inessential*."[38] In this passage, Haraway indicates the way in which she might rethink relationality specifically between cyborgs and God. For Haraway, the notion of God-the-Father, i.e. the deistic being that brought humans into the world but that, crucially, is radically demarcated from humans and the world, is archaic and dated. Although Haraway writes from an atheist perspective, a radical and relational approach like Hefner's demonstrates how a constructive theological response can be made.

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[37] Hefner, *The Human Factor*, 83-4 (my emphasis).
[38] Haraway, 'Manifesto', 151 (my emphasis).

Haraway's critical assessment of God-the-Father is not necessarily an uncommon view in theology. As well as Hefner, other theologians advocating a relational approach share in this assessment. One of these is Shults, for whom "we are called to a *koinonia* with God, a union that is so deeply perichoretic that our anxiety about losing our personhood through relation with the other is dissolved as we rest in the One whose personhood is constituted by self-giving love."[39] Shults uses relationality to bind (human) personhood to God in an agapeic way.

Haraway's cyborg challenge, though, goes deeper than this and articulates a more interrogative relationality where (id)entities are scrutinised and deconstructed, rather than linked as is the case for Shults.[40] This hearkens back to the difference between fusions and confusions.[41] Haraway's concern with an approach like Shults' is that "to be One is to be an illusion, and so to be involved in a dialectic of apocalypse with the other. Yet to be other is to be multiple, without clear boundary, frayed, insubstantial. One is too few, but two are too many."[42] Relationality, for Haraway, cannot be figured dialectically in a way that divides itself against the other or that resolves itself into a whole. The cyborg is, in a sense, the figure of alterity without a self to be neatly contrasted against. To reiterate, it is the figure that does difference differently.[43]

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[39] Shults, *Reforming Theological Anthropology*, 92-3.

[40] A theological anthropological parallel of this can be traced in Linda Woodhead's proposals for an 'apophatic anthropology' that is modelled on relations to an unknown and unknowable God ('Apophatic Anthropology', in Kendall Soulen and Linda Woodhead (eds.), *God and Human Dignity*, [Grand Rapids/Cambridge: William B. Eerdmans Publishing Company, 2006], 235, 242).

[41] See Chapter 7.

[42] Haraway, 'Manifesto', 177.

[43] William Desmond usefully makes an elaborate critique of the 'dialectic' as one of the four senses of being across his philosophical works (*Being and the Between*, [Albany: SUNY Press, 1995], cf. xii, 129; *Ethics and the Between*, [Albany: SUNY Press, 2001], cf. 73, 128, 132, 327, 354; *God and the Between*, [Oxford: Blackwell, 2008], cf. 9-10, 43, 92). Connoting Haraway's comments (cf. *HR*, 112), for Desmond, the dialectic resolves itself on the basis of prior ontological distinctions. Like Haraway, albeit with far less technological concerns, Desmond seeks an alternative schema to express our complex ways of (inter)relating that he terms the 'metaxological'. This seems to resonate well with the cyborg, although a more detailed excursus of it extends beyond the parameters of this present investigation.

From this critique, Haraway detracts emphasis from Eden and origins in order to explore more dynamic ways that cyborgs (inter)relate in the world. Transcendence is here part of a deep 'neediness' for connection, but it is not figured as a schism against the world.[44] In fact, as we will see in the next chapter, Haraway rejects notions of transcendence as part of this emphasis on immanence and (inter)connectivity. Yet cyborg relationality and hybridity demands that we rethink the schism between God and humans, so that creativity is not assigned to one side of the dualism.[45] This involves rethinking transcendence and immanence, even if Haraway herself resists this point.

As part of this critical rethinking of Haraway's cyborg, it is worth bearing in mind that the Father, for Haraway, is 'inessential', but not necessarily non-existent. Attentiveness to this point means that Haraway's articulation of the cyborg is not as hostile to theology as might first appear or even as she might declare in her more autobiographical statements.[46] As such, an interaction between the cyborg and theology, like Hefner proposes, is feasible. In Hefner's account, this is a necessary endeavour,[47] yet the relationality between humans and God that emerges from such work is by no means harmonious or even unilateral. Far from it; for Hefner, "since we are cyborgs, technology is also the place where, like Jacob, we wrestle with the God who comes to engage us."[48] Relationality here is tenuous and involves an interaction of creative beings, which undercuts the discreteness of the creator/created schism commonplace in traditional theology.

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[44] Haraway, 'Manifesto', 151.

[45] Again, Desmond can be useful here: in his metaxological approach, "the question is not transcendence versus immanence; not heteronomy versus autonomy. […] These forms of 'versus' are the residues of dualism in the inheritance of dialectical self-determining" (*Ethics and the Between*, 158). These notions develop and corroborate a decentred, hybrid and relational perspective as I am advocating here.

[46] Haraway, *HR*, 334. It may be more pertinent, however, to note that Haraway rejects *transcendence* rather than theology, which I explore later in this chapter.

[47] Hefner, *Technology and Human Becoming*, 78.

[48] Ibid., 88.

For some theologians, however, this is not something to be celebrated. For Brent Waters, for example, "in its easy disposal of a creator and creation, postmodern theology effectively strips Christianity of any critical or constructive tools with which it may engage the emerging technoculture."[49] While I disagree with how 'easy' the disposal of these terms is, especially given their weightiness in theology, Waters identifies a key point about theology's role if its central concepts are reconceptualised such that theology is no longer able to make ethical commentaries. Certainly in Hefner's account, though, against Waters' concerns, 'creator' and 'creation' are not disposed of. They are instead reframed and refigured in more relational terms in the coinage 'created co-creators'.

8.2.2   Functional Modelling?

Given that Hefner continues to use these terms, though, to what extent can we posit that he has developed a theological account of relationality that is truly respondent to the deeply critical and interrogative hybrid relationality marked by Haraway's cyborg, where (id)entities are (con)fused because of their fractal and dynamic ontologies?

To begin with, we might note that, on a grammatical level, the 'co-' of 'created co-creators' that signifies relationality is a prefix of the noun; it is not confused in any particularly deep or meaningful way. This has the potential to undercut tenuous claims of relationality and collaboration, as is evidenced in instances where Hefner emphasises human responsibility to the point where it seems deterministic, and as though it is the only thing that is causally efficacious. For example, "if humans survive, *they alone* will bear the responsibility for the future and *they alone* will be able to seize the opportunities to actualise the possibilities for grace that are contained within it." [50] Here, relationality implied by the 'co-' component of

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[49] Waters, *From Human to Posthuman*, 99.
[50] Hefner, *The Human Factor*, 250 (my emphasis).

Hefner's coinage is muted. It thereby seems that relations are not necessarily central to Hefner's theological anthropology, but that they instead overlay other interpretations of *imago dei*.

Hefner, as we have seen, emphasises specifically human agency in his conception of the created co-creator, and this may suggest, in place of a relational view of *imago dei*, a functional view. To reiterate, a functional approach to theological anthropology emphasises how actions perform the image of God when they are somehow accordant with God's ongoing plan for creation, and so creativity is not limited to one side of the God/creature schism. This is strongly discernible in Hefner's work: "human beings are God's created co-creators whose purpose is to be the agency, acting in freedom, to birth the future that is most wholesome for the nature that has birthed us."[51] While it is possible to trace a sense of relationality in this understanding, as Hefner's emphasis on the independence of human activity discussed earlier shows, relationality is not central to a functional assessment of how humans assert themselves against a backdrop of other creatures and God. In other words, with a functional view, humans take centre-stage: their actions affect other creatures, but such actions are then measured by, and largely in the interests of, humans.

Accentuating the differences between the relational and functional approaches, Noreen Herzfeld pithily discusses how,

> [A]s with the functional approach, a relational approach also allows for a God who is wholly other, in no way essentially like the human. However, this God is never absent from the human sphere; the relational approach differs from the functional in that it views dominion over

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[51] Ibid., 27.

the rest of creation as an activity humans engage in with God, rather than in God's stead.[52]

Significantly, Herzfeld does not dismantle the creator/creation polarity in either the relational or functional schema. Common to both, she insists upon the radical otherness and difference of God. But concomitantly, there is an undeniable sense of connection with the relational approach that undercuts the degree to which we can claim that God is radically demarcated from created order. It is not that humans are doing God's work, but that humans are doing human work *alongside* God.[53] Hefner alluded to this position in his notion of the 'created co-creator', yet his strong anthropocentrism means that his attempts to construct a relational account of theological anthropology inclusive of other creatures are undercut.

Indeed, with his emphasis on the human, Hefner pushes aside notions of God. Where God enters Hefner's theological anthropology is where Hefner reads created co-creators as having creative agency, and "exercising this agency is said to be God's will for humans."[54] The created co-creator coinage consistently emphasises dynamic and ongoing acts of creation, and as such may be concordant with a functional modelling of humans and technology with regards to God. The fact that humans were created by God, reflected in Hefner's use of terms in '*created* co-creator', demonstrates that humans are still somehow accountable to God, in spite of an overwhelming focus on human technological capabilities.

On the other hand, as Herzfeld's description of the functional interpretation of *imago dei* intimates, one of the more contentious points about Hefner's coinage of the created co-creator is that it sounds like it challenges the sovereignty of God, by

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[52] Herzfeld, *In Our Image*, 30.

[53] To observe the finer nuances and the necessity of this distinction, as well as its complications, consider the striving to maintain 'purity' and 'God's image' – in all of its different interpretations – by the different enclaves that populate John Wyndham's book *The Chrysalids* (Penguin Classics, 2000[1955]). Are any of these people playing God, or are they fulfilling and carrying out His plan? How can we be sure, either way?

[54] Hefner, *The Human Factor*, 27.

placing human creativity on at least a more elevated plane, if not on more of a par with God's. In some of Hefner's more troubling passages on this note, God seems notably absent altogether: "the co-creator and none other must take responsibility for the consequences of action; no divine hand or absolute natural law steps in to forestall those consequences."[55] Tellingly, here Hefner elides the 'created' part of his coinage, and so the only reference to God is tacitly implied by the 'co-' qualifier of the nominal 'creator' part. The emphasis on human creativity expressed via technology is such that God is relegated to the background in Hefner's analysis, or He is generally absent. This latter point is the concern voiced by Brent Waters, for whom "Hefner's created co-creator is really the self-created creator; the being that is now transcending and directing the evolutionary processes from which it has emerged."[56]

Does this accord with Haraway's articulation of the cyborg? In some respects, the critique of conventional theological models of humans and God, referred to in Waters' concerns about the more radical elements of Hefner's work, approximates with the ways that Haraway challenges notions of discreteness in terms of (id)entities and transcendence. On the other hand, as previously noted, unlike Haraway's cyborg that begins with relationality as a means of interrogating discreteness in favour of hybridity, Hefner's created co-creator builds a layer of relationality on top of functional understandings of humans and technology.

What is key here to reading Hefner's work is an emphasis on specifically human agency that performs or enacts *imago dei*. In Hefner's account, technology is a reified and discrete category. It is seen as inert, and is rendered as an auxiliary prosthesis to the human will. Don Ihde critiques this sort of view because it erroneously frames the question of relating to technology as one of unidirectional control, which underwrites technophilia if humans have control, or technophobia

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[55] Ibid., 121.
[56] Waters, *From Human to Posthuman*, 103.

if technologies have control.[57] Either way, a substantive difference between humans and technologies is presupposed: humans are agential; technologies, for Hefner, "are not good or evil in and of themselves, but they are good or evil depending on the agency we exercise through them."[58] Human agency clearly remains central in Hefner's account, which undermines attempts at articulating a cyborgian hybridity, where agency is disperses among multiple (con)fused interactants.

Even in Hefner's coinage of created co-creators, the terms are brought together in a manner neither deeply fusing nor confusing. There is disparate weighting on the different grammatical parts which are sometimes even omitted. It is this that makes Hefner's figure most dangerous for theology: rather than radically rethinking (id)entities in terms of relationality as Haraway's cyborg compels us to do, the created co-creator awkwardly and provocatively attempts to challenge categories without deconstructing the 'nature' of those categories. Such a trait leads us to consider the created co-creator in altogether more fundamentally substantive terms, where, as I shall demonstrate, notions of nature lie at the heart of Hefner's theological anthropology. These are problematic: with the cyborg, "nature and culture are reworked"[59] in deep and hybrid ways; yet with the created co-creator, "technological civilisation *is* nature for us today. The entire planetary ecosystem is fully implicated in this civilisation, both as resource and as victim."[60] Hefner's account, evidenced here, clings to notions of nature and is deeply anthropocentric. Such anthropocentrism is buttressed by an undergirding assumption about what it is to be human and/or natural. This, I contend, is substantive.

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[57] Ihde, *Technology and the Lifeworld*, 140.
[58] Hefner, *The Human Factor*, 155.
[59] Haraway, 'Manifesto', 151.
[60] Hefner, *The Human Factor*, 250.

8.2.3   Substantive Modelling?

Hefner, to put the matter bluntly, articulates a theological anthropology whereby "the *imago dei*, seen through the metaphor of the created co-creator, contains within it an explanation of human beings as inherently technological, and a trajectory that human technological agency should take."[61] The issue is, in a fairly straightforward way, that Hefner's account sees humans as *inherently* technological (while also noting a difference between humans and technology), and that this, as we have seen in the previous section, is then used as a basis for prescriptive accounts of human activity.

By making this his starting point, Hefner essentialises certain types of action. In other words, he relies on a specific presupposition of the human with regards to technology. This is substantive:

> Since technology is the work of our cultured brains we may say that the crisis has its origins in the gifts that are distinctive to us as humans. Technology is the work that comes naturally to us […] it is a natural expression of our nature as creators.[62]

Hefner makes strong reference here to a sense of human nature, and he unambiguously links it to creativity in a way that images, or mimics, God's own creative capacities. It is out of this nature that technology emerges: humans create technology; technology expresses and engages our creative impulses.

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[61] Garner, *Transhumanism and the* Imago Dei, 257.
[62] Hefner, 'Created to be Creators'.

Put differently, Hefner naturalises technology: technologies are seen as the outcome of naturally creative drives, and so they cannot be regarded as themselves anything but natural. For this reason, Hefner is able to claim,

> [W]e change the flow of rivers, employ artificial selection in growing plants and raising livestock, alter our physical bodies through medication, surgery, and the like – all in order to conform more fully to what we consider the 'truer' thrust of our evolutionary becoming.[63]

We define ourselves in accordance with how we change and technologise our surroundings in this view. Here, we 'conform' to a 'true' evolutionary pathway (or do not), which suggests a presupposed teleology of human nature that relies heavily on technology.

What this view leaves out, however, is anything beyond a rampant humanocentrism. Our 'true' evolutionary thrust, it seems, is species-exclusivist, and can be used to legitimise any means of change to ourselves or to our surroundings (rivers, plants, livestock) that we deem necessary. Hefner does not shy away from this point:

> Is this an anthropocentric or human-centred reading? Of course it is. But there is a new element here. Now that we have broken down the walls that separate humans from both nature and technology, now that we are crossing the boundaries between these domains, we see that humans and their technology are a set of nature's possibilities. Humans

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[63] Hefner, *The Human Factor*, 117.

are not what they used to be, so anthropocentrism is not the
same, either.[64]

Anthropocentrism has only 'changed', however, to the extent that it is increasingly technologically augmented. Hefner clings to notions of (human) nature and identifies technology within that realm: human autonomy and creativity are at the heart of human-technological nature. Consequently, the relationality or hybridity that Hefner conveys is disparately weighted in favour of the human and anthropocentrism.[65] The boundaries we use to divide ourselves from technology may be crossed, then, but they are being redrawn elsewhere.

From this, we see that Hefner's understanding of the 'natural' is all-encompassing. Hefner talks about human nature as inclusive of technologies, as well as of nature in another sense that is assimilated with culture. As such, Hefner's understandings of nature run in the opposite direction to my critique of the 'natural' developed throughout this investigation and with reference to Haraway's cyborg. In my estimation, the process of expanding what it is to be 'natural' results in the concept arguably becoming diluted, which is problematic particularly as it is still held to be meaningful and decisive in Hefner's account. Scott pithily outlines some of the shortcomings of this approach in Hefner's work, in which:

> To engage with the technological factor is to engage with
> humanity *as natural*. However, although technology is
> described as a competence that is rooted in the human
> species, the resulting theological anthropology of the
> 'created co-creator' *does not attend carefully to the concept of*
> *nature* which emerges in technology nor the relations

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[64] Hefner, *Technology and Human Becoming*, 76-7.
[65] Cf. Nayar, *Posthumanism*, 97.

between humanity and nature as technologically mediated.[66]

Hefner, in short, overworks and under-develops his concept of 'nature', which makes for an argument that is as broad and vague as his use of terms. An analysis of substantive theological anthropology can help us to make sense of this. The issue is that we always, in these readings, start with separations (i.e. of humans and technologies) based on notions of naturalness, rather than starting with (con)fusions, and in turn, those separations determine our attitudes. The origin is fundamental here.

Contrariwise, Haraway's cyborgian rejection of origins can be understood as a desire to move away from these oversimplified and assumedly discrete (id)entities. For Haraway, these issues are misguided because we cannot begin with any prior or assumed discrimination or division. This is something that, at best, emerges from an exploration of relationalities. To be sure, though, these connections are emphatically not intermediaries between pre-existing poles striving to make often paradoxical connections, which is what we find evidenced in Hefner's work.

To cast some further light on Hefner's schema, it might be useful to consider another coinage that grapples with the notion of the cyborg, but that also articulates it in terms of paradoxical connections. Andy Clark, the philosopher behind the concept of the 'natural-born cyborg',[67] in fact, has much in common with Hefner's ideas. For Clark,

> Our cyborg future, like our cyborg present and our cyborg
> past, will depend on a variety of tools, techniques, practices,

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[66] Scott, *Anti-Human Theology*, 114 (my emphasis).
[67] See Chapter 2.

and innovations. What they will increasingly have in common is that deep human-centeredness […] These will be technologies to live with, to work with, and to *think through*.[68]

Clark, like Hefner, places humans unambiguously at the centre of his understanding of technology. Both theorists claim a connection with the term 'cyborg', but through their similarities, we can see that Hefner's understanding of that figure, like Clark's, must be distinguished from Haraway's. Returning to the taxonomy of cyborgs presented earlier, [69] technologies wrap around a humanocentric core that is enhanced but not jeopardised: this is 'humanity+'.[70] Clark's and Hefner's projects closely resemble trans/humanist philosophies that cling to substantive notions of (human) nature.[71]

Technologies are read by Hefner and Clark as constituting our external environment – our culture, which is itself a new 'nature'[72] – and as constituting our inner selves. Indeed, we cannot understand ourselves aside from technologies. While I agree with this inseparability, I part with these theorists where they ground such claims in appeals to (human) nature. As Clark writes, "the fluids are already mingling and have been at least since the dawn of text, and probably since the dawn of spoken human language. This mingling is the truest expression of our distinctive character as a species."[73] Undergirding Clark's notion of mingling here, in common with Hefner's approach to humans and technologies, is a sustained upholding of the uniqueness of the human. This is where the boundary lines are

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[68] Clark, *Natural-Born Cyborgs*, 58 (original emphasis).
[69] See Chapters 2-3 (especially 2.1; 3.3).
[70] http://humanityplus.org/ (date accessed: 23/9/15).
[71] See Chapter 6.1.
[72] Hefner, *The Human Factor*, 160.
[73] Clark, *Natural-Born Cyborgs*, 139.

redrawn; technologies are incorporated firmly within the sphere of human nature and are used to solidify 'the gap' between humans and 'non-cyborg animals'.[74]

In the light of the distinctions that remain in Hefner's analysis, it seems fair to comment that his theological anthropology is undergirded by at least a tacit substantive account. Human nature is central to Hefner's account of nature, which demonstrates a strong anthropocentrism that belies human technological engagements. This links to a notion of *imago dei* that marks human uniqueness by relating technology to creative impulses at the centre of human nature, which is how humans reflect and bear God's image. Strikingly, though, Hefner's reference to (human) nature exposes tensions in that concept and thereby tensions in the substantive view: we use the notion of the 'natural' to legitimise technologies that otherwise seem threatening or dangerous, but in the process, we lose sight of what it is to be 'natural', which itself is a prospect that scares us.[75] Is there a way out of these conceptual trappings?

8.2.4   Cyborgs and Creativity

This question returns us to the notion of the cyborg, as articulated by Haraway. The cyborg is not substantive because it is deeply critical of notions of (human) nature, and this marks the key difference between Hefner's and Haraway's schemas. Hefner and Clark, unlike Haraway, begin with assumptions about humans, technology, and God that they can make connections between. From this, we see how the substantive account that underwrites these assumptions contribute to an anthropocentrism that must be opposed if we are to fully acknowledge our (con)fusions with (non-)others.

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[74] Ibid., 197; cf. Suddendorf, *The Gap*, 224. See Chapter 3.3.

[75] Consider here Bill McKibben's tones of woe about this matter in his aptly-titled book, *The End of Nature*.

While it will be necessary to now explore alternative ways of theologically appropriating the cyborg, we can first reflect on what we have learnt from an analysis of Hefner's attempts. Hefner indicated a genuine endeavour to construct a relational account of the cyborg and theology, and we can take some of his suggestions about how we relate to God and other creatures as part of a complex community, different to previous theological figurations of those relationships, to inform further investigative work. Hefner's comments on creativity begin to overcome the schism between God and humans because creativity is an activity that we can share in. For Hefner this means that technologies are not about alienation or artifice, and we can subsequently develop an account of technology that does not immediately mark technologies as an object of fear. However, to posit the opposite and claim that technologies are fully natural does not move us away from attempts to assess technologies against a predetermined, ahistorical idea(l). *Imago dei*, I propose, needs instead to be figured in critical, non-substantive and non-anthropocentric terms.

Before looking at theological responses to this challenge, it is worth assessing how Haraway's own stance on relationality might inform such a theological investigation.

8.3   Cyborgs/Goddesses

A significant opportunity to explore how theological relationality, in terms of creativity shared between God and humans as explored in this chapter so far, might be figured by Haraway can be found in her closing comments from the Manifesto. Here, Haraway writes, "though both are bound in the spiral dance, I would rather be a cyborg than a goddess." [76] In this key passage, Haraway suggests a schism between the cyborg and the goddess. Both are divided along a plane of transcendence, and so may parallel a divide between humans and God.

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[76] Haraway, 'Manifesto', 181.

The fact that Haraway operates with the assumption of this schism, though, means that her work may suggest substantive differences, and so may have more resonances with Hefner's work than indicated thus far in this chapter.

This does not accord well with the rest of Haraway's emphasis on hybridity and relationality. As some commentators such as Elaine Graham have noted, "in an essay which celebrates the end of dualisms, […] one final – and overlooked – ontological boundary [remains], that between heaven and earth."[77] How, in short, can notions of hybridity and (con)fusion, that have already been highlighted as fundamental aspects of a cyborgian ontology,[78] be interacted with this metaphysical-theological division?

Although Haraway suggests an alarming boundary between the cyborg and the goddess, which has been questioned by writers in the bourgeoning field of posthumanist theology for its backwards step in an essay of otherwise refreshing and radical shake-ups,[79] on closer inspection, I propose that this figuration is as radical as anything else that Haraway writes. For Haraway:

> We cannot go back ideologically or materially. It's not just
> that 'god' is dead; so is the 'goddess'. Or both are revivified
> in the worlds charged with microelectronic and
> biotechnological politics.[80]

This passage reminds us of the finer nuances of Haraway's approach to cyborgs that derives from her methodology, which involves taking up 'polluted histories' and working with(in) them, by challenging them.[81] The god/dess may be dead for Haraway, but they have ongoing significance in our technological milieu, and we

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[77] Graham, *Representations of the Post/Human*, 212.
[78] See Chapter 7.
[79] Kluchin, 'The Cyborg and the Golem'.
[80] Haraway, 'Manifesto', 162.
[81] Haraway, *HLaL*, 103.

need to work out how to adequately articulate that 'revivification'. Haraway, we might then say, inherits the language and notion of the goddess, but denies the desirability of returning to an ideological or material romanticised notion of that figure. In its place, Haraway advocates that we opt for the cyborg.

What does Haraway 'inherit' through the goddess? The goddess, for Haraway, embodies and represents the overlapped poles of nature and gender. Here, as Graham writes, the goddess "risks remaining effectively a romanticisation of humanity's engagement with nature, a reversion to Edenic bliss that is no longer available in a highly-technologised western context."[82] Haraway, of course, wants to refute such dualistic associations, and she thus posits the cyborg/goddess schism to present her case for the alternative. A consideration of Haraway's specific use of the cyborg *against* the grain of its technophilic trans/humanist roots, revising and re-articulating that figure, demonstrates that her cyborg represents an alternative, hybrid ontology. It is that non-binarised, non-dualistic approach that Haraway finds favour with, over the trends that she identifies in the shorthand figure of the goddess.[83]

The figure works as a shorthand reference because, as Graham notes, the dualism suggested by the goddess "between the spiritual and the material, immanence and transcendence […] informs all others."[84] The dualism is referred to when we ask key questions of our technologies in substantive terms such as asking how we figure ourselves along the line suspended between divinity and animality, where

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[82] Elaine Graham, 'Cyborgs or Goddesses? Becoming Divine in a Cyberfeminist Age', *Information, Communication & Society*, Vol. 2, No. 4 (1999), 423.

[83] It should be noted here, however, that other interpretations of the goddess, like the cyborg, are possible. Some of these are usefully discussed by Starhawk in her text, *The Spiral Dance: A Rebirth of the Ancient Religion of the Great Goddess*, (New York: Harper & Row, 1979). For example, goddess spirituality in Neopaganism is about complementarity rather than opposition of mythical ideas (188). The fact that the ritual cited in this book's title features in Haraway's 'Cyborg Manifesto', discussed later in this chapter, may indicate something of these alternative figurations of the goddess. That said, Starhawk also writes that the cyclical emphasis sustained throughout witchcraft and goddess spirituality ensures that the seeker "is always drawn back" (197), which could be reflexive or to the natural. The latter is opposed by Haraway's cyborg (see Chapter 9.1).

[84] Graham, 'Cyborgs or Goddesses?', 428-9.

assumptions about both ends of the spectrum, as well as of ourselves in terms of human nature, are made as pre-requisites for our concerns about edging too near to either. Ultimately, all of these substantive assumptions are revealed as being abstracted and simplified and lead to straw conceptions that are uncritical and unhelpful.[85] If this is the continuum implied by the goddess, then the cyborg challenges it in favour of a more messy and critically reflexive milieu marked by (con)fusions and hybridity.

In the latter worldview, *everything* is interlinked to such an extent that transcendence taken as discreteness or escapist idealism is untenable. For Haraway, this includes transcendentalism, a spiritual movement that emphasises the purity of the individual against society. Such a notion, however, "is deadly […] these holistic, transcendentalist moves promise a way out of history, a way of participating in the God trick. A way of denying mortality."[86] If, in other words, to be a god(dess) is to transcend and/or to disappear from the world, then we are not, nor can we ever be, gods. Contrary to trans(/)humanist fantasies, we keep our feet firmly on the ground.

Haraway's cyborg/goddess construction, then, relates to immanence and transcendence. As Rosi Braidotti suggests, "the emphasis on immanence" that emerges from the polarised cyborg/goddess structure "allows us to respect the bond of mutual dependence between bodies and technological others, while avoiding the contempt for the flesh and the trans-humanist fantasy of escape from the finite materiality of the enfleshed self."[87] Haraway's rejection of the goddess identity demonstrates her preference for the immanent, for the situated and the grounded, in our milieu of sprawling and (con)fusing connections.

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[85] See Chapters 4.1; 6.2.1.

[86] Haraway, 'CaL', 20.

[87] Braidotti, *The Posthuman*, 90-1.

With this in mind, the goddess is to be understood on a deeper level as bearing a (hi)story and a mythology that Haraway simply does not find favour with. This (hi)story is sharply divided between transcendence and immanence, men and women, and nature and technology. The cyborg, instead, subverts the myths that legitimise these structures, and these are by and large traceable to myths of origin that inform our attitudes to ourselves and particularly our technologies, as well as to the world more generally.[88] By pledging allegiance to the cyborgian identity, Haraway declares her endeavour to work critically against the myths that have colonised us. The goddess, for Haraway, uncritically inherits many of these myths and thus is an undesirable identity.

In claiming solidarity with the cyborg, Haraway actively *chooses* to reject the identities that have typically been reserved for her as a woman. Instead, Haraway significantly appropriates the overwhelmingly masculine identity of the cyborg (as it had been presented in popular culture at Haraway's time of writing, but also interestingly since then)[89] and reworks its meanings in favour of connections rather than schisms. The 'goddess' metanarrative remains an option for us; Haraway does not pretend as though it never existed, yet, to the contrary, she recognises how compelling it is for us.[90] This informs her work with the cyborg, which is about persuading people of the alternative assessment of our hybrid ontologies. Although this alternative option is difficult, jarring and (con)fusing, it is presented as fruitful for how we see ourselves as firmly embedded in an ever-shifting technocultural milieu.

8.3.1   Spiral Dancing

In dividing the cyborg and the goddess, however, does Haraway necessitate a prior demarcation of transcendence in order to emphasise a radical and cyborgian

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88 Haraway, 'Manifesto', 175.
89 Cf. Kirkup et al (eds.), *The Gendered Cyborg*; see also Chapter 2.4.
90 Haraway, 'CaL', 14.

immanence? How does this interact with notions of hybridity as inclusive of differences?[91] In response to these questions, it is important to note that both cyborgs and goddesses *are bound in the spiral dance*. Haraway first introduces the notion of 'spiral dancing' in her Cyborg Manifesto with regards to a practice in Santa Rita jail that was "at once both spiritual and political."[92] The spiritual dimensions of the dance, embodied by the goddess (figure), are rooted in neopaganism, where it symbolises the cyclicality of death and rebirth.[93] Although Haraway may find issue with the natality implied by 'rebirth', this is counteracted by the open-ended political dimensions of the dance.[94] Because of the way that political and spiritual elements intertwine in this dance, Haraway sketches out not an either/or predicament between the cyborg and the goddess, but a recognition of the identities that work across differences.

A useful parallel to help conceptualise this might be the relationship between purity and hybridity. As noted earlier in this investigation,[95] hybridity works against the idea(l)s of purity, and so may be said to oppose it. This cannot be the case, however, as hybridity is all-encompassing, and so cannot strictly be said to oppose anything. Instead, hybridity bears difference within itself. Likewise, so too does the cyborg. The goddess, in short, is the 'polluted history' that the cyborg works both with and against, and must somewhat reconcile itself to. The spiral dance emphasises this, but we should be cautious not to reify the (id)entities performing the choreography. In other words, this complex relationality needs to be located at the level of the cyborg as well as the wider network. What this may necessitate is a richer understanding of how relationality figures transcendence by

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[91] See Chapter 7.2.2.
[92] Haraway, 'Manifesto', 154.
[93] 'Reclaiming Presents The 30th Annual SPIRAL DANCE (Saturday, October 31, 2009): A ritual to honor our beloved dead and dance the spiral of rebirth',
http://www.reclaiming.org/rituals/samhain.html (2009) (date accessed: 23/7/15).
[94] Patricia Pisters, 'Conceptual Personae and Aesthetic Figures of Becoming-Woman', *The Matrix of Visual Culture: Working with Deleuze in Film Theory*, (Stanford: Stanford University Press, 2003), 119.
[95] See Chapter 7.2.

reworking differences at every level. Theology can be a particularly useful critical partner here.[96]

To be sure, with the cyborg, we are not pursuing finality, teleology or certainty – all of which are denied to us by Haraway's articulation of it – but a better understanding of our predicament in the midst of things. Such an understanding is about embracing:

> […] the kind of decentred notion of human identity that is to be found in Haraway's cyborg. It is about liminality rather than essence, and about making political sense of fragmentation and diversity. It does not seek mystical symbiosis with a perfect being, but rather hopes for better things to come via a process of becoming.[97]

All of this points towards a new approach and indeed even what Brenda Brasher regards as a decisive but difficult paradigm shift, from classical theological anthropology to 'theological cyborgology'.[98] The merit of this term is that it circumvents anthropocentrism and invites theologians into the fore of technological and cyborgian concerns, all of which place great emphasis on the notion of relationality.

What is additionally useful and insightful about the coinage 'theological cyborgology' is that it incorporates the critical deconstruction of the human, in particular the liberal humanist subject, which in turn leads us to question the God

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[96] Theology, I propose, could develop insights gained from SF and its fabulated yet nonetheless embedded narratives that rework understandings of transcendence and immanence (see Chapters 1.2; 3.4). For discussion of hybridity, contingency, and praxis in theology, see Scott, *Anti-Human Theology*, 132-3.

[97] Graham, 'Cyborgs or Goddesses?', 434.

[98] Brasher, 'Thoughts on the Status of the Cyborg', 819.

to whom that figure relates.[99] *Imago dei*, in this context, is especially instructive because it narrates a (hi)story that can be rearticulated according to a relational (and cyborgian) view, so long as it is not taken exclusively to refer to humans as inherently bearing it (either fully or as a capacity) as according to the substantive (and functional-substantive) view.

This was the key shortcoming of Hefner's approach: Hefner naturalised technology to incorporate it within a substantive model of human nature, rather than taking the cyborgian challenge posed by Haraway as an opportunity to more radically rethink what it is, or more pertinently what it *isn't*, to be 'human'. Although Hefner made some valid and useful points about technology, including that it is widespread and prompts introspection, we need to not be content with stopping short at substantive ideas, but to push beyond them. We need to throw ourselves into the spiral dance in order to recognise hybridity and ways of doing difference differently, as is suggested by the cyborg figure.

Relational accounts of *imago dei* that are not tethered to substantive notions can be useful here. The 'spiral dance' is about tracing out dynamic relationalities. These relationalities are different from relationships; they are emphatically non-inertial. Similarly, we might employ this kind of dynamism and intangibility when referring to *imago dei*: as Gregory Peterson notes, "to be in the image of God is to be like God in some relevant way, but also unlike God at the same time, as an image is like and unlike that which it reflects or represents."[100] There is recognition here of a difference between God and that which images Him, without which we would be inundated with simulacra of God.[101] This is avoided by a creaturely dimension to *imago dei*, where the human is deconstructed and refigured in

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[99] Thweatt-Bates, *Cyborg Selves*, 148; Woodhead, 'Apophatic Anthropology', 235.

[100] Gregory Peterson, 'Imaging God: Cyborgs, Brain-Machine Interfaces, and a More Human Future', *Dialog: A Journal of Theology*, Vol. 44, No. 4 (2005), 342.

[101] This is perhaps one of the issues that are encountered when people discuss 'mini-gods' (Kevin Kelly, 'Nerd Theology', *Technology in Society*, Vol. 21 [1999], 388), which pertains to the fundamental charge of 'playing God'.

complex networks that are not simulacra of God, but are rich in their own (hi)stories. Technologies, as parts of these networks, are to be figured as one part in this milieu, but they are not to be localised or incorporated solely into human nature as Hefner and Clark did, because there is to be no substantive account of (human) nature for them to be affiliated to.

Technologies are but some of the actors, (con)fusing with multiple others, as they dance the spiral dance. We may never be able to fully understand it, but we can become more aware of the moves that the dancers take, and appreciate the profoundness and intricacy of it all. *Imago dei*, in a theological cyborgology, is likely to be about this choreography that brings together multiple actors. It is not about keeping our feet or ourselves rooted in Eden, as the next chapter will explore and demonstrate, but it is about being moved and caught up in the dynamic rhythms and cacophonies of the world in which we exist.

CHAPTER 9

Eden & Cyborgs

To briefly recap what we have ascertained about cyborgs so far, they are mobile, dynamic, and deal in (con)fusions, which touches on how they are figures of hybridity. These traits challenge embedded assumptions that we have of humans and human nature. In theological anthropological terms, human nature has typically been figured as static, stable, and discrete, which is best characterised as a substantive set of interpretations (including functional interpretations, but that still see humans as somehow unique, powerful, or central). What the cyborg demands is a non-substantive relational approach that does not begin with identities that are connected through relationships, but rather that begins with the far less concrete or tangible ways of relating, including fusions and, ultimately, confusions.

The question here remains about how we might interact these notions of cyborgs with the still problematic notion of Eden, in making steps towards what has been suggested as a 'theological cyborgology'. The investigation thus comes full circle and we ironically find ourselves back at the start: what do we understand by Eden; why is it significant; can we articulate a relational understanding of it? Another way of posing this last question might be to ask whether cyborgs, as relational figures, are themselves locatable in the Garden in some way. This chapter explores attempts at doing that, assessing the convincingness of these arguments, before making conclusive remarks about how a theological cyborgology might be best figured with(out) reference to Eden. Firstly, though, some insight into Eden will be useful, in the light of the analysis of cyborgs and theological anthropology thus far.

9.1   Ruptures: Eden / Cyborgs

In the last chapter, tensions between the cyborg and the goddess were noted in Haraway's account. This may parallel how Haraway opposes the cyborg to Eden. Eden is a key part of the creation myth, from which we derive many assumptions about (human) nature. The centrality of the human here is a significant part of that which Haraway critiques:

> Every story that begins with original innocence and privileges the return to wholeness imagines the drama of life to be individuation, separation, the birth of the self, the tragedy of autonomy, the fall into writing, alienation; that is, war, tempered by imaginary respite in the bosom of the Other.[1]

For Haraway, then, the fact that humans were made by God in the Garden of Eden, which is a paradisiacal garden signifying completeness, order, and innocence, has profound consequences for our current self-understandings. We see Eden as symbolic of innocence because of how we sinned and fell, and our present sinful state is thus counterpoised to a prior sinless and innocent state.[2] According to Haraway's reading of Eden, this juxtaposition leads us to understand our present condition as one negatively marked by discreteness, autonomy, and alienation.

We can certainly discern this in many theological accounts of technology that see it as troubling: one of the more foremost among these is presented by Brent Waters, who, while by no means a neo-Luddite or an anti-technologist, is nonetheless concerned about the attitudes that technology emerges from,

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[1] Haraway, 'Manifesto', 177.
[2] See Chapter 4.1.

reinforces, and masks.[3] These are widely associated with a postlapsarian view, where the artifice of technology is repeatedly measured against the prior idyllic state of nature. For example, Waters characterises the modernist outlook as a deeply technological one, where "moderns have been attempting for quite some time to make their life artificial, reflecting the desire to reject the human condition that is grounded in nature."[4] Here, technology is opposed to a prior (human) nature that, although Waters doesn't define in these terms, is clearly influenced by a vision of nature in Eden as wholesome, where technology is absent in any clear or conventional way.[5] Although Waters claims to espouse a teleological rather than circular eschatology for humans,[6] given his favouring of (human) nature that is concordant with theological anthropogeny, it seems that Waters' anthropology and attitudes to technology are strongly informed by an emphasis on Eden as opposed to the world, and as desirable.

Just as Waters divides Eden from the world, so too does Haraway, yet, crucially, her cyborg "does not expect its father to save it through a restoration of the garden" and "cannot dream of returning to dust."[7] What Haraway conveys is hostility to the way that Eden compels us with at least an imagined or idealised chance of return. The cyborg, having no familiarity or place in Eden, emphatically denies that possibility of return. It "subvert[s] the apocalypse of returning to nuclear dust in the manic compulsion to name the Enemy,"[8] which is typically technology. Thus, the symbolically charged verdurous landscapes encountered at the end of films such as *Gravity*, as well as *Terminator: Genisys*, and *28 Days Later*, are arguably suggestive of an Eden-like bliss absent of technology following a

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[3] Brent Waters, *Christian Moral Theology in the Emerging Technoculture: From Posthuman Back to Human*, (Surrey/Burlington: Ashgate, 2014), 4.

[4] Ibid., 67.

[5] Waters, *From Human to Posthuman*, 144.

[6] Ibid., 113.

[7] Haraway, 'Manifesto', 151.

[8] Ibid.

(post-)apocalyptic dystopia, which is denied as a possibility for the cyborg.[9] The cyborg instead realises that we cannot abandon our technologies as though they are merely auxiliary or prosthetic parts of ourselves. Technologies are more deeply integrated with us than that.

According to Haraway, Eden clearly informs our ideas of soteriology, whereas "the cyborg incarnation is outside salvation history." [10] The cyborg is not motivated by secluded retreats to a former land void of technology, as we find in the films listed above where the going gets tough, and the tough get going, so to speak. This is because the cyborg realises and revels in its technological complicity, such that nothing (i.e. technology, organisms, humans) can be isolated or abstracted against its other enmeshed parts. This cyborgian logic is opposed to the discrete identities found in Eden. Here, technology is absent, and so a yearning for a romanticised, 'natural' habitat is vindicated. Thus, while, for theologians such as Waters, "the rule and reign of Christ does not lead the world back to Eden,"[11] Eden nonetheless continues to inform our attitudes to technology and something of our hopes for the future, in accordance with a certain vision of (human) nature that first appeared in the Garden.

The Edenic myth, in short, gives us a (human) nature and a starting point that is reflected in our hopes and expectations for an endpoint, or a *telos*, in which we are delivered from the artifice of technologies. Contra this account, Haraway distances herself from the notion of natality at the root of 'nature' and locates the cyborg elsewhere: "the cyborg is not 'born' but it does have a matrix! Or better, it doesn't have a mother, but it does have a matrix! It wasn't born in a garden, but it certainly was born in a history."[12] The focus is on the present with all of its

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[9] Campbell, 'Cyborg Salvation History', 163; Geraci, 'Robots and the Sacred in Science and Science Fiction', 965.

[10] Haraway, 'Manifesto', 150.

[11] Waters, *Christian Moral Theology in the Emerging Technoculture*, 113.

[12] Haraway, *HLaL*, 129.

entanglements, and the (hi)stories that shape it, rather than understanding the present against the yardsticks of origin and *telos*. With these yardsticks, Haraway argues, "history is erased, for other organisms as well as for humans, in the doctrine of types and intrinsic purposes, and a kind of timeless stasis in nature is piously narrated."[13] Against this stasis, Haraway denies the cyborg any stake in Eden, which is the ἀϱχη (*archē*; beginning) that 'erases history'. Again, tensions between immanence and transcendence, and between the cyborg and the goddess (respectively) appear. The denial of Eden means that attention is not taken away from the nuances of the present, and we do not yearn for salvation inspired by, or marked by a return to, the Garden.

The issue for Haraway is that this salvation mythology infiltrates our cultural sensibilities, including attitudes about others and ourselves;[14] "we have all been colonised by those origin myths, with their longing for fulfilment in apocalypse."[15] Humans, for example, are seen as unique and special against the other creatures of Eden. To this end, the Eden myth operates alongside a substantive account of (human) nature, where nature remains as a secure backdrop or even a failsafe to our uniquely human characters that seek expansion and exploration.[16] Alfonso Cuaron's recent film *Gravity* expresses this notion well, where the protagonist, Ryan, dramatically ventures through mishaps and escapades in space and eventually returns to the safe haven of earth in an Eden-like tableau.[17] The significance of Eden here manifests in how, "in the Garden, Western 'man' may begin again the first journey, the first birth from within the sanctuary of nature."[18] For Haraway, the distinctness of Eden is traceable in our escapist fantasies of

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[13] Haraway, 'MiW', 218.

[14] Arthur Walker-Jones usefully refers specifically to the 'Eden myth' that Haraway seems to be mostly referring to here, "as distinct from the story in the text." ('Eden for Cyborgs: Ecocriticism and Genesis 2-3', *Biblical Interpretation: A Journal of Contemporary Approaches*, Vol. 16, No. 3 [2008], 269.)

[15] Haraway, 'Manifesto', 175.

[16] See Chapter 2.2.

[17] *Gravity*, Cuaron (dir.), (2013).

[18] Haraway, *HR*, 126.

rebirth and transcendence. What need, though, are narratives of regeneration, monstrosity,[19] and immanence, where discreteness is thoroughly discredited in favour of relationality and hybridity.

9.1.1   Competing and/or Cyborgian Metanarratives

Already, we see something of how compelling Eden is as a mythological framework that underwrites many of our sensibilities regarding issues such as (human) nature and technology. Expanding on this, Haraway, reflecting on her own relationship to religion via her Roman Catholic upbringing, writes:

> I know in my heart that […] I could have remained a Roman Catholic and thought anything I wanted to think if I was willing to put enough work into it, because these universal stories have that capacity, they really can accommodate anything at all. At a certain point you ask if there isn't another set of stories you need to tell, another account of an unconscious. One that does a better job accounting for the subjects of history.[20]

Haraway's comments suggest that the Edenic metanarrative is problematic in terms of its detachment from 'the subjects of history', and this is what the figure of the cyborg attempts to re-address. In other words, Eden offers us an alternative, mythological land and time outside of our own, and to the extent that we use it to guide our own attitudes in the way that Haraway has shown, it detracts us from the complexities of our own situation and leads us to see that situation in an eschewed way.

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[19] Haraway, 'Manifesto', 181.
[20] Haraway, 'CaL', 14-15.

The cyborg, for Haraway, must necessarily be posited as an *alternative* to Eden and outside of that mythology, moreover, because of how accommodating Eden is as a metanarrative. There is the impression here that the Eden myth proliferates by absorbing and 'cannibalising'[21] different stories, in turn leading us to assess things through a singular, narrow lens.[22] Illustrating this, we tend to regard technologies in terms of technophobia or technophilia deriving from Edenic assumptions,[23] rather than beginning with relationalities and the technologies themselves as an alternative grounding, which a critical hybridity encourages.[24] Another example of a 'cannibalising' discourse, for Haraway, is psychoanalysis and its championing of Oedipal stories. This is in fact seen as part of the Eden metanarrative that we are inheritors of and have culturally appropriated.[25] As Arthur Walker-Jones notes, psychoanalysis depends "on the plot of original unity out of which difference must be produced and enlisted in a drama of escalating domination of women/nature."[26] The cyborg, however, directly challenges that by skipping "the step of original unity, of identification with nature in the Western sense," and hence it "would not recognise the Garden of Eden."[27] The cyborg and Eden (and their undergirding figurations and mythologies), in short, appear to be sharply distinguished.[28]

In making this claim, though, caution needs to be exercised so as to avoid a reading of humans and technologies in a similar vein to Waters', where humans are seen as created with an originary perfection from which they have since fallen into a world of technology where cyborgs dwell. If cyborgs are not from Eden, then Haraway may vindicate Waters' position that also makes distinctions between the Garden and technology.

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[21] Ibid., 14.
[22] Cf. Haraway, *MW@SM*, 178.
[23] See Chapters 4.2, 4.3.
[24] See Chapter 7.1.
[25] Haraway, 'Manifesto', 151.
[26] Walker-Jones, 'Eden for Cyborgs', 265.
[27] Haraway, 'Manifesto', 151.
[28] Cf. Haraway, *HR*, 323.

On the one hand, this makes sense: the cyborg, for Haraway, "is oppositional, utopian, and completely without innocence."[29] These traits suggest that the cyborg belongs in a kind of anti-Eden which is, true to the etymology of 'utopia', a place of no place; like Eden, a mythological place. Haraway uses this utopian cyborg standpoint to argue against our binarised, anthropocentric worldview that, she contends, is rooted in notions of the Garden. In effect, Haraway posits a distinction between the world as structured according to binaries marked by the Edenic myth, and the world as figured according to cyborgian principles of hybridity.

In positing the cyborg as a utopic counterpoint to Eden, though, Haraway is selective over what she wants to include in her cyborg, hybrid world. This is contradictory to the notion of hybridity, specifically critical hybridity, as bearing differences rather than opposing them. [30] Haraway even espouses this understanding of hybridity:

> [T]aking responsibility for the social relations of science and technology means refusing an anti-science metaphysics, a demonology of technology, and so means embracing the skilful task of reconstructing the boundaries of daily life, in partial connection with others, in communication with all of our parts.[31]

Why should this mean, however, that theology, specifically Eden mythology, should be itself demonised or opposed to science? Is Eden, as a significant (hi)story, not a part of 'the boundaries of daily life', and does it not therefore require an equally skilful reconstruction?

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[29] Haraway, 'Manifesto', 151.
[30] See Chapter 7.2.2; also Chapter 7.3.2.
[31] Haraway, 'Manifesto', 181.

I would argue that Haraway's polemical reading of cyborgs paradoxically suggests troubling dualisms that contradict her own anti-dualistic sentiments figured by the cyborg. Foremost among these dualisms are those between Eden and the cyborg; innocence and guilt; utopia and dystopia; transcendence and immanence; metaphor and materiality.[32] These binaries undermine how "cyborg imagery can suggest a way *out of the maze of dualisms* in which we have explained our bodies and our tools to ourselves. This is a dream not of a common language, but of *a powerful infidel heteroglossia*." [33] Although 'infidel' suggests an unfaithfulness and an opposition to Eden, we are reminded of the 'blasphemy' that Haraway opens her Manifesto with, which involves "taking things very seriously" rather than apostasy.[34] The term 'heteroglossia', more significantly, as linguist Mikhail Bakhtin notes, refers to "another's speech in another's language, serving to express authorial intentions but in a refracted way."[35] Refraction, rather than opposition, binary, or dualism, is key here. The task is not to reject stories or metanarratives, but to work with them via a critical hybridity, and to refigure and rearticulate them.

With this in mind, we are compelled to ask: is there an alternative way of figuring Eden through the critical lens of the cyborg?

9.2   Continuities: Eden-Cyborgs

To summarise briefly, Waters dichotomises technology and nature in terms of sinfulness and Edenic innocence (respectively). Insofar as Haraway denies both innocence and nature, brought together by an Edenic outlook,[36] it could be argued that she makes a similar assertion. However, to posit such a dichotomous view of

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[32] See Chapter 1.2; cf. Haraway, *MW@SM*, 2, 230.

[33] Haraway, 'Manifesto', 181.

[34] Ibid., 149.

[35] Mikhail Bakhtin, 'Discourse in the Novel', *The Dialogic Imagination: Four Essays*, (Austin/London: University of Texas Press), 324.

[36] Haraway, 'Manifesto', 180.

pre- and post-lapsarian human nature is to oversimplify the matter. There are fundamental continuities between human nature as made in the image of God, and technological expression that manifests in the technocultural milieu that we are inseparable from. This means that there are continuities between original and fallen human nature,[37] and they can be traced in reflections on technology from, among others, Philip Hefner.

According to Hefner, "we are, first of all, thoroughly natural creatures,"[38] and this is reconciled with how our future is "thoroughly conditioned by science and technology."[39] To briefly recapitulate, Hefner sees human nature as inherently technological, and he assimilates this within a theological framework that, unlike Waters', does not align technologies with fallenness. To this extent, Hefner could be seen as evincing a notion of '*homo faber*', where humans, seen as creators, remake themselves and their world in accordance with a certain theologically legitimised reading of human nature. As Anne Foerst writes of this concept:

> God has created humans in God's image, which includes creativity and intuition as well as artisanship. If we are creative, we praise God by celebrating God's glory and by participating in God's creative power.[40]

To engage in technological activity, according to Hefner and to those who espouse a view of *homo faber*, is to act in a way entirely in accordance with human nature as designed by God via *imago dei*.[41] Hefner's account means that human nature always has been technological and thus technology is natural. This marks the close

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[37] See Chapter 4 for a more detailed discussion of this point.

[38] Hefner, *The Human Factor*, 19.

[39] Ibid., 105.

[40] Anne Foerst, 'Artificial Sociability: From Embodied AI Toward New Understandings of Personhood', *Technology in Society*, Vol. 21 (1999), 376.

[41] See Chapters 4.3.1; 8.2.2.

parallels between his theology of the 'created co-creator' and Andy Clark's notion of the 'natural-born cyborg'.[42]

The continuities between theological anthropogeny and ongoing human action in the world are here emphasised over an account of lapsarianism. Indeed, for Hefner, "the fall is rejected except in a decisively figurative manner, since we cannot accept that humans ever existed in a prior state of perfection."[43] Whereas Waters uses the Fall as a schism between Eden and human expulsion from the Garden to inform his critical reading of technology, then, Hefner makes no such division. Instead, Hefner argues that "the creature who bears the image of God is the same creature who lives in original sin."[44] In this sense, humans were created as incomplete (and hence, neither wholesome nor perfect). While, in the light of the fact that emphasis is maintained in Hefner's work on naturalness, this does not challenge Eden as an originary point, on the other hand how the human is figured within Eden as an innocent figure in a serene paradise is certainly challenged.

Connoting this sentiment, Haraway writes in the 'Cyborg Manifesto' that, "with the loss of innocence in our origin, there is no expulsion from the Garden either."[45] This is a difficult statement: does it mean that cyborgs were never in the Garden, or that they never left? Both Hefner and Haraway seem to converge on the idea that innocence is the chief issue concerning Eden,[46] but if Eden is reconceptualised such that it is no longer regarded as a landmark of purity and discrete identities that tessellate into a neatly ordered whole, then we may not need to oppose it to our technocultural milieu, as was presented in the previous section. In other words, rather than positing a cyborgian, utopic counterpoint to Eden that is

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[42] Clark, *Natural-Born Cyborgs*, 139; see also Chapter 8.2.3.
[43] Hefner, *The Human Factor*, 274.
[44] Ibid., 240.
[45] Haraway, 'Manifesto', 157.
[46] Ibid.; Hefner, 'The Created Co-Creator Meets Cyborg'.

equally problematic, an alternative articulation of Eden in terms of non-innocence might seem viable and even desirable.

9.2.1   Gardening Work

Strikingly, closer assessment of the surrounding symbolism of Eden reveals that the notion of the 'Garden' does not suggest something necessarily 'natural'.[47] A garden is a space that we typically reserve for leisure activities, and we invest ourselves in the land to this end by growing plants, vegetables, and building spaces to play, gather, or eat.[48] These are non-innocent practices that encourage us to reconceptualise 'nature'. While I am cautious of the etymological inferences of the term, for Haraway:

> We must find another relationship to nature besides reification, possession, appropriation and nostalgia. No longer able to sustain the fictions of being either subjects or objects, all the partners in the potent conversations that constitute nature must find a new ground for making meanings together.[49]

With this in mind, the shared space of gardens (and more generally the trope of nature) can be reconsidered in relational terms, where emphasis is given to the shared construction of meanings and the politics of cohabitation that are always ongoing and complex. If such notions can be read into Eden, then a cyborg articulation of it can be ascertained. This, I propose, requires intensive 'gardening work' pertaining to interpretations of *imago dei* that I have discussed throughout this thesis, whereby notions of human nature are consequential for notions of

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[47] Richard Bohannon, 'Introduction', in Bohannon (ed.), *Religions and Environments*, 5.

[48] 'Garden', *Oxford Advanced Learner's Dictionary*, http://www.oxforddictionaries.com/definition/learner/garden (date accessed: 10/7/15)

[49] Haraway, *HR*, 126.

nature more broadly. It is the latter that I consider here, in the light of the previous analysis of theological anthropology.

Firstly, a substantive interpretation of nature must be overcome. The garden, in short, conjures problematic notions of nature-as-discrete or as 'other', whereas in reality, there is no isolatable 'nature' as such. This marks one way in which Haraway rejects Eden; it conceals too much about our amalgamations in favour of notions of discreteness. For example, 'nature' is, for us, packaged, marketed, and heavily commercialised,[50] and our desires for such romanticised natural spaces, namely gardens, rely on images of naturalness as distinct from the artificial or unnatural. In this sense, gardens are discrete spaces that function to compartmentalise nature and culture. And yet, according to Haraway, our journeys to these places "become tourist excursions that remind the voyager of the price of such displacements – one pays to see fun-house reflections of oneself."[51] Insofar as gardens are determined and maintained by humans, they are human(ocentric) constructions that can only reflect our own human(ocentric) ideologies back to us. This ordered worldview conceals the (con)fusions that mark our hybrid, cyborgian ontologies, where there can be no clear divisions that segregate spatially and/or symbolically.

By realising how these boundaries are constructed, we can begin to deconstruct them and focus instead on the lived practices that take place in gardens as a means to refiguring them, as for example a functional account of (human) nature suggests. Again, though, we find here that substantive assumptions are instructive: gardens are spaces design(at)ed for human ends, which are underwritten by a certain view of human nature closely related to "the story of Adam's commission in the Garden as planetary park range, with the special

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[50] Robin Canniford and Avi Shankar, 'Purifying Practices: How Consumers Assemble Romantic Experiences of Nature', *Journal of Consumer Research*, Vol. 39 (2013), 1061.
[51] Haraway, *HR*, 126.

power to name his charges."[52] Here, to reiterate, humans are divided over and above that which they tend to. With gardens, although there is an involvement of humans, nature, and technology, it is humans that are decisive and that strive to assert themselves as being in control.

A striking parallel of this functional-substantive view of (human) nature can be discerned in Atwood's novel *Oryx and Crake*, where the fenced-off and tilled garden-like Compounds, also referred to as 'castles' with elitist connotations, create deep hostilities between those inside and those outside.[53] The issue with gardens, as depicted here, is not that they incorporate different parts, but that they displace categorical boundaries as perimeters. Technology, nature and humans may coexist in the garden, then, but each garden is bordered by a human ordering of the world. The destructiveness of this human ordering manifests in Atwood's series with 'Paradice' being the site of a very human apocalypse,[54] in a manner strongly redolent of Haraway's assessment of Eden.[55] Spatially and symbolically, this humanocentrism also results in the additional understanding of nature as wilderness or Other against the 'artifice' of the garden(er).[56] Gardens do not go deep enough in our challenging of boundaries because they are precisely defined by them. They are, in other words, too neat and ordered for the chaotic and (con)fused relational world of the cyborg.

On the other hand, while I have argued against this functional view of *imago dei* insofar as it has a tendency to return to substantive differences between humans-

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[52] Haraway, *PV*, 247.

[53] Atwood, *Oryx and Crake*, 31-32. See also Danette DiMarco, 'Paradice Lost, Paradise Regained: *Homo Faber* and the Makings of a New Beginning in *Oryx and Crake*', *Papers on Language and Literature*, No. 41 (2005), 176, 193; Valeria Mosca, 'Crossing Human Boundaries: Apocalypse and Posthumanism in Margaret Atwood's *Oryx and Crake* and *The Year of the Flood*', *Other Modernities*, Vol. 9 (2013), 40.

[54] Atwood, *Oryx and Crake*, 379-85.

[55] Haraway, 'Manifesto', 151.

[56] Michael Pollan, 'The Idea of a Garden', in Bohannon (ed.), *Religions and Environments*, 139.

as-stewards and the rest of creation,[57] I have also noted that in its moving towards an emphasis on action over substance, there is scope to articulate a non-anthropocentric position that leads towards relationality and *inter*action. Paying due attention to action in any given context or (hi)story involves acknowledging, to various degrees, dynamism rather than inertia. With regards to the Eden narrative, this undercuts notions of paradise, as Claus Westermann notes:

> It is a 'land of delight' (Eden), a rich and beautiful land reflecting the fact that God and man are not yet separated. It is not really a garden of God, because man has created it primarily to provide for man; but God can be close to man in the garden. It is important however that God puts man in the garden to till it and keep it. This means that it is no fairyland, no Utopia, no Paradise for 'blessed bliss', but that it is a land which needs tilling and care. The idea of a Paradise which is a perpetual state of bliss is quite foreign to the Old Testament.[58]

While Westermann maintains an anthropocentrism in his interpretation of Eden, he emphasises action in developing a functional account of (human) nature that challenges a static, substantive notion of nature as paradisiacal.

The challenging of substantive notions, particularly accounts of the human as unique and central, is consolidated by realising how actions are always *inter*actions. By refocusing on such interactions, we then realise that 'gardens' are inclusive places, where 'nature' is accordingly refigured by Haraway:

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[57] See Chapter 5.3; 6.2.1; 8.2.2.
[58] Claus Westermann, *Creation*, (London: SPCK, 1971), 81.

> [Nature] is not the 'other' who offers origin, replenishment, and service. Neither mother, nurse, nor slave, nature is not matrix, resource, or tool for the reproduction of man. Nature is, however, […] figure, construction, artefact, movement, displacement. Nature cannot pre-exist its construction.[59]

Emphatically, Haraway writes against substantive or functional humanocentric attitudes to nature. Instead, the concept of 'nature' is expanded to account for the complex ways in which all (id)entities are processual and relational. Just as I have advocated a relational interpretation human nature (via *imago dei*) that can acknowledge critical hybridity and (con)fusions, so too do we need to develop a concomitant relational interpretation of nature. The two views, of nature and human nature, read in the context of Eden and the Garden, go hand-in-hand, and rethinking what it is to be human necessitates reconsidering our non-central place in vast networks, which requires rethinking nature also as a network. The resultant relational articulation need not exclude Eden, but it will demand a constant struggling against substantive notions of (human) nature in its ongoing reflection and interrogation of these networks and 'fields of difference'.[60]

9.3   Cyborgs in the Garden

How are we to ensure that we appropriately figure both cyborgs and Eden in this relational framework characterised by chaos, (con)fusions, and flux? How are we to avoid anthropocentrism that is deeply rooted in our sensibilities?

Two recent attempts have been made to reconcile cyborgs with Eden: one regards Adam and Eve as cyborg in an ironically blasphemous way that subverts some of Haraway's subversions in the Cyborg Manifesto; another claims that the infamous

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[59] Haraway, *HR*, 65.
[60] Cf. Haraway, *PV*, 381-2.

serpent is emblematic of cyborgs in the Garden. I will consider each of these in the light of the preceding discussion, in an attempt to ascertain the grounds for a viable interaction of cyborgs and Eden, leading towards a theological cyborgology.

9.3.1 Original Humans as Cyborg?

Although, as many have noted, "one of Haraway's most challenging assertions is that Cyborg is not to be contextualised in any story of origin,"[61] one theologian who works closely on Haraway's cyborg figure attempts to do just that: Jeanine Thweatt-Bates boldly reads the cyborg into Eden. In her own words, "I dare to imitate Haraway's use of provocative figures to shape an answer that flatly contradicts her original assertion that the cyborg does not belong in the Garden of Eden: Adam and Eve as cyborg."[62] For Thweatt-Bates, this ironic approach attempts to blaspheme against Haraway's own blasphemy.[63] This involves taking seriously that which it is working with, and reminds us that the cyborg is a stuttering and incomplete discourse that must be subject to ongoing and critical analysis,[64] including from that which it critiques itself. In other words, the cyborg does not have the final say on Eden, and Thweatt-Bates' arguments ensure that the discussion continues.

And yet, there is undeniably the impression that, by assimilating the cyborg into Eden in a manner so disregarding of Haraway's comments to the contrary, Thweatt-Bates conveys a sense in which the Edenic mythology is affirmed and vindicated. It appears, to return to a point raised earlier, as a 'cannibalising metanarrative'. Here, Thweatt-Bates' ironic take on Haraway's work undoes itself; for Haraway, "irony is about contradictions that do not resolve into larger wholes,

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[61] Hefner, 'The Created Co-Creator Meets Cyborg'.
[62] Thweatt-Bates, *Cyborg Selves*, 172.
[63] Cf. Campbell, 'Cyborg Salvation History', 158.
[64] Kull, 'Speaking Cyborg', 286.

even dialectically, about the tension of holding incompatible things together because both or all are necessary and true."[65] Thweatt-Bates' rendering of Adam and Eve as cyborgs arguably resolves these figures into a larger whole, namely the Edenic metanarrative. Within this framework, Thweatt-Bates affirms notions of nature and origin that have been exposed as problematic in this chapter and throughout this investigation. What we instead need to explore is a more ironic tension that holds incompatible things together *without* seeking to integrate them or homogenise their differences. Comparing this position to the equally problematic alternative explored earlier in this chapter that dualistically opposes cyborgs and Eden, we realise that what is needed is a way of 'doing difference differently', and this is suggested by a critical hybridity that places strong emphasis on relationality.[66]

A key part of this critical hybridity, then, needs to be able to account for tensions without resorting to dialectics and dualisms, as this would otherwise form a larger whole where the parts are discretely defined against one another (this is the case with substantive approaches to theological anthropology). Therefore, we cannot merely oppose Eden and cyborgs as Haraway's Manifesto might initially suggest, but instead a somewhat subversive reading, particularly a theological one that is able to respond to the challenges raised by the cyborg, is crucial.

What Thweatt-Bates seeks to convey in her theological account of Adam and Eve as cyborg, similar to Hefner, is a denial of innocence and purity. She writes, "there is no innocence to be regained for the cyborgs in the Garden; to be cyborg is to know good and evil, that is, to know that innocence is illusory."[67] In declaring a lack of innocence, Thweatt-Bates does not want to cling to notions of humans as created in isolation from the rest of creation or as innately bearing *imago dei* as a means of justifying any of our actions. Rather, "God marks this creature, the

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[65] Haraway, 'Manifesto', 149.
[66] See Chapter 7.2.2.
[67] Thweatt-Bates, *Cyborg Selves*, 173.

human, as unique in no way other than God's chosen relation to it; […] the human is not 'alone in the world'."[68] A move towards relationality is suggested here, both with God as well as with other creatures, and it is this kind of non-innocent ontology that Thweatt-Bates theologically appropriates from Haraway's blasphemous figures and ideas. This ontology is non-innocent because it is not pure. We cannot idealise a time when we were perfect and nor can we strive to restore ourselves to that illusory state of perfection.

It is possible to find support for this move in Haraway's own work: "My focus is the figure of a broken and suffering humanity, signifying – in ambiguity, contradiction, stolen symbolism, and unending chains of noninnocent translation – a possible hope."[69] In lieu of an innocent or perfected possible state of being, Haraway emphasises our brokenness (against Edenic claims to holism). Theologically, our suffering necessitates some kind of salvation, yet Haraway rejects it as part of her radical immanence. In short, the cyborg cannot be saved, and it certainly "does not depend on salvation through heterosexual reproductive coupling orchestrated by an all-knowing Father."[70] By denying a prior state of perfection, there is nothing for the cyborg to be saved from or returned to.

Thweatt-Bates' reading of the cyborg as bearing *imago dei* does not necessarily challenge this critique of soteriology. *Imago dei* is primarily made to be about relationality in cyborgian terms, which for Thweatt-Bates simply means "to have been made a creature who is simultaneously kin and other: to God, to other humans, and to nonhumans." [71] Thweatt-Bates here refers to the tools and materials of anthropogenesis (i.e. the dust of the ground;[72] Adam's rib) in questioning the ordering and naturalness of Edenic creation and existence. This

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[68] Ibid., 172.

[69] Haraway, 'EH', 87.

[70] Schneider, *Donna Haraway*, 63.

[71] Thweatt-Bates, *Cyborg Selves*, p.172.

[72] Cf. Fretheim, *God and World in the Old Testament*, 54.

emphasis on (con)fused parts and borrowings, or (id)entities built of bricolages, indicates a technological creatureliness that can work difference differently via a relational interpretation. Here, as Terence Fretheim notes, "creation is a seamless web" that includes not only creaturely relations, but also those with the Creator, where God is to be distinguished but not separated from the world.[73] There is, it seems, a close intimacy between all beings and actors in the Garden, both creaturely and divine.

What Thweatt-Bates' paralleling of the cyborg with the original humans leaves open to criticism, however, similarly to Hefner's theological position that undergirds it, is that it stops short of a deep interrogation of (human) nature because of how the cyborg is assimilated into pre-existing figures. By this, I refer to the way that the human remains central in Thweatt-Bates' account, even amidst the interconnections between different beings that she identifies. Tellingly, for Thweatt-Bates, "the cyborg pair in the Garden are what they are because of the construction and contestation of these boundaries" between human and divine, human and animal, human and human.[74] The boundaries and the humans pre-exist and determine the cyborg. This is arguably similar to trans/humanist depictions of the cyborg where the specifically human is re-presented, for example, in space (or in cyberspace), by cyborg figurations.[75]

As Thweatt-Bates goes on to say, "the boundaries do not disappear in our acknowledgement of our construction and negotiation of them – they become conditions of relationship, not obstacles preventing it."[76] This passage indicates that we need to take the cyborg deeper than hooking it onto pre-existing figures and identities. For Haraway, "'we' did not originally choose to be cyborgs,"[77] and

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[73] Ibid., 251.

[74] Thweatt-Bates, *Cyborg Selves*, 172.

[75] Cf. Gray, *Cyborg Citizen*, 139; see Chapter 2.2.

[76] Thweatt-Bates, *Cyborg Selves*, 172.

[77] Haraway, 'Manifesto', 176.

so rather than seeing the boundaries associated with the human(ocentric) ordering of the world as coming prior, we need to see the relational and hybrid field of difference as prior, that human(ocentric) boundaries later overlaid. If somehow *this* could be recaptured in our mythological articulation of the Garden, then there would be a possibility of interacting cyborgs with Eden albeit in an ironic, subversive and even blasphemous way.

9.3.2 Serpent as Cyborg?

One way of working around this hurdle of humanocentrism is to suggest that other figures in the Garden parallel with the cyborg figure. This serves as a way of reminding us that it is not just humans that are to be regarded as cyborg, as though being cyborg were an evolutionary lineage kept exclusively for humans (as is suggested by proponents of trans(/)humanism where we also find reference to the cyborg).[78] Cyborgs are (con)fusions of different parts, so to speak of only one figure as cyborg does a disservice to these more deeply hybrid ontologies.

To this end, Arthur Walker-Jones advocates a reading of the serpent in the Garden as cyborg: "In the Eden story, the serpent is [like the cyborg] a boundary constructing and confusing monster."[79] The serpent, for example, is described as 'craftier' than other wild animals made by God, and it speaks directly to humans,[80] thereby challenging the notion that language is exclusively for humans or a marker of human uniqueness.[81] It may seem to reside within our typical classifications and orderings, but it also – craftily – challenges them, not unlike the cyborg itself as Haraway articulates it.

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[78] See Chapter 2.2.
[79] Walker-Jones, 'Eden for Cyborgs', 280.
[80] Genesis 3:1.
[81] Cf. Suddendorf, *The Gap*, 48, 78.

For Walker-Jones, it is significant that the serpent in particular be read as cyborgian because not only does it remind us of creaturely ambiguities and confusions that are associated with the cyborg figure, but additionally it emphasises the moral ambiguities that are central to the Edenic mythology. On this point, "the serpent represents symbolically the potential for both positive and negative, good and bad, blessing and curse."[82] Walker-Jones, like Milton and others, intentionally nuances the reading of the Fall by reminding us of the benefits that came through eating the fruits of the Tree of Knowledge of Good and Evil.[83] In this reading, a technological existence is mandated by the conditions of the Fall, where technologies now mediate between humans and the land in the interests of survival, contrary to the more harmonious existence of humans and others in Eden.

It is, in Walker-Jones' account, not about the Fall as unambiguously caught up in sin and punishment, but about living with the implications – both good and bad – of what the forbidden fruit has given us. This is *not*, as Walker-Jones stresses, "a Star Wars ethics where the forces of good and the forces of evil are easily distinguishable because the good wear white and look like us."[84] Put differently, distinctions between good and bad are by no means as clear-cut as we would like to assume, and for Walker-Jones, in like fashion, this is also the case for our orderings and taxonomies of species in the Garden.

Ultimately, in Walker-Jones' reading, there is a focus on relationality: "The serpent and the trees are actants co-creating humanity."[85] Humans do not exist or function independently of other beings, but are shaped by (as well as shaping of) others. This corresponds to a deep sense of relationality presented by Bruno Latour under the notion of 'actor-network theory'. Latour centralises his account on action, but

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[82] Walker-Jones, 'Eden for Cyborgs', 280.

[83] See Chapter 4.2.

[84] Walker-Jones, 'Eden for Cyborgs', 292.

[85] Ibid., 288-9.

this is emphatically not associated solely with conscious agents (such as humans)[86] and action is instead "a knot, and a conglomerate of many surprising sets of agencies that have to be slowly disentangled."[87] Actions thus forge complex interconnected webs across multiple actors, where "an 'actor' in the hyphenated expression actor-network is not the source of an action but the moving target of a vast array of entities swarming toward it."[88] In other words, in Edenic mythology, the snake, the tree, and the human are all interconnected via actions, such that *action is always interaction*. In theological anthropological terms, a fully decentred functional-relational interpretation seems to be espoused, which is a significant effect of referring to the snake as cyborg.

We see something of this in how the mythological serpent of Eden is held 'disturbingly' close to humans in shaping their identities. To recapitulate a central thesis about cyborgs explored and emphasised throughout this investigation, as Haraway puts it, "far from signalling a walling off of people from other living beings, *cyborgs signal disturbingly and pleasurably tight coupling*."[89] This signifies a critical hybridity where relationality is our only viable ontological position because discrete or stable identities are discredited amidst a world of chaos, flux, and (con)fusions.

This seems to correspond with Walker-Jones' account of the serpent in Eden: "the snake is [the humans'] partner in acquiring the wisdom and discernment they need to fulfil their vocation as humans."[90] What is problematically suggested here, though, is a sense of human nature (or destiny) as discrete, however much it is ascertained via recourse to various 'partners'. These partners remain 'other' to the human, which suggests that, while knots and confusions are discernible in

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[86] Stephenson, 'Nature, Technology and the *Imago Dei*', 11.
[87] Latour, *Reassembling the Social*, 44.
[88] Ibid., 46.
[89] Haraway, 'Manifesto', 152 (my emphasis).
[90] Walker-Jones, 'Eden for Cyborgs', 284.

Walker-Jones' account resembling actor-network theory, the deep *fusions* equally fundamental to cyborg hybridity are downplayed or unrealised. Actor-network theory is *not* "incapable or unwilling to find stable and fully formed humans and nonhumans populating the world,"[91] and there is, ultimately, a discrete sense of human nature to be secured. This suggests a broadly substantive reading of theological anthropology.

Notions of stability as well as completeness (i.e. 'fully formed'), however, run contrary to the guiding principles of the cyborg and of its accompanying critical hybridity. Something more substantive is affirmed, which coincides better with a 'companion species' approach outlined by Haraway in her post-cyborg work.[92] Here, there is a recognition of species cosmopolitanism across boundaries, and there is thus an appeal to discrete species identities. To demonstrate this, consider Pramod Nayar, who uses Octavia E. Butler's text *Fledgling* to articulate and celebrate a companion species ontology, and writes that "new life forms and their 'matter' emerge, *Fledgling* suggests, not *within* a species border but without (I use the term to mean both 'outside' and 'absence') it."[93] Although Nayar seeks to argue that companion species are about inter-species mixings (such as between the serpent and the humans in the Eden myth), his argument and reading of Butler's text depends on differences carried by the 'old' life forms. Nayar's understanding of hybridity necessitates the prior distinction of parts that are then blended. This conveys a different, evolutionary sense of hybridity to the critical form that accompanies the cyborg.[94] Elsewhere, Nayar even notes the "troubling biological essentialism" suggested by Butler's text,[95] which in my view attests to how companion species remain caught up in notions of nature and the ways that we structure and order it taxonomically and often anthropocentrically.

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[91] Stephenson, 'Nature, Technology and the *Imago Dei*', 9.
[92] See Chapter 3.4.
[93] Nayar, *Posthumanism*, 149.
[94] See Chapter 7.
[95] Nayar, *Posthumanism*, 148.

The cyborg places greater emphasis on technologies than this: with the cyborg, "there is no fundamental, ontological separation in our formal knowledge of machine and organism, of technical and organic."[96] The serpent of Eden does nothing to speak of this technological hybridity, and so cannot arguably be regarded as a cyborg. Given the way that Walker-Jones presents the snake as a 'partner' to humans, I would suggest that it serves as a more viable model for companion species.

As Haraway describes this post-cyborg theory of companion species, "we make each other up, in the flesh. Significantly other to each other, in specific difference, we signify in the flesh a nasty developmental infection called love."[97] These fleshly, almost benevolent relations place great emphasis on otherness, and so they are predicated on differences. The cyborg, contrariwise, does difference differently via a principle of critical hybridity that bears and reworks difference across complex relationalities. In the 'Cyborg Manifesto', for example, Haraway discusses how "the boundary between physical and non-physical is very imprecise for us."[98] Cyborgs significantly go beyond solely fleshly relations as technologies take us further into the virtual. These cyborgs are complex and far from benevolent. As Haraway goes on to say, "the ubiquity and invisibility of cyborgs is precisely why these sunshine-belt machines are so deadly. They are as hard to see politically as they are materially."[99] With the spread of cyborgian technologies, an Edenic mythology that neglects interrogations of power or that retreats to notions of naturalness or organic creatureliness can only have limited use.

A cyborgian articulation of Eden, to combat this, needs to be able and willing to scrutinise at a deep and fundamental level the ways that beings interrelate, and to

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[96] Haraway, 'Manifesto', 178.
[97] Haraway, *CSM*, 2-3.
[98] Haraway, 'Manifesto', 153.
[99] Ibid.

allow for technology to be seen as part of such interrelations. It needs to abandon innocent, unified, or holistic starting points, and for this reason it cannot be reconciled with an understanding of the Fall that Walker-Jones' serpentine cyborg inevitably brings our attention to. While Walker-Jones ambitiously attempts to rework taxonomies and categories via the snake, ultimately,

> Cyborg writing must not be about the Fall, the imagination of a once-upon-a-time wholeness before language, before writing, before Man. Cyborg writing is about the power to survive, not on the basis of original innocence, but on the basis of seizing the tools to mark the world that marked them as other.[100]

The 'otherness' of cyborgs here might refer to how they have been typically figured in marginal positions against the central human subject, and how they acquire a subversive power from these liminal dwellings.[101] Interestingly, though, if cyborgs are to seize these 'tools' (i.e. [hi]stories) to guarantee their survival and not salvation, then deriving from this, cyborgs need to re-articulate rather than reject myths of Eden, and dispel of notions of original innocence accordingly.

9.4   Return to Eden?

From this analysis of two readings of cyborgs in Eden, what is clear is that a viable theological appropriation of the cyborg, and the basis of a theological cyborgology, must not regard the human as central, as this implies a substantive core to human (and nonhuman) nature. This substantive core suggests discreteness of identities rather than mixity or hybridity; divides the human from the cyborg; and gives us an imagined state of innocence to which we long to

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[100] Ibid., 175.
[101] Cf. Haraway, 'CaL', 17-8, 23; Latour, *We Have Never Been Modern*, 89; Lawrence, 'Tracing Tricksters', 182.

return. Instead, we are to use the cyborg as a way of renegotiating the human-divine boundary in a way that removes the possibility of purity or innocence from our mythological, theological, or metaphysical sensibilities.[102]

More exploration of transcendence, however, is needed here. For Haraway, it is not possible to escape the sticky networks of the present in which we are fundamentally enmeshed. Transcendence is seen as a form of escapist fantasy that allows us to visualise a way in which we are somehow removed or distant from the immanent.[103] To be fully immersed in the immanent is to be non-innocent and to dwell with others via relationality and (con)fusions. It is in the light of this emphasis on radical immanence that the problematisation of Eden as offering a mythological counterpoint to our non-innocent position can be framed. Ideas of origin link to ideas of transcendence for Haraway, insofar as an "immediate vision of the origin" suggests the hope that "perhaps the future can be fixed. By saving the beginnings, the end can be achieved and the present can be transcended."[104] We cannot be seduced by such notions of fixity, or by a possibility of transcendence because these attitudes offer us hope of salvation from our present situation, whereas no such escapism is possible. As Scott convincingly argues, though, transcendence and immanence need not be a zero/sum game in the way that Haraway presents it.[105] Instead, transcendence itself can be non-innocent insofar as it is refigured among networks thickly knotted with relationalities. The (hi)stories that narrate these knots comprise immanent contexts whilst also partly transcending interactors. This refigures our understandings of both transcendence and immanence in ways that go beyond Haraway's own articulations.

Drawing on this, the cyborg can affirm Eden, but only by regarding it in decisively non-innocent ways. To this end, consider again Thweatt-Bates' work where,

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[102] See Chapter 8.3.1.
[103] Haraway, 'CaL', 14.
[104] Haraway, *HR*, 151-2.
[105] Scott, *Anti-Human Theology*, 132-3.

although humans were made in the Garden, they cannot be said to have enjoyed any kind of originary innocence. Interestingly, Haraway does not seem to discard this position:

> But with the loss of innocence in our origin, there is no expulsion from the Garden either. Our politics lose the indulgence of guilt with the *naivete* of innocence.[106]

In short, by denying a pre- and post-lapsarian nature as the subject of the cyborgian critique of Eden, we cannot discriminate between innocence and guilt. Consequently, we cannot berate ourselves for our allegedly 'fallen' or 'guilty' nature because such a nature does not exist, or at least certainly not in substantive terms. Emphasis must not be given to moral presumptions about (id)entities, but instead to the complexity of hybrid (id)entities and relationalities. This is because there is no innocent nature(s) against which to assess conduct, as hybridity resists such an antithetical standpoint.

If we are to affirm Eden in this framework, then provocatively, *cyborgs must be seen as never having left the Garden*. On the one hand, this may be a striking observation, given that Haraway also declares in the same essay (and elsewhere) that "cyborgs have no natural history, no origin story, no Garden of Eden and thus no hope of, nor interest in, simplistic unity or purity."[107] Yet the point is that if the Eden mythology is refigured so that it avoids notions of 'simplistic unity or purity', then it is no longer to be necessarily regarded as oppositional to the cyborg.

Indeed, as Jennifer González goes on to say, "nevertheless, given their multiple parts, and multiple identities, they [cyborgs] will always be read in relation to a

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[106] Haraway, 'Manifesto', 157.
[107] Gonzalez, 'Envisioning Cyborg Bodies', 272.

specific historical context."[108] The task is not to liberate cyborgs from problematic notions of Eden, as this would make the cyborg into an escapist or transcendentalist fantasy itself. We must instead work *with* these notions and (hi)stories in new and nuanced ways.[109] In this way, we cannot distinguish ourselves from Eden. Admittedly, this may be a difficult point to comprehend given that the cyborg cannot recognise nor return to Eden. According to Haraway:

> In a sense, the cyborg has no origin story in the Western sense – a 'final' irony since the cyborg is also the awful apocalyptic *telos* of the 'West's' escalating dominations of abstract individuation, an ultimate self untied at last from all dependency, a man in space.[110]

Haraway's comments here touch on how the first cyborgs were developed by Manfred Clynes and Nathan Kline as men in space.[111] These cyborgs, though, were about escapism and liberation of the specifically human spirit in a manner redolent of Edenic escapism. Eden suggests origins and space suggests *teloi*, but both parallel one another because, for Haraway, they offer a kind of purist transcendence of the worldly and the immanent. Haraway's cyborg, contrariwise, has no origin story, but it interacts with the notion of the cyborg-in-space via its re-articulations of that figure. Similarly, the cyborg must scrutinise but also appropriate the mythology of Eden, otherwise, against Haraway's efforts, her cyborg reverts to being a free-floating 'man in space'.[112] This engagement with multiple (hi)stories (con)fuses the narratives, meaning that immanence and

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[108] Ibid.

[109] Cf. Schneider, *Donna Haraway*, 20.

[110] Haraway, 'Manifesto', 150-1.

[111] Clynes and Kline, 'Cyborgs and Space', 27.

[112] In making this point, I agree with Casper, who calls for a '(re)situating' of cyborgs "within the conditions of their origin in order to make sense of them analytically *and* politically" ('Fetal Cyborgs and Technomoms', 185 [original emphasis]), and I might add theologically, too.

transcendence are not radically demarcated. Narratives of transcendence impact our figurations of the more immanent in decisively non-innocent ways.

Effectively, with this in mind, *saying that we, as cyborgs, have never left Eden is not wholly different from saying that, as cyborgs, we have never been in Eden*. This is because the Eden that cyborgs cannot recognise or cannot dream of returning to is reconsidered in our own theological and mythological reflections. To be sure, I am not proposing here an assimilation of the cyborg to Eden. Rather, I am holding cyborgs and Eden, as hybrid and co-informative, in a tension that demands ongoing critical work of both. I offer no resolutions unlike Thweatt-Bates' reading of Adam and Eve as cyborgs, or Walker-Jones' reading of the snake as cyborg. To identify the cyborg with any particular person or being is to affirm the substantive discreteness of that figure in a manner perhaps more befitting of companion species. The cyborg is instead about (con)fusions, and as such, I suggest the cyborg (and Eden) as a set of *questions* that demand ongoing investigation.

To briefly summarise my proposals for an ongoing critical dialogue between cyborgs and Eden:

(1) The cyborg questions theology and Eden about its dependence on innocent subject positions in a range of forms. In these Edenic narratives, humans are seen as bearers of prelapsarian innocence in moral terms that impact our assessments of technology. There is also the substantive account most commonly read out of Eden that promotes discreteness of species and (id)entities, and beings are thus seen as innocent in their separateness and non-complicity with others. The cyborgian perspective challenges these attitudes, and instead emphasises our deep-seated interconnectedness and (con)fusions, where nothing can be decontextualized or abstracted from this complex milieu.

(2) Eden must responsively question the cyborg about its emphasis on hybridity and non-innocence: how, in short, can the cyborg articulate a valid sense of hybridity if it also sees fit to discard or discredit certain problematic theological notions such as transcendence or Eden? For a viable sense of hybridity, these must be considered and not cast aside. Failure to do this affirms positions and mythologies of innocence by posing a radical and dualistic 'other' outside of the hybrid system. Eden holds the cyborg to account on the grounds of its emphasis on hybridity and relationality, and can moreover offer insights into how God might closely figure into such a deeply interconnected world.

We can evidently learn from both figurations of the cyborg in the Garden about how to articulate a 'theological cyborgology' that is suitably responsive to the key traits and critiques raised by the cyborg. However, we must ensure that we avoid trying to resolve the cyborg into something problematically 'whole' or 'complete'.

In relational terms, seeing Adam and Eve as cyborg can help us renegotiate the divine-human boundary, while seeing the snake as cyborg can remind us that we need to renegotiate this alongside divine-animal and human-animal boundaries. All of these views triangulate and respond to the deep (con)fusions implied by the critical hybridity of the cyborg. Seeing the snake as cyborg can aid us in combating anthropocentrism, while seeing Adam and Eve as cyborg overcomes our desire to regard (human) nature as dualistic and as ruptured around the key moment of the Fall.

Taking all of these points on board means that cyborgs are not just single figures in the Garden, but they are everywhere: "cyborg figures have a way of transfecting, infecting, everything."[113] Myths of origin, including Eden, cannot be seen as an exception here. All ideas, ideologies, and (id)entities infold; they are

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[113] Haraway, 'F', xix.

relational and hybridised. In this cyborg articulation, Eden is refigured – perhaps dramatically so – but it is by no means excluded.

From Theological Anthropology to Cyborgology?

Cyborg imagery can suggest a way out of the maze of dualisms in which we have explained our bodies and our tools to ourselves.

Donna Haraway, *Simians, Cyborgs and Women*, (1991), 181.

Only when we are ready to confront the muddiness and unclarity of reality can we hope to transform it.

Starhawk, *The Spiral Dance*, (1979), 194.

We have now ascertained that cyborgs, as Haraway articulates them, must be understood in terms of the historical and fictional narratives ('[hi]stories') that shape our interpretations of them, but against this context, cyborgs must be figured as infidels of the long history of humanism and humanocentrism.

A way of reconciling these paradoxical attitudes can be identified by means of a close analysis of critical hybridity, where tensions are purposively held together in a complex and (con)fused network. The cyborg, located in this nexus, can constructively interact with theology, which is also part of the hybrid milieu, together with Eden. Crucially, though, in the light of the radical emphasis on interconnectivity and (con)fusion of parts, we must refigure how we regard Eden, humans, and technology, where all are drawn together via theological anthropology. Through the cyborg critique, we see how this is necessarily expanded to a theological *cyborgology* that does not isolate or centre the human, but is attentive to the complexities and relationality in which cyborgs dwell.

CHAPTER 10

Conclusion

In drawing this investigation to a close, I return to the premise with which I opened it (origins and starting points, it seems, are particularly and ironically pervasive). This is an investigation primarily about the *cyborg*; about the *human*; and about how these ideas interact in theology, particularly in Genesis-framed theological anthropology. The cyborg challenges our notion of Eden, and the way in which that challenge is expressed, as well as its broader implications, has been a focal point of my enquiry.

10.1 Reflections

10.1.1 Cyborgs and Humans

The investigation began with an elaboration of '(hi)stories' as a methodological orientation (Chapter 1). This term significantly expresses how cyborgs and humans cannot be understood as abstracted from the ways that they have been narrated in different contexts, and is central to my methodology and argument. Cyborgs, in their multiple iterations – ranging from astronauts to prosthetically-augmented bodies (Chapter 2) and from SF characters to everyday figures (Chapter 3) – respond to different understandings of the human. These understandings can be traced back to accounts of anthropogeny in Eden, emphasising human nature or the Fall (Chapter 4). Most cyborgs demonstrate traits that I argue are associated with the trans/human, where technologies are layered on top of a foundational human self that remains largely intact despite augmentation. This can be compared to what I have identified as evolutionary posthumanism, where technologies are seen to threaten the human. Cyborgs can be located among these discourses, but they can also be mapped in the broader field of posthumanism, which includes a more critical strand that brings the

human into question. Donna Haraway articulates the cyborg as a figure to scrutinise and deconstruct the human.

Theologically, humans are understood as bearing *imago dei*, the image of God. The cyborg, in its critical figuration, resists accounts that sharply distinguish the human from nonhumans. This may be problematic for certain theological anthropologies that promulgate a vision of the human as not only discrete but also unique in its bearing of God's image. Not all interpretations of *imago dei*, though, see the human in these terms, as my investigation has revealed. There are three models of understanding humans and *imago dei*, and they are substantive, functional, and relational accounts (Chapter 5). The cyborg critiques substantive interpretations that render the human discrete. I have additionally argued that functional interpretations may rest on substantive assumptions about the human as able to enact dominion over animals. These interpretations parallel trends and assumptions about the human that manifest in transhumanism and evolutionary posthumanism (Chapter 6).

Relational interpretations, though, may be able to respond to the challenges laid out by the cyborg and critical post/humanism insofar as they offer a decentralised perspective that is attentive to the dynamic and deep connections between and among beings. Cyborg relationality, I contend, is about (con)fusions across the network, where connections are so prevalent that it is misleading to separate or distinguish different parts, i.e. organic and mechanic components in a cyborgian system. This, I argue, is a form of 'hybridity' that I explored with regards to how it challenges notions of a discrete (human) nature (Chapter 7). What it might mean to be human without appeal to 'human nature' in a substantive way was then relayed back to questions of *imago dei* and creativity (Chapter 8). The challenge, it emerged, is to continue to interrogate our preconceptions and categories so that technologies are not subject to prejudice such as is epitomised in the media-popularised phrase 'playing God'. Here, the assumption is that technologies allow

humans to overreach themselves in overall destructive ways. A cyborgian relationality and hybridity encourages us to challenge these underlying assumptions by shifting our perspective beyond the humanocentric to account for the ways all (id)entities are (con)fused, thereby revealing the arbitrariness of distinctions. 'Playing God' assesses technologies in the interests of maintaining those distinctions, and so it has limited relevance in a hybrid and relational framework where the distinctions are deconstructed.

What this means for Eden and the theological anthropogeny that undergirds much of our substantive assumptions was then explored (Chapter 9) with reference to attempts by Jeanine Thweatt-Bates and Arthur Walker-Jones to reinsert cyborgs into the originary Garden as the first humans or the serpent (respectively). While these attempts usefully demonstrated ways of interacting theology with contemporary culture, I found that they assimilated the cyborg to pre-existent figures rather than taking up the challenge of deeper critical reflection. What I instead propose, rather than assimilating cyborgs to theology or vice versa, is to maintain a critical dialogue between the two that is attentive to the complex interlacing narratives that they share. Cyborgs can be figured in the Garden, but we need to refigure the Garden itself in relational terms, and use this to reflect critically on theological anthropology and the notion of the human. In short, it is impossible to be rid of the (hi)stories that narrate this figure, but it is possible to learn to work with them in (de)constructive ways. The task is to develop an alternative articulation of Eden via the cyborg, rather than to re-present the human.

10.1.2 (Hi)stories and (Id)entities

Overall, throughout the previous chapters, I have advocated a number of points about the cyborg and the human, with specific reference to theological anthropology. These are divided into points about *(id)entities*, i.e. who humans are

ontologically and ethically ([1] and [2] below); and *(hi)stories*, i.e. the ways that those (id)entities are narrated and understood ([3] and [4] below):

(1) We cannot truly separate, or render as discrete any beings or phenomena, including the human (and nonhuman). Certain accounts of humans deriving from theological anthropology, namely substantive ones, have had a tendency to favour understandings of the human as elevated insofar as humans uniquely bear *imago dei*, and so are strongly differentiated from other creatures. These accounts need to be resisted and challenged. They are predicated on practices of exclusion – of animals, as well as non-normative or 'ideal' humans, who have historically been divided on the basis of gender, race, sexuality, or disability, to name but a few examples. At best, to act as though beings or species are discrete is to overlook the ways that all beings interrelate and that all actions have far-reaching consequences; at worst, it is to more deeply obscure interconnections in order to promote self-interests in a way that does harm to 'others' (where such 'others' are malleably defined). Technologies, as various iterations of the cyborg from astronauts to internet users reveal, can be seen as expanding the human and perpetuating the myth of human dominance and discreteness, but they also present an opportunity to interrogate the human by merging us with 'artificial' parts or by fundamentally connecting our actions to the world. This latter trend corresponds to the figurative cyborg articulated by Donna Haraway. It is this notion of the cyborg that I espouse in pursuit of a non-exclusive ethics. The cyborg can guide us to acknowledge how all things are interconnected in inseparable ways, thereby discrediting appeals to a discrete human subject.[1]

(2) We should take the deep connections between ourselves, other species, and the world that are made more manifest through technology as a way of

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[1] Cf. Bruce Mazlish, *The Fourth Discontinuity: The Co-Evolution of Humans and Machines*, (New Haven/London: Yale University Press, 1993); Gilead Amit et al., 'Ten Discoveries that would Transform What it Means to be Human', *New Scientist*, No. 3033 (8/8/15), 28-37.

starting, as point (1) suggests, not with a set of assumptions such as the presupposed uniqueness of the human, but with the complex ways that relationalities comprise us as hybrid beings. This is something that is modelled by the figure of the cyborg, which emphasises fusions to such an extent that different parts are *con*fused and are not only non-discrete, but moreover cannot be categorically distinguished. (Chief among these is a [con]fusion between organic and mechanic parts: with biosynthetic technologies, for example, where does the organic-biological end and the mechanic-technological begin?) The cyborg thereby offers an opportunity to refigure our (id)entities in a way that is inclusive of technologies but also of their ambiguities. In theological anthropological terms, this necessitates an open, dynamic view of humans and other creatures that can respond to ambiguities in a decentralised sense. For this, I propose shifting from a substantive view of *imago dei* to a relational one, where the image of God is not an innate property exclusive to humans but is something dispersed among networks. The perspective moves from focusing on discrete individuals to recognising the interactions and relations that (re)construct *all* actors in ever-shifting ways. *Imago dei* is thus not about remaining *human* (for what this means is malleable and often defined by exclusion, particularly according to substantive accounts), but is about recognising our specific attachments in a creaturely and ethical way common to all actors that is both responsive and responsible. This images not the omnipotence of God, but His compassion for, and entanglement with, creation.

(3) In order to understand or engage with any phenomena or issue, such as the human or the cyborg in relational terms, as point (2) requires, we must seek to more fully engage with the (hi)stories that shape it. These (hi)stories, in accordance with point (1), remind us that nothing is discrete but must be read in multiple intersecting contexts. With the cyborg, for example, we inherit that figure as shaped by narratives associated with militarism, humanism,

androcentrism, superheroes and supervillains, advanced technologies, and theological anthropology. While this list is not exhaustive, of course, it serves to demonstrate the complexity of all (id)entities in terms of the (sometimes conflicting) narratives and contexts that shape them. None of these narratives can be overlooked: we might, for example, inherit the cyborg as oppositional to theology and to Eden more specifically as Haraway advises, but we cannot exclude such frameworks or (hi)stories from our understanding of that figure. Theology remains influential for not only the cyborg but also our broader understandings of it in nuanced and complex ways.

(4) We are not passively shaped by contexts and (hi)stories but, developing point (3), we actively participate in the process of making and shaping narratives by interpreting them, and applying them to new contexts and insights. This is something that both humans and cyborgs can be seen to do, although the cyborg expresses it in non-anthropocentric terms by emphasising how (hi)stories are shaped collaboratively rather than by the human alone. Substantive-based accounts of humans (and certain anthropocentric cyborgs) eschew this collaborative emphasis by focusing more specifically on the role of humans in shaping (hi)stories. To return to points (1) and (2), we necessarily shape narratives in a discursive and interactive way rather than independently. Greater attention to this claim will allow us to reflect more critically on the plural (hi)stories that we are recipients of, including Edenic mythology, and allow us to rework them in constructive and fruitful, if not ultimately risky,[2] ways. Here, we must reconceptualise our notions of Eden in ways that remind us of our connectivity in the world, alongside technologies and other beings. To this end, instead of longing to escape to Eden, by emphasising the ambiguous rather than utopic aspects of that mythology, we can engage in an ongoing critical dialogue that draws on a range of (hi)stories and (id)entities. Such a dialogue, as relational rather than substantive, is open-ended and is

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[2] Haraway, *HR*, 91.

processual rather than prescriptive: it does not start with assumptions of discreteness but instead starts with the (con)fusions between interactants and interacting parts.

10.2   Beyond Theological Anthropology?

For the remainder of this concluding chapter, I restate my final comments and reflections in response to the key terms used in the title and throughout this investigation. I trace the movement from a theological anthropology to a 'theological cyborgology'[3] in terms of *origins*, *creatureliness*, and *hybridity*. Each of these notions, I suggest, broadly corresponds to the threefold model of theological anthropology – substantive, functional, and relational approaches – that I referred to across the thesis. I close by using the evaluation of these models to sketch out proposals for a theological cyborgology.

10.2.1 Origins

Taking Haraway's claim that the cyborg does not recognise the
Garden of Eden, what are the implications of this for an
understanding of (non)human nature rooted in Genesis and Edenic
mythology?

Humans, according to Christian tradition, were created in the Garden of Eden and are described as bearing the image of God, *imago dei*. Precisely what this means has been subject to ongoing theological debate. Much attention has been given to this question because of its significance for how we understand not only the human, but also its place in the world. The fact that humans were created in a certain way prompts us to see certain aspects of humanness as natural, i.e. as *given*, and this underscores how we naturalise our dominant place in the world over other animals. The foundational logic here, I have argued throughout this

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[3] Cf. Brasher, 'Thoughts on the Status of the Cyborg'.

investigation, is a *substantive* approach to theological anthropology, where *imago dei* is understood as a defining mark of that which is uniquely human.[4] I have additionally traced this attitude in functional interpretations of *imago dei*, where, although greater emphasis is given to human action expressed via technologies, tacit substantive assumptions about the human remain operative.

For Donna Haraway, these interpretations of theological anthropology are significant even in our allegedly secular western culture. Throughout her 'Cyborg Manifesto' that seeks to articulate a non-substantive way of figuring ourselves and others, Haraway makes repeated reference to how the cyborg rejects Eden insofar as it was not created there and neither can it even dream of returning. Elaine Graham pithily summarises this position:

> The cyborg has no myth of origins, because it has no parents and, significantly, no divine creator. It is self-creating and self-sustaining, a pastiche of components rather than an organic being with a beginning and an end, thereby released from both nostalgic yearning for lost youth and from teleological justification.[5]

By rejecting Eden, Haraway opposes the cyborg and Eden. Eden presents notions of nature-as-given in a substantive way. The cyborg, however, is self-sustaining and challenges Edenic notions of discrete nature. In other words, nature cannot be considered as 'other' to the human such as when we attempt to technologically alter it, and nor can human nature be isolated from the complex interconnections that comprise and compromise it in dynamic and ongoing ways.

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[4] Celia Deane-Drummond, 'In God's Image and Likeness, *Questioning the Human*, 61.
[5] Graham, 'Cyborgs or Goddesses?', 424.

This point about the discreteness of nature that the cyborg rejects has far-reaching implications that I have explored throughout this thesis. Of particular relevance to a technocultural context, 'nature' in an Edenic sense suggests notions of a "pristine, pure garden of original nature to which we longingly want to return."[6] These notions of discreteness and pristineness influence how we see technologies: where nature is a strongly influential concept, technologies are either seen as natural or as unnatural (i.e. artificial). Relating to this, theological anthropology that is framed by Eden (i.e. 'theological anthropogeny') espouses a discrete sense of human nature as bearing *imago dei* and as thereby demarcated from nonhuman nature that lacks it.

Developing these points, technologies are seen as threatening to change nature-as-given (and as independent),[7] which is something that we should presumably conserve. In this vein, Bill McKibben voices concern about 'the end of nature' insofar as "we live, all of a sudden, in an Astroturf world, and though an Astroturf world may have a God, he can't speak through the grass, or even be silent through it and let us hear."[8] Technologies are seen as alienating us from nature whilst also alienating us from our own human nature. On this point, theologian Brian Brock sees technology as severing our connectedness with others and the world by offering us a 'false promise' of salvation that fuels pride and hubris.[9] Such a broadly technophobic attitude makes assumptions about technology that counter it to the 'natural' order of things, though. Contrariwise, we can learn via the cyborg figure how technologies are not about alienation but alternative fusions that remain embedded in historical practices.[10]

In summary, Eden promulgates a notion of nature-as-given and as pristine in how it is demarcated from the 'cultured' or the 'manmade'. In these binary

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[6] Ann Pederson, 'The Centrality of Incarnation', *Zygon*, Vol. 43, No. 1 (2008), 64.

[7] McKibben, *The End of Nature*, 54.

[8] Ibid., 75.

[9] Brock, *Christian Ethics in a Technological Age*, 231.

[10] Haraway, 'MiW', 210-11.

constructions, technological change is recognised as 'artificial' and is often judged according to such assumptions. The cyborg challenges notions of nature – including substantive notions of 'human nature' as something that was formed in the Garden and made unique insofar as humans bear *imago dei* – by critiquing myths of origin that closely relate to such notions. This links origins and nature to notions of creatureliness, which I turn to next.

10.2.2 Creatureliness

> *Referring also to other creatures, and God, do technological*
> *developments undermine the 'creatureliness' of humans, taking us*
> *further away from Eden? Or, do they enable us to fulfil* imago dei
> *in creative and godly ways?*

For cyborg figures, notions of 'naturalness' and 'unnaturalness' (particularly in terms of 'artifice') are problematised insofar as the distinction between the two is radically challenged. Cyborgs are figures of *xenogenesis*, which means that they have multiple origins. These plural narratives are fused and *con*fused insofar as categorical boundaries, such as between male/female, subject/object, natural/unnatural, are disturbed and deconstructed.[11] Substantive understandings of humans, supported by theological anthropologies that emphasise how humans uniquely bear *imago dei*, make use of categorical distinctions in order to maintain human uniqueness. If cyborgs challenge these notions and their distinctness, though, this will impact how *imago dei* is figured in non-substantive ways.

To elucidate this point, because it is only humans that are presented in Genesis as created according to *imago dei*, the image of God is taken to substantively indicate the traits that discriminate humans from animals (but also robots and machines). Many writers who reflect on human-animal relations cite this interpretation as

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[11] Nayar, *Posthumanism*, 22.

that which underlies our practices towards animals, including most pressingly the meat and dairy industries, where animals are objectified as part of a substantive distinction against human subjects.[12] Melanie Joy, however, regards our attitudes to animals in the food industry as embedded in a logic of 'carnism' that distorts our 'naturally' caring attitudes and replaces them with a dispassionate one entirely focused on consumption.[13] Here, technology is 'othered' against the natural order. Where 'nature' is operative, it seems, responses are inadequately simplified and binarised between 'natural' and 'unnatural', which leads to politically charged contestations.

What is needed is a way to figure humans and technologies differently, rid of substantive assumptions that are characterised by strong appeals to inert and totalised, discrete notions of nature. A useful way to respond to this task and challenge is to develop a relational account of *imago dei* that is inclusive of technology and other forms of life. Such a position, properly conceived, deters us from misleading and dangerous notions of human superiority that do a disservice to the wellbeing of other creatures, and that place us at a difficult and unsettling tension with our technologies. Instead, we are to realise,

> Relationality is not a one-way street from the autonomous
> subject to the world. Indeed, the subject is constituted in part,
> and perhaps even fundamentally, by the world, through
> dependent relationships.[14]

An emphasis on relationality highlights the ways we are constantly formed and reformed by others, rather than being the monadic, discrete and substantive selves

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[12] While there are numerous critics of this treatment of animals (White Jr, 'The Historical Roots of Our Ecological Crisis'; Linzey, *Animal Theology*; cf. Gray, *Straw Dogs*), the fact that such practices persist espouses an overall positive view of these technologies as tied to notions of human uniqueness and dominance.

[13] Joy, *Why We Love Dogs*, 28-35.

[14] Kirchhoffer, 'Turtles All the Way Down?, 188.

(or species) that substantive approaches lead us to believe we are. Understood in this way, relationality coincides well with how "cyborg subjectivities, always in the plural and always in flux, are initially formed in and by the flow of information. Cyborg subjects, therefore, tend to be […] essentially insubstantial."[15] Bluntly stated, the cyborg is inseparable from its connections.

In order to develop an appropriate sense of theological relationality that responds fully to the sense of interconnectivity figured by the cyborg, however, we must resist the desire to abstract ourselves from both creatureliness and technologies, because such abstractions return us to what Haraway regards as 'deadly' notions of discrete, pure, and transcendent (human) nature that the non-innocent position of the cyborg rejects.[16] The human cannot be uniquely differentiated from the rest of creation, I argue, because the grounds for making that claim are undermined, particularly in an advanced technological age that exposes more than ever our relationality with all (id)entities and creatures. Instead, far more convincing in cyborgian terms are theological figurations of *imago dei* that resist deploying it as a comparative notion that seeks to "mark humanity off from its machines, or to separate out a pure humanity from its hybridity."[17] *Imago dei* needs to embrace such notions of hybridity, which means a radical deconstruction and decentring of the human and a focus on relationality.

10.2.3 Hybridity

> *How does the cyborg's refusal of binaries and its emphasis on*
> *liminal, hybrid (id)entities impact upon our understandings of*
> *humans, technology, and the world?*

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[15] Gunkel, 'We Are Borg', 342-3.
[16] Haraway, 'LT', 151.
[17] Scott, *Anti-Human Theology*, 136.

'Hybridity' is a broad term and has been a key part of my analysis of, and proposals for, a theological engagement with the cyborg in relational terms. To recapitulate and summarise, according to Avtar Brah and Annie Coombes, "'hybridity' signals the threat of 'contamination' to those who espouse an essentialist notion of pure and authentic origins."[18] In this brief but pithy description, it is possible to discern the critique that hybridity makes of substantive interpretations, where 'purity' and 'origin' are interlinked by notions of nature, particularly those traceable in the originary Garden myth. The cyborg opposes such notions, and so its rejection of Eden can be read as shorthand for the alternative that it seeks to articulate.

Concomitantly, though, the citation above also suggests how "hybridity itself is an empty gesture"[19] insofar as it does not itself resolve the tensions that I have been exploring throughout this investigation. Namely, how does hybridity interact with notions of purity? If the answer is to place hybridity antithetically to purity, then that means that something is non-hybrid, which in turn limits the argument that, in Haraway's words, "from this field of differences, […] there is no exit."[20] To oppose hybridity to purity is affirm such an exit. This is Haraway's concern with Eden as offering pure or discrete notions, against which the non-discreteness and hybridity of the world is measured. Hybridity, however, cannot make such distinctions, and so it must refigure the differences that it bears. An understanding of critical hybridity is useful here. Critical hybridity aims to speak of how discrete natures are the overlay that is mapped onto the world according to a humanocentric attitude. For critical hybridity, (id)entities are dynamic and relational at every level from the genetic to the social.[21] Only by acknowledging hybridity and relationality can we adequately scrutinise substantive assumptions

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[18] Coombes and Brah, 'Introduction', 1.

[19] Hardt and Negri, cited in Grebowicz, and Merrick, *Beyond the Cyborg*, 79.

[20] Haraway, 'SCW', 230.

[21] Cf. Haraway, *CFF*, xix.

of (human) nature, and develop in their place a more dynamic reading of ourselves, technologies, and all others as caught within a complex network.

On this point, we realise the significance of both creatureliness and origins within the broader critical framework of hybridity. Creatureliness is about "the effort to re-identify the human in and through its networks,"[22] which means rethinking our appeals to human nature as discrete and superior to other animals. To rethink nature, we need to go back to the start implied by its etymology, which involves an exploration of myths of origin, i.e. Eden. In other words, we must re-evaluate how the human is positioned alongside other beings in the world, and how it images God. We must conduct such theological reflections in the light of the fact that the cyborg was not created in a Garden and cannot return to it.[23] Through a careful investigation of hybridity, the implications of this statement in Haraway's 'Cyborg Manifesto' emerge as being that Eden cannot be opposed to, or distinguished from, the world, as otherwise hybridity finds itself with a fallacious counterpoint.

A relational approach that coincides well with a notion of hybridity for its ability to acknowledge (con)fusions between all manner of actors (in the most inclusive sense)[24] seems most useful and viable here. A relational approach can allow us to rethink not only relations among beings in the Garden, but also relations between ourselves and the mythology of Eden. This is where ongoing critical dialogue between theology and the cyborg must continue. Haraway rejects Eden on the basis that it is a radically 'other' place that counters her emphasis on radical immanence. [25] However, as I have argued, hybridity is about rearticulating otherwise incompatible parts such as metaphor and materiality in (con)fusing

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[22] Scott, 'The Postnatural as Anti-Human?', 222.

[23] Haraway, 'Manifesto', 151.

[24] Cf. Latour, *Reassembling the Social*, 71, 72, 217-8.

[25] Haraway, 'CaL', 20; Haraway, *MW@SM*, 36; Haraway, *HR*, 91.

ways.[26] Put differently, we cannot reject Edenic or broader theological (hi)stories because they are part of the rich tapestry of narratives that we draw on in making sense of ourselves and the world, where technologies are a part of both.[27] While the cyborg, as Haraway proclaims, was not made in Eden and nor can it return, we can posit that the Garden that Haraway refers to is interpreted in a certain, namely substantive way, featuring notions of (human) nature and discrete (id)entities. By reflecting on our relationship to that (hi)story, though, we can re-articulate Eden in relational terms via a 'theological cyborgology',[28] from which we can gain further critical insights about what it means to live at the nexus of multiple narratives and tropes, both cyborgian and theological.

10.3   Closing Thoughts: Towards a Theological Cyborgology?

My aim in this investigation has been to offer an analysis and interpretation of relationality and hybridity that can be useful in formulating the questions that we need to ask about humans and the world, as well as the methodologies that we should use to undergird and respond to them. I have demonstrated that theology cannot be excluded from these explorations, but must be considered as a set of (hi)stories among others that are deeply entwined, (con)fused, and influential (even in our apparently secular technoculture, which still clings to religiously guided mythologies and attitudes). Crucially, though, we must develop ways of critically engaging with these (hi)stories in order to respond to the questions and challenges that new technologies bring. The complexity and hybridity of our present situation is arguably more visible than ever,[29] and it is inadequate to cling

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[26] Haraway, *HLaL*, 82-3, 85.

[27] In spite of her rejection of Eden, Haraway recognises the personal influence of religion and theology on her own experience (Haraway, *HLaL*, 86; *HR*, 333, 334), and so it would not be too much of a stretch, I propose, to see this as a more general inheritance, i.e. as one set of (hi)stories among many.

[28] Indeed, this may correspond to Haraway's call for a non-Edenic "different kind of dreamwork" (Haraway, *HR*, 323).

[29] Like Latour (cf. *We Have Never Been Modern*), I would want to argue that our situation has always been complex, and (con)fusions have always been a part of our hybrid and relational existence. This is, in other words, not a predicament exclusively brought about by advanced technologies, but

to substantive notions of the discrete human, or to rely on anthropocentric accounts in assessing our technologies or our surroundings.

The (hi)stories that narrate these attitudes must be returned to and critically reflected upon, and that has been my endeavour here. I have explored alternative articulations, figurations, and fabulations of Eden and theological anthropology that Haraway overlooked in her cyborgian rejection of Edenic mythology. I have used the cyborg as a lens through which to critically consider interpretations of *imago dei*, and I have additionally used certain accounts of *imago dei* and Eden as a lens to critically consider the cyborg. These are relational approaches that recognise the (con)fusions of all (hi)stories, and they use this as a basis for exploring equally (con)fused (id)entities. The result of my analyses has been the suggestion of a *theological cyborgology* that circumvents substantive notions of discrete (human) nature and anthropocentrism by taking relationality and hybridity as a decentred starting point.

To close, I summarise the proposals for such a theological cyborgology that I hope will be able to inform further work in this field. To be sure, these proposals are intended to be suggestive rather than prescriptive, and they outline a methodology for engaging complex and intricate figures, (id)entities, and (hi)stories rather than attempting to fully resolve them. In short, a theological cyborgology should:

(1) Take account of contexts, which involves an awareness of multiple actors that interconnect in (con)fusing ways;

(2) Be attentive to the narratives and (hi)stories that shape our understandings, as well as to the ways that we continue to shape them;

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they do certainly highlight the (con)fusions and the need to decentre the human in ways that are more difficult to overlook.

(3) Advocate a decentred approach to the field(s) in question that does not prioritise any particular group but strives to recognise the ways that multiple actors have equal importance and influence;

(4) Ensure that it does not rely on substantive assumptions by placing emphasis on interactions as they dynamically unfold, and using these to challenge prior notions of discreteness and taxonomy;

(5) Recognise that its work is never resolved or complete for that would suggest lapsing into a substantive approach that concretises different (id)entities. Such work is instead always ongoing;

(6) Maintain its critical and reflective enterprise to always challenge assumptions and interrogate the relationalities between different (id)entities and (hi)stories;

(7) Avoid excluding groups or notions such as technology (as we saw with substantive anthropologies influenced by Eden mythologies) or Eden itself (as Haraway misleadingly attempted with the cyborg). It should instead engage with these ideas in a relational way where we realise how they are instructive (hi)stories for us, but with which we can maintain a critical relationship;

(8) Emphasise that our relationality with all (id)entities and (hi)stories is necessarily immersive, interactive, and participatory. Tropes and fabulation are useful ways to articulate relationality, but we must recognise that we cannot totally transcend the connections that dynamically constitute us and others. Instead, we must tether practices of fabulation to the world in order to refigure transcendence and immanence in non-innocent, hybrid ways.

By working with these suggestions that draw on insights appropriated from a critical reading of cyborgs, I propose that we can figure ourselves as cyborgs, but this does not mean that we are beyond the influence of Eden. We are fully relational beings, and we continue to relate to (id)entites in (con)fusing ways. Haraway herself, in spite of declaring an antithetical positioning of the cyborg to

Eden, realises this: "good stories reach into rich pasts to sustain thick presents to keep the story going for those who come after."[30] This marks the crux of the critical and relational challenge I have outlined in this investigation.

As relational theologian Carter Heyward writes, "it is much easier to be established in the garden we have learned to call Paradise than to pick up our beds and walk into the world. But walk | yes, run | into the world | seek humanity | find God."[31] With the cyborg, we find ourselves in the world, as Heyward suggests. However, we unlearn Paradise by deconstructing its narratives. We also interrogate and challenge rather than 'seek' humanity. By making these amendments to Heyward's comments, though, we do not necessarily hinder our ability to 'find God'. While this point remains open, theological cyborgology, as a critical, reflexive, and ongoing enterprise, can help us to find a richer and hybrid sense of relationality that bears and refigures (hi)stories and (id)entities – including the 'human' and technology, among others – in bold but bountiful ways.

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[30] Haraway, 'SW', 145.

[31] Heyward, *The Redemption of God*, 151.

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N.B. Sources in the bibliography are split into three sections solely for ease of reference. This is not intended to make an analytical statement about the distinction between fiction and non-fiction that would undermine one of my central arguments about SF and the hybridity of different narratives (see Chapters 1.2; 2.4; 6.2.2; 10.1).

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