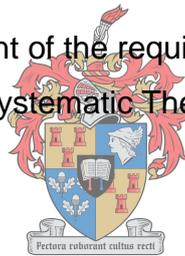


Planetary Health in the Anthropocene: Sharing Agency in the Body of God

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Declaration

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Abstract

The earth, more-than-human communities, and many marginalised human communities are currently suffering because of the immense strain industrialised societies place on the earth's life-support systems. Climate change is but one of the symptoms of a planet in peril. A number of earth-system processes are functioning in high risk zones and being fundamentally altered by the impact of society. To signal the changes observed by many scientists in the functioning of the earth, this epoch has been named the Anthropocene. This term is however more than a scientific designation, it disrupts our understanding of the presuppositions on which we have built both environmental and humanistic sciences and it specifically challenges their absolute separation. The Anthropocene as term itself is, however, controversial because it is not without cultural and gender bias.

For theology to take up its public and prophetic role, it is necessary to engage with the wide range of disciplines that are defining, characterising and critiquing the Anthropocene. This study engages these disciplines through a specific methodology – through an eco-feminist critique. It shows how an androcentric bias has informed both scientific and religious understandings of the world – leading to a perception of the more-than-human world as inert, mechanic, fully knowable and primarily a human resource.

This study suggests that an organic and agentic cosmology – as e.g. defined by Sally McFague in her model of the universe as the body of God, provides a more appropriate religious cosmology that takes the natural sciences and specifically an evolutionary cosmology seriously. I argue that this religious cosmology may offer a framework for ethical reorientation in the time of the Anthropocene.

McFague's theology gives fundamental value to embodied existence. It is through the matter of our bodies that we experience life and do theology. In this perspective it is also through our bodies that we share in the body of God, who is "transcendently immanent" through the physical processes of the universe. The doctrine of incarnation is both complexified and radicalised to apply to all fleshly bodies.

To further understand how entities relate to one another in McFague's model of the universe as the body of God, her conceptualisation of agency is explored. Masculinist

formulations of agency as autonomous efficacy are shown to have cost the bodies of women and the earth dearly. To think more democratically and organically about being agentic beings, Bruno Latour's argument of "sharing agency" is explored. When we realign human history with the common creation story we begin to see that humans are not the only actors in this world. An agential view of all matter allows us to articulate new orientations between the call for humans to be heroic earth stewards and the call to return to "wild untouched nature." Sharing agency brings us to the humble acknowledgement that we are not the sole authors of bodily life but that our bodies are intertwined and implicated by the lives of other more-than-human bodies and the body of God.

Opsomming

Die aarde, meer-as menslike gemeenskappe, asook talle menslike gemeenskappe ly vandag as gevolg van die geweldige impak van geïndustrialiseerde samelewings op ons aarde se lewensonderhoudende sisteme. Klimaatsverandering is maar een van die simptome van 'n siek planeet. 'n Aantal aard-sisteem prosesse is reeds fundamenteel in hulle funksionering ontstig en verander deur die impak van die Westerse samelewing. Wetenskaplikes het besluit om die waarneming van talle groot veranderinge in ons aard-sisteem aan te dui deur die herbenoeming van ons epog – die Anthropocene. Hierdie term is egter meer as bloot 'n wetenskaplike klassifikasie. Die Anthropocene narratief ontstig die voorveronderstellings waarop ons beide die moderne natuur- en menswetenskappe gebou het, en dit daag veral die absolute skeiding van hierdie velde uit. Hierdie term self is egter ook kontroversieel omdat dit nie sonder kulturele en gender vooroordele daargestel is nie.

Indien die teologie haar publieke en profetiese rol vandag wil opneem, is dit noodsaaklik dat sy al die dissiplines wat betrokke is by die definiëring, karakterisering en beoordeling van die Anthropocene in haar nadenke sal betrek. Hierdie studie betrek hierdie dissiplines deur 'n spesifieke metodologie – deur 'n eko-feministiese kritiek. Die studie toon aan hoe androsentriese vooroordele beide wetenskaplike en godsdienstige kosmologieë beïnvloed het, en bygedra het tot 'n persepsie van die natuur as 'n nie-lewende, meganiese en ten volle kenbare en manipuleerbare terrein.

Hierdie studie argumenteer dat 'n organiese en agentiese kosmologie - soos bv. gedefinieer in Sally McFague se model van die heelal as die liggaam van God - 'n meer geskikte godsdienstige kosmologie voorstel. Hierdie model maak erns met die natuurwetenskappe en met name 'n evolusionêre kosmologie. Ek argumenteer dat hierdie kosmologie 'n toepaslike raamwerk vir etiese heroriëntasie in die Anthropocene lewer.

McFague se teologie skryf fundamentele waarde aan beliggaamde ervaring toe. Dit is deur die materie van ons liggame wat ons die lewe ervaar en teologie doen. Binne hierdie perspektief, deel ons ook deur 'n materiële bestaan in die liggaam van God, wat “transendent immanent” in die fisiese prosesse van die heelal teenwoordig is. Die

lering van die inkarnasie word hier gekompliseer en geradikaliseer om op alle vleeslike liggame van toepassing te wees.

Om vervolgens die verhouding tussen verskillende entiteite binne die model van die heelal as die liggaam van God verder te verken, word McFague se verstaan van agentskap geanaliseer. Daar word geargumenteer dat 'n maskulinistiese verstaan van agentskap as outonome effektiwiteit 'n betreurenswaardige invloed op die liggame van vroue en die aarde gehad het. Om meer demokraties en organies oor agentskap te reflekteer word Bruno Latour se voorstel aangaande die "deel van agentskap" verken. Wanneer ons die menslike geskiedenis in lyn bring met ons gemeenskaplike skeppingsverhaal, besef ons gou dat die mens nie die enigste akteur in die geskiedenis is nie. Deur materiële agentskap te erken, kan ons nuwe oriëntasies tussen die mensdom en die meer-as-menslike wêreld artikuleer. Spesifiek mag dit ons help om die spanning tussen oproepe tot heroïese rentmeesterskap en 'n terugkeer na 'n wilde, ongeskonde natuur te oorbrug. Om agentskap te deel bring ons by die nederige erkenning dat die mens nie die enigste outeur van liggaamlike lewe is nie, maar dat ons liggame onherroeplik vervleg is met die liggame van die meer-as-menslike wêreld en saam deel vorm van die liggaam van God.

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List of Abbreviations

AAEC	Association of African Earthkeeping Churches
AIDS	Acquired Immunodeficiency Syndrome
ANT	Actor-network Theory
BRICS	Brazil, Russia, India, China and South Africa
GDP	Gross Domestic Product
HIV	Human Immunodeficiency Virus
MEA	Millennium Ecosystem Assessment
OECD	Organisation for Economic Co-operation and Development
RFLC	Rockefeller Foundation–Lancet Commission
WHO	World Health Organisation

Chapter 1: Introduction to the study

1.1 Background

To begin to reflect on human flourishing in our time is impossible without considering the state of our life-support system - the well-being of the planet. There can indeed be no sustained human flourishing without a healthy earth that supports and enables that flourishing. Whitmee et al. (2015:1973) shows how modern (Western) civilisation has been “mortgaging the health of future generations to realise development gains in the present.”

The enormous influence humankind is having on the environment, through a modern high-consumptive lifestyle is radically changing the functioning of the earth-system¹. Nature, as we have come to know it in modern times, is no longer the predictable system that we thought it was. This profoundly effects how we as humans understand our place in the universe. In secular philosophy, this change in cosmology is foreshadowed in the terminology of the “Anthropocene” (Wapner, 2014:37).

As believers in the Judeo-Christian tradition, our understanding of the natural world and our place in it is fundamentally influenced by our understanding of the Divine and the relation of the Divine to the material world. The paradigmatic changes instigated by environmental challenges and the Anthropocene challenges our deepest convictions and symbols in the Christian tradition (Conradie, 2015:6). Eco-feminist theologians emphasise the need, in various degrees, to deconstruct existing patterns of thinking in order to re-establish an adequate relationship with the natural world.

Feminist theologian Janet Martin Soskice reminds us that religious language and the symbolic system of Christianity is entrenched in male-biased language (Anderson, 2004:47). Pamela Sue Anderson (2004:42) shows how philosophy of religion “formed

¹ The popular face of this change is global climate change, but there are a number of other ways that humanity is changing the face of the world: “(i) significantly altering several other biogeochemical, or element cycles, such as nitrogen, phosphorus and sulphur, that are fundamental to life on the Earth; (ii) strongly modifying the terrestrial water cycle by intercepting river flow from uplands to the sea and, through land-cover change, altering the water vapour flow from the land to the atmosphere; and (iii) likely driving the sixth major extinction event in earth history” (Steffen et al., 2011:843).

rational conceptions and beliefs by opposing masculine to feminine qualities”. The latter always constituting the lesser in a hierarchy of reliable logic and symbolism. She (2004:42) cautions our uncritical acceptance of a theistic frame of reference, wherein God is understood as a “a personal being, without a body, who is the omnipotent, omniscient, omni-benevolent, eternal Creator and Sustainer of all creation”.

Eco-feminism theorises a connection between androcentrism and the destruction of nature (Howell, 1997:232) In modernist dualistic conceptions of reality, there is a definite conceptual link between the feminine and nature. The feminine being the opposite of the masculine ideal, while nature is conceptualised as the counterpoint of the cultural ideal – and in line with the hierarchy of the former, also the subordinated. Male domination of women and domination of nature are thus interconnected both in cultural ideology and social structures (Howell, 1997:232).

To adequately relate to a fragile and rapidly changing earth, we need models of God to understand our relatedness and responsibility to the rest of Creation.

1.2 Problem statement and rationale

The concept of the Anthropocene was put forward by Paul Crutzen (2011:843) to try and capture the “quantitative shift in the relationship between humans and the global environment.” The term Anthropocene suggests, “(i) that the Earth is now moving out of its current geological epoch, called the Holocene and (ii) that human activity is largely responsible for this exit from the Holocene, that is, that humankind has become a global geological force in its own right” (Crutzen et al., 2011:843).

There is no longer any sphere that is devoid of human influence. Environmental activist Bill McKibben gives expression to this concept of a fundamentally changed planet by changing its name to Eearth (McKibben, 2011). In this time, it is becoming clearer than ever, that our understanding of nature is also culturally constructed. Or as Meyland (2015:2) formulates: “Culture is no longer that which is constructed on the basis of nature, as an interpretation or understanding or discovery of the real, but it has become the real.”

To ensure continued life on Earth, humanity has been thrust into the role of planetary managers. This discourse is evident in the work done by world scientists in the Planetary Boundaries approach² (Steffen et al., 2011b). This approach is however decidedly influenced by androcentric epistemologies and runs the risk of totally absolving that which is other than human in a specific culturally defined anthropocentric agenda. Hettinger (2014:4) shows that the fact that humanity has been implicated in many natural forces does not mean that all geophysical forces can be defined as human forces.

In re-evaluating our place on this planet, it is necessary to critically engage the construction of modern science and its knowledge claims. Carolyn Merchant, in her monograph *The Death of Nature*, specifically shows how the rise of modern experimental science gave rise to a conceptualisation of nature that was considered inert – which was not the case in previous centuries and in many non-Western cultures (Celia Deane-Drummond, 2004: 95). The fragmentation of creation into dualistic realms (be it nature/culture, masculine/feminine, object/subject) has indeed not been an ideologically objective or neutral enterprise.

The notion of objectivity – which is central to modern experimental science – has been subverted in the Anthropocene by the very fact that humans are present in the phenomena to be described (Latour, 2014: 2). To overcome this conflation environmentalists and scientists have either resorted to expanding the political sphere to nature (as in the approaches of “mastery over nature” mentioned above) or by fully “naturalising” the cultural (as in approaches to deep ecology).

To overcome this impasse, some theorists suggest looking at human/nature hybridity (Wapner, 2014:3). While others maintain the importance of the valuation of non-human forces in their own right and warn against the human hubris in ideals of human mastery/stewardship.

Social theorist Bruno Latour offers an alternative solution to dialectical efforts to reconcile culture and nature by deconstructing the stunted and hierarchical language of the modern Western scientific worldview. By using material semiotics³ Latour

² Steffen et al. (2011b) frame their research as an “attempt(s) to define a safe operating space for humanity.”

³ Material semiotics can be defined as follows: “[Material semiotics]... treat everything in the social and natural worlds as a continuously generated effect of the webs of relations within which they are

analyses scientific language to show how animation is implicated by sciences to inanimate objects, e.g. rivers, catchment areas and life proteins and hormones.⁴ Instead of always being aware of “anthropomorphizing” natural entities (the “danger” of naturalising discourses), it is just as important to be wary of avoiding “phusimorphising” them (the danger in approaches of Mastery). The latter would be to give natural entities the shape of objects, defined only by their causal antecedents (2014:10). Latour (2014:13) argues that the “scientific worldview” implies a material world without any agency. Causation is put in the antecedent – often seen in a linear relationship. This means that the inner narrativity of the world, its eventfulness and with it its subjectivity has disappeared.

Catholic priest and cultural historian Thomas Berry indeed insists in his work on animals in world religions, that “the world is a communion of subjects and not a collection of objects” (Waldau and Patton, 2009).

Latour (2014:5) further theorises that “to be a subject is not to act autonomously in front of an objective background, but *to share agency with other subjects that have also lost their autonomy...* we have to shift away from dreams of mastery as well as from the threat of being fully naturalized” (emphasis Latour’s). His solution to the impasse of the Anthropocene is “to distribute agency as far and as differentiated a way as possible” (Latour, 2014:15).

For this cosmology, an organistic worldview is far more appropriate than a mechanistic one. Sally McFague (1993: 135) discusses five major Christian models for analysing the relationship between God and the world, i.e. the deistic, dialogic, monarchical, agential and organic. She opts for a combination of the organic with the agential in the formulation of the universe as the body of God. Latour (2014:13) himself refers to Gaia as “embodiment” of a subjective world. In eco-feminist discourse, a number of cosmologies and images of God have been suggested that have relationality and partnership at their core. Sally McFague’s model of the “Universe as the Body of God”

located. It assumes that nothing has reality or form outside the enactment of those relations (Law, 2009:141).

⁴ He shows how a report on a CRF-receptor - an inanimate object, is “implicated” in “appetite, addiction, hearing, and neurogenesis” and is described to “act peripherally” within “the endocrine, cardiovascular, reproductive, gastrointestinal, and immune systems” (Latour, 2014:11).

is an apt metaphor for exploring the way that living beings share agency, with each other and God.⁵

1.3 Main research question

How do human and non-human entities share agency in a cosmological model of the world as the body of God?

- How do human and planetary health relate in the Anthropocene?
- How is human (and non-human) agency construed in the discourse of Planetary Boundaries in the Anthropocene? (Through the lens of an eco-feminist hermeneutic)
- How do entities relate within a cosmological model of the universe as the body of God? (within the framework of an eco-feminist theology)
- What are the implications of “distributing agency as far and wide as possible” for relations within the body of God?
- What is the scope and limitations of the body of God model in explicating relationships of agency in the Anthropocene?

1.4 Theoretical framework, research design and methodology

David Ford (2005:2) in his *Introduction to Modern Theologians* typifies the variety of modern theologies by discerning the main strategy these theologies use to relate modernity to Christianity. According to the priority given to either the modern context or continuity with the Christian tradition, Ford classifies modern theologies according to their hermeneutical methodology. He distinguishes between five distinct types of theologies on a continuum. At the first position are attempts to repeat a traditional theology and see all reality in its own terms. At the other end – the fifth position – priority will be given to a specific modern philosophy, and Christian theology would

⁵ The researcher acknowledges the limitations of focusing on a Western academic cosmology. A dialogue with indigenous African religious cosmologies and an analysis of the relationships of agency within these would be a necessary and fruitful endeavour. A constructive engagement with the implications of an African religious cosmology for the sharing of agency in the Anthropocene is unfortunately beyond the scope of this study.

only be valid insofar as it fits in with that worldview. In the middle Ford situates theologies of correlation – referring specifically to the project of Paul Tillich. Theologies in this position bring traditional Christian faith into dialogue with modernity (Ford, 2005:3).

This study would best situate itself between the third and the fourth positions in this typology. Theologies in the fourth position use modern philosophy or a specific problem as a way of integrating Christianity with an understanding of modernity (Ford, 2005:3). Being an eco-feminist study focussing specifically on interpreting the Christian tradition and the modern worldview in terms of earth-centred concerns, makes this study a type of “particularising” theology – like liberation theology, queer theology etc. This study will appropriate itself to modern philosophy of science by making use of the theoretical framework and epistemology of critical realism.

Gary Comstock (1987:688), defines two distinct theological schools, which also helps to situate the mode of McFague’s theology, as a primary conversation partner. The first group, loosely identified with Yale, which he qualifies as “the antifoundational, culturallinguistic, Wittgensteinian-inspired descriptivists. Frei, Lindbeck, Hauerwas and David Kelsey [who] believe narrative is an autonomous literary form particularly suited to the work of theology.” This group would resist abstract reasoning and focus on understanding and qualifying the “grammatical rules and practices” of theological narratives. Comstock (1987:688), describes the second group as “impure narrative theologians”, which are loosely identified with Chicago, as follows: “those with loyalties to, or sympathies with, what has gone on in the Second City: the revisionist, hermeneutical, Gadamerian-inspired correlationists. Ricoeur, Tracy, Hartt, and McFague agree with their purist cousins that stories are a critical and neglected genre in which important religious truths and practices are communicated. But they deny narrative unique theological status.”

Furthermore, this study will be placed under the rubric of systematic theology. As an intersectional study, it will share broad fundamentals with other sciences, which need to be conceptually clarified. This modus of theology cannot function from within a purely axiomatic theology, which in many cases are based on preconceived certainties of positivism but should be justified in the wider contemporary context of philosophy

of science (Van Huyssteen, 1989:76). As a systematic theological study, it must account critically for its own credibility as a valid scientific epistemology.

Wentzel van Huyssteen's articulation of a critical realist epistemology is seen as a valid and appropriate philosophy of science within which this study can be explicated. The criteria of this philosophy of science would not be verification, as in a positivist model, or falsification, but rather in the internal coherence of the theory itself. As Van Huyssteen (1989:150) states: "In a critical realist philosophy of science a good theory will not be considered true, but rather will give insight into the reality it is studying through the inner logic of the realist argument itself."

The type of analysis in any theological reflection pertaining to meta-questions would firstly be a linguistic form of analysis (Van Huyssteen, 1989:127). Religious experience as articulated, and indeed formed, by religious language is the referential point of analyses in a critical realist study. Van Huyssteen (1989:133-135) shows the metaphoric nature of all religious language. The "it is" and "is not" quality of metaphor both expresses and communicates reality, but obscures the totality thereof. In ordinary as well as religious language, metaphor functions as a filter used as an organising principle to focus and also widen one's vision.

Metaphoric speech gives rise to models which enable us to formulate certain theories. These models - as conceptual frameworks - provide a systematic network for explication (Van Huyssteen, 1989:138). In this study, the root metaphor of the body of God will be used as a model to explicate possible theories for the relation of human and non-human entities in the Anthropocene.

Theological statements in the critical realist philosophy are measured by whether they offer a truly meaningful integration of reality as experienced by believers (Van Huyssteen, 1989:94). The credibility and validity of the body of God model for offering a meaningful explication and integration of relationships in the era of the Anthropocene will be measured in the same vein. In this criterion it is, however, important to interpret individual religious experiences (linguistic expressions thereof) in their relation to the Biblical Scripture and Christian tradition – which form the context from which theological statements are constructed – they can only be valid in this intersubjective relationship (Van Huyssteen 1989:89).

The researcher finds an eco-feministic hermeneutic as an appropriate lens to engage with the Christian tradition and the claims of the modern scientific worldview. Ecofeminism can be seen as a social movement, a value system and a political analysis. Eco-feministic theology is especially interested in the integration of science and religion (Howell, 1997:1). In such a way this hermeneutic offers a tool to both analyse the androcentrism inherent in scientific claims around the position of humanity in the Anthropocene as well as offering models of how the relationship between God and creation can be construed.

Eco-feminism not only gives analytical tools to deconstruct the sociological and cultural hegemony inherent in both science and theology but also implies intellectual transformation. Eco-feminism specifically engages the hegemony of formulaic dualism and hierarchy (Howell, 1997:232) and suggests alternative value-laden criteria (e.g. relationality, difference, interconnection) for its political, social and theological purposes.

In this specific study, eco-feminism will be used to engage with the scientific foreshadowing of relationships and agency inherent in terminology relating to the Anthropocene. This will bring into conversation Sally McFague's agentic and organic model of God's relation to the Universe to shed light on the complex relation of humans and non-humans in the body of God.

Methodologically, a literature study of current understandings of the relation between planetary and human health will be done to gain an insight into the complexity of these relations.

The current philosophical impasse – concerning humanity's agency in nature – will be sketched with the help of Bruno Latour's social-literary analysis. This will be supplemented by an eco-feminist, hermeneutic analyses of the current understanding of human agency in the Anthropocene. An overview of how this philosophical tension figures in recent eco-feministic theologies will be given. The constellation of human and non-human relations in the cosmological model of the body of God will be drawn out. Lastly, the implications of this model for the sharing of agency in the Anthropocene will be explicated and the scope and limitations of the model assessed.

1.5 Structure of the thesis

The thesis is divided into the following chapters:

- Chapter 1 will introduce the background to the study, the problem statement, chosen methodology, and provide an overview of the chapters.
- Chapter 2 will sketch the problem of relating human and planetary health in the Anthropocene. This will illuminate the context and lived human experience which poses a challenge to modern eco-theologies.
- Chapter 3 will sketch the philosophical impasse with regards to our understanding of the position of humanity in “nature” in the Anthropocene. The scientific framework (also underlying our theologies) which shapes our relation with non-human nature will be scrutinised through an eco-feminist hermeneutic.
- Chapter 4 will look at the engagement of eco-theology with the Anthropocene and analyse the constellation of human and non-human relations in eco-theological cosmologies. This will situate McFague’s model of the universe as the body of God within a number of modern eco-feminist cosmologies.
- Chapter 5 will look at Bruno Latour’s suggestion of the sharing and distribution of agency within the modern period as a model for overcoming this impasse and the appropriateness of this suggestion within eco-feminist theology. Sally McFague’s model of the body of God as possible theological cosmology for sharing and distributing agency will be evaluated.
- Chapter 6 will form the conclusion of the study. The research questions will be revisited, and the scope and limitations of this study will be explored. The limitations of McFague’s model of the universe as God’s body will be clarified, and possibilities for a Christian eco-feminist understanding of the sharing of agency will be explored.

1.6 Conclusion

This study aims to engage theologically with human and planetary health, specifically in the geological epoch of the Anthropocene. It will specifically address the positioning of humanity within the current environmental crisis by investigating the relation between human and non-human entities in both popular scientific discourse (Planetary Boundaries) and eco-feminist cosmologies. It will use eco-feminism as a methodology to critique the hegemony of formulaic dualism and hierarchy prevalent in scientific cosmological narratives, as well as religious cosmologies (Howell, 1997:232).

This study will furthermore look at the appropriateness of Sally McFague's model of the universe as the body of God for addressing planetary health, and specifically as a platform to rethink human responsibility and shared agency in the Anthropocene.

The modus of theological enquiry will situate itself between the third and fourth positions in David Ford's classification. The primary motivation behind Sally McFague's theology is to offer a meaningful integration of reality, that speaks to the experience of all – especially the marginalised, and is a source of motivation to address environmental injustices (1993:137). These will form the primary criteria in evaluating the appropriateness of a religious cosmology, such as the universe as the body of God.

Chapter 2 Human and Planetary Health within Planetary Boundaries

2.1 Introduction

This chapter will introduce the basic scientific terminology used and reviewed in this study, namely: The Anthropocene, Planetary Boundaries, Biodiversity and Planetary and Human Health. A number of Earth-system studies provide the context from which the complex interrelation between human and planetary health can be traced and analysed. The research behind the Planetary Boundaries theory is highly complex and represents a synthesis of numerous natural scientists' research. Although scientific research is mostly seen as objective, it does not escape ideological formation. Especially when scientific theories venture into the ethical space of humanities, arguing what should be normative or not for human beings and prescribing responsibility, it is essential to evaluate critically the ideological context in which it is formulated. This chapter will illustrate how the Anthropocene constructs a meta-narrative through a specific interpretation of scientific discourse.

A further problem with global, universalising research, is that it does not address the specific injustices and power-imbalances that local communities face. Since the authors of the Planetary Boundaries research make a definitive call for humans to take up their role as planetary stewards, the context and implications of this call should be scrutinised.

2.2 Global Change and the Anthropocene

For decades, humans (primarily those in the Western world) have been aware of the impact of modern industry – predominantly in the form of the release of greenhouse gasses – on the functioning of the earth system⁶. Climate change has become the

⁶ “Following the discovery of the ozone hole (in 1984) over Antarctica, with its undeniably anthropogenic cause, the realization that the emission of large quantities of a colourless, odourless gas such as carbon dioxide (CO₂) can affect the energy balance at the Earth's surface has reinforced the concern that human activity can adversely affect the broad range of ecosystem services that support human (and other) life.” (Steffen et al., 2011: 842)

conceptual distillation of the impact of humans on the environment. In the last couple of years, this term has however been heavily politicised, debated and even commercialised by competing industries. One could argue that the politicisation and contested nature of this complex phenomenon have left many people confused, disheartened and despondent.

With the increase in accuracy of scientific experiments, climatic modelling and interdisciplinary deliberations, concern over “the earth’s ability to provide the services required to maintain viable human civilisations” has deepened (Crutzen, 2007:614). Paul Crutzen⁷ has introduced the concept of the Anthropocene (around 2002) for the current geological epoch (an interval of time defined by planetary geological conditions) to emphasise the quantitative shift in the relationship between human beings and the environment.

The concept of the Anthropocene suggests firstly that the earth is moving out of the current geological epoch, called the Holocene and secondly, that human activity is largely responsible for this geological shift (Crutzen, 2007:843). The Holocene (“Recent Whole”) is the designation of the postglacial geological epoch of the past ten to twelve thousand years (Steffen, 2007: 615), which has allowed agriculture, villages and complex human civilisations to develop (Steffen et al., 2011b:747). This geological

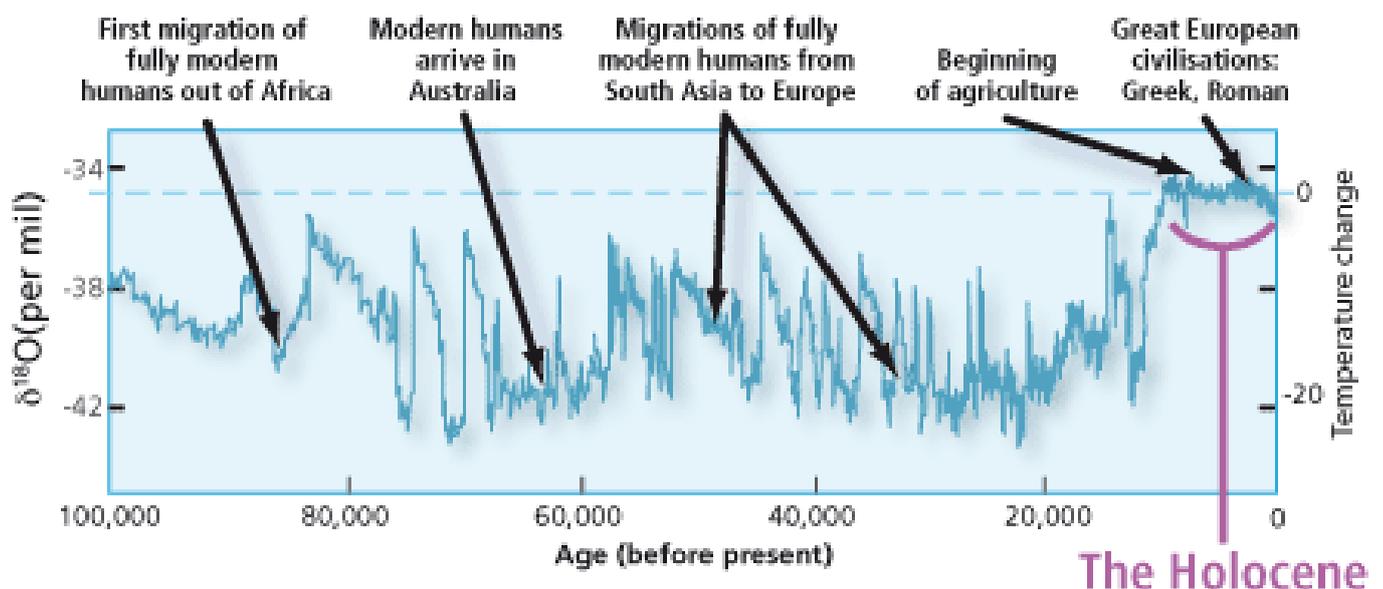


Figure 1: Temperature change and atmospheric O₂ over time.

Source: <http://www.igbp.net/globalchange/anthropocene.4.1b8ae20512db692f2a680009238.html>

⁷ Paul Crutzen is the former Director of the Atmospheric Chemistry Division of the Max Planck Institute for Chemistry in Mainz, Germany and current Professor at the Scripps Institute of Oceanography, University of California, US.

epoch has been very accommodating and provides an “envelope of natural variability”, which Steffen et al. (2011b:747) argues is the only environmental state that we are sure is a long-term “safe operating space” for humanity.

Geological epochs occur over long time-scales, therefore suggesting that we are entering a new epoch is a loaded statement. It does not only refer to the state of the earth for the next couple of centuries, but for several millennia. Significant changes in polar ice-sheets can be associated with millennial timescales. Even longer timescales are associated with the recovery from mass extinction of biological species. These recently observed changes in the earth-system raise the possibility that the Anthropocene could become an alternative, “stable” state (Steffen et al., 2011b:755).

Proponents of the Anthropocene argue that the event that “set the species on a different trajectory from the one ... of the Holocene”, is the thermo-industrial revolution of the nineteenth century. The discovery of fossil fuels as a vast energy source fuelled the exponential impact and growth of modern, Western industry (Steffen et al., 2011a:848). It is however only in the mid-twentieth century that the period of Great Acceleration started in which the impact of human activity moved the global environment clearly beyond the pattern of variability in the Holocene – this phenomenon is called the Great Acceleration. This exponential growth process – the hockey stick phenomenon – can be traced in numerous variables (Figure 3), from population growth to urbanisation to the use of chemical fertiliser to the increase in temperature, CO₂ and ozone depletion (Steffen et al., 2011a: 850-851). At the beginning of the Twenty-First Century, we find ourselves still in the period of the Great Acceleration.

2.3 Beyond Climate Change – Planetary Boundaries

Far less known and understood than climate change is the erosion over the last two centuries of ecosystem services. Ecosystem services are “the benefits people derive from ecosystems” (Millennium Ecosystem Assessment [MEA], 2005: V). The Millennium Ecosystem Assessment identified and assessed 24 ecosystem services that are integral to the survival of modern humanity. These include provisioning services such as wood, water and timber; regulating services that affect climate,

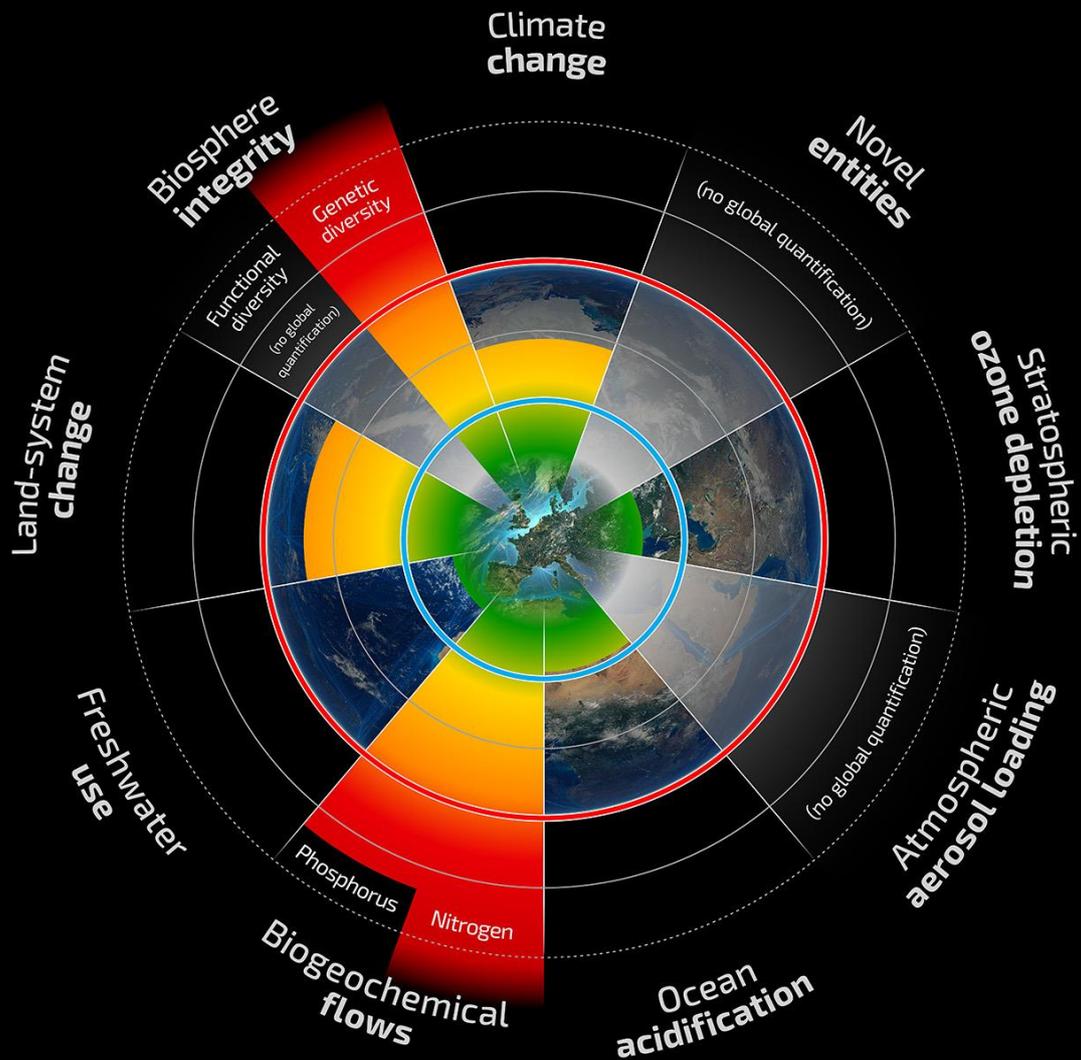
floods, diseases; cultural services, which include recreational and aesthetic, spiritual benefits and support services, such as soil formation, photosynthesis and nutrient cycling. Humanity now uses more than the ongoing productivity of these ecosystems and is thus living off Earth's capital (MEA, 2005: 7).

The Planetary Boundaries framework (Figure 2) works with these services on a global scale, which can also be termed earth-system goods and services. (Steffen et al., 2011b: 740). This framework's foundation is "resilience thinking", wherein earth's systems are considered complex adaptive systems, which frequently have tipping points (Blomqvist et al., 2012:4). This concept was first described in a 2009 paper in *Ecology and Society* by a group of prominent scientists. This framework identifies nine global or regional biological and physical processes important to the maintenance of earth's functions – specifically those that human beings rely on. Substantial changes in these systems, driving them beyond "tipping points", can produce rapid, non-linear and irreversible changes in the environment (Steffen et al., 2015: 1979).

The boundaries are identified as follows: climate change, biosphere integrity, land-system change, freshwater use, biogeochemical flows – Phosphorous and Nitrogen, ocean acidification, atmospheric aerosol loading (microscopic particles in the atmosphere that affect climate and organisms), ozone depletion and novel entities (e.g. organic pollutants, radioactive materials and micro-plastics) (Steffen et al., 2015 :736).

Planetary Boundaries

A safe operating space for humanity



- Beyond zone of uncertainty (high risk)
- In zone of uncertainty (increasing risk)
- Below boundary (safe)
- Boundary not yet quantified

Source: Steffen et al. Planetary Boundaries: Guiding human development on a changing planet, *Science*, 16 January 2015.
 Design: Globaia

Figure 2: Nine planetary boundaries. Control variables for seven of the planetary boundaries have been developed. The green zone defines as a safe operating space, yellow signifies a zone of uncertainty, while the red is a high-risk zone. The planetary boundary lies at the intersection of the green and yellow zones. Grey wedges represent global-level boundaries, which cannot yet be quantified. (Steffen et al., 16 January 2015, *Science*) Image design: F. Pharand-Deschênes /Globaia. Available at http://www.stockholmresilience.org/images/18.3110ee8c1495db74432676c/1459560265221/PB_FIG33_globaia%2016%20Jan.jpg

Steffen et al. (2015:736) designate two of these boundaries – climate change and biosphere integrity - as “core” planetary boundaries because they are considered of “fundamental importance for the Earth System.” Steffen summarises the functioning of these core systems as follows:

The climate system is a manifestation of the amount, distribution, and net balance of energy at Earth’s surface; the biosphere regulates material and energy flows in the Earth System and increases its resilience to abrupt and gradual change (2015:736).

These two processes are thus fundamental to assuring the resilience of the earth system. In the 2015 study, four of the nine processes exceeded the suggested planetary boundaries, namely: climate change, biosphere integrity, land-system change and biogeochemical flows. Of these, genetic diversity, phosphorous and nitrogen cycling are placed in a high-risk zone (Steffen et al., 2015:736).

2.4 Planetary and human health

The Rockefeller Foundation–Lancet Commission (RFLC) on planetary health (Whitmee et al., 2015) deals with the complex interchanges between planetary and human well-being. It states that human health is better today than any other period in human history (when measured in life-expectancy or death rates in children less than 5 years old). What at first glance may look like a success in developmental terms, has however come at a significant cost. The RFLC states the paradox of these achievements in the following terms: “we have been mortgaging the health of future generations to realise economic and development gains in the present” (Whitmee et al., 2015:1973). These costs have also been carried by the earth’s deteriorating ecological and biophysical systems.

Unfortunately, it is only with the degradation of these systems that it is acknowledged that they play a fundamental role in “supporting human health and well-being.”⁸ The

⁸ In a 2006 report published by the World Health Organisation (WHO), it was estimated that about a quarter of the global disease burden was attributable to modifiable environmental factors (Whitmee et al., 2015:1976).

need to think more holistically about the conditions that support and enable human flourishing gave rise to the formulation of several ecological public health models that integrate the human, material and biological aspects of health and accepts the complexity and dynamics of natural systems. This group of approaches that aim to bridge the separation between human health and the health of other species or ecosystems are often called EcoHealth, One Health or “one medicine” approaches (WHO, 2015:2). Planetary health is defined as follows by the RFLC:

Planetary Health is the achievement of the highest attainable standard of health, wellbeing, and equity worldwide through judicious attention to the human systems—political, economic, and social—that shape the future of humanity and the Earth’s natural systems that define the safe environmental limits within which humanity can flourish (Whitmee et al., 2015:1978).

The degradation of eco-systems is not only leading to higher economic costs – when the supportive ecosystem services are lost – but may even lead to the development of new diseases. One such effect is the loss of regulation by intact ecosystems and climatic conditions, which mediate exposure to infectious diseases. Several recent studies report an increased risk of zoonotic disease transmission in degraded habitats (Whitmee et al., 2015:1976).

The State of Knowledge Review on Biodiversity and Human Health explains that biodiversity⁹ is a key determinant of human health. Biodiversity plays a vital role in the functioning of ecosystems and their ability to provide services that are essential to human health (WHO, 2015:1). Anthropogenic changes to the earth fundamentally cause a change in diversity on the planet, and most of these significant changes manifest as losses of biodiversity (MEA 2005:4).

The Millennium Ecosystem Assessment Board (2005b: 17) outlines five fundamental ways in which ecosystem services support human health. Firstly, it provides the

⁹ The Convention on Biological Diversity (CBD) provides the following definition of biodiversity: “The variability among living organisms from all sources including, inter alia, terrestrial, marine and other aquatic ecosystems and the ecological complexes of which they are part; this includes diversity within species, between species, and of ecosystems” (WHO, 2015:1).

necessary provisions for a “good life”, these include food and water, shelter, secure and adequate livelihoods.

Secondly, ecosystems function as regulating services, directly impacting human health. These include air quality, water quality and disease regulation, waste treatment as well as access to medicinal plants.

Thirdly, robust and diverse eco-systems provide the conditions for good social relations. The loss of eco-system services directly impacts material well-being, health and security. This includes changes in cultural services – specifically in cultures where identities are firmly connected to local environments.

Fourthly, changes in regulating services can affect people’s sense and experience of security. Services such as disease regulation, climate and flood regulation have strong influences on security.

Fifthly, an aspect of human flourishing that strongly relates to rural and poorer communities is freedom of choice and action. Changes in all other ecosystem services also indirectly impact the attainment of this constituent of well-being. A basic example being the impact of declining fuelwood and drinking water on the time available for education, employment and care of the family.

Human health is utterly dependent on the stable functioning of local eco-systems. A number of environmental conditions that are taken for granted – considered free and limitless - are fundamental to the flourishing, and in some cases mere survival, of communities. Unfortunately, the impact of the loss of these services are often realised far too late, when found in severely degraded states, and are then addressed atomically and not holistically. The benefits that these services provide society are mostly unrecorded: only a fraction of the total benefits of ecosystem services make their way into statistics, while many remain misattributed, e.g. water regulation benefits of wetlands are not recorded as a benefit of wetlands, but rather as higher profits in water-using sectors (MEA. 2005:53).

The effects of degraded eco-system services are tempered by the quality and availability of social capital, technology, institutions and infrastructure. These factors mediate the relationship between ecosystem services and human health (MEA, 2005:49). Vulnerable groups like women, indigenous communities and the poor are more reliant on biodiversity and ecosystem services and therefore suffer disproportionately from the deterioration of ecosystem services¹⁰ (MEA, 2005:2). The MEA (2005:2) also argues that these harmful effects are sometimes the principal factor causing poverty and social conflict. What adds to the injustice of this burden is that these biodiversity losses are often brought about by large-scale processes beyond the control of the people at risk, e.g. large-scale logging and mining projects (WHO, 2015:33).

Whitmee et al. include a number of case studies to illustrate the interrelation of planetary and human health. The following case study illustrates a number of complexities when reflecting on the health of a local community.

Whitmee et al. (2015:1987) cite a study of a community within South Africa with high HIV infection rates. In many cases, these communities, found in rural areas, greatly rely on the local environment for a number of resources e.g. food, medicine, wood. These households are exposed to both the vulnerability of living with HIV, as well as living in an environment that is degrading (both through direct and indirect anthropogenic causes). This case study further explores how households affected by the death of a prime-age individual – between 18 and 49 years – survive, specifically focussing on food security. These families were negatively affected when they suffered the death of an income earner (usually male) – not being able to purchase food, but they were also negatively affected when suffering the loss of a person who took responsibility for cultivating the food (usually female).

Local eco-systems provided these families with a green “safety-net”, which enabled families to survive by eating wild foods, such as fruit, herbs, and insects. These households were thus buffered from severe food shortages and could still diversify their diets. The study also showed that this was not a short-term coping strategy, but

¹⁰ Watson et al. (Board, 2005: 19) give numerous examples of how the pressure put on natural systems to bring benefits to wealthier communities, lead to the suffering of poorer communities. One example is the benefit of dams that are mainly enjoyed by cities - providing electricity and water – while local communities lose access to land and fishing and sometimes even suffer increased diseases caused by insects that thrive in artificial reservoirs.

a long-term adaptation – lasting for up to 3 years after the death of a prime-age individual. The local environment also provided households with other resources such as wood for fuel and medicinal plants. And lastly, some households could supplement their income by utilising the local environment. The study concludes that the local environment significantly contributed to the resilience of these communities. Environmental degradation weakens this crucial safety net.

Although this case study is an adequate example of how human health is dependent on environmental health, there is no adequate reflection on the sociological and political factors that lead to the high rate of HIV infections, as well as the poverty and geological location of the community. The marginalisation of the community (rural setting), as well as the differentiation in infections between males and females and the effect of gender hierarchies, are not highlighted. Kaijser and Kronsell(2012:418), note that many international studies only give a surface evaluation of the influence of gender as well as social and political dimensions on human health. They note that issues of equity and intersectionality are largely absent from this literature. The complex discourses surrounding the causes and effects of global environmental degradation are often explained in terms of geographic and economic factors, that are not adequate to accurately illustrate and explicate the unequal power relations that lead to vast inequalities both on local, regional and global scale.

This brief review of landmark studies on the state of planetary health, specifically biodiversity and its relation to ecosystem services, shows that planetary and human health cannot be separated. While developed countries might derive short-term (material and health) benefits through the exploitation of ecosystems, vulnerable and poor communities disproportionately carry the cost of the loss of biodiversity. The state of planetary health thus brings up environmental and social justice issues on global, regional and local scale.

2.5 Whose boundaries? – The Anthropos in the “Anthropocene”

The Planetary Boundaries approach to Earth system change is not without its critiques. Scholars like Blomqvist et al. (2012:3) argue that setting boundaries on some of these biophysical systems is an arbitrary exercise – especially where effects are felt more regionally and locally. Blomqvist et al. (2012:4) point out that transgression of some of these boundaries can result in both positive and negative effects on human material welfare, e.g. increased temperatures enables one to farm on previously untenable land (e.g. in Greenland). Blomqvist et al. (2012:8) prefer to focus on identifying various courses of human action globally and elucidating the “trade-offs” they entail. While they articulate the critical political nature of negotiating boundaries, it is clear that economic development is seen as a non-negotiable constant and not the health or integrity of the earth system – as is frequently articulated in eco-modernist approaches.

Various humanitarian scholars have also raised substantial objections to the concept of the Anthropocene. Because the naming of the current geological age is not a valueless observation but indeed a construction of a narrative, scholars of sociology have indicated the pitfall of thereby obscuring power relations.

Anthropologists like Andreas Malm, Jason Moore and Donna Haraway have even conjured new names for this epoch, e.g. Capitalocene or Plantationocene, which tries to uncover the economic forces that have driven our planet beyond its boundaries. E.g. Plantationocene was collectively generated at a conversation for *Ethnos* journal at the University of Aarhus in October 2014. This term designates the devastating transformation of diverse farms, pastures, and forests into extractive and enclosed plantations, relying on exploited, alienated and usually spatially transported labour. The effects of the Plantationocene also continues with globalised factory meat production, monocrop agribusiness and massive substitutions of crops like palm oil and soy for multispecies forests (Haraway, 2015:159).

Malm and Hornberg (2014:62-69) give a thorough critique of the “Anthropocene narrative” beginning with the debate around the inception of this age. Paul Crutzen has suggested the thermo-industrial revolution of the early nineteenth century as the catalysing event that “set the species on a far different trajectory from the one

established during most of the Holocene” (Steffen, 2011a:847). In this retelling, global warming is pictured as the outcome of the evolution of the human species – learning to master fire and technology – and the actual power dynamics that enabled the industrial revolution is obscured (Malm and Hornberg, 2016:67). They point out that the thermo-dynamic revolution was made possible by:

the opportunities provided by the constellation of a largely depopulated New World, Afro-American slavery, the exploitation of British labour in factories and mines, and the global demand for inexpensive cotton cloth (2016:67).

In no way was the transition to a fossil fuel economy a democratic vote by the human species. Instead, it was a small percentage of capitalists in a small corner of the Western world that laid the groundwork for this revolution (Malm and Hornberg, 2016:64).

Scholars in the Planetary Boundaries working group have noted critiques regarding the vast inequalities between the developed and developing world with regards to, e.g. greenhouse gas emissions, freshwater-use etc. In a recent study, Steffen et al. (2015:86) acknowledge that “strong equity issues are masked by considering global aggregates only”. They have thus differentiated graphs (Figure 3) to show socio-economic trends in OECD and BRICS countries and the rest of the world. These show that although most population growth took place in the non-OECD world, the world economy (GDP) and therefore also consumption is still strongly dominated by the OECD world. To illustrate, in the early 21st century, the poorest 45% of humanity accounted for 7% of emissions, while the wealthiest 7% produced 50% of total emissions (Malm and Hornberg, 2016:64).

Socio-economic trends

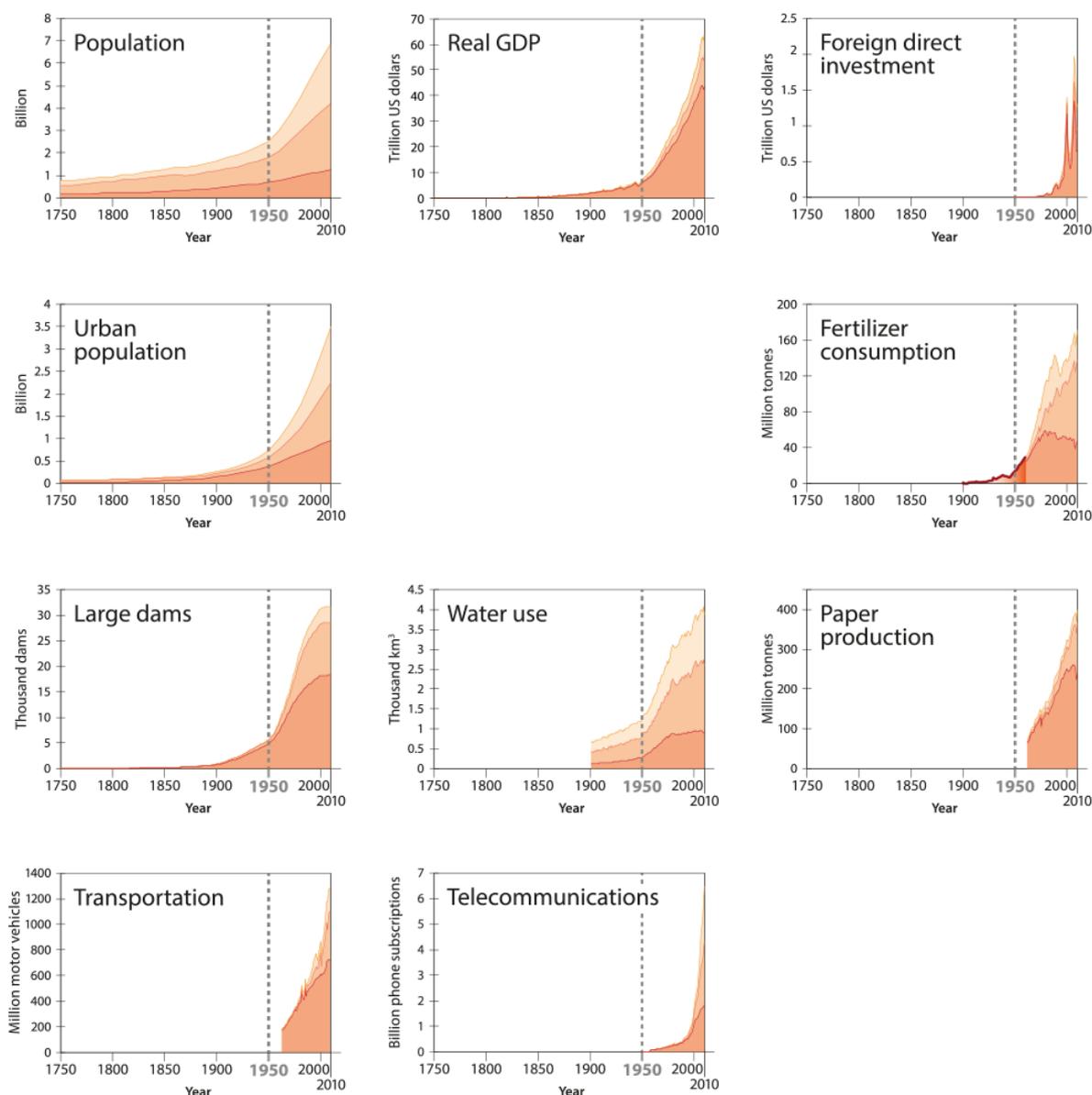


Figure 3: The Great Acceleration. Socio-economic trends from 1750 to 2010 split for OECD, BRICS countries and the rest of the world. Source: Steffen et al. 2015. The trajectory of the Anthropocene: the great acceleration. *The Anthropocene Review*, 2(1), pp.81-98.

Malm and Hornberg (2016:65) argue that the primary paradox of the Anthropocene narrative is the following:

[C]limate change is denaturalised in one moment – relocated from the sphere of natural causes to that of human activities – only to be renaturalised in the next, when derived from an innate human trait, such as the ability to control fire. Not nature, but human nature – this is the Anthropocene displacement.

Malm and Hornberg (2016:65) therefore argue that a more accurate designation of the drivers behind climate change would be *sociogenic*, rather than anthropogenic – acknowledging that these forces derive from a specific social structure.

The terminology of the Anthropocene and the Planetary Boundaries discourse is generally applied in international climate talks and political negotiations to foster hope and emphasises humankind's ability to innovate and adapt. The following quote by John Rockström in the context of the 2015 redefinition of the Sustainable Development Goals, shows the character of this discourse:

It is obvious that different societies over time have contributed very differently to the current state of the earth. The world has a tremendous opportunity this year to address global risks, and do it more equitably. In September, nations will agree the UN's Sustainable Development Goals. With the right ambition, this could create the conditions for long-term human prosperity within planetary boundaries (Steffen et al., 2015).

The defining call of the Planetary Boundaries discourse is to invite humankind into their role as Planetary Stewards (Steffen et al., 2015:94). This call does however not redress the immense inequalities in impact on the Earth system. It enforces an unwavering trust in human ingenuity, a high anthropology, and obscures the imbalance in global power relations. While it does value the capacity and health of the Earth system – this is still defined in human, utilitarian terms as “a safe operating space for humanity”. The type of stewardship necessary to address global and planetary inequalities is not defined in this discourse - this will place the Planetary Boundaries analysis way beyond the scope of its science. This call to stewardship is, however, then left open to the interpretation of the dominant cultures and institutions.

Foster (2012:212) argues that a new human exemptionalism is fostered in several solutions to our encounter with Planetary Boundaries. Foster engages ecological modernisation theory, which can be argued is also prevalent in the Anthropocene discourse. Ecological modernisation theorists contend that “environmental problems can be solved through further advancement of technology and industrialisation” (Foster, 2012:219). As a new form of exemptionalism, it sustains the notion that humans are exempt from environmental constraints due to technology. The only

change needing to occur in humanity's relationship with the environment is the "fine-tuning of the productive apparatus" (Foster, 2012:212). In eco-modernisation theory, the unlimited growth of capitalist industry is entirely possible, and the ecological crisis can be overcome, through the "incorporation of nature" within the capitalist economy primarily through market mechanisms and technological changes (Foster, 2012:212). An example of this approach is the qualification of ecosystems as "ecosystem service" and quantifying the value of these in monetary terms. The same logic is prevalent in carbon-trade models. Underneath this hegemonic paradigm is a dangerous case of technological hubris. Foster (2012:215) argues that the basic belief underlying this paradigm is a typically modern "metaphysical ... belief in 'progress'" as Max Weber critically referred to it.

Eco-feminist scholar Ariel Salleh (2009:120) further scrutinises this paradigm by pointing to the epistemological implications of treating dynamic organic processes as "infrastructure" and the cultural consequences of this process of commodification. This process of commodification is also skewed. While the value of ecosystem services and fuel inputs are acknowledged (internalised), the degradation of the environment and loss of local cultures and livelihoods are often externalised¹¹. Salleh relates this to the manufacturing of mitigation or adaptation "technologies":

In the push for 'resource efficiency', ecological modernisers externalise production costs on to the living bodies of others, then on to green nature or habitat down the line. Thus in the Eurocentric vision of a 'third industrial revolution', Germany as 'the responsible energy-efficient technician' is really living on credit, buoyed up by an increasing ecological debt for nature in the global South, a social debt to exploited factory workers, and an invisible embodied debt to women as reproductive labour worldwide (2009:119).

There have been attempts within eco-modernism to internalise certain environmental costs further. In these approaches, eco-modernism is merged with reflexive modernity. The concept of "reflexive modernity" arose out of the work of Ulrich Beck, Anthony

¹¹ The UNFCCC's 'carbon sink' is a related case in point, whereby the livelihood of forest dwellers is side-lined in order to maintain the urban consumerism of middle class others.

Giddens, and Scott Lash (1994). It is Beck's "risk society" conception that forms the positive counterpart of "reflexive modernity". In this phase of modernity, society will react automatically (reflex-like) to its underlying modernisation tendency and improves it in responding to growing externalities (Foster, 2012:222). One could argue that the internalisation of Planetary Boundaries would be one example of reflexive modernity. Ultimately this still corresponds to the view that capitalism can develop technological and market fixes to environmental problems, without addressing social inequalities (Foster, 2012:221). In this paradigm, environmental improvement is defined primarily on a national level – focusing on OECD countries, while the environmental footprint of these improvements, in the form of greater resource extraction from the global South, is easily ignored (Foster, 2012:225).

2.6 Conclusion

This chapter has argued that our planet is being irrevocably altered by the impact of humanity, especially in the form of industry-driven, Western consumer culture. The interrelation between planetary and human health is shown, particularly as it pertains to biodiversity and eco-system "services". Especially vulnerable, rural and poor communities deal directly with the consequences of a degraded biosphere. It further shows that several solutions to the environmental and societal crisis cannot be divorced from the Western political-economic agenda and carry with it the androcentric and hegemonic discourse of Western natural sciences. Ariel Salleh (2009:121) shows that the technocratic focus of several international humanitarian and environmental programmes often quantifies people as 'human capital' and their habitat as 'natural capital'. Self-reliant and resilient local livelihoods and economies are often subsumed into global capitalism – destroying local "ecosystems" of common land, water, biodiversity, labour and relationships, which provide people with an autonomous eco-sufficiency. The impact of European science, as observed by Carolyn Merchant in her influential study *The Death of Nature* (1980), in the conceptualisation of nature as a machine (and not an organism), can still be traced in the Anthropocene-discourse. Salleh offers an apt critique of the androcentric ideology underlying eco-modernist discourse:

The deeply eurocentric and gendered focus on engineering infrastructure and the obsession with economic growth invert the thermodynamic order of nature, emptying out its metabolic value...In this mainstream economic reasoning, productive efficiency is a formula by which dead matter (extracted from life giving biological relations) is transformed by dead labour (alienated or technologised) and distributed for consumption as dead product (2009:137).

When striving towards holistic health – for both environmental and social ills – it is essential to unmask the cultural hegemony prevalent in popular solutions to our global environmental crisis and foster more democratic and organic processes of sharing responsibility. The next chapter will take an eco-feminist evaluation of scientific worldviews further in analysing the interpretations of nature that give rise to mechanistic and hierarchic understandings of the natural world.

Chapter 3 Interpreting Nature

3.1 Introduction

Naumovich (2010:92) points out that within the interdisciplinary venture of joining together ecology, feminism and theology, eco-feminist theologians put emphasis on different domains. Some scholars primarily engage with the earth sciences (Primavesi, Shiva, McFague, Berry), while others' main dialogue partner are the social sciences (Gebara, Scott, and others). Others again take theology and Biblical traditions as their primary reference point (Conradie, Jenkins). This study takes the earth, as well as the lived experience of women and other marginalised earth-others as its primary context.

The previous chapter explored the articulation of our current context from an earth-system sciences perspective and pointed out some of its ideological biases. This chapter will more specifically engage the construction of the philosophical domain that is taken as a basic orientation point for environmental theological reflection – nature. Naumowich (2010:92) notes that reflecting on nature should involve a process of ongoing deconstruction of the anthropocentrism, androcentrism and hierarchical dualisms that permeate many theological depictions of reality.

This chapter will critically analyse the influence of the nature/culture dualism on our perception of the created world. It takes seriously the social construction of nature and the framing of society and nature as a dichotomous pair. This will be done through an eco-feminist critique of modern scientific worldviews. The possibility of non-dichotomous constructions of nature/culture will then be illustrated by a comparative anthropological exploration of the concept of nature within various non-Western cultures. Lastly, the role of nature/culture dichotomies within theological depictions of reality will be explicated.

3.2 Navigating nature and culture

In a post-Enlightenment world, we live with the knowledge that our perceptions of nature are socially constructed (Wapner, 2014:73). These constructions are however not always critically evaluated, because of amongst others, the globalisation of the Western scientific worldview. Eco-theologies address the way the natural is represented as an account of the given, within science, but also within political ideologies and theologies. Scott (2010:434) points out that there may be notions of these “givenness” that are unecological – specifically the claimed givenness of the processes of globalisation.

Eco-feminist theologies address the ideologies propagated through both the secular globalisation process and the cosmologies inherent in leading Christian beliefs. Rosemary Ruether (1992:32) illuminates the following dimensions to the construction of a cosmology:

[Cosmology is] a view of the relation of humans to the rest of nature, their relation to each other in society, and their relation to the ultimate foundational source of life (the divine). They have been blueprints for what today we would call a combined scientific, social-ethical, and theological-spiritual worldview.

Eco-feminist theorists call for theology to recover the universality of its task and address the ideologies present in secular scientific configurations of the known world. This chapter will focus on a critical engagement with Western scientific worldviews, while the social-ethical and theological elements of an encompassing cosmology will be explored in the following chapter.

3.3 Eco-feminism and the nature/culture divide

The history of the association of women with the natural and earthly – as opposed to the rational, spiritual and scientific realm - has been a point of contention for many feminists. Val Plumwood (2003:19) illustrates how this association has been a tool of oppression - reinforcing the removal of women from the public sphere, legitimising violence in “taming” unruly wildness associated with emotions. The nature and

functioning of this dualistic structure are however not always critically assessed. Plumwood (2002b:19) notes that “reason” or “culture” (the valued trait) in opposition to nature, is constituted by the exclusion of nature *and* its associated realms namely, emotions, body, animality, matter. The celebration of the connection between the feminine and nature – as undervalued pole can however not be done uncritically. Neither can those who advocate for the liberation of “women from nature”, and equality in sharing the realm of culture ignore the oppositional and divisive manner that culture and reason are constructed in the Western tradition (Plumwood, 2003:20-21).

One of the most prevalent ways that women and the sphere of nature are denied or devalued is through “backgrounding.” Plumwood (2003:21) describes backgrounding as follows:

[T]heir (*women and nature*) treatment as providing the background to a dominant, foreground sphere of recognised achievement or causation (my italics).

This practice is deeply embedded within the economic system and societal structures. Through the backgrounding of nature, the dependence of humans on biospheric processes are denied, just as the importance of sustenance and reproduction is denied in society through the backgrounding of women and mothers (Plumwood, 2003:21).

The disconnection of women from the natural realm (feminism of equality approach) and placement within the human realm, is however also not unproblematic. In the “liberation from nature,” the concept of humanity is itself then constituted by the exclusion and denigration of the natural sphere. The old female/nature connection is then replaced by a model of human transcendence over and control over nature (Plumwood, 2003:23).

Plumwood (2003:25) shows how the distinction of human nature from the non-human world is achieved through a particular masculine characterisation of humanity. In this paradigm, humanity is uniquely rational (has superior mental skills), is transcendent from and can control nature, achieves productive labour, is sociable and cultured.

Plumwood (2003:33) however posits that it is not the division between the natural and the cultural or human and non-human alone that distorts the relationship between

these realms, but particularly their dualistic construction. “The polarising aspects of dualism involve sorting a field into two homogenised and radically separated classes, typically constructing a false choice between contrasting polarities...” (Plumwood, 2002:17).

3.4 The root metaphors of “natural” science

The rationalist dichotomies in the form of human/nature, culture/nature, mind/body, man/woman and others, can also be found in the way rigid boundaries are set between the epistemology of science (referred to as hard science, or natural science) and other disciplines (Clifford, 1992:70). The social construction of both gender and science is historically interrelated and can, therefore, be traced through analyses of hegemonic social orders in the Western tradition.

Clifford (1992:67-68) shows how the Western scientific community did not allow for women to participate in scientific endeavours (which were androcentrically defined) or to question the boundaries of what qualifies as “scientific knowledge”. A clear example is the ground-breaking work of Rachel Carson in the *Silent Spring* – today considered as a hallmark in the field of ecology. Carson struggled to find publishers for her work, because she lacked a doctorate and was not affiliated with a major research institution, discrediting her Master's degree and her tuition at John Hopkins University.

Feminist philosophers specifically interrogate the way traditional “scientific writing” denies the importance of time, place, authorship, social context and responsibility. The accepted definition of science as objective, impersonal, universal, and masculine is constituted by the exclusion of the feminine historically (Clifford, 1992:70).

Clifford (1992:70-73) traces the influence of hegemonic social orders by interrogating the construction of root scientific metaphors by two of the fathers of modern science¹², namely Francis Bacon and Charles Darwin. Francis Bacon specifically is known for his development of an “objective” method of scientific inquiry – which was developed

¹² “Modern science” is defined in the Columbia Electronic Encyclopaedia as that inquiry which, “came into being in the 16th and 17th century, with the merging of the craft tradition with scientific theory and the evolution of the scientific method...the revolution in science began with the work of Copernicus, Paracelsus, Vesalius, and others in the 16th cent. and reached full flower in the 17th cent.”

in opposition to speculative metaphysical thought about the functioning of reality. Clifford (1992: 71) likens Bacon's methodology to: "a kind of mechanical engine of discovery, fuelled by experiment and observation."

According to Carolyn Merchant, Bacon used gendered metaphors in a patriarchal manner. Merchant (1981:168) shows the influence of two significant social events on Bacon's philosophy and literary style – the "controversy over women", where females challenged traditional modes of dress, and the 1612 witch trial. In the same manner that women were forced to submit and reveal the secrets of their craft through procedures of interrogation and mechanical torture, nature would be controlled. The following passage by Bacon in his *De Dignitate et Augmentis Scientiarum* shows the functioning of these metaphors:

For you have but to follow and as it were hound nature in her wanderings, and you will be able when you like to lead and drive her afterward to the same place again (quoted in Merchant 1981:168).

Bacon even uses bold sexual imagery in the formulation of his scientific methodology. Merchant (1981:171) argues that Bacon's depiction of nature as a woman to be subdued and penetrated has legitimised the exploitation and rape of earth's resources. Bacon writes further in *De Dignitate*, "Neither ought a man to make scruple of entering and penetrating into these holes and corners, when the inquisition of truth, is his whole object..." Some of this imagery is still latent in common scientific language, e.g. the "hard facts", "penetrating mind," or the "thrust of an argument" (Merchant, 1981:171). It is understandable that many feminist thinkers are deeply concerned about the structures of modern science when we consider the misogynous roots of its conception.¹³

Clifford (1992:74) argues that the primary linguistic constructs of Darwin's evolutionary theory were also markedly influenced by the social, economic and political ideology of his time. The concepts of struggle and competition are foundational to his evolutionary model. While these are still major concepts in evolutionary theory today, it is now commonly accepted that not all evolutionary processes can be explained by

¹³ Some feminists, like Evelyn Fox Keller, find Bacon's sexual morals subtler – arguing that for Bacon the aim of science is to master and not to violate. They however acknowledge the clear requirement of his scientific methodology for the domination of scientists over non-human nature (Clifford, 1992: 74).

competition and survival of the fittest and that the environment has a significant role to play in the evolution of species¹⁴. When nature is primarily framed as a battleground and life as a competition with only limited spaces at the top - a hierarchical framed society is the inevitable outcome.

Clifford (1992:76) reminds us that science indeed is a socially constructed body of knowledge and forms a cultural institution, which can function as a hegemonic force if its foundational concepts are not critically evaluated¹⁵. Clifford (1992:76-77) therefore advocates for a more holistic epistemology that is critical of all binary constructions acknowledges context and responsibility and is critical of the objectification of all that is studied.

Clifford (1992:75) further posits that the retraction of Protestant theology to application to personal faith was influenced by the adversarial nature of the relationship between scientists and theologians after the acceptance of Darwin's theory of evolution. As a result, most (Western) theologians focused on theological anthropology and theology of history and left the non-human world to be scrutinised by scientists (Clifford, 1992:80). The concept of creation in theology is thus also strongly influenced by specific gendered and dichotomised ideas of reality. Moltmann (1993:35) also acknowledges the influence of this dichotomous division on Protestant theology:

Protestant theology accepted the dichotomy of the modern world. Many people even saw in it the Reformation distinction between law and gospel, person and works- and also the distinction between the spiritual and the worldly kingdom.

¹⁴ Barbara McClintock's work illustrates that to understand an organism, one can not only analyse its genetic code, but must also consider the relationship of the organism's genes to the environment (Clifford, 1992:79).

¹⁵ Plumwood (2002:38) argues that modern technoscience has just as much contributed to producing the environmental crisis as it cured it. She lists the influence of fishery science and fishing technology on overfishing, and agricultural technology on land salination and degradation. This is especially the case where science functions as a monological endeavour, only responsive to the needs of one party (the human/objective part) in the relationship.

3.5 The influence of dichotomous thinking

This set of interrelated dualisms of mind-body, reason-nature, reason-emotion, and masculine-feminine has been especially stressed in the rationalist tradition. Characteristic of these dualisms is a strong hierarchical structure and the maintenance of a sharp dichotomy by the polarisation of the two (Plumwood, 2002:71).

Prokhovnik (2001:20) evaluates the role and significance of dichotomy as a tool in theorising. She notes the benefit of using dichotomy to sharpen distinctions and definitions. The value of this theoretical tool has however been grossly inflated. Prokhovnik (2002:23-30) analyses the features of dichotomies and illustrates the failing of this analytical tool. Firstly, it not only distinguishes between two entities but extends the differentiation into *opposition*, which Plumwood calls an 'alienated form of differentiation'. This opposition can result in the "discontinuity problem", in which what is virtuous (human in the human-nature dualism) is taken to be what maximises distance from the natural. Therefore, the valued pole is defined against the devalued pole.

Dichotomies also tend to be a *closed definition* of the entirety of a set of ideas, as is the case in mind/body, man/woman and other dichotomised pairs (Prokhovnik, 2001:24). These two things thus sum up the entire range of possibilities. Prokhovnik (2001:28) cites as an example the doctrine of mind and matter being separate independent entities that define the entirety of being human. In other systems of thought, e.g. idealism and materialism it is however argued that mind and matter belong to a single principle.

The problematic of the *hierarchical structuring* of dichotomies have been extensively dealt with by feminists from De Beauvoir (1952) to Grosz (1994). Truth is defined in a hierarchical pair by the exclusion of the subordinate term, leading paradoxically to the dependence of the dominant term on the exclusion of the subordinate. Prokhovnik (2001: 27-28) cites the example in the Western tradition of the belief that some activities are more primitive and fundamental (reproduction, preparing food, shelter) than intellectual, artistic, political and linguistic practices. This view implies a hierarchy – from the primitive (bodily) ascending to the mind (spiritual), which strongly entrenches the powerful culture/nature dichotomy.

Lastly, Prokhovnik (2001:30) also analyses *transcendence* as a characteristic of dichotomy. Transcendence, in the Western tradition, is the only mechanism by which access can be gained from the inferior to the superior term. Plumwood also illustrates how “transcendence” implies not only an overcoming of the self but also the achievement of a universal and abstract impartiality. While the latter is valued above all, the personal and the particular is seen as inferior and corrupting.

Plumwood and Prokhovnik clearly show how nature/culture, nature/human dualisms have become entrenched in dichotomies, which have sharply influenced our perception of the non-human world. Our relationship towards nature and our calling as stewards in Christian theology have unfortunately also not escaped this characterisation. Plumwood (1995:163) suggests that the deconstruction of the dualist conception of human identity and the acknowledgement of the continuity between humanity and nature is of utmost importance in redressing and transforming the relation of humans to non-humans. With this challenge, the conception of nature as inert, passive and mechanistic will also be deconstructed.

Prokhovnik (2001:38-39) suggests several other theoretical tools that escape the dividing and totalising tendencies of dichotomies. She stresses the contribution of “both-and thinking” and “thinking in relation.” In these modes of thinking important hermeneutical values are stressed, e.g. contextuality and relatedness; there is space for dynamic movement between identified ideas; there is space for ambiguity and self-conscious commitment to change.

3.6 Humans and more-than humans in anthropology and ethnology

Latour (2014:7) remarks rather ironically, that the fact that there are still people in Western history that believe in animism is not naïve, but rather the fact that some people still believe that we live in a deanimated world compiled by mere stuff. When we veer into the realm of comparative anthropology, the strangeness of the Western construction of nature as a “separate realm” becomes clear.

From an anthropological and historical point of view, Philip Descola (1996:82) iterates the constructed character of our conception of nature. The Western dichotomous

culture/nature paradigm does not apply to the way humans in other cultures relate to and talk about their physical environment. Cultures like the Tukanoan Indians of eastern Columbia and the Jivaroan tribes of eastern Ecuador and Peru would commonly attribute human attitudes and behaviours to plants and animals and would also expand the realm of non-human living organisms to include artefacts, minerals, spirits etc.

Descola (1996: 87) shows that specific cosmologies and social topographies are formed through modes of identification, which define the boundaries between self and other. Descola (1996:88) identifies three such systems of identification: animism, totemism and naturalism - which are often also combined in constructing cosmologies. Animism bestows human dispositions and social attributes onto natural beings, while totemism uses the differential relationships between species to confer a conceptual order on society. Totemism is thus a symmetrical inversion of animism.

A third mode of identification is naturalism. Descola (1996:88) defines naturalism as follows [based on the definition of Rosset (1973)]: “Naturalism is simply the belief that nature does exist, that certain things owe their existence and development to a principle extraneous both to chance and to the effects of human will.”

In Western cosmologies, nature becomes an ontological realm of order, in which nothing happens without a reason or cause— be this reason God, or the ‘laws of nature’. This mode of identification has become a ‘natural’ presupposition structuring our epistemologies. Recognising the constructed nature of our epistemologies and cosmologies opens up an unprejudiced view of other modes of identification. Descola (1996:88) explains: “...the very existence of nature as an autonomous domain is no more a raw given of experience than are talking animals or kinship ties between men and kangaroos.”

Descola (1996:89) further identifies different relational identities within the collective realms of humans and non-humans. These relational identities are differentiated by models of relation and schemes of interaction. Descola (1996:89-91) describes two such modes of relation within the framework of animism in two cultures of the Upper Amazon. He labels them predation and reciprocity respectively.

For Tukanoan Indians of eastern Columbia, reciprocity is based on the idea of strict equivalence between humans and non-humans sharing the same world. The

biosphere is also seen as a homeostatic closed circuit. Within this closed-circuit energy is fed back by a number of methods, e.g. the hunting of game animals is followed by the retrocession of human souls to the Master of Animals, who are subsequently transformed into game animals. Humans and non-humans thus substitute one another (Descola, 1996:89).

For the Jivaroan tribes of eastern Ecuador and Peru, predation is the dominant mode of relation. Non-humans are considered persons who share the same ontological qualities of humans. Non-humans and humans are also linked by familial ties (in the case of domesticated plants) or affinity (with forest animals). In these relations, humans hunt animals, while non-humans try to take revenge by, e.g. punishing excessive hunters by snakebite (Descola, 1996:90).

A third mode of relation is that of protection (Descola, 1996:90). This model is often found in the Westernised world. In this model, a large group of non-humans are perceived as dependent for their existence and welfare on humans. These non-humans may be a collection of domesticated plants or animals that are genuine components of the societal structure (cows with pastoralists) or a reduced kinship unit (pets, sacred animals). The relationship is often one of reciprocal, although utilitarian dependency. Descola (1996:91) however points out the influence of Cartesian dichotomies, where humans are seen as masters and owners of non-human components, transferred onto relations of protection in these units. He warns of euphemising domination as patronising preservation.

Descola shows that it is clearly not possible to treat human and non-human entities as autonomous, independent substances. They can thus also not be adequately managed by two entirely different sets of social devices. He (1996:88) advocates for a truly ecological understanding of individual and collective entities – being constituted by their relations.

3.7 Nature and Culture in the Anthropocene

The discussion above shows that the designation of nature as an independent sphere has always been socially constructed. When we however also turn to earth-system science in the Anthropocene, it is empirically true that the boundaries between humanity and nature are not so clearly defined. Through increasing technological and economic might, humanity has also become a geological force, and we do not only have to acknowledge the construction of “facts” by humanity, but also the conflation of humanity with the phenomena that these facts are trying to document (Latour, 2014:2).

Wapner (2014:37) points out the importance of recognising that our understandings of nature are socio-historically contingent and change with time. Wapner (2014:38) identifies two perspectives that dominate environmental discourse and is based on a dichotomous view of humanity/nature. Environmental advocates give ontological primacy to nature – it is the defining system within which human activities take place, and we should respect these biophysical parameters – this is the perspective of naturalism (Wapner, 2014:42).

Environmental critics, on the other hand, have seen humans as a privileged and exceptional species that is entitled to shape nature according to their purposes – these are approaches of “mastery” (Wapner, 2014:43). In reality (which is becoming more evident in the Anthropocene) there is no independence or certitude in either nature or humanity. Wapner (2014:43) therefore suggests that we must think and act within a hybridisation of the human/nature world. Central to theorising and acting within this hybrid world is that we recognise that we are in extended and interdependent relationships with the more-than-human world.

Conversely, conservation and preservation in a hybrid world will not consist of “protecting the wilderness from human intervention”, but humans would reclaim their agency in attuning themselves to the hybrid character of ecosystems, they would intervene¹⁶ in the constitution thereof, but deliberately remain one voice among others

¹⁶ Wapner (2014:45) comments that preserving wilderness may involve the maintenance of a relationship with the wilderness, but humans take on an active dialogical role - people clean salmon beds, selectively harvest wild plants, intentionally burn certain terrain, and plant and prune particular vegetation.

in these arrangements. There would remain an otherness in the more-than-human world, which humanity cannot explain or capture.

Latour (2009:32-33) acknowledges the “pitfalls” of a social representation of nature. While it is clear that we have no immediate access to nature, it is also not acceptable to maintain a form of idealism where the opinions of humans determine the movements of planets, moon and galaxies. Latour (2009:37) argues that the process of making visible the distinction between multiple presences of more-than humans and the political work that moulded them into a unified “nature” will open up possibilities of a reformulation of the social. Instead of crossing the divide between realism and idealism, Latour (2009:37) advocates for a new social world – an association¹⁷. He acknowledges the existence of an external reality, but qualifies this as not being definitive – it simply indicates that more-than-human entities are included in the work of the collective and would find themselves mobilised, socialised and “domesticated.”

Instead of a unified ideological realm of nature, we need to acknowledge the multiplicity of nature, which would be redistributed democratically by all the sciences – natural, human, theological, social. Latour (2009:40) uses the term pluriverse¹⁸ to mark the distinction between the idea of an external reality and the political work of unification – in assembling the social.

What theorists like Latour and Wapner fail to address adequately is the construction of humanity in a decidedly masculinist way. When referring to the agency of humanity, it is framed in traditional masculinist terms “reason, ingenuity, and technological capabilities” (Wapner, 2014:47). The influence of Kantian dualisms in modern science on “nature” is illustrated quite effectively, but the construction of the social is not scrutinised to the same degree. When indeed we theorise, that nature does not exist as an independent realm, the converse needs to be applied as well – humanity does

¹⁷ Latour (2009:237-238) defines association as follows: “Extends and modifies the meanings of the words ‘social’ and ‘society,’ words that are always prisoners of the division between the world of objects and that of subjects; instead of making the distinction between subjects and objects, we shall speak of associations between humans and nonhumans; the term thus includes both the old natural sciences and the old social sciences.”

¹⁸ Latour (2009:246) designates pluriverse in the following way: “Since the word “*uni*-verse” has the same deficiency as the word “nature” (for unification has come about without due process), the expression “pluriverse” is used to designate propositions that are candidates for common existence before the process of unification in the common world.”

not exist as an independent realm. A redefinition or reconstitution of humans would, therefore, need to be open to eco-feminist critique. Because of the historical foregrounding of the human element in the human/nature dichotomy, it is difficult to constitute the social through more equanimous and humble relationships with the more-than-human world.

3.8 Anthropomorphism, Anthropocentrism or Ethnocentrism?

In navigating our relation to the more-than-human world, two obstacles that often prevent a more dynamic and dialogical engagement with others is anthropomorphism and anthropocentrism. Plumwood (2002:56) shows how “anthropomorphism” has been abused in projects of mastery to delegitimise descriptions of non-human others. This delegitimation is also accompanied by the use of pacifying and deadening vocabularies for more-than-human others.

Plumwood (2002:56) argues that anthropomorphism is today used in two ways. Firstly, it refers to attributing human characteristics to non-humans, and secondly attributing exclusively human characteristics to non-humans. The first presupposes that there is no overlap in characteristics between humans and non-humans, emphasising radical discontinuity. The second delegitimises the attribution of more contested characteristics – subjectivity and intentionality. The focus in this sense of the concept is human-centred. If there are indeed grounds for falsely attributing characteristics to non-humans, which they do not have, why would it not be sufficient to focus on the inaccuracy itself – instead of bringing every focus of assessment and sense of comparison back to humans? Plumwood (2002:57) designates this tendency as anthropocentric. She suggests that the features of anthropomorphism can indeed better be characterised as anthropocentrism.

Plumwood (2002:57-58) further addresses a third, weak form of anthropomorphism that tends to present non-human communication or intentionality, “in human terms” – centred in human conceptuality. A form of “background” or weak anthropomorphism is inevitable since this is the only conceptual location that humanity can reason from. While this may be inevitable, stronger forms of anthropomorphism, which may be damaging, is not necessarily inevitable. Where it can be damaging is where it is applied in colonising and subordinating ways – e.g. dressing a monkey in human

clothes and teaching it to ride a bicycle and referring to it as a degenerate form of the human. Anthropomorphism is often used in dualistic vocabularies, which reinforces hegemonic concepts of autonomy, rationality and property (Plumwood, 2002: 61).

Latour (2009:88) argues further that in the pluriverse there is no anthropocentrism or anthropomorphism, but rather a form of ethnocentrism because the divide between the social and natural and the designation of the natural as a unified realm is a specifically Western construction.

Bruno Latour (2014:10) further illustrates what hides behind the so-called “objective” description of natural phenomena (the striving to rid all language of “anthropomorphic elements”). When describing the more-than-human world as only the consequences of their causal antecedents – all non-human life is deanimated and voided of agency. He calls this practice the phusimorphising of agents – much the same as Plumwood’s description of the use of deadening language for the more-than-human world. To liberate our language and science from objectifying phraseology, we need not only a reformulation of the social, but also a cosmology that is open to the multiplicity of nature.

3.9 God and nature (world)

In Western Christianity, the dualistic mapping of reality has also influenced the perception of the relation between God and nature. Feminist theologians have critiqued the characterisation of God in masculinist terms, which gives legitimacy to an androcentric society and the domination of women and nature. Naumowich (2010:93) specifically refers to the monarchical patriarchal male image of God – wherein God is transcendent, infinite, eternal and omnipotent. She argues that this image has blinded us to the sacredness of the rest of the living world – thereby excluding women, non-humans and the earth from what is sacred.

McFague (1993:35) also comments on this hierarchical form of exclusion wherein spirit is separated from nature by referring to the mapping of this division on the mind/body dichotomy – as the head of the human being is separated from the rest of its body, so

the spiritual is elevated above the natural. Even in the Christian cosmology of Christ as the head of the church - which is His body, this dualism is still active. The divine is not present in the whole of creation, not even in the whole of humanity – it is limited to the rational or spiritual (the head). Since rationality was considered a masculine characteristic, this led to the domination of the bodily, sexuality and women.

These Christian cosmological models have contributed to the division between humans and the more-than-human world in the modern period. The emphases on divine transcendence carry over to the transcendence of humanity over the rest of the created world – for humans are made in the image of a transcendent God. When salvation is mostly coloured in transcendental terms, there is no access to salvation and God by non-human others. As Elvey (2006:64) notes: “To the extent that the idea of the otherworldly supports a separation of human survival from the survival of earth others, this denial sustains an eschewal of responsibility for the well-being of more-than-human others.”

The opposition of transcendence to immanence has received much attention in eco-feminist theologies. Elvey (2006:64) notes that even in more moderate forms, “the otherworldly aspect (*transcendence*) of Christian belief participates in a dualistic framework in which nature is hyper-separated from culture” (emphasis mine). As with other modern dualisms, the dichotomisation of transcendence and immanence has become the biggest impasse in formulating cosmologies that acknowledge both the otherness of God and the unnegotiable value of the created world. Scott (2010:445) remarks that there is not necessarily a synonymy between de-divinisation and de-sacralisation in the theological tradition. The relation of immanence and transcendence, therefore, needn't be a “zero-sum game”. A number of possibilities open up when these two modalities are not seen as in competition.

In response to the weighing of anthropocentric against eco-centric worldviews, a number of theologians and biblical scholars rightly note that the cosmology found in the Biblical tradition is a theocentric worldview. When this theocentrism is however explicated in a patriarchal framework, it soon crosses over to anthropocentrism, because of its androcentric character and once again excludes other than human beings (Elvey, 2006:68).

Elvey (2006:65) navigates the terrain between an uncritical “naturalism” and a hubristic conceptualisation of nature (“nature-scepticism”), by exploring the Christian “otherworldly.” She (2006:65) defines the otherworldly as follows: “... the belief that the world of human being, knowing, acting, and ends is not exhaustive; there are beings, knowledges, agencies, and ends beyond human ones, such that God is the point of reference for these more-than-human beings, knowings, agencies, and ends.”

With regards to “nature-scepticism”, the assumption is that humans can only come to know nature as a cultural construct and that this cultural knowledge is absolute, or as Elvey (2006:72) formulates it: “Earth becomes world.” This approach, however, over-emphasises human agency and denies the independent and inter-dependent agency of others. The “otherworldly” within a worldview that gives prominence to the cultural construction of humans is also seen as a “product of culture”.

When the construct of nature is however acknowledged as real – even though it is only accessible secondarily and through mediation – the otherworldly becomes a concept that has no material ground in nature or culture (Elvey, 2006:75). When transcendence is framed in a dematerialised way, it loses connection with its “counterpart” immanence, which is, in fact, the grounding of this dualist pair.

Elvey (2006:77) consequently argues that since nature is in excess of culture – beyond the description and construction of human beings – nature is itself other-worldly. She argues that the otherness of nature can be understood in terms of the Christian otherworldly. She calls this “otherness” a material transcendence. A transcendence in which the otherness of nature is acknowledged in its inorganic and organic complexity.

3.10 Conclusion

This chapter has engaged with the influence of dualistic constructions of the nature/culture divide on both the natural sciences and religious constructions of reality. The Anthropocene brings the epistemological inadequacies of both a realist and pure idealist epistemic engagement with the environment to the fore.

Utsler, Clingerman et al. (2013:5) note that many works of environmental philosophy relied on essentialist notions of “nature” or “wilderness”, to advance specific ethical positions. The more recent second wave of environmental philosophy presents a social constructionist understanding of nature. Within this perception, it is, however, difficult to give account to a reality outside human determinations of meaning. Clingerman (2013:5) notes the importance of considering the complexity of the reflexive process of encountering nature in the determination of meaning itself. The field of environmental hermeneutics engages this complex interpretive process. Environmental hermeneutics advocate for a much broader understanding of the environment, which may encompass physical, sociocultural and built environments. When one starts with the acknowledgement of the difficulty of defining nature or an “environs”, a space is opened up for productive dialogue regarding these aporias (Clingerman et al., 2013:6).

This chapter has further called for theology to loosen itself from the individualist and personal enclave, which it has retracted to after confrontation with Darwin’s theory of evolution, and critically engage the natural, social and human sciences. This is especially important for any form of eco-theology. Marais (2011:259) notes how often the greatest focus in ecotheology falls on the doctrine of creation so that all relevant texts and doctrines that bear upon ecological responsibility and caretaking have to legitimise research in this specific area. A brief exploration of the conceptualisation of nature has shown that theological engagement with the more-than-human world is infinitely more complex. I would argue with Marais (2011:259) and Conradie (2005a:2) that ecological theology requires a reinvestigation of all Christian doctrine. Sociological, gender, political and scientific formulations influence our relationship with the more-than-human world. Therefore, all dimensions of Christian theology – hamartology, soteriology, eschatology, ecclesiology, pneumatology, Christian anthropology, missiology and others, are implicated in our understanding of our relation and responsibility toward the more-than-human world. It can be argued that the peripheral treatment of issues such as climate change within theology can be ascribed to the insular way of defining environmental matters. Warmback (2012:22) notes that climate change is more than an environmental issue – it is related to all aspects of life. He refers to the important work of De Gruchy, who through his “olive

agenda”¹⁹ linked environmental concerns with real “bread and butter issues” in South Africa – poverty, sanitation, ecological and social justice.

This chapter has also drawn attention to the influence of rigid, closed definitions of the nature/culture duality, and the necessity of guarding against discontinuous expressions thereof. Anthropological and ethnological studies of non-Western cultures show that the relation of humanity to “nature” can be socially constructed in a myriad of ways – that are non-hierarchical and fluid.

When we reflect on the positioning of human-beings to the more-than-human world, while confronted by serious ecological degradation, it is clear that we need to carefully deconstruct the pluriform ways in which nature/culture are entangled in local contexts. Central to this work is the reaffirmation of continuity between humanity and “nature,” and the acknowledgement of the independent and interdependent agency of earth-others.

Elvey refers to Grosz’ work (*Volatile Bodies*, 1994) in showing how the dynamics of human embodiment affirms the interactivity of nature and culture. Through the different modalities of the senses and sensory organs, the nature/culture relationship is mediated. The next chapter will further explore the model of the Universe as God’s Body as articulated within Sally McFague’s theology.

¹⁹ Warmback (2012: 32) explains De Gruchy’s use of the metaphor of an olive agenda as follows:” [It] help us navigate the divide between the so-called “green” and “brown” issues, broadly, between conservation issues and those of poverty.

Chapter 4: God and world in Sally McFague's cosmological model

4.1 Introduction

This Chapter will focus on Sally McFague's religious cosmology of the universe as the body of God. Particular attention is given to the relation of God to the created world. The relation of humans to the non-human world and a shared understanding of agency will be further discussed in the following chapter.

The chapter will start with numerous ways of framing different scholarly disciplines engagement with the fields of religion and ecology. The conceptualisation of eco-feminism as a critical scholarly discipline will be mapped therein. This will provide the theoretical grounding for understanding and analysing the eco-feminist theology of Sally McFague.

Secondly, the ethical and philosophical role of religious cosmologies will be explored. Since the conception of a model of the universe that relates authentically to modern scientific theories is an important reference point for McFague's theology, the influence of Gaia theory and the incorporation of this theory into social and theological discourses will be discussed. The experience of bodies is also a primary reference point in McFague's theology. Therefore attention is also given to the field of body-theology, and the location of theological reflection within the flesh.

Lastly, the model of the universe as the body of God, as explicated within McFague's theology, will be discussed and specific limitations and critiques highlighted.

4.2 Eco-feminist theology with the field of Religion and Ecology

When it comes to the conceptualisation of the field of religion and ecology, scholars do not only differ in the emphasis of a primary dialogue partner (ecology, sociology or theology), but their approaches and methodologies also differ greatly. Within this field,

we do not only find eco-feminists, eco-feminist theologians and eco-theologians but also anthropologists, ethnologists, environmental philosophers and spiritual ecologists. Hoel and Nogueira-Godsey (2011:5) remark:

[D]ivergent approaches and opinions exist as to the particular methodological underpinnings and analytical frameworks employed in order to understand, examine, analyse, and critique the relationship between religion and ecology.

In times when confronted by new social, political or environmental problems, church communities find ways to redeploy their theological and cultural traditions (Jenkins, 2013:5). The situatedness of each inquirer determines the direction, the particular critique and the amount of revision or reform present in this “redeployment”.

The metaphor of cartography has been used productively in this endeavour by a number of scholars – most notably Serene Jones in *Cartographies of Grace* (2000) and by Jenkins, *Ecologies of Grace* (2013). Serene Jones maps together feminist theory and Christian theology to provide a way for feminist scholars to travel through familiar “terrain of faith” in new ways. These approaches are thus not revisionist, neither specifically reformist but provide new axes to orient theological interpretation in new times (Jenkins, 2013:7).

The double-edged critique of ecofeminist theology, other than feminist theological or ecological theological reorientations, critiques both the patriarchal ideology of modern culture and the patriarchal metaphors inherent in religious ideology, as well as the shared terrain where cross-fertilisation occurs – the terrain of socially constructed religious-scientific worldviews. As Karen Warren (1994:2) summarises: “any feminism which is not informed by ecological insights, especially women-nature insights, and any environmental philosophy which is not informed by ecofeminist insights is simply inadequate.” This, however, does not specify the theological dimension, which constitutes both ideological content to be critiqued, but is also, for many, a source of inclusive and transformative metaphors.

Bron Taylor distinguishes a scholarly divide within the discipline of religion and ecology. He distinguishes both approaches of a “historical/social-scientific” nature and

“confessional/ethical” approaches. Scholars within the “historical/scientific” approach, critically analyse and describe the intersections of religion and ecology, without necessarily deconstructing or reconstructing religious doctrines or traditions, while in the “confessional/ethical” approach scholars engage critically with religious and ecological themes in order to generate ecological theologies (Hoel and Nogueira-Godsey, 2011:6). Taylor sees scholars with specific activist stances belonging to the last category. Hoel and Nogueira-Godsey (2011:7), however, cautions that this distinction is both “precarious and permeable”, because of the critique of feminist scholars that there is no “objective” or agenda-free analyses and because scholars’ “multiple positioning lends itself to a variety of commitments”.

Heather Eaton (2005:27) notes that scholars came to ecofeminist critique through different roadways – some by the analysis of the cultural symbolic conception of women and nature, others via religious and social movements and activism. Scientists join the critique through biotechnology or feminist philosophy of science, while activists join the conversation through specific issues, e.g. GMO’s, reproductive health, water and food security.

When ecofeminist theology engages ecology, it engages both the scientific redirections in ecology and the ideology inherent in these scientific redirections. Ecological issues themselves have been understood from many vantage points, which are commonly categorised from ‘light’ to ‘dark’ green. Eaton (2005:31) categorises ‘light green ecologies’ as the more anthropocentric approaches, wherein humans are the most important species, and good stewardship and management of resources are seen as adequate ways of addressing ecological problems. ‘Dark green ecologies’ on the other hand are called earth-centric ecologies that are classified as non-anthropocentric paradigms. These ‘deep green ecologies’ are often also called biocentric, bioregional, eco-centric, Gaia, deep ecology or cosmology paradigms (Eaton, 2005: 31).

Rosemary Ruether (1996:5) points to the ideological superstructure on a cultural-symbolic level that mediates the relationship between sexism and environmental exploitation. This structure sanctions and reflects social, economic, political and religious order. It is mainly constructed within white affluent or academic contexts and

needs to be corrected and critiqued by those at the bottom of the socio-economic system, or else they will only perpetuate a form of cultural escapism, rather than contributing to liberative praxis.

For this purpose, the critique of androcentric religious and scientific cosmologies is foundational to eco-feminism, but to temper, a colonialist form of cultural escapism the lived experience of bodies, primarily female and more-than-human bodies needs to be brought into critical dialogue with these symbolic frames of reference. These two aspects will consequently be further explored.

4.3 The role of cosmology

“If you put God outside and set him vis-à-vis his creation and if you have the idea that you are created in his image, you will logically and naturally see yourself as outside and against the things around you. And as you arrogate all mind to yourself, you will see the world around you as mindless and therefore not entitled to moral or ethical consideration” (quoted in Tucker and Grim, 1994:173).

These are the words of anthropologist Gregory Bateson, written in 1972, in his *Steps to an Ecology of Mind*. Rasmussen shows that this connection between our idea of God and our understanding of ourselves, presumed by Bateson, implies a close connection between cosmology and its ethic²⁰. (Rasmussen, 199:179) Ernst Conradie also remarks that the classic task of religious cosmologies is to provide a sense of the whole and human beings' role or position therein. Cosmologies provide us with “a frame of reference with ultimate explanatory power, absolute legitimacy, moral cohesion and cosmic scope” (Conradie, 2008:17).

Rasmussen (1994:179) argues that human beings are incorrigibly cosmic storytellers, telling stories creates identities. Religious cosmologies not only explicate the whole of life but also explain the “manner of life” which is in accord to these cosmic stories. Rasmussen (1994:179) shows that the word “ritual” is from the Sanskrit word *rita*,

²⁰ He defines ethic as “the whole way of our thinking about who we are and what other people are” (Rasmussen, 1994:179).

signifying “order”, which is the etymological source of both “rite” and “right”. The act of telling cosmic stories and giving these stories ritual expression, becomes the “rite”, the ritual, that offers the “way of life” or a “right” ordering of existence. In a time where a reigning cosmology and “ordering of life” fails us, a review, critique and indeed the new employment of other transformative narratives are appropriate. ²¹

Eco-theological scholars and ethicists like William Jenkins (2013:11) are however critical of such a focus on cosmological restructuring on its own. Because of the plurality inherent in religious environmentalism, Jenkins argues, that many cosmological mappings have not been very helpful and have rather obscured a clear theological terrain, because of the inherent “worldview” that shapes these theological responses from the outset.

Jenkins (2013:12-13) argues that the construction of earth-centred cosmologies is a reaction to Lynne White’s critique of religious worldviews. He argues that White brought forth a number of assumptions regarding religious worldviews – specifically focusing on their anthropocentrism and the potentially harmful effects of salvation stories on an environmentally benign worldview. Jenkins (2013:11) argues that the legacy of these assumptions can lead to the over-determination of the significance of cosmology for Christian ethics. Jenkins chooses to instead focus on the practices that lead to the development of worldviews. He argues that the grammar that leads to the telling of cosmological narratives is a “grammar of grace”. Jenkins (2013:12) therefore focuses on different “vocabularies of grace”, which he explores for resources of restoring deficient cosmological narratives.

Jenkins (2013:13) proceeds to show how a number of eco-theological scholars organise environmental theologies in reaction to Lynne White’s critique of religious cosmology. Whether the distinction is between anthropocentric, eco-centric and theocentric approaches; the degree to which a cosmology is open to scientific engagement; or the critical mode of engagement with religious tradition (revisionist, reconstructionist, apologist); or by the restructuring of the traditional doctrines of

²¹ Such cosmologies create a moral order and as such they can easily become distorted and oppressive – as the ‘orders of creation’ defined by the neo-Calvinist architects of apartheid theology amply illustrate.

anthropology, creation and God, Jenkins argues that the values of an appropriate cosmology are determined by values from within ecology – White’s critique.

Jenkins (2013:16) chooses to focus on various articulations of soteriologies, arguing that investigations into how nature is incorporated into Christian identity can illuminate sites of “practical reason and human reform”.

While a thematic approach, as Jenkins articulates, helps in articulating a diversity of responses to the ecological crisis and can navigate between a variety of diverse cultural appropriations of, e.g. soteriology, the underlying implied cosmology, with its ideological accents still prevails. Nancey Murphy (2003:76) argues that it is precisely Christianity’s hesitance to integrate cosmology and theology that has led to the marginalisation of the doctrine of creation – both academically and in the life of the church. Arthur Peacock (quoted in Broderick, 2012:1) emphasises the importance of an integrated cosmology for articulating God’s relation to the world:

[A]ny affirmations about God’s relation to the world, any doctrine of creation, if it is not to become vacuous and sterile, must be about the relation of God to, the creation by God of, the world which the natural sciences describe. It seems to me that this is not a situation where Christian, or indeed any, theology has any choice.

Ernst Conradie (2008:17) refers to the interconnectedness of ontology and cosmology, which is central to not only Christianity but also other religious belief systems. The existential relationship between God, gods, spirits and reality, the world includes history and influences the frame of reference for ethical decisions in everyday life.

Scholars from within the Yale school of Christian theology also emphasise the same role of biblical narratives within Western societies. They draw on the insights of Northrop Frey and Paul Ricoeur in suggesting that cultures live within the symbolic ‘world’ created by specific paradigmatic stories (Conradie, 2008:17). These stories construct the frame of reference within which people orientate themselves.

Conradie (1997: 213) suggests that working with a broader scope of cosmology, focusing both on how the universe came to be and to what destiny it is moving is preferable above the use of worldviews. Worldviews can be limited in scope and are primarily defined anthropocentrically. Cosmologies, taking the widest spatial and temporal scope can more accurately define the place of humans in the cosmos. Significant in the articulation of new cosmologies is the centrality of the genetic continuity between humans and creation – we share an evolutionary history and lineage (2005c: 98).

Ecofeminist theologians vary in their critique and adaption of a “Biblical cosmology”. Theologians of spiritual ecologies or theologies²² reject the cosmogony and cosmology as found in the Bible; they claim that “it is ... a political device that establishes patriarchy as an order that originated with time, space and the creation of matter.” (Raphael, 1996:44) This was done by the precedence of patriarchal narratives that enforce conquest and with it sanctions the use of women and nature as servants of its own projects” (Raphael, 1996:20). These theologies claim to be radically immanentist, breaking down the binary oppositions of spirit and flesh, sacred and profane, taking the bodily experience of women seriously. Raphael (1996:20) notes that through Western history:

[w]omen have not been, and by and large are still not, the subjects of their own religious experience. Patriarchal Western religion has owned women’s bodies but disowned the sacrality of those bodies.

These forms of feminist spiritual ecology thus break from the traditional appropriation of historical revelation and instead consider female embodiment in its connection with other natural elements as the prime source of sacral empowerment (Raphael, 1996:23).

Heather Eaton (2005:34) however warns that the combination of ecofeminism, essentialism and spirituality can lead to theologies that are highly individualised, internalised methods of changing individual consciousness. These do not adequately

²² The term thea-logies, in contrast with theo-logies, is derived from the feminine θεά in Greek meaning "Goddess."

bring about political transformation and lead to the uncritical rejection of religion and spirituality informed by traditional metaphors, which make for a scarcity of conversation partners, within this discipline.

4.4 Ecology and body- theology

When Nelle Morton characterised feminist theology as ‘hearing one another to speech’, she situated women’s theology in the body. Taking women’s religious experience seriously means coming to terms with the experiences of women’s bodies. These bodies become the living critique of oppression and the site of struggles for liberation (Isherwood, 2004:140). Not only is the primacy of the body an acknowledgement of subjective individual experience, but sociologists remind us that the body is the site “on which many discourses of power and knowledge are enacted” (Isherwood, 2004:151). Therefore, the body in ancient philosophy was also a means of diagnosing social and political problems.

Body theologian, James Nelson, remarks on the one-directional nature of theological reflection through most of history, when it came to the body. Reflection began from the Bible and then moved towards application to bodies. The assumption was made that the truth that religion held was arrived at quite independently of bodily-sexual experience. (Nelson, 1992:41). The feminist and queer theological liberation movements have helped theologians to re-evaluate the importance of bodily experience.

A theology that takes the embodied experience of the individual seriously starts its reflection from this very fleshy experience of life, a fleshy experience characterised by both our hungers and our passions, with our sensuous encounters with other bodies and the earth (Nelson, 1992:42 – 43). Body theology acknowledges embodied experience as a fundamental realm of experience of God.

To take seriously our bodied experience of God and one another means to come to terms with the depth of the doctrine of incarnation²³. Lisa Isherwood (2004:142) acknowledges the struggle of feminist theologians in their confrontation with the incarnate Christ of traditional theology – an imperial, masculine body. As Elisabeth Johnson (quoted in Isherwood, 2004:142) states:

[T]he idea that the Word might have become female flesh is not even seriously imaginable, so thoroughly has androcentric Christology done its work of erasing the full dignity of women.

For womanist theologians, a bleached Christ signifies a body that is white and can never be black. This androcentric ideology is not only exclusive but has been used to exploit and marginalise people (Isherwood, 2004:142). Feminist, queer and body theologians, therefore, broaden the implications of the doctrine of incarnation – making it applicable to all flesh. When Christ's incarnation in all flesh is proclaimed, we must take the experience of all non-conforming bodies seriously. Many feminist theologians take this doctrine to its radical root. Isherwood notes that incarnation calls us to deep connection – with our own embodiedness and those of all other bodies that we share this world with – which is best rooted in bodies and not metaphysics²⁴ (Isherwood, 2004:148).

Ivonne Gebara (1999:2) reflects on her engagement with ecofeminist theology and states that it is her embodied experience that led her to the formulation of an eco-feminist liberation theology:

Ecofeminism is born of daily life, of day-to-day sharing among people, of enduring together garbage in the streets, bad smells, the absence of sewers and safe drinking water, poor nutrition and inadequate health care. The ecofeminist issue is born of the lack of municipal garbage collection, of the

²³ Nelson (1992:51-52), like various other feminist and queer theologians, deepens the Christological understanding of incarnation. Just as the union of divine and human life in the body of Christ is central to our “historical” understanding of salvation, the christic paradigm points towards the revelation of God’s presence and activity in the world today – within the gracious discovery of the union of divine and human/earthliness in all flesh.

²⁴ Grace Janzen (quoted in Isherwood, 2004:148), when clarifying queer theology’s favouring of immanence, states that transcendence is not obliterated in queer theology, but treated as the dimension “other than a secular reduction of this world”, rather than just “other than this world.”

multiplication of rats, cockroaches and mosquitoes, and of the sores on children's skin.

Sally McFague argues that our destruction and indifference to the more-than-human world is centred around our "inability" to love our bodies²⁵, the distrust and hatred that years of speculation about life after death has further ingrained. McFague (1993:17) broadens our understanding of "body"²⁶ by extending it to all matter – to animals, grass and trees since they are also matter, from which all is made. She, however, emphasises that the primary meaning and base of interpretation is our own bodies, as well as the familiar bodies of other animals around us.

Queer theologians like Marcella Althaus-Reid has implored us to read theology through the bodies of the most marginalised – battered women, drag Madonnas and sex workers (Isherwood, 200:153). Indeed, as ecofeminist scholars, we can add the multiform bodies of animals, landscapes and vegetation. Embodying eco-feminist liberation theology, would mean liberating incarnation from an androcentric, imperial Christ and listening to the groanings of nature until it becomes the familiar voice of flesh made Word.

McFague connects a feminist appreciation of bodily experience as religious experience with a bodily encounter with God as immanent transcendence. Subsequently, it is essential to reflect on the scientific and ideological motivation for an organistic view of the earth. How can we understand the earth as body, and how does this understanding relate to the metaphor of the universe as the body of God?

²⁵ James Nelson (1992:43) also notes that studies in body psychology show strong correlations between self—body connectedness and a person's capacity for ambiguity tolerance. Inversely, researchers also find strong correlations between body alienation and a propensity toward dichotomous perceptions of reality. An alienation from the matter of our own bodies is thus perpetuated in alienation from the physical realities of life on earth.

²⁶ McFague qualifies "body" as an understanding of matter that refers primarily to a whole material organism, which she extends t analogously to all solids - that which occupies space and is perceptible to the senses (1993:215.)

4.5 Gaia theory

Anne Primavesi argues that after the Copernican and Darwinian revolution, James Lovelock's frame of reference in Gaia theory is slowly becoming a new scientific orientation point for humans to orientate and perceive themselves (2004:58). Gaia theory suggests that not only did the stable state (homeostasis) of the Earth evolve over billions of years, but that life itself played a role in creating and maintaining this environment, through its interaction with the environment.

James Lovelock, considered the founder of the Gaia hypothesis²⁷, is a physician and inventor, who formulated the theory of Earth as a self-regulating system. He came to this insight while researching the probability of life on Mars. In 1969 Lovelock showed that Mars' atmospheric equilibrium, the fact that elements stayed in relatively the same proportion to each other, would be an unlikely host of life when compared to the disequilibrium that characterises earth's atmosphere. This theory was strengthened by the research of biochemist Lynn Margulis, considered a co-founder of the Gaia hypothesis. (Monaghan, 2008:679) She stressed the importance of the Earth's bacterial ecosystem, showing that it formed the fundamental infrastructure of the planet (Lovelock, 2004:2).

Introducing the earth as a *self*-regulating system evoked scorn from a number of scientists, for in this classification it suggested that earth is a living organism. Describing Gaia as self-regulating was purely done by scientific definitions, i.e. "as [possessing] the ability to keep its climate in a dynamic state of constancy or homeostasis." (Primavesi, 2004:79). In this way, Gaia would be an organism by physicists or biochemist's definitions.

Gaia theory not only proved that the earth was a living system, but also that the basic unit of evolution is the Earth system itself. This is called "tight coupling" – referring to the close relationship that exists between the evolution of living organisms and the evolution of their physical and chemical environment – it constitutes a single

²⁷ "Gaia" is taken from the name of a Greek goddess Gaia or Ge, which is also translated as Earth. She is described in Homeric Hymns (900 BC) as the "mother of all, eldest of all beings". Gaia also forms the stem for names such as geography and geology (Monaghan, 2008:679).

evolutionary process (Primavesi, 2000:3). Therefore, Lovelock states that soon after the origin of life, living organisms were not adapting to their geological world, but rather to an environment of their making. (Lovelock, 2004:3) The earth as living system thus possesses features of organisation analogous to (though not identical to) the physiological organisation of individual organisms.

Lovelock's hypothesis of "living Earth" is a metaphoric antithesis to the view of the Earth as a great machine. Lovelock's choice of a feminine goddess for his theory is remarkable, but has often been criticised – it affirms the Western bias that the earth is feminine (Monaghan, 2008:679). The association of this theory with Greek mythology has led to a welcoming acceptance among so-called "neo-pagan" and theological groups – some of these religious groupings will argue that Gaia is descendant of primal religion. The critique of many scientists was directed at the choice of name for this theory. Lovelock (2004:1) notes that the science of Gaia is now accepted as part of conventional wisdom - called Earth system science.

The public acceptance of the Gaia theory has led to controversy among established religions. This controversy is heightened by the confluence of the scientific theory and the mythological remnants attached to it. Many theologians would argue that an acceptance of Gaia implies accepting pantheism or polytheism (Monaghan, 2008:680).

Lovelock (2004: 3) stresses that Gaia theory not only offered a hypothesis to be tested but provides a new way of organising the facts about life on earth. Gaia theory, purely as earth system science, offers an extremely valuable correction and critique to traditional scientific worldviews, which are just as ideologically enmeshed as a theory named after a Greek goddess is.

Southgate (2011:228) stresses that the Gaia Hypothesis as a scientific description, particularly expressed in non-teleological terms is a helpful way to evaluate and reflect on humanity's relationship with creation, but when the description of Gaia is extended to include purposive and personified agency, other analyses of the nature of divinity is needed. He notes the example that Gaia is a function of this planet alone, and has no status in the rest of the universe.

Rosemary Ruther (1992:251) uses this organistic view of the universe to suggest a new theocosmology, especially because this theory emphasises three basic premises: “the transience of selves, the living interdependence of all things, and the value of the personal in communion.” Denise Peeters and Primavesi both contend that Gaia theory proposes a more adequate paradigm for Christian thinking and ecological healing.

4.6 Models of God in contemporary society

Southgate (2011:207) states that in the quest of reformulating models of God, one does not only seek conceptual clarity nor pragmatic and useful models. “The truth of God in Christian tradition is not an idea but a dynamic being.” Our quest for truth is less about knowing who God is, and more about living *within* the truth of God. When we discriminate “the contours of the being of God in relation to humanity and the cosmos in particular situations,” we do so, so that humanity may better live in that relationship.

When assessing the value and appropriateness of models of God what takes precedent is not necessarily the criteria defined for hypothesis testing, i.e. data, coherence, scope and fertility, as defined by Barbour (though these are important guides), the conceptualisation of the relationship between God and the cosmos and how these relationships have changed and will change remains significant (Southgate, 2011:209).

McFague (1993:137) herself defines the following criteria when analysing the appropriateness of different models of God’s relation to the world: embodied experience, usefulness, and compatibility with Christian faith as well as contemporary scientific worldviews.

4.7 The Universe as God's Body

4.7.1 Mode and motivation of McFague's theology

Sally McFague's model of the Universe as God's body is deeply affected by her commitment to a natural world in crisis and the seeming disregard of humanity to this problem. As eco-feminist, her scholarship is also composed in a different key than "objective" propositional theologies. Her work integrates autobiographical reflection and openly advocates for the voiceless (both human and non-human). The practical and ethical response to a planet in peril establishes the driving force behind McFague's theology. While theologians like Daphne Hampson criticise her theology as a form of humanism, she argues that our function as humans are not primarily to think true thoughts about abstractions but to live appropriately and responsibly. (Southgate, 2011:215).

She identifies as a reformist feminist theologian (not revolutionist), arguing that although deeply entrenched in patriarchy, the root-metaphor of Christianity is 'human liberation'. She expands the notion of the liberation of the oppressed to include the planet itself. Waschenfelder (2010:88) describes McFague's theology as broadly focussed on the intersection of theology and human agency, both in history and society.

To appreciate McFague's model of The Universe as God's Body adequately it is important to understand the philosophical foundation that informs her theology. McFague argues from linguistic philosophy that all language is metaphorical. Through the use of metaphors, people can understand one thing as something else. There is no unmediated access to 'reality' apart from the interpretive medium of metaphoric language. The major metaphors through which life is explained are also socially and culturally constructed. (Wachenfelder, 2010:89) Since religious language is also metaphoric, it implies that religious metaphors are also provisional and therefore subject to evaluation and criticism (McFague 1983: 14). Metaphors are inherently paradoxical and thus dynamic and can't be reduced to merely propositional statements. A metaphorical theology supports a "stacking up" of metaphors since no single metaphor alone is an adequate theological conceptualisation.

McFague (1983:23). describes a model as a “dominant metaphor” that is enduring, the most prevalent one in Christianity arguably being “God our Father”. This model has a variety of supporting metaphors, which collectively can be constructed into a conceptualised, ordered theology.

To show how those aspects of our world, which are elevated as representations of God are glorified, McFague (1993:21) refers to males and their roles (fathers, kings, governors), the human mind (intelligence, purpose intention) and the human heart (love, compassion, sacrifice), which are all regarded with great reverence because their use as metaphors for the divine. If we are thus reluctant to imagine God as female or embodied, we regard certain genders and the body as inferior.

4.7.2 God relating to world within McFague’s theology

McFague’s model of the universe as God’s body is further strengthened by sacramental themes – uniting transcendence and immanence in novel ways. She suggests that the model of the universe as the body of God unites transcendence and immanence – every created thing can potentially become a sacrament of God. This model allows us to perceive God in this world, as opposed to traditional models in which divine transcendence is either described by political models (God as King, Lord, Patriarch) or through negative abstractions (God as eternal, not temporal; infinite, not finite etc.) (McFague, 1993:20). In her own words, she (1993:19) states:

We are not describing God as having a body or being embodied we are suggesting that what is bedrock for the universe – matter, that of which everything is made – might be, in fact perhaps ought to be, applied to God as well.

McFague’s further explicates her understanding of transcendence by reflecting on the God’s revelation of Godself in Exodus 33:22-23.

[A]nd while my glory passes by I will put you in a cleft of the rock, and I will cover you with my hand until I have passed by; ²³ then I will take away my hand,

and you shall see my back; but my face shall not be seen (The Bible - New Revised Standard Version).

McFague (1993:132) suggests that this moment of encounter unites both flesh and spirit, human and divine, which affirms that God is not afraid of flesh, but loves it and becomes it. McFague relates this encounter to the incarnation of God in Jesus and suggests that we can see God in all humble bodies on our planet, that all can be visible signs of the invisible divine glory. This she, however, qualifies as not the “face”, the depth of divine radiance, but the back, which is still “more than enough”. This allows us to see ourselves and every other created thing as the living body of God (McFague, 1993:133).

McFague (1993:133-134) uses this meditation to reimagine divine immanence and transcendence. She suggests that this model is a radicalisation of both. Transcendence is radicalised in that the whole of the entire cosmos is the outward being – the embodiment - of the One who is the source of all existence. This includes the universe as a whole and every part and fragment of it. The universe as God’s body is a radicalisation of immanence in that God is not only incarnated in just one place (Jesus of Nazareth) but in and through all bodies – human, animal, mineral, celestial²⁸. The incarnation becomes a paradigm of the divine way of enfleshment. When we then encounter divine transcendence immanently, we, however, know that what we encounter is limited – not the face, but the back of God.

This model suggests that God “knows” the world immediately and intimately (as body), which is more than a rational knowledge, for embodied experience suggests knowledge by acquaintance and not merely “information about” (McFague 1987:73). Transcendence and immanence are related through embodiment on a continuum. McFague (1987:74) explains:

Spirit and body or matter are on a continuum, for matter is not inanimate substance but throbs of energy, essentially in continuity with spirit.

²⁸ Moltmann (1985:13) also argues for a different accent in the traditional formulation of God’s relation to the world – balancing immanence with transcendence. Arguing from the social doctrine of the Trinity, he contends that what is central to eco-theological thinking is not the distinction between God and the world, but rather the presence of God in the world and the presence of the world in God.

God's primary engagement with the world is thus interior and caring not external and periodic. This animation is through the complex physical and cultural evolutionary process, which began billions of years ago. This sets God's primary relation as the continuous care and sympathetic concern for all bodies, and not the periodic interventions of a charitable King (as in the classic patriarchal theological models) – in a historical, political interpretation of transcendence (McFague, 1987: 73).

Transcendence in this model is thus not interpreted as that is apart from, different to or above the material universe. McFague (1993:54) suggests that transcendence is that which is “surpassing, excelling or extraordinary” – although she does not fully qualify these characterisations. McFague invites us to see the extraordinary in the ordinary, to redefine transcendence as the sacred depth of the cosmos. Waschenfelder explains that this model suggests God as “the ubiquitous, immanent presence of love, which permeates evolutionary processes,” rather than a specific personalised being (Waschenfelder, 2010:95). This love is however defined relationally as McFague suggests that the metaphors of God as Mother, Lover, Friend²⁹ and Spirit is used to further explicate the presence and action of God (McFague, 1987:83-84).

4.7.3 Materialist understandings of transcendence

Aspects of this material understanding of transcendence can also be found in Martin Luther's exploration of the two natures of Christ, as well as Christ's presence in the eucharist. Larry Rasmussen builds his understanding of God relating to the world on Luther's understanding of *finitum capax infinit* – the finite bears the infinite. Hendel (2008:420) notes that Luther developed this doctrine in a highly polemical context in which the physical presence of Christ in the sacrament was debated. Luther opposed

²⁹ McFague uses three definitions of love, *nl.* *agape*, *eros*, and *philia* to further clarify the imaginative possibilities of God as Mother, birthing and sustaining all things with *agape*; God as Lover desiring the well-being of all bodies; and God as Friend inviting us as co-creators in extending fulfilment to all creation. Furthermore, McFague focuses on the agential qualities of the Spirit as “breath of life, which is the principal of renewal and sustenance in all things (the implications of the use of this metaphor will be given attention in Chapter 5). A full analysis and description of each of these metaphors, however, is beyond the scope of this thesis, which primarily engages with the model of the Universe as God's body.

not only the doctrine of transubstantiation, but also his fellow reformers, Zwingli and Oecolampadius' symbolic understanding of the sacrament (Hendel, 2008:421). Against the spirit/flesh dichotomy, Luther argues that the flesh is essential since it is in the flesh and through the flesh that Christ accomplished God's redemptive work (Hendel, 2008:424). Therefore, he argues that the physical and spiritual are not irreconcilable opposites, but "are intimately yoked in Gods saving and life-giving work" (Hendel, 2008:427). Luther's theology of creation and incarnation affirms creation as good, emphasises the immanence of God's presence in all created things, and further affirms that God accomplishes his redemptive work through fleshly, material means (Hendel, 2008:430). These means are not only the bread and wine of the sacrament but indeed all created matter.

Therefore, indeed, he himself [God] must be present in every single creature in its innermost and outermost being, on all sides, through and through, below and above, before and behind, so that nothing can be more truly present and within all creatures than God himself with his power" (Luther's Works, 1955 – 1986: vol. 37:58).

Larry Rasmussen uses this doctrine to develop an earthbound panentheistic theology. He (1992: 42) rewords this doctrine as follows:

The meaning of *finitm capax infiniti* is simple enough: God is pegged to the earth. So, if you would experience God, you must love the earth. The infinite and transcendent are always dimensions of what is intensely at hand...The finite is all there is, because all that is, is there.

Aspects of a non-dualistic understanding of transcendence can be traced in Luther's sacramental understanding of *finitum capax infiniti*. Elvey's exploration of a thoroughly materialist understanding of transcendence and immanence can be linked to this exploration of divine presence. Elvey (2006:78) argues from a materialist viewpoint that "nature" itself is never fully approachable and knowable to the human senses. In this view, nature also becomes the "other-worldly." Transcendence is then not qualified in opposition to immanence, nor spirit in opposition to matter. The activating agency of the Spirit can be seen as the agency of matter itself. Within a Christian paradigm of

incarnation transcendence and immanence are inter-influential (Elvey, 2006:79). Within this view, the otherness of nature is acknowledged in its inorganic and organic complexity.

Conradie (2005b: 295) argues that a number of eco-theologies over-emphasise God's immanence in creation. While this may prevent deism, Conradie argues that the distinction between God and creation becomes indefinite. He contends that a distinction between God and world does not imply alienation from God and that transcendence is necessary for the integrity and freedom of creation. Conradie, however, does acknowledge different understandings of transcendence. He refers to Kallistos' argument that we cannot search for what is transcendent outside this world since we cannot know what transcends it. In this way, it is possible to focus exclusively on the immanent until it becomes "transparent" and reveals to us "unexpected depth dimensions that transcend our knowledge" (Conradie, 2006: 100). He argues that constructions of transcendence are hermeneutically inevitable and what is required is a notion of transcendence that does not lead to alienation from the created world, nor a conception of immanence that leads to resignation and tyranny (Conradie, 2006:101).

From an eco-feminist perspective, any construction of hierarchies is susceptible to manipulation and oppression. Taking the religious, bodily experiences of the lowest of the low seriously, means that any conception of transcendence as a category 'in opposition to' the created world is untenable. Eco-feminist cosmologies also emphasise the necessity of the divine to be more than an anthropomorphic being, which open them up to revelations of the divine which are more than a single personified power.

MacNichol (2003:75) cautions that a cosmic, universal, and spiritual cosmology can easily lead to colonisation – ignoring a diversity of worldviews and becoming too abstract to engage with everyday life and unable to provide the critique of a politics of domination.

The critique of scholars such as Conradie and MacNichol should be taken seriously, for it questions the motivation of this model itself– namely to liberate the oppressed

and motivate mutual care in creation. The construction of God's agency within the model of the universe as the body of God needs to be clarified in further detail to assess the usefulness of this model in negotiating contemporary environmental conflicts.

It can, however, be argued that a sacramental understanding of the presence of Christ in the materiality of this world is a thread within Christian theology that can be explicated in "material transcendence" – as formulated by Elvey. A non-hierarchical formulation of the mystery of God's presence, in reality, is of primary importance for a feminist theology that is motivated by the liberation of the bodies of the lowly and the poor. McFague and Elvey show that this transcendence need not be formulated in opposition to the immanence of the created world, but is indeed a mystery we encounter in our interaction with it.

4.8 Conclusion

In this chapter, the situatedness of Sally McFague's eco-feminist model of the universe as the body of God was explored in a number of contexts. Within contemporary eco-theological responses to the environmental crisis, this model critiques the androcentric bias of both religious and scientific worldviews and offers an alternative that invites authentic engagement.

McFague chooses the reformulation of a religious-scientific cosmology as a frame of reference for her eco-feminist liberation theology. Rasmussen has illustrated how cosmologies are not merely abstract ideas about the functioning of the world, but indeed provide points of orientation and informs ethical practice. McFague's choice of the body as primary metaphor for our understanding of our relationship with God, both complexifies our understanding of incarnation and radicalises it to apply to all fleshly bodies. Although McFague does not incorporate body-theology into her theological explication of the body of God, this method adds further theological depth to a model that takes seriously the embodied experience of all beings. In this model, the physical needs and survival of bodies take primary concern, but also the mutual care that upholds and gives expression to the body of God.

Lastly, McFague's articulation of an "immanent transcendence" is explored. This formulation relies heavily on sacramental and incarnational theologies. Both of these strands are deepened and conceptually clarified by building forth on Luther's formulation of *finitum capax infiniti* and Elvey's exploration of material transcendence. It is argued that this formulation upholds the unattainable mystery of the Sacred, while not falling into hierarchical formulations of transcendence and immanence. In this understanding of God's relation to the world, matter is all there is, but matter is also more than the object of our scientific explanations, it is the means of God's grace – the fibre of who God is.

Chapter 5 Sharing Agency

5.1 Introduction

I would argue that the depth of McFague's eco-feminist theological contribution is her reappraisal of embodiedness. Bodies are of primary significance – from the abused, silenced and battered bodies of women to the devitalised bodies of battery-hens, to the body of our oceans. They are of primary significance, not only ecologically, socially and aesthetically, but indeed theologically because they share in and form part of the body of God.

This chapter will explore the very materiality of the body, what it means to “be a body” and what it might mean to be an active body – have agency in the time of the Anthropocene. Both Bruno Latour's exploration of material agency – as is suggested in Actor-network Theory and the implications of new materialism will be brought into conversation with the notions of agency that are articulated in McFague's theology of the Universe as God's body.

5.2 The materiality of bodies

The very reality of the body is a contested subject in feminist theory. Because of the strong association of female corporeality with nature, in the first two waves of feminism, many theorists have indeed fought to liberate women's identities from nature or biology defined as a “repository of essentialism” (Alaimo, 2010:5). Despite numerous studies in feminist and cultural theory on the body, Stacy Alaimo (2010:5) shows that these mostly handle the body a-biologically, giving primacy to its social and cultural construction. By bracketing the body or rendering it the blank canvas of cultural construction – thus not engaging its materiality - the lure of biological determinism remains.

Lynda Birke, feminist biologist and pioneer of materialist feminist thought, illustrates the changing and changeable nature of bodies by citing a number of examples of how bodies are continuously modified – cells constantly renew themselves and bones are

constantly remodelled (Alaimo, 2010:3). Biology, like any other field of science, has been moulded by ideologies to serve certain norms and values. As Alaimo (2010:3) notes, feminist theorists are all too aware of how biology has served as “armoury” for racist, sexist, and heterosexist norms. It is crucial that feminists scrutinize and transform these norms and assumptions if we are to debunk the myth of biological determinism. Alaimo (2010:5) cites Myra Hird’s work, “Naturally Queer”, in which she illustrates by a myriad of examples that heterosexism can indeed seem “unnatural” in many fields of science (e.g. the majority of cells in the human body are intersex). Hird indeed concludes her argument by stating “We may no longer be certain that it is nature that remains static and culture that evinces limitless malleability.”

Alaimo (2010:29) refers to two significant environmental movements of the late twentieth century – environmental justice and environmental health – that marks and begins to articulate the permeability of human and more-than-human bodies. The complex interactions and power-plays at work in instances of environmental racism, chemical pollution, the discounted effects of genetically modified organisms within environmental systems and the effect of hormonal birth control on fish species are but a few examples of how these fields show the often-unpredictable interactions between biological bodies, ecosystems and chemical pollutants (Alaimo, 2010:3). Within a globalised world, where the effect of humanity is evident in nearly all earth-system processes, it is no longer appropriate or adequate to think of causality and agency as exclusively human and one-directional processes. Alaimo works with the theory of transcorporeality, which she describes as a “movement across bodies”, as an ontological orientation to the body. She (2010:2) describes the focus of her work in “Bodily Natures” as follows:

Imagining human corporeality as transcorporeality, in which the human is always intermeshed with the more-than-human world, underlines the extent to which the substance of the human is ultimately inseparable from “the environment.

The primary focus of this study is however not to draw out the implications of a materialist paradigm into a coherent ontology or theodicy – therefore while the complex discussions around how the individual self is constituted, what constitutes agency, how do we conceptualise combined agency and how divine agency is

differentiated from material agency etc. can be acknowledged, the objective of the incorporation of this theory is not to reformulate these theologies, but rather to open avenues of messy, but comprehensive reflection on how we share and co-constitute the world, and how we relate and belong to the body of God.

When one reflects on the agency of bodies, it is thus necessary to note the numerous ways that our bodies and more-than-human bodies are formed by and respond to each other. Therefore, this chapter will firstly look at the ideological formation of the notion of agency itself, formulated in feminist and eco-feminist discourses and then proceed to reflect on the way that we come to share agency with other material bodies.

5.3 Agency and the development agenda

When we reflect on agency within the era of the Anthropocene, it is important to note that it carries a number of semantic values that perpetuates a Western patriarchal economic world-view.

Vandana Shiva, Indian eco-feminist and environmental activist, harshly criticises the Western development agenda. She (1995:161) shows the damage done by this agenda, primarily advocating wealth creation within a Western patriarchal economic vision, and not truly eradicating poverty. Within this vision, women are not only exploited and excluded but nature itself, as well as many non-Western cultures, are eroded and degraded. She (1995:164) argues that the dis-empowerment of women and their further exclusion from productive activity has been caused by the appropriation and sadly the degradation of natural resources by Western development projects. One example is the expansion of cash crops, which undermines local food production and leaves women with meagre economic resources to feed and care for their families (1995:162). Through the privatization of land and resources and an agricultural methodology focussed on high crop yields, many development projects have not only dis-empowered women but have also robbed the more-than-human world of its renewability and regeneration – classifying times of regeneration as passivity (1995:166). In this process, both woman and the natural world are robbed of their agency. The intricate cross-relations of an ecosystem that is known and respected in many subsistence economies are glossed over by many developmental

programmes. The resiliency of ecosystems as well as their regenerative capacity are thus exploited and degraded (1995:166).

Shiva (1995:166-167) argues that the lack of recognition of nature's regenerative processes as integral factors in the process of poverty eradication, and the misuse of power and ideology in the transfer and “development” of natural resources, leads to the degradation of nature and further exclusion of woman from Western economic ideals. This leads to further control and exploitation of natural resources and people in service of a mechanical understanding of productivity within the market economy (1995:167).

5.4 Feminist reflections on agency

Nancy Arden (2007) defines agency as the ability to exercise reason, rights and responsibility. This view of agency often refers to the ability of an agent to make moral decisions and also take responsibility for her actions. This definition is however criticised by feminist scholarship on different accounts. Historically feminism has critiqued patriarchy for not affording women the same rights and responsibilities that men have. Feminist scholar Nancy Tuana in her monograph, *The Less Noble Sex*, shows how through history society constructs narratives in which women are construed as the sex lacking in comparison to the androcentric model of the autonomous man. Western thought has constructed women as the passive object from areas such as reproduction - women being the vessel or fertile ground – through to their lack of ability to participate in philosophical thought.

One of the grounds of critique of this definition of agency is that it is itself a “gendered” understanding of agency, leaning heavily on an intellectual view of the modern subject being a self-sufficient individual entirely capable of unencumbered free action (Evans, 2013:49).

Evans (2013:51) notes that Simone Beauvoir's understanding of agency was largely defined as “the capacity to make choices about a particular situation, as a form of the human condition, that convention did not allow women to experience.” The model for this understanding is derived from male behaviour. The association of men with culture

and women with nature, allowed men access to 'reason' and thus agency, whilst women were associated with un-reason and passive matter. The “pacification” of women and matter are thus interrelated.

Evans (2013:51 – 52) further notes that this understanding of agency is not only a gendered interpretation of responsibility, but also a pattern of behaviour dictated by an ideal type of market economy, wherein the male actor assumes responsibility for his own moral actions, but is not encumbered by ties and responsibilities to others. She (2013:52) argues that

the Western understanding of agency is deeply infused with ideas about the moral relationship of human beings to money and the making of profit and [that] this understanding has always had a problematic relationship with competing values of sympathy and empathy.

Valerie Walkerdine further shows the manipulative effects of an understanding of agency as “free-choice” within in a neo-liberal economy (Hemmings and Kabesh, 2013:39). Walkerdine specifically looks at the affective life of low-paid and insecure workers within neo-liberal economies in the developed world. Women are constantly enjoined under a Protestant work ethic to improve and remake themselves as freed consumers. This discourse of “free choice” however acts against any critical analysis of the social conditions of women's labour, family life and futures, and secondly is profoundly feminised. She lists the example of a long-suffering woman carrying multiple burdens for family and community, which are cast as the ideal subjects of self-improvement. Self-denial – in the form of working long hours, eating less, etc. - is translated into choice, within neo-liberal discourses of agency. She further adds that the imagined affective (when not financial) rewards lead these subjects to imagine themselves free (Hemmings and Kabesh, 2013:39-40).

Feminist discourses affirming women's “ownership” of their bodies – in debates regarding reproductive rights – illustrates the influence of Western economic ideologies in feminist understandings of agency (Evans, 2013:54). This also illustrates the inadequacies of substantive and attributive understandings of agency. The “commodification” of our bodies, leads to further concealed modes of exploitation.

Hutchins (2013:15) shows that traditionally feminist scholars have engaged with agency within the binary frame of agency/coercion in the following two ways: In the

first instance, feminist agency is defined substantively, in this formulation agentic choice is known by its outcome³⁰, which is authoritative for everyone. In the other understanding, agency is defined as a process³¹, which may validate a number of outcomes. In the former argument, the subject is a collective subject in the making, while in the latter the subject is a site of individual resistance.

Another feminist scholar from South-India, Patricia Jeffreys, reflects on the difficulty of defining and qualifying women's agency in South-Asia. While South-Asian women are often stereotyped by a passivity within their victimhood, Jeffrey notes a number of ways women are speaking up and exercising their agency – from joining several social and political movements to more low-profile forms of resistance through songs and sabotage. She notes that how women's agency is read is very much dependant on the person trying to define it. She (2001:) provides the following example:

A woman's agency that upholds the status quo may be considered profoundly problematic and of questionable benefit for herself or others – or appropriate and entirely uncontroversial.

The substantive and procedural view of agency clashes in this localised reading of agency. It is evident that it is not possible to speak of a unilateral form of feminist agency in a world where multiple modes of oppression intersect. The oppression of patriarchy, racism and colonialism profoundly influence the ways in which women can be agents of transformation.

Despite the plurality of agencies, Jeffreys contends that it is important to acknowledge that women's actions reflect their intentions, even if the power of multiple oppressive ideologies forecloses some of the outcomes of their agencies and even if the outcome of these actions is counter-productive (Jeffreys, 2001:466).

³⁰ Hutchings (2013:17) cites the work of Stoljar as an example of a substantive understanding of agency. What “counts” as autonomous here is not the way in which a judgement or action is performed, but the truth of the normative content of the action that ensues.

³¹ Hutchings (2013:17) refers to the work of Friedman as an example of procedural agency. Autonomy in this understanding of agency is found in the absence of *effective* coercion or manipulation – in short, the absence of any structure or power that would interfere with the way that a subject reflects her wants and values, as she would affirm them in non-interfering conditions. The measure of autonomy for Friedman is thus “the level of resilience ... demonstrated in the face of resistance to reflectively endorsed wants and values.”

While acknowledging the unique character of local forms of agency and resistance, Jeffreys stresses the need for linking these initiatives with globalised dimensions of gender issues. While being cautious to adopt the parochial concerns of Western feminisms, local feminisms can benefit from Western feminisms work in that they can critique and resist the local effects of the very Western governmental and business organisations, which give rise to the spread of Western patriarchy and dis-empowering development agendas in Third World countries (Jeffreys, 2001:483).

Hutchings (2013:23) offers two examples of feminist theory that have reflected on agency outside the agency/coercion binary, offering alternative lenses of analysis. Elizabeth Grosz's argument is founded on an understanding of autonomy and agency as an ontological condition rather than a moral ideal. Freedom is then conceptualised as a transformative quality of action, rather than a characteristic belonging to an agent. Hutchins (2013:23) describes this understanding of agency as follows:

The possibility of freedom (of being otherwise) emerges out of the complexity of the material universe, in which patterns of determination in matter, through evolution, generate zones of indetermination in life.

Reformulating agency as a collective and emergent quality liberates it from being defined in opposition to oppressive structures and inhibiting ideologies. This opens up our understanding of agency to creative expressions of transformation.

Hutchings (2013:24) also turns to the work of Islamic scholar Saba Mahmood, whose engagement with feminist agency originates from her analytical studies of women's participation in the Islamic piety movement in Egypt. She recognises agency not only in acts that defy and resist norms but also in the multiple ways that women inhabit norms. She argues that multiple examples of feminist agency can be found in actions “without resistance”, within the tasks of “remaking sensibilities, life-worlds and attachments.”

These brief reflections on feminist understandings of agency have shown that a formulation of agency as unencumbered autonomy is not only a false ideal but itself an ideological construct that is indebted to Western modernist understandings of the “ideal subject”. To reflect on the agency of women in different contexts, struggling with different forms of oppression needs a flexible understanding of agency, one that is not

predetermined but formulated and engendered in relation to the power-dynamics in the world women seek to change.

5.5 Agency at the time of the Anthropocene

In the time of the Anthropocene, we are more than ever aware of the entanglement of human and geological forces in the shaping of our world. While some might suggest humanity itself has become a geological force, it would be more accurate to say that we have realised our role in the co-constitution of the world. We are not the only definable force, nor are there a set of hard and fast rules that govern the history of the world – we find ourselves influenced by and influencing complex ecosystems and earth system processes.

Bruno Latour argues that when we realign our history with the common creation story and begin to see that we are not the only actors in this world, we would be freed from the modernist distinction between nature and society. This perspective also frees us from the well-known dialectical efforts to “reconcile” these two domains of necessity and freedom (Latour, 2014:15).

Latour (2014:5) states that in the Anthropocene to be a subject – to have agency – is no longer “to act autonomously in front of an objective background, but to share agency with other subjects that have also lost their autonomy.” Repositioning ourselves within this world-view, he suggests, would shift us away from dreams of mastery, as well as from the threat of being fully naturalised (Latour, 2014:5). Theologically speaking this will open up avenues of responsible intra-action between a narrative of mastery (as articulated within stewardship models) and narratives of naturalisation, which do not acknowledge the importance of difference and history (as within some models of deep-ecology).

To fully understand these statements by Latour, it is necessary to understand the philosophical grounding of his theory. Two movements that gave rise to Latour's understanding of agency – Actor-Network Theory and new materialism will be further explored.

5.6 Actor-network Theory (ANT)

The theory through which the agency of non-humans is conceptualised in Bruno Latour's work is called Actor-Network Theory. This theory, developed by Michael Callon and Bruno Latour around 1982, combines elements of post-structuralism³² with the philosophy of science of Michel Serres (Law, 2009:142). The goal of ANT is to describe the very nature of societies, but it does so by suggesting a radical relational ontology, that also defines more-than-human entities as actors. The network³³ in ANT refers to the activity of tracing networks that constitute societies, these are however not static or predetermined but are formed by the tracing of action within (Latour, 1996:378). Viewed from another perspective ANT is a change of metaphor to describe essences, from thinking in terms of surfaces to thinking in terms of filaments or rhizomes. While surfaces have two dimensions, and spheres, three dimensions, ANT invites us to think in the matter of nodes that have as many dimensions as possible connections (Latour, 1996:370).

Latour further clarifies that an 'actor' in ANT is a semiotic definition and can be described as something that acts or to which activity is granted (Latour, 1996:373). Action can thus be ascribed to anything, provided it is designated as the source of an action.

Latour (1996:374) notes that ANT is the fusion of three commonly unrelated strands of preoccupation, namely:

- a semiotic definition of entity building;
- a methodological framework to record the heterogeneity of such a building;
- an ontological claim on the "networky" character of actants themselves.

It is important to note that ANT is not a strict and general normative truth-claim, but rather an epistemological tool or methodology., which traces the networks of action which form society. The assertions that this theory makes about the character of non-

³² John Law (2009:145) notes that there is a resemblance between Michael Foucault's discourses and "actor-networks", the latter being a scaled-down epistemological version of the former.

³³ Latour (1996:370) explains that the word "network" has a strong ontological component, since it is derived from the word "réseau", which was used by Diderot to describe matter and bodies in order to avoid the Cartesian divide between matter and spirit.

human life should be read within this methodological frame as “weak assertions” (Sayes, 2014:136). This is one of the limitations of this theory. Latour (1996:380) himself acknowledges that ANT is a bad tool for differentiating associations since it gives a black and white picture, and not a coloured and contrasted one.

Within ANT the term “non-humans” is used, explains Sayes (2014:146), to indicate the dissatisfaction of scholars with the philosophical tradition in which objects are defined in opposition to subjects and treated as radically different. Non-humans are thus used as an umbrella term to include both the biological and non-biological world. Latour (2005:11) for example lists microbes, scallops, rocks, and ships as non-human agents.

Sayes (2014:135) endeavours to clarify the manner in which non-humans have agency within ANT. He identifies four different ways in which non-humans contribute to social life³⁴. These are however strongly technical assertions that provide the grid into which the networking of any association can be traced. The unique contribution of ANT is not that it defines new modes of agency for non-human actants, but that it allows us to differentiate and distribute action more broadly. The primary thing that exists in ANT is the network, and not necessarily the actants as individuals (which makes it difficult to ascribed different forms of agency to different entities).

Although ANT is primarily a methodological tool it does signify a deontological commitment, as Latour (1996:378) explains,

either an account leads you to all the other accounts - and it is good -, or it constantly interrupts the movement, letting frames of reference distant and foreign - and it is bad. Either it multiplies the mediating points between any two elements - and it is good -, or it deletes and conflates mediators - and it is bad. Either it is reductionist - and that's bad news, or irreductionist - and that's the highest ethical standard for ANT.

Material feminists have developed notions of agency that resonate with ANT, but consciously explore the implications of an agential-materialist view of reality. Specifically, the work of Stacy Alaimo and Karen Barad will subsequently be explored to extrapolate the implications of transcorporeality and post-humanist performativity.

³⁴ Firstly, non-humans act as a condition for the possibility of human society. Secondly, non-humans act as mediators; thirdly as members of moral and political associations and lastly as gatherings of actors of different temporal and spatial orders (Sayes, 2014:135).

5.7 Materialist Feminisms

Through a recent concentrated focus on “non-dualist epistemic practice”, the sociological sciences, the newly developing field of environmental humanism, and the natural sciences have collectively reconfigured our understanding of materiality, from a static, objectified and fixed field to a relationally defined understanding, which allows matter to have dynamic and agentic properties. Oppermann (2010:90) describes this theoretical position, commonly deemed to have emerged in approximately 2012, as the “new materialist paradigm”. This paradigm provides a lens through which the shared materiality of human and more-than-human bodies can be analysed.

When one follows the invitation of new materialism to consider the agency and subjectivity of the more-than-human world, one may find a rich array of stories and shared meanings. The field of material eco-criticism contends that

matter is a site of creative becoming and dynamic expressions. This expressiveness is the defining property of all matter (Opperman, 2010:90).

Matter itself becomes a meaningful embodiment of the world, through which we may analyse power relations, biological balances and the construction of social life.

When we engage with the broader 3.4 billion years of the earth's geostory, rather than bracketing history to the last 4000 years in which modern man is considered the active subject of meaningful life on earth – the relations between humans, biota and abiota are horizontalised, if not inverted.

Social scholar Karen Barad offers a materialist elaboration of Judith Butler's theory of performativity, which she calls “agential-realism” (2008:129). Barad points out that both positions in the debate between social-constructivism and scientific realism, within gender and feminist-studies, share foundational representationalist assumptions. She (2008:125).argues that

[b]oth scientific realists and social constructivists believe that scientific knowledge ... mediates our access to the material world; where they differ is on the question of referent, whether scientific knowledge represents things in the world as they really are (i.e., “Nature”) or “objects” that are the product of social activities (i.e., “Culture”).

She traces the history of representationalism to an atomistic worldview and the asymmetrical faith in “word” over “world” that accompanies Cartesian doubt. The dualism between mind and matter is enforced by the Cartesian view that we have more direct access to our own thoughts and ideas, than to the objects, these are representations of (Barad, 2008:125).

She argues that a shift from linguistic representations to discursive practices is one way of overcoming the separation between ontological separate entities and their representations. She develops a posthumanist understanding of performativity, which not only links to the formation of a subject but also accounts for the “materialisation” of bodies (Barad, 2008:126).

She describes how discursive practices produces material bodies, by linking to Michel Foucault's localisation of power-dynamics in the body:

[D]eployments of power are directly connected to the body—to bodies, functions, physiological processes, sensations, and pleasures; far from the body having to be effaced, what is needed is to make it visible through an analysis in which the biological and the historical are not consecutive to one another . . . but are bound together in an increasingly complex fashion (Quoted in Barad, 2008:127).

Barad (2008:128) further explores how history and the body are “bound together”. She explicates this entanglement by postulating that the nature of power is situated in its materiality. This gives way to a fuller articulation of power's productivity in which it is not merely restricted to the “social”, or produces matter as a static end product, but accounts for the activity of matter itself in materialisations. There are both natural and social forces at work in the “materialisation of bodies”. She lists a number of material-discursive forces, namely: “social,” “cultural,” “psychic,” “economic,” “natural,” “physical,” “biological,” “geopolitical,” and “geological”.

Barad (2008:133) formulates the concept of intra-action to describe the process in which bodies are differentiated. Bodies come to matter – in both senses of the word (become differentiated and knowledgeable) through the process of agential intra-actions. Intra-action differs from “interaction”, in which the prior existence of entities is required. In this ontological view reality is not composed of things-in-themselves or

things-behind-phenomena, but rather “things”-in-phenomena. “The world is intra-activity in its differential mattering” (Barad, 2008:135).

Agency is thus not defined as an attribute, or as emerging from a subject status, but rather as the process in which the world and bodies are intra-actively reconfigured within a web of relations.

In the same manner, discursive practices are not seen as the products of an autonomous subject, but rather that which enable the differentiation of meaningful statements. Barad (2008:136) follows Foucault's understanding of discursive practices as the local socio-historical material conditions that enable meaningful statements:

Discursive practices produce, rather than merely describe, the “subjects” and “objects” of knowledge practices (Barad, 2008:137).

Within this understanding of discourses, meaning cannot be the property of individual words but remains an ongoing performance of the world as it is enmattered. Both matter and meaning are performatively redefined, gaining its own historicity (Barad, 2008:139). Barad (2008:139) summarises an agential realist account of matter as follows:

In an agential realist account, matter does not refer to a fixed substance; rather, matter is substance in its intra-active becoming—not a thing, but a doing, a congealing of agency.

Within an agential view of matter³⁵, the bodies of humans³⁶ are not inherently different from non-human ones - both are material-discursive phenomena continuously materialising (Barad, 2008:139). Agency concerns the possibilities and accountability implied in reconfiguring material-discursive practices of boundary inscriptions and exclusions (Barad, 2008:144).

Alaimo notes that an alternative view of materiality – as we have explored as bodies discursively being materialised – which accentuates the lively, emergent and agential

³⁵ It is important to note that material agency – as with human agency – does not in the first place designate “conscious choices”, these actions are highly influenced by the habits, processes, and entities that forgo a specific moment.

³⁶ Alaimo (2010:155) refers to the work of Sagan and Margulis – authors of the Gaia theory – which shows that “human” species, along with all of the other species, owes its existence to the “incorporation and integration of ‘foreign’ genomes, bacterial and other, [which] led to significant, useful, heritable variation.”

aspects of nature generates ethical stances of greater concern, care, wonder, respect, precaution and epistemological humility. Responsibility within this paradigm can be delineated as a humble acknowledgement and epistemological inclusion of the entangled phenomena that constitute the world's vitality. It invites us to be responsive to the possibilities that might help us, and it flourish (Alaimo, 2010:396).

When a non-dualistic epistemology is used in the analysis of matter, the shared reality of humans and the non-human world opens up. The treatment of the environment as “manageable bits” or a “blank slate” for human inscription has drained the more-than-human world of its blood, its interactions and relations (Alaimo, 2010:1). Furthermore, the politics of a globalised liberal-capitalist economy has too often considered it an empty space for human development. Alaimo (2010:2) argues that we should recognize the more-than-human world as “a world of fleshy beings with their own needs, claims and actions.” The idea of the fleshy nature of the created world is indeed a concept that is familiar in biblical theology. In John 1:14, we read of the incarnation of Christ – the Word:

The Word became flesh and made his dwelling among us. (The Bible – New Revised Standard Version)

The incarnation of God is described here as the enfleshment of the sacred in the vulnerable materiality of the world (σὰρξ), which is subject to contingency and not the idealised body of man. Disability scholar, Nancy Eiland (194:10) help us to draw a fuller understanding of the fleshy nature of Christ's incarnation:

Christ, the disabled God, disorders the social-symbolic orders of what it means to be incarnate - in flesh - and confirms that "normal" bodies, like impaired bodies, are subject to contingency. And it is a contingency born not of tragedy or sin but of ordinary women and embodied unexceptionably.

As eco-feminist theologians, we can thus also acknowledge and affirm the embodied unexceptionality of more-than-human bodies that reflect the sacred presence of Christ.

5.8 Agency in the Universe as God's Body

When reflecting on agency, specifically God as living agent in our time and space, theologians are confronted by natural theology, or theologies of nature – understanding how God reveals and is active in everyday life. McFague develops what she calls a theology of nature in opposition to “natural theology.” She (1993:146) explains her methodology as follows:

The theology of nature is not a natural theology: it does not say that the scientific story gives evidence ... for belief in this or any other model of God and the world. All it says is that this way of conceiving of God and the world makes more sense in terms of the scientific picture than alternatives.

Within this methodology, the most important is not a rational defence of the existence of God or logical explanations of the creation event, but rather to help us think and act holistically in relation to God, ourselves and our world. McFague(1993:147). also asserts that her theology of nature does not want to provide a teleological explanation of creation or define the ultimate outcome – she rather focuses on the aesthetical and ethical character of theology. It is thus within this view that her model should be analysed and appreciated – a reevaluation of how we relate to God and each other within a common creation story, and the value of this redefinition for living meaningfully and with integrity in the now.

5.8.1 God as agentic Being

McFague's work in imagining the universe as God's body, and therefore asserting that all bodily existence is sacred, implies an entanglement of the traditional categories of “spirit” and “body”. Because God's knowledge of and relation to the Universe is not one of externalised “information about”, but rather intimate acquaintance of, new possibilities for understanding God's agency within the material is disclosed (McFague, 1987:73).

McFague (1987:74) indirectly acknowledges the agency of matter by stating,

[t]o love bodies, then, is to love not what is opposed to spirit but what is at one with it – which the model of the world as God's body fully expresses.

McFague does offer a number of reinterpretations of God's agency within the model of the Universe as God's body. As argued in the previous chapter, McFague reinterprets God's presence as a transcendent immanence – the world revealing the “back of God”. Waschenfeler (2010:92) asserts that McFague's theology moves away from classical theism, incorporating notions of process theology, to imagine God as being itself, as well as the power of being.

McFague (1993:141) argues that a combination of the organic and agential models of God balances both the transcendence and immanence of God. The agency of God is primarily defined as God's action in and through the physical, historical and cultural evolutionary process. God's action is thus not external and periodic, but rather interior and caring.

The nature of God's agency is further expanded to signify the “lure of love”, which is ubiquitously present throughout the cosmos and also the Breath, behind the breath of every existing thing. This agency is also directed toward the flourishing of all beings (McFague, 2001:154).

McFague uses four further metaphors to illuminate the agency of God within the universe, namely: God as Mother, Lover, Friend, and Spirit. Wachenfelder (2010:95) argues that these are not necessarily meant to refer to God as personal being, but rather envisions God as the immanent presence of love, which permeates evolutionary processes. The emphasis in these metaphors are on the radically relational nature of God's presence - a presence that is mothering, loving and befriending. McFague uses three different Greek lexemes to accentuate different modes of God's agency, namely: Agape, Eros and Philia. God as Mother births creation out of herself through evolutionary unfolding, both originating and sustaining it by agape. God as Lover permeates the whole universe with Eros, desiring the well-being of all things. God as Friend invites humans through the power of Philia to be co-workers of God in extending fulfilment to all of creation. Lastly, God is also seen as the Spirit of Life, which enlivens the dust of the earth (Gen 2:7), as well as constantly renews and sustains everything.

McFague argues that the metaphors of Mother, Lover and Friend are central relationships necessary for being human, revealing important aspects of human

agency. She contends that imaging God in personal terms is appropriate³⁷, since failing to do so leads to disembodied notions of agency (1993:142). McFague also chooses to speak separately of evolutionary history and social history, connecting the last with the work of the Holy Spirit.³⁸ This unfortunately once again enforces the separation of nature and culture and leads to a split in vocabularies and values when reflecting on each.

McFague (1987:139) does express her choice for the Spirit of Creation as primary, non-anthropocentric metaphor, but this choice is not shown in her development of God's agency, which is mostly explained through anthropocentric metaphors – God as Mother, Lover, Friend.

McFague argues that the agential-organic model can be reworked in an understanding of the universe as the body of God. She maintains that the relationship between God and the cosmos is the same as that between spirit and body. This classification is peculiar since it easily can be interpreted as another dualism, in which body or the world is desacralised, and Spirit is seen as an unembodied power. Although McFague insists that God's presence is one of sacramental embodiment, the nature of the body, how it is constituted and how it acts is not carefully explained, making it susceptible to traditional, transcendent explanations of God's work.

McFague argues that an understanding of God as spirit maintains an understanding of God as personal agent. She (1993:143) relates spirit strongly to the Breath of life, as

the dynamic movement that creates, recreates and transcreates throughout the universe. Spirit, as wind, breath, life is the most basic and most inclusive way to express centred embodiment.

³⁷ She (1993:142) argues that humans as “the outermost contemporary evolutionary phylum”, naturally imagine God in “their own image”. Both these statements can however be challenged in the view of modern evolutionary science and a critical view of what constitutes human bodies. Although humans are markedly different from other more-than-human species, to define humanity as the “outermost phylum” is not necessarily the only conclusion (especially when one critically engages the androcentric Western model of man). Jumping to this radical separation in kind and responsibility, may inadvertently lead to further hierarchies of domination.

³⁸ McFague (1993:101) does argue elsewhere for a shift in emphasis to reflecting on the natural (spacial), rather than the historical (temporal), specifically because space highlights the relationship between ecological and justice issues.

She also develops other dimensions of the spirit, referring to a person's vigour, courage, strength or the collective energy of people at play (1993:143). McFague argues that this understanding of the Spirit is also found in traditional Christian Creeds, e.g. The Nicene Creed: "I believe in the Holy Spirit, the Lord and Giver of Life."

She argues that the combination of God as spirit and body binds both humans and more-than-human others' everyday experience of the world. She, however, does not specify how other forms of matter – rocks, sky, oceans etc., materialise as bodies and relate to God's body.

5.8.2 The relation between humanity and the more-than-human world

McFague's immanent ecological theology redefines humans as earthlings. Human bodies are forever with the body of God, which is nowhere else but in this world, in the soil that receives the body after death. Humans belong to this planet alone and are not lured by an eternal afterlife in heaven. McFague agrees with Matthew Fox that a transcendent theistic theology that focusses on fall/redemption has led to the diminution of human agency, at times fostering an earth-fleeing sentiment (Waschenfelder, 2010: 91).

McFague reflects on the relationships between human beings and the rest of creation from the perspective of contemporary science – she asks where humans are to be positioned in the greater scheme of things (McFague, 1993:103). From the perspective of the common creation story (modern evolutionary theory), the scene that human beings partake in, is a sliver of time against the 15-billion-year history of the universe. We have come to understand this universe as a dynamic universe, a universe with a history, unlike static models (in Newtonian physics and the Genesis creation myths) (McFague, 2010:105). God is therefore understood as a continuing creator within. McFague also refers to the multileveled character of the universe. She notes that subjectivity increases with exemplification. This affirms that there is no absolute distinction between living and non-living entities since life is a type of organisation and not a substance. She however also cautions that the higher levels should not be reduced to, or understood entirely in terms of the lower levels. McFague highlights the

significance of the continuity of all life forms and also their inverse dependency³⁹, which undercuts any sense of absolute human superiority. She (1993:106) states,

[t]he higher and more complex the level, the more vulnerable it is and dependent upon the levels that support it.

In the light of the development of modern science and technology and humanity's ability to alter earth-system processes, our profound responsibility for the health of the whole is underlined.

McFague specifically focuses on the following themes in her theological anthropology: an end to dualistic hierarchies (specifically humanity over nature), an appreciation of the interrelatedness and interdependence of all, an appreciation of the individuality of all things (rather than glorifying human individualism), the heightened responsibility of humans, the acknowledgement of salvation as physical as well as spiritual and the recognition of sin as a refusal to stay in our proper place⁴⁰.

She stresses a careful balance between acknowledging our interrelatedness with the rest of creation and an appreciation for every being's individuality. She advocates for returning to the wonder and awe of being part of a mixed community, by educating ourselves on our genuine and deep interrelation with other life-forms (1993:121).

Although McFague does acknowledge that theological anthropologies will vary widely when specific traditions and social contexts, and kinds of oppression are considered, the model in its current formulation, does not provide an adequate framework to reflect on the power imbalances that are at work in the structuring of humans relations to each other and to the more-than-human world.

I find McFague's exploration of the relations between humans and more-than-human nature ethically skewed in the direction of rational humans – being the species that “knows the common creation story (1993:109)” can reflect and be partners of God's unfolding creation (1993:105), the “guardians and “partners” of the planet, the part of

³⁹ This can be illustrated by the relation between human beings and plants. Plants can easily survive without human beings, but human life would not be possible without them.

⁴⁰ McFague's use of the ethic of place, seems to suggest that there is a singular place that humanity is to situate itself in relation to others. While the common creation story gives us a deeper, shared history with the rest of life, it is important to take seriously the dynamic process of evolution, wherein the place that we occupy (or more dynamically understood, our relation both historically and socially to the more-than-human world) can vary both in time and context.

the body of God “able to work with God⁴¹” (1993:124). It is beyond the scope of this study to fully analyse her theological anthropology, but it is worthwhile to note that an articulation of our relation from within our shared embodiment with the rest of the world, might yield numerous new understandings and provide a fresh vocabulary to reflect on our social relations to the more-than-human world.

Bodies are of primary importance in McFague's theology because they share in the very material body of God. They also come to matter, have value in inverse complexity, because of their interdependence and interconnection. These bodies share in the continuing creation of God in an open-ended evolutionary process. God as the ground of being and Spirit of Life gives breath to all that is and “lures” creation to mutual love, partnership and the flourishing of all.

I suggest that McFague's bodily theology can greatly benefit from a more detailed exploration of material agency and the transcorporeality of all bodies. When agency is not seen as an attribute or God's agency does not need to be established by a dialectic, between spirit and body, the organic model of the universe becomes agential – because the movement of bodies and the co-constitution of bodies is an agential process, one in which we participate.

5.9 Conclusion

Bodies come to matter – in both senses as articulated by Alaimo - through their intra-activity. A robust understanding of the social relations, between humans and humans and the more-than human world, show the intra-activity of environmental health and environmental justice. Mellor (2000:112) argues that Western society has constructed itself against nature. Power is defined in a capitalist and individualist society as the ability of certain individuals and groups to free themselves from embodiedness, from ecological and biological time. This is done, e.g. by the vehicle of the sex/gender division of labour, where, e.g. caring for the body, breastfeeding, making food etc., are traditionally designated as women's labour and therefore inferior labour, which is not

⁴¹ This last statement seems to again restrict agency to humans, and denies the multitude of ways that the more-than-human world reflects and indeed embodies God's care.

compensated. A transcorporeal understanding of embodiedness shows that divorcing oneself from ecological time is not entirely possible and that bodies are continually reconstituted in their associations.

The very matter of bodies are of primary value in McFague's theology because they share in the matter of the body of God. They also have value in inverse complexity, because of their interdependence and interconnection. These bodies share in the continuing creation of God in an open-ended evolutionary process. God as the ground of being and Spirit of Life gives breath to all that is and “lures” creation to mutual love, partnership and the flourishing of all. McFague's association of agency primarily with the Spirit as life-giving force, however, makes it susceptible to dualist understandings of the activity of God. Humanity's sharing in this agency of God, emphasises the rational, intentional quality of agency, which devalues the action and contribution of the more-than-human world.

Sharing agency in the body of God is not a process in which we reclaim our autonomy. Autonomous articulations of agency focused on production has cost the oppressed and the earth dearly. Feminist materialism's articulation of shared agency enables us to reorient our relationship with the more-than human world. Sharing agency leads us to the humble realisation that we are not the sole authors of bodily life, that our bodies belong to a larger body, the body of God. Sharing agency is becoming aware of the multiple ways our bodies and those of others are abused, implicated and destroyed by environmental injustices. In sharing agency, we acknowledge the networks that reverberate through our society, that every intervention has a million consequences, but also stands on the influence and cries of a million co-authors of life.

Chapter 6 Conclusion of the study

6.1 Introduction

The context in which this study endeavours to make a contribution is that of the Anthropocene, which is primarily a geological term. As we have however seen in Chapter 2 the implications of this geological designation stretch far beyond the natural sciences. Derry (2017:4) shows how the concept of the Anthropocene becomes a narrative that disrupts epistemological and ontological presuppositions on which both environmental and humanistic sciences are grounded. One of the primary dualistic epistemes that are scrutinised in this study is nature/culture. Chapter 3 shows how this split is ideologically construed and leads to hierarchical distributions of power and agency. Non-Western anthropological and ethnological studies show that the relations between these entities can be structured in a myriad of non-hierarchical ways. Eco-feminism is one critical tool through which the ideologies behind these dualistic empirical practices can be analysed and deconstructed.

I am, however, also a South African, and am acutely aware of the major inequalities and injustices characterising the South African society. Any theology that endeavours to make a contribution must therefore also speak to the myriad of ecological, social and political injustices that are symptoms and expressions of a sick planet, a diseased body.

Within this context, we find a number of theological and moral reflections on the position and responsibility of humankind. The framework form which this study engages the complexities of human and planetary health is the religious cosmology of the universe as the body of God.

This chapter will review the research problem explored in Chapter 1. Then it will review the primary and secondary research questions and offer a suggestion of some of the contributions of this study. Finally, the limitations of this study will be noted, and areas of further research illuminated.

6.2 Review of the research problem

Chapter one (1.2) gave an exploration of the research problem. The Anthropocene epoch is decidedly different from others in our earth-history, in that it is one species (specifically a cultural and economic class within this species) that has driven the earth-system into another geological state. Humanities influence is so immense that there is no longer any sphere that is devoid of human influence.

Reflecting on humanity's orientation to the more-than-human world requires a cosmology and theology that can deal with the conflation of the natural with the cultural without masking the glaring inequalities and injustices by a universalised explanatory model.

The scientific Anthropocene discourse endeavours to assign to human beings (particularly Western, technologically equipped societies) the role of planetary stewards. This discourse is, however, not value-free and is informed by cultural and economic hegemonies, and runs the risk of totally absolving the more-than-human in a culturally defined anthropocentric agenda.

A second discourse that we find often in theological and environmental activist literature is the call to conserve and restore the earth to a previously defined state. Isolating human communities from "natural" communities in attempting to preserve wildness are often part of this discourse. This discourse is however also no longer appropriate in the Anthropocene-epoch. As Terry notes, both of these narratives are at "risk of advocating masculine imaginaries of control and conquest, and moral superiority complexes about self-sufficiency."

Overcoming this philosophical impasse, while giving specific attention to how gender influences the construction of specific scientific and religious narratives and cosmologies, is the problem that this study seeks to address. The hope is to find a new language for moral reorientation in the Anthropocene epoch through exploration of an eco-feminist cosmology – the universe as the body of God.

6.3 Review of research questions

6.2.1 Primary research question

How do human and non-human entities share agency in a cosmological model of the world as the body of God?

This study begins to show that the humans and non-humans are interrelated and that these complex relations determine both planetary and human health (2.3). The extensive research done by The Rockefeller Foundation–Lancet Commission on planetary health, admits that humanity has been “mortgaging the health of future generations to realise economic and development gains in the present,” (Whitmee et al., 1973). It does, however, not address the vast inequalities and socio-ecological injustices that are structured and maintained by Western cultural and economic systems.

To speak of Planetary Health as a global homeostasis, therefore, masks the numerous injustices and sufferings experienced by vulnerable communities. To address the numerous ways communities are already experiencing illness, dysfunction and desperation, because of the depletion of the bodies of global and local earth-others, a narrative is needed that fosters more democratic and organic processes of sharing responsibility. Instead of a globalised goal of keeping earth-system processes within specific boundaries - veering off an apocalyptic end to a paradisaal planet – a cosmology that fosters mutuality and care for a chronically ill earth may lead communities to an attainable, honest and authentic embodiment of holistic care. The rest of this study explores the appropriateness of Sally McFague’s cosmology of the universe as the body of God, as such a model.

Before the relation of humans to non-humans in a religious cosmology is explored, it is necessary to acknowledge the gendered ideologies that have contributed to the hyper-separation of humanity from nature (Chapter 3). This is done by scrutinising the influence of dualistic epistemologies on our understandings of our relationship to the more-than-human world.

Our perceptions of nature are socially constructed. Yet, we cannot engage with purely idealistic anthropocentric conceptualisations of the planet (3.1). The recently

emerging field of environmental hermeutics illustrates the complex process of meaning-making that evolves out of our encounter with the more-than-human world. It also shows the necessity of articulating broader understandings of the “environment”, which includes both physical, sociocultural and built environments.

Through an eco-feminist critique of the nature/culture divide (3.2) and its influence on religious cosmologies, the danger inherent in dualistic and hierarchical conceptualisations of these categories were illustrated. The limitations of our understanding of what nature is, and how it relates to society, are clearly shown through the exploration of a few non-Western anthropologies.

The concept of creation in theology is also strongly influenced by specific gendered and dichotomised ideas of reality. Describing nature as inert, mechanic, fully knowable and an endless resource to be used and manipulated by cultured, rational and controlling humanity enforces hierarchical separation of homo sapiens from other species and the non-human world.

Feminist philosophers of science show that there is a myriad of ways in which these dualities – nature/culture, male/female, mind/body – can be related (3.5). Prokhovnik (2001:38-39) identifies hermeneutical values such as contextuality, relatedness; space for dynamic movement between identified ideas, and self-conscious commitment to change, as important in overcoming totalising and dividing tendencies in these epistemic realms.

The influence of nature/culture dichotomies on anthropocentric, eco-centric, as well as theocentric cosmologies, are explored in Chapter 3 and Elvey’s exploration of non-binary formulations of God’s relation to the world as “materialist transcendence” is highlighted (3.9).

Subsequently, the role of the body as hermeneutic interface is engaged. It is argued that the body is the realm within which the interactivity of nature and culture is illustrated (4.2, 4.4).

The choice of engaging cosmology as a theological framework for ethical reorientation in the Anthropocene is explained, and McFague’s reformulation of an organic cosmology analysed (4.3). The metaphoric model analysed is that of the universe as the body of God. McFague takes an evolutionary cosmogeny – wherein humanity is

late-comers and inversely dependent on the life-giving systems of the earth-community - as normative for her theology (4.5, 4.7.2).

The body as primary metaphor for understanding our relationship with God, both complexifies our understanding of incarnation and radicalises it to apply to all fleshly bodies (4.2, 4.4). Within the framework of body-theology the bodily experiences and needs of all bodies – especially the vulnerable and marginalised within a Christian paradigm – become revelations of God’s immanence and care.

Chapter 5 specifically focuses on the dynamics of embodied agency in the Anthropocene-era. A survey of different feminist articulations of agency shows that it is no longer appropriate to conceptualise agency as a masculinist ideal of autonomous efficacy. These autonomous articulations of agency have, through the means of the political-economic development agenda, cost the bodies of women and earth dearly (5.3).

Bruno Latour’s argument of “shared agency,” as a vehicle to reorient our responsibilities in the Anthropocene is explicated. He argues that when we realign our (human) history with the common creation story, we will begin to see that we are not the only actors in this world (5.5). An agential articulation of all matter allows us to bridge the absolute divide between nature and society and dialectical efforts to realign them.

Subsequently, the articulation of agency – divine, human and more-than-human – in McFague’s model of the universe as God’s body is explored. McFague primarily defines God’s action in and through the physical, historical and cultural evolutionary process. She expresses her preference for the understanding of God’s agency as the Spirit of Life, which enlivens, creates, procreates and transcreates (5.8.1).

Arguing from within an agential view of all matter, as suggested by both Bruno Latour’s Actor-Network-Theory and new materialist feminisms, the bodies of humans and the more-than-human world are brought into closer and more democratic relations. Stacy Alaimo’s articulation of transcorporeality shows how bodies are continually co-constituted. Karen Barad further defines the intra-action between bodies as the very thing that constitutes bodies. Eco-systems, environs or associations are thus not composed by things-in-themselves, neither by social constructions of these phenomena but rather by “things”-in phenomena. She defines the world as intra-

activity in its differential mattering (Barad, 2008:135).” Whitney Baumann (2015: 392) elsewhere articulates this ontological perspective as follows:

[T]he really real is the flow of things or the interactions between and among evolving organisms, and stability is the abstraction from this flow.

When humans and non-humans, therefore, share agency, agency is not conceptualised as an entity or attribute, but rather a movement that constitutes bodies. When we share agency in the Anthropocene, we need to acknowledge that we are not the sole authors of bodily life, that our bodies are already intertwined and implicated in the lives of other more-than-human bodies and the body of God. We share agency by sharing in the divine - sharing both our materiality and co-constituting each other as sacred selves.

It is argued that McFague’s model of the universe as the body of God can greatly benefit from a deeper engagement with both body-theology and can be given philosophical and analytical depth through incorporating new materialist philosophy – which can be argued is already present in her theology.

6.2.3 Secondary Research Questions

How does human and planetary health relate in the Anthropocene?

The Rockefeller Institute Lancet Commission report on Planetary Health clearly indicates that humans are deeply dependent on a healthy functioning earth-system. For years humans have however also negatively impacted the basic earth-system processes that are fundamental to life on our planet.

The Anthropocene itself is a highly debated and sometimes controversial term. Feminist scholars such as Haraway would rather rename it Capitolocene or Plantationocene – giving a more accurate reflection to the immense inequalities that underlie our current epoch. Speaking of planetary health can easily mask these inequalities and suggest uniform solutions to complex problems. Where the value of biodiversity and ecosystem services are acknowledged, it is seen as “infrastructure” and further commodified. As Salleh remarks, it is very difficult for several global solutions to divorce itself from the Western political-economic agenda (2.3 – 2.4). The

harmful effects of environmental degradation on the bodies of the vulnerable, including the more-than-human world, are treated as externalities of production costs (2.5). Both marginalised communities and the more-than-human world are left voiceless. Acknowledging the bodily needs of these communities necessitates a critical engagement with the cultural and economic forces that obliterate and colonise alternative expressions of nature-cultures.

How is human (and non-human) agency construed in the discourse of Planetary Boundaries in the Anthropocene?

The Anthropocene discourse calls humanity to take up their role as Planetary Stewards, placing high trust in human's technological ability and ingenuity to "manage" earth system processes – to make sure they stay within certain boundaries. Humankind (or Western, educated well-resourced individuals) are assigned agency, while the agency of others – marginalised groups, women, and earth-others are mostly not acknowledged. As Malm and Hornberg (2016:65) argue, climate change is denaturalised – its anthropogenic causes acknowledged, only to be renaturalised (2.5). The human behaviour (development of Western industrialised society) that contributed most significantly to climate change is seen as an innate human trait. This can easily lead to biological determinism (5.1), instead of acknowledging the interwoven character of human and more-than-human agency.

The analysis of the construction of the nature/culture dualism and the impact of this dichotomy on the root metaphors of science shows that humans (in opposition to nature) have been characterised as highly androcentric – the rational, objective, technological aspects of humanity being elevated. Within this view, agency is also easily constructed as an autonomous efficacy.

Despite the impact of Darwin's evolutionary theories, aspects of scientific inquiry remain highly androcentric and hierarchical. Figuring nature as inert, mechanic and a dead resource readily available for human utilisation is still prevalent in discourses relating to planetary and human health. The agency and co-constitutive nature of modern communities are thus not often acknowledged.

How do entities relate in a cosmological model of the universe as the body of God?

McFague chooses a reformulation of an organic cosmology as a framework for ethical reorientation. When human history is rewritten within the larger common creation story, the interdependence of all life becomes clear. McFague takes an evolutionary cosmogeny - wherein humanity are both late-comers and inversely dependent on the life-giving systems of the earth-community - as normative for her theology. Entities are primarily figured as material bodies and are fundamentally related through their sharing a mattered existence.

The body is also the primary metaphor through which we understand our relationship with God. McFague radicalises incarnational theology to apply to all fleshly bodies. Within the framework of body-theology the bodily experiences and needs of all bodies – especially the vulnerable and marginalised within a Christian paradigm – become of primary significance. McFague’s formulation of “immanent transcendence” leads to a sacramental re-appreciation of the evolutionary and bio-physical processes that constitute life on our planet.

When the relationship between humans and the more-than-human world is explicated, McFague places particular emphasis on the interdependence of all beings but also takes care to note the uniqueness of individuals within the whole. A point of critique is that when articulating the agentic activity of God, McFague comes close to appropriating a dualistic understanding of Spirit relating to world. Although Spirit is understood as a non-anthropocentric metaphor for God, it is defined as a life-giving force that enlivens matter and thus an unembodied agent. Human beings are also called on to be the “self-conscious” aspect of creation, and because of this ability, share uniquely in God’s creative and recreating actions (5.8.2).

What are the implications of “distributing agency as far and wide as possible” for relations within the body of God?

Bruno Latour argues that when we realign our (human) history with the common creation story, we will begin to see that we are not the only actors in this world (paragraph 5.5). Latour (2014:5) states that in the Anthropocene agency can no longer be defined as “to act autonomously in front of an objective background,” because of the entanglement of human and more-than-human causalities, having agency is to “share agency with other subjects that have also lost their autonomy.” When agency is defined as a shared process, and not an exclusively human attribute, our definition of essences shifts from a one-dimensional understanding (surfaces), and from a three-dimensional understanding (spheres) to a nodal understanding, which has as many dimensions as possible connections (Latour, 1996:370).

Although a shared understanding of agency does not provide a differentiated explanation of human and non-human agency, it does have a deontological commitment. Latour (1996:378) explains that either an account of a certain event is one-dimensional and excludes different frames of reference, or it leads to other stories or accounts of becoming. An account can either multiply mediating points between any two elements, or it can conflate mediators – being reductionist. The more robust and interdependent and multi-levelled an account, the more trustworthy it is.

Alaimo notes that when the agential aspects of nature are accentuated, new ethical stances of concern, care, wonder, respect, precaution and epistemological humility are created. An acknowledgement of shared agency leads to humbler epistemological practices and the inclusion of more-than-human phenomena that constitute the world’s vitality. Whitney Baumann (2015:394) admits that acknowledging shared agency might be a lot “messier”, but she also argues that the constant drive toward efficiency has contributed a great deal towards the ecological and social problems we now face. Instead of a drive towards what is most efficient, she (2015:393) calls on scholars to “recognize the queer, shifting, interrelated boundaries of all ... things.” She (2015:394) argues that this approach will yield the following:

To see an event, organism, or entity in its web of interrelated surroundings may enable us to develop a larger picture that goes beyond mere efficient causality and one that begins to address structural and long-term systemic issues.

It is beyond the scope of this study to fully explore and integrate an agential view of matter into McFague's cosmology of the universe as the body of God. It can, however, be noted that a shared understanding of agency opens various avenues for exploring the co-constitution of social, political environments. Seeing bodies as transcorporeal constitutions of matter, allows us to articulate various local understandings of sharing in the body of God. It fosters epistemological humility in striving for the creation of healthier bodies – both human, non-human, and the body of God.

What is the scope and limitations of the body of God model in explicating relationships of agency in the Anthropocene?

There are a number of limitations and critiques of McFague's articulation of God as "immanently present" within the universe. Notably the danger of a cosmic, universal, and spiritual cosmology that can easily lead to colonisation – ignoring a diversity of worldviews and becoming too abstract to engage with everyday life (MacNichol, 2003:75). The numerous axes of exploitation are not highlighted within the broader use of the metaphor of the body of God.

When McFague describes the relationship between humans and the more-than-human world, she tries to balance the importance of interdependence with the unique responsibility of human beings. In my opinion she does, however, articulate aspects of a theological anthropology that become greatly susceptible to human exemptionalism and a hierarchical elevation of the rational, ethical and self-reflective to "divine" characteristics.

McFague's theology provides a very useful and fecund model for addressing environmental and social injustices, but would greatly benefit from a deeper exploration of body-theology and the material dimension of bodies. It must, however, be acknowledged that McFague's theology was mostly developed in the early 1990's, before the sociological and philosophical insights of "new materialisms," came into academic and public discourse.

6.3 A review of the contribution and relevance of the study

This study endeavours to engage theologically with present global environmental challenges, as well as the numerous injustices that are masked by scientific narratives, such as the Anthropocene, and Planetary Boundaries discourse.

Through an eco-feminist methodology, the gender biases in religious and scientific cosmologies are revealed, and a more appropriate organic-agentic cosmology in the form of the universe as the body of God is explored.

This study endeavours to navigate and mediate a responsible, though humble reorientation of humans to the more-than-human world. It shows the limitations of calls to planetary stewardship, as well as calls to conservation and preservation of an “untouched wild-nature.”

An honest interdisciplinary engagement with both scientific, sociological and political discourses are fundamental to a relevant, engaging and public ecological-theology. Central to this is the liberation of environmental theological concerns from the enclave of creation theology and an anthropocentric ethic. An honest engagement with our evolutionary cosmology is stressed, which is yet to permeate through to all Christian theological themes and discourses.

6.4 Limitations and areas of further research

This study offered an initial exploration into the usefulness of Sally McFague’s cosmological model of the universe as the body of God, to address the complexities of planetary health. Using a cosmological model, developed in a Western academic context, brings with it a number of limitations (as discussed in 4.4 and 4.6). The use of a universal cosmological model can easily lead to the colonisation of other religious cosmologies and religious metaphors. Further engagement, especially with non-Western cosmologies can be of immense value in concretising and criticising McFague’s suggested model.

Because of the theological modus of inquiry pursued in this study – engaging directly with natural and social sciences – and not primarily with a dogmatic corpus, it is difficult

to evaluate the contribution of this study in terms of traditional dogmatic themes, i.e. soteriology, eschatology, pneumatology etc.

While this study endeavours to address the bodily concerns of the marginalised, it does so from secondary research. The dynamics of negotiating planetary and human health are immensely complex on a local community level, especially because a number of oppressive structures often intersect. This study does acknowledge this complexity, and especially the power of political-economic value systems in determining the future of many vulnerable communities. It would like to offer a framework for epistemological humble engagement that takes the bodily concerns of all within a community seriously.

It was also beyond the scope of this study to fully explore McFague's Christology or her conceptualisation of the luring power of God's love. Integrating these modalities of divine agency will lead to a more robust understanding of the ethical direction of her religious cosmology.

This study only briefly engaged with new materialist feminisms, especially the works of Stacy Alaimo and Karen Barad (5.7). These philosophical considerations and their implications were however not fully explored or developed into a comprehensive ontology. The study does, however, stress the value of engaging these disciplines for body-theology and articulations of non-dualistic value-systems.

6.5 Conclusion

The affliction of human and more-than human bodies in the geological epoch defined by many as the Anthropocene, calls for renewed interdisciplinary theological engagement. This study has ventured a small step in this direction. Sally McFague's model of the universe as the body of God offers a reorientation for humans to the more-than human world in an organic-agentic cosmology.

Through the materialisation of bodies, we come to share agency with other earth-bodies, co-constituting the body of God. Sophie Chirongoma (2012:120) offers an inspirational indigenous, eco-feminist reflection on the work of Karanga-Shona women "dressing Mother Earth". Through her reflection on the the well-known afforestation

project of the AAEC (Association of African Earthkeeping Churches) – the War of the Trees (*hondo y emitfi*), she shows how rural women have integrated Shona cosmological beliefs with Christian theology and found not only environmental and social liberation, but also a sense of political and economic liberation through sharing embodied dignity with the earth (Chirongoma, 2012:127). Chirongoma (2012:134) reflects on how women found a sense of agency through these afforestation projects:

[T]heir struggle in the ecological conservation reform is not only about greening a barren countryside. It also incorporates the quality of being for the earth keepers, their liberation from obscurity in a remote part of Zimbabwe, their victory over marginality and futility when news media repeatedly report on their work, and their liberation from the hopelessness of poverty as salaries for nursery keepers and budding woodlots and small-scale income generating projects instil some hope for a better future.

Chirongoma further uses bodily metaphors in her indigenous eco-feminist theology in three different modalities. She (2012:139) finds affinity with McDonagh's use of HIV as a metaphor for ecological degradation:

[T]he interlocked web of destruction which is being inflicted on the earth is akin to AIDS. All the elements which underwrite life for the body of nature are being weakened in very real and serious ways. The immune system of the earth is under attack. The consequences will be felt, not just by a single species, but by all our fellow creatures and by the water, the air and the land. For some it will mean not merely a reduction in numbers, but extinction (1990:23).

The affliction of the earth is thus intimately related to, as a fellow afflicted body. Chirongoma (2012:141) also refers to Mbano-Moyo's understanding of human interconnection with ecology. Mbano-Moyo links the sexual empowerment of women with the safeguarding of the body of Mother Earth:

Women's affirmation of the power of their body is a very helpful stepping stone to their sexual empowerment against sexual violence; the affirmation of humanity's interconnectedness to Mother Earth develops a kinship relationship. This relationship safeguards a compassionate caring for mother earth and the rest of creation (Chirongoma, 2012:141).

Chirongoma (2012:132) also shows how this movement of earthkeeping churches linked the degraded countryside with Christian theology. They identify Christ's battered

and beaten body with that of the soil – being ancestral guardian of the land, He belongs to the soil and speaks through the soil. The planting of trees becomes a “realised observable salvation” for this community. This can be interpreted as a sacramental view of the land.

The Karanga-Shona women’s use of the metaphor of clothing Mother Earth is a beautiful localised expression of caring for the body of God. The flourishing of the environment is interrelated with the flourishing of the bodies of women. The establishment of a kinship relationship with earth-others enabled this community to respect and care for their brothers and sisters with different bodies than theirs, and they found their own bodily dignity affirmed.

This single example shows how the metaphor of the body of God (here indirectly articulated as Mother Earth, but also associated with the body of Christ) can lead to embodied theological reflections that inspire and liberate marginalised communities to care for earth-others and find a sense of shared agency in their engagement with their own physical, social and political landscape.

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