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Unravelling some of the theological problems underlying discourse on nature

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This article offers an overview of various theological discourses on the concept of nature. These are illustrated with examples of contributions to reformed theology from within the South African context. It is argued that there is ample room for confusion to reign in the connotations attached to 'nature' and the underlying theological problems that emerge. Often such connotations are merely adopted from other disciplines. To juxtapose such discourses would not by itself help to overcome such confusion but is a necessary step in that direction.

Contribution: This article analyses the conflicting uses of the term 'nature' especially in reformed theological discourse in the South African context. It circumscribes the distinctive theological problems that emerge in each case without seeking to resolve them.

Keywords: Creation; Laws of nature; Natural evil; Natural law; Natural theology; Naturalistic Fallacy; Nature and grace; Nature conservation; Theology of nature.

Introduction

The noun 'nature' and the adjective 'natural' are notoriously slippery concepts. In common usage, nature could refer to the physical world of landscapes, plants and animals ('pristine nature'), the determining principle underlying everything (the 'laws of nature'), various types of things (things of a 'private nature') or the essential qualities by which something is recognised (the 'nature of love') – and many more. Philosophers obviously have a hard time unravelling the meaning of the term and may well be inclined to give up!

There are rather few biblical references to nature as such. In English translations of the Old Testament the generalised term nature is hardly used at all, despite multiple more graphic references to earth, mountains, hills, sky, plants, insects and animals. The words nature or natural appear more frequently in English translations of the New Testament but often where it is hardly required and where world, earth, cosmos or 'by birth' would do. There are some 18 cases where forms of the word φύσις (including φύσει, φύσιν, φύσεως, φυσικὰ, φυσικὴν and φυσικῶς) are used. Some of these refer to being children, Jews, humans 'by nature' (e.g. φύσει in Gl 2:15, Eph 2:3. Ja 3:7) or to the divine nature (θείας φύσεως in 2 Pt 1:4). The one case where the words 'natural' [κατὰ φύσιν] or 'unnatural' [παρὰ φύσιν] are used is notoriously subject to controversy, namely Romans 1:26 (on same-sex relations), whilst the reference to 'nature itself' (φύσις αὐτὴ in 1 Cor 11:14) seems clearly more cultural than 'natural' (it is unnatural for men to have long hair). Interestingly, there are quite a few cases where words for arrogance [φυσιοῖ] maintain an etymological link with φύσις (meaning something 'larger' than what is natural). All cases where the term 'supernatural' is used in translations are simply read into the text.

By contrast, the word nature is used quite frequently in theological discourse, one may be inclined to say especially in discourses where the impact of the hermeneutical, linguistic, sociological and gendered 'turns' is less evident. In most cases a non-theological use of the term 'nature' is imported into theological discourse. This cannot but lead to confusion, given the philosophical and other connotations that are carried into such discourse. Often 'nature' is then used as a kind of Trump card (pun intended!) to end further conversation – only for that to become contested, leading to more confusion.

In this contribution, I will seek to unravel some of the theological problems that are at play in the use of the English terms 'nature' or 'natural' in various theological discourses. I cannot offer any solutions to such theological problems or any hope to end such confusion, but it may help to merely unpack some distinct cases where such debates are found. In each case some very brief

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notes may suffice to indicate how the term 'nature' is used and how non-theological connotations are imported in such debates. I will show why, especially in Christian ecotheology, many scholars, across confessional traditions, tend to avoid the term 'nature' and instead opt for earth (or earthly or earthkeeping), ecology, environment, creation (as *creatura*), matter or cognates of household (*oikos*). However, such references will not be explored any further here as that would multiply the available literature and add to the confusion.

To restrict the scope of this contribution I will illustrate these cases with examples from reformed theology in the South African context and refer to wider literature (mostly from the field of ecotheology) only where necessary. As a form of critical self-reflection, where appropriate, I will also refer to my own work to point to some unclarified assumptions in references to nature.

The cases below are listed in no particular order except for leaving the complex notion of a theology of nature for last.

On earthkeeping as nature conservation

Christian ecotheology is sometimes reduced to environmental ethics or to rethinking the relationship between humans and 'nature'. Especially in evangelical circles, this relationship is then explained in terms of the metaphor of environmental stewardship, and that is then typically understood as 'nature' conservation or wilderness preservation.[1] In the South African context, such a notion of stewardship has rightly been dismissed[2] as reducing 'earthkeeping' to the pastime of an elite, mostly white, leisured minority who in the past excluded indigenous people from such land to preserve selected pristine areas for the enjoyment of a privileged few.

Here, the concept nature is understood as 'nature out there', associated with flora and fauna, with landscapes and seascapes uncontaminated by human presence. Excluded from such a concept of nature are economic activities around mining, industry and agriculture, social activities around housing, education, health and culture and the world of politics. However, at best, the pressures of such activities on nature conservation are recognised even if the problem is inaccurately located on the periphery instead of at the centre of the economy.[3] Notably, humans are not regarded as part of nature, as one species amongst others, so that the need then emerges to reconsider the nature (!) of the relationship between humans and such 'nature'. The notion of responsible stewardship that is typically employed assumes human supremacy over other beings, given the hierarchical distinction between what is mineral, plant, animal and human.

1.Johan Hattingh (1999) explains the difference in terms of the etymological roots of these two concepts: Conservation assumes a working relationship with (*con*) a slave (*servus*), and preservation seeks to protect pristine land from becoming a slave, thus pre-slavery.

2.For my contributions towards such a critique, see Conradie (2000, 2005a, 2011b).

3.For this distinction in South African ecotheology, see Nürnberger (1999).

In ecotheology in the South African context, such assumptions are widely dismissed and their racist underpinnings exposed. The term 'nature' is therefore practically discarded and replaced with an integrated notion of 'environment' (keeping together its biophysical, economic, social and political dimensions), earthkeeping, land or, especially, the 'whole household of God'.[4] This is evident from three major ecumenical documents that have been published in South Africa in this field, namely *The Land Is Crying for Justice* (2002), *The Oikos Journey* (2006) and *Climate Change: A Challenge to the Churches in South Africa* (2009). It also applies to the volume *A Rainbow over the Land* (Conradie et al. 2016).

On natural theology and the 'book of nature'

Volumes have been written about apartheid theology. Here, it is important to recognise the critique that apartheid theology was a form of natural theology. Its point of reference (if not necessarily the point of departure) was Abraham Kuyper's notion of common grace, that is God's gracious decision not to relinquish the work of God's hands by restraining the spread of evil. This is possible by maintaining the 'orders of creation'. These orders are presumed to include racial diversity, whilst the dangers of emphasising a common humanity are highlighted through the symbol of Babylon. In short, racialised apartheid was defended theologically as God's way of preserving the orders of creation to allow the church to then proclaim the message of salvation.

The peculiar assumption of apartheid theology was that racial diversity could be regarded as something created by God, entrenched through the subsequent history of Noah's sons, whilst racial purity had to be preserved as one of the creation orders. This assumption was defended on the basis of observations on the 'book of nature', typically illustrated with (inappropriate) examples derived from plant and animal species (e.g. 'horses and donkeys produce infertile mules'). Thus, a particular understanding of what is 'natural' (racial diversity) became the platform upon which a political system could be socially constructed and theologically legitimised.

The early proponents of apartheid theology (sometimes dubbed the '*Oupajane*') nevertheless saw themselves as orthodox, returning to the 'old ways' ('*ou paaie*') of reformed orthodoxy against modernist onslaughts.[5] How could such professed orthodoxy be reconciled with the practice of what amounted to a crude form of natural theology? The answer lies in the typically reformed distinction between general revelation and special revelation, especially following

4.It would be interesting to investigate the use of the term 'nature' in ecotheology in different confessional traditions. For example, the word 'nature' is used 82 times in Pope Francis' encyclical *Laudato Si'*, often drawing on Saint Francis of Assisi. This is juxtaposed with his notions of 'our common home' (*oikos*) and 'integral ecology'. This may be compared with documents emerging from the office of Patriarch Bartholomew, the Lutheran World Federation, the World Communion of Reformed Churches and the World Council of Churches. Such a comparison falls well beyond the scope of the present contribution.

5.For a detailed discussion on the emergence of apartheid theology, based primarily on pragmatic interests but ideologically legitimised on the basis of neo-Calvinist categories, see Coetzee (2011).

Article 2 of the Dutch Confession. There was considerable interest in general revelation in the context of apartheid theology, even though a strong emphasis was also placed on the inspiration, even the inerrancy of Scripture, thus blindfolding a crude employment of concepts derived from 'nature'. In Dutch reformed circles, this required ongoing debates on the interpretation of the legacy of Abraham Kuyper and Herman Bavinck.[6] An interesting example where this is on a knife's edge is the volume *Op Weg met die Teologie*, co-authored by Johan Heyns and Willie Jonker (1974), who could not hide their diverging views.

Not surprisingly, the critique against apartheid theology was inspired by the Barthian critique of natural theology in the context of Nazi Germany in the 1930s (see also Pauw 2008). Extreme caution was exercised to avoid references to nature or natural orders as this might have provided an opportunity to slip in the political and economic interests of the Afrikaner *volk*.

More recently, a new interest in natural theology has emerged, especially within the context of discourse on science and theology. This is mainly inspired by North Atlantic debates where the influence of reformed scholars such as Tom Torrance, Jürgen Moltmann, John Polkinghorne, Alister McGrath and many others may be recognised. In the South African context Peter Barrett (2005) proposed a 'new style natural theology' in several articles, seeking to demonstrate the compatibility of scientific evidence and Trinitarian theology. Johan Buitendag (2009) also seeks to 'rehabilitate' natural theology by drawing on evolutionary epistemology. Indeed, we necessarily employ categories derived from nature to discern in nature that which is transcendent (Buitendag 2009:515). A similar position was adopted by Ernst Conradie (2011a), arguing that all theology is natural theology (with a hermeneutical inevitability), because whatever humans do forms part of 'nature' and because any theological reflection presupposes the use of other categories (see also Moltmann 2000:64–86). A purist position on avoiding natural theology therefore cannot be maintained, but this only serves to emphasise the need for critique.

Another, very different notion of natural theology has considerable potential in public theology in the South African context. In his book *Sun of Righteousness, Arise!* Jürgen Moltmann (2010) offers a discussion of a hermeneutics of nature. He observes that:

> [*W*]hereas earlier grace presupposed nature, now it has to presuppose history. So, the historical interpretation of the signs of the time takes over the function of the old *theologia naturalis*. (p. 201)

The task of theology is thus to help read the signs of the time in the light of the gospel. Moltmann (2010:196) maintains that the book of nature 'was always read in the light of Holy Scripture'. If so, there is ample room in prophetic theology, reading the signs of the time, to return to this agenda (see also ed. Conradie 2012, drawing on Moltmann).

On nature and grace

Gratia non tollit naturam, sed perficit. Protestants tend to agree with the use of *non tollit* in these famous words from Thomas Aquinas insofar as grace does not abolish nature. It has consistently warned against Gnostic and Manichean trends that undervalue that which is material, bodily and earthly.[7] This follows from the divine affirmation of creation to be 'very good'.

However, Protestants have not warmed to the *perficit*: Does grace really supplement, elevate, perfect, even divinise nature? Or does grace allow nature to flourish, driving it towards increasing diversity, complexity and beauty? Does the Thomist distinction between the natural and the supranatural not still undervalue what is natural, assuming that it is in need of a supplement (grace)? Does this not allow for hierarchical and dualistic thinking so that nature may be good, but culture is better; the body good but the soul better; matter good, but spirit better; the earth good but heaven better? In response, my reformed teachers have insisted that the fundamental Protestant contrast is not between nature and grace, but between sin and grace – and then in such a way that both sin and grace have an impact on nature. Be that as it may, this still raises the question how the relationship between nature and grace is then to be understood. Reformed scholars in South Africa (especially but not only Heyns 1978) have tended to follow Herman Bavinck (2008) on this point in asserting that grace 'restores' nature that has been distorted by sin, albeit that 'restoration' does not mean 'repristination'.[8] The argument is that because nature is created by God and considered to be 'very good' (if not perfect), it is not in need of elevation. The only substantive problem in the world is sin and that is one that can be and has been addressed in Jesus Christ and through the work of the Holy Spirit.

However, what about the understanding of the term *naturam* in Thomas' famous formula? A first problem is posed by the recognition that 'nature' as we find that in the world around us is always already contaminated by sin. Whatever we regard as 'natural' is therefore based on a rather speculative reconstruction of whatever preceded the impact of sin. None of us were there to know what nature was intended to be. Aristotelian, phenomenological or empirical strategies therefore cannot come to our aid in clarifying what 'nature' means. For that reason we also cannot derive an 'ought' from an 'is', moral directives from what is natural (the so-called naturalistic fallacy). Added to that is the 20th-century realisation that 'nature' is inherently of a historical nature – as evidence from the geological, biological and astrophysical sciences makes abundantly clear. This also poses a problem for any notion of restoration, including the restoration of ecosystems: to which earlier phase should something be

6.See also my distinction between those sitting on Bavinck's left and right hands (Conradie 2013b).

7.See also the study document produced by the Dutch Reformed Commission on Public Witness, entitled 'Does matter matter?' (ed. Conradie 2012).

8.This is a dominant theme in Bavinck's *Reformed Dogmatics* (see 2003–2008). See also Veenhof's (2006) excellent discussion in *Nature and Grace in Herman Bavinck*.

restored to? The problem is that the term 'restoration' tends to assume the need for a Holocene equilibrium and cannot easily accommodate evolutionary insights.

Given such problems with the term *natura*, the problem of how grace is related to nature is typically reformulated by replacing 'nature' with terms such as *cosmos*, *creatura* or *proton*.[9] The most significant South African example of grappling with the underlying problem may be found in the doctoral thesis of Flip Theron (1978) on the unity of the church as a cosmic sign of the coming eschaton. He raises the question whether there is some form of elevation in the relation between proton and eschaton and is careful to avoid any hint of natural theology. In my earlier work, partly in critical conversation with Theron (see Conradie 2004), I explored the diverging understandings of the term 're-creation' (*herskepping*) in the reformed tradition of Swiss, Dutch and German origin and the disastrous reception of this tradition in the South African context (see Conradie 2013c). References to nature were largely avoided and never clarified.

On natural evil and social evil

In theological discourse on nature and grace, it is typically assumed that nature is inherently good, if fallen, because it is declared by God to be 'very good', if perhaps not perfect (or else the fall would not have been possible). In theological discourse on natural evil and its distinction from social evil, this assumption is questioned. An impressive list of examples is gathered where pain and suffering are found in nature irrespective of human sin, often prior to the emergence of humanity. These examples include not only volcanoes, earthquakes and tsunamis, but also the limited life cycle of cells, leading towards degeneration, ageing and death.

Moreover, one may mention natural selection and deselection, the role of aggression amongst non-human animals and especially predation. Most forms of eating entail harm to other plants and animals or assume the prior death of such plants and animals. The few exceptions are seeds, nuts and fruits, where potential is 'killed' but where no degree of violence is evident. Other exceptions are milk, honey and eggs, but that requires some 'stealing' from non-human others, presumably without their consent.

In theological discourse this recognition raises many further questions regarding the theodicy problem and especially the relationship between natural evil and social evil. The traditional (Augustinian) assumption was that social evil is the cause of natural evil – which is then understood as God's punishment for sin. Accordingly, the sting of sin is death. In some theological discourses this is reversed so that natural evil becomes the cause of social evil. Typically, the argument (often following Paul Tillich) is that social evil is born from anxiety over human finitude, prompting the need for self-maintenance. Arguments around the lack of plausibility of Christian notions of paradise and the subsequent fall of humanity are reiterated in the available literature. It is interesting to observe that the concept of 'nature' that is assumed here focusses on non-human nature that is then appropriated to human nature by pointing to the evolutionary origins of the human species.

In the South African context, the most important example here is a volume edited by Cornel du Toit (2006) entitled *Can Nature Be Evil or Evil Natural*, with leading essays by Catholic scholars such as William Stoeger, Augustine Shutte and Gerald Walmsley and other contributions by Peter Barrett, Ernst Conradie (see Conradie 2006a), Cornel du Toit and Makgobe Ramose. More recently, I have addressed questions around eating and predation in a number of contributions.[10] One may observe that South African discourse tends to merely mirror North Atlantic trends in this regard. It is also striking how confessional differences regarding nature and grace (see above) again surface in such discussions.

On the nature that God supposedly created

What did God create? The answer seems obvious: God created the world and everything that is within it (Ps 24:1). The prime example is surely 'nature', that is light and darkness, heaven and earth, land and sea, plants and animals, including human beings. Following the Nicene confession, some would add 'what is seen and what is unseen', although that is less obvious. And some would add angels and spirits. Some further reflection reveals deep caveats: If the world is deeply distorted by human sin, the world around us is not only God's creation but also ours. To presume an answer to the question, we therefore need to make a reconstruction of what the world was like before it was distorted by sin. Pristine nature is then what comes to mind. The problem is of course that we were not there 'in the beginning' so that we tend to socially construct a world as we would have liked it to be, in our own image, as it were. Apartheid theology is again a crude example of that. Worse, the doctrine of creation has a bad track record in reflecting the interests of the landed classes. Where landlords see in 'nature' the beauty of God's creation, the landless see only gates and fences keeping them out.[11]

Moreover, from cosmic and biological evolution, we now know more or less not only how things were 'in the beginning', but also that nature is inherently historical, characterised by dramatic changes over the long term. Theological reflection on such evolution may respond by affirming that 'God made things to make themselves' and

9.The distinction between nature and grace is similar but not equivalent to that between creation and salvation. God's acts of creation already entail the bestowal of grace, whilst salvation is also something natural in the sense that the *media salutis* are embedded in nature (e.g. the sacraments). For a more detailed discussion, see especially Conradie (2013c).

10.In reflecting on my own contributions, it is embarrassing to see how often I have reiterated such arguments, already in *Hope for the Earth?* (2005b) and especially in *An Ecological Christian Anthropology* (2005a), in *Redeeming Sin?* (2017) and in several recent articles (Conradie 2013a, 2016a, 2018a, 2018b). On issues around eating and predation most recently, see Conradie (2019).

11.This observation is derived from an insightful essay by Westhelle (1998) from within the context of Latin American liberation theology.

that humans, specifically, are 'created co-creators'. This could easily lead to a deistic understanding of God, kick-starting things in the beginning, but who has become 'unemployed' ever since. Alternatively, many opt for a form of panentheism to ensure God's presence in the evolutionary process, raising further questions around divine action in the natural world.

We may therefore be forced to the conclusion that we do not really know what God created.[12] Or perhaps the doctrine of creation is less a reflection on how things were in the distant past than an eschatological projection of a desired future dispensation, retrojected into the distant past, in a Garden of Eden that may never have been. Or perhaps this is the wrong question: the most important theological question is not what God created (*creatura*), or whether, when or how God created (*creatio*) or even why (for what purpose) God created, but the doxological question: Who is the Creator?

From this perspective one may consider the examples of substantive reformed contributions to creation theology that have been offered from within the South African context. Three books were published within 4 years of each other. Johan Heyns (1978) included a chapter on creation in his *Dogmatics* in which he discusses the subject, the purpose and the mode of creation and the meaning of creaturely reality and devotes three pages to angels. König (1982) discusses biblical perspectives on creation at some length and then offers a Barthian emphasis of God as the Creator and God's purposes in creating. He warns against a naïve appreciation of 'unspoilt nature' as that which God created. Nature is not only beautiful but often also a threat. Jaap Durand (1982) discusses creation as a matter of faith and assigns a priority to faith in God as Saviour. He adds further sections on creation and covenant (as the purpose of creation) and on creation and evolution (the mode of creating). In short, in all these three treatments there is a shift away from interest in nature as that which God created, quite possibly given fears around natural theology in the context of the critique of apartheid theology.

On natural law ethics and the naturalistic fallacy

The critique of natural theology has evidently undermined theological interest in natural law ethics in reformed circles in South Africa. In Christian ethics in the South African context, there is considerable interest in virtue ethics, but the available retrievals of virtue ethics pay scant attention to its roots in teleological theories of natural law, going back especially to Aristotle and Thomas Aquinas.[13] The one exception here is the work of Vorster (2014; 2015:7), who has been quite willing to ground human rights in natural law. He argues that the reformed tradition, notably Calvin himself, has affirmed natural law, thus 'making way for a rediscovery of natural law, which enables Christians to cooperate with other moral agents in the pursuance of universal moral directives'. The situation may also be different as far as legal theory is concerned, given the influence of Grotius and his views on natural law (as distinct from 'positive law') on Roman-Dutch law and therefore on South African law. An assessment of such debates lies well beyond my expertise.

For present purposes it may suffice to reflect on the notion of nature that is implied here. This is indeed a core question in natural law theory. Most expositions draw on Aristotle's distinction between material, formal, efficient and final causes, assuming that the nature of something is best understood in terms of its final purpose (*telos*). To identify and describe such a purpose has become notoriously contested though, exemplified by debates on homosexuality. To then draw moral implications from such a description of nature is fraught with even more dangers. In philosophy this has elicited long-standing critiques, following David Hume, of the naturalistic fallacy. The argument is that one cannot derive an 'ought' from an 'is'. Or more precisely, because one can derive rather different moral directives from a description of what is natural, this cannot provide an adequate basis for moral judgements. The best example here is biological evolution – which has been used to defend anything from capitalism to fascism to communism to anarchism.

Despite such caveats, the natural law tradition has retained some resilience, if less so in South Africa. Indeed, there is a growing recognition (especially amongst American proponents of Aldo Leopold's 'land ethic'[14]) that morality also cannot become detached from nature, or else it will lead to the disenchantment of nature, opening the door for ecological negligence and destruction. Nash (2000:227–228), for example, argues that the natural law tradition at its best offers some indispensable elements for an ecological ethics, including:

- an affirmation of objective moral values and norms (as an alternative to scepticism and relativism)
- a rational-experiential method … for evaluating and justifying (or not) moral standards
- a dependence on and dialogue with empirical disciplines in searching for 'norms in nature
- a quest for common moral grounds accessible in principle to all humanity
- a necessary autonomy from and yet compatibility with basic Christian affirmations of faith.

As far as I know, such insights are yet to be digested in either reformed theology or in ecotheology in the South African context.

On the laws of nature and divine action

How does God act in the world, if not through some miraculous divine intervention that abrogates the laws of

12.For this conclusion, see my overview of ecumenical debates on creation theology, in which I argue that the question is what the question really is (Conradie 2014).

13.Two examples of such a retrieval of virtue ethics may suffice, namely Koopman and Vosloo's (2002) *Die Ligtheid van die lig* and the volume *What Is a Good Life? An Introduction to Christian Ethics in 21st Century Africa* (Kretzschmar, Bentley & Van Niekerk [eds.] 2009).

14.It is impossible to offer a survey here, but the many contributions by Holmes Rolston III and J. Baird Callicot may be noted.

nature? More specifically, are Christian affirmations of God's actions in the world compatible with what we know from science about the laws of nature? This was the driving question behind a major 20-year project of the Center for Theology and the Natural Sciences (CTNS) and the Vatican Observatory. It led to a series of publications exploring this question in terms of quantum cosmology, quantum mechanics, biological evolution, chaos and complexity and the cognitive sciences, culminating in a volume entitled *Scientific Perspectives on Divine Action: Twenty Years of Challenge and Progress* (eds. Russell, Murphy & Stoeger 2008). Except the cosmologist George Ellis (a Quaker), no South African scholar participated in this project. However, Du Toit (ed. 1994) edited a slim volume on *The Action of God in the World*, including essays by Du Toit, George Ellis, Martin Prosezky and Brian Gaybba, whilst Conradie (2010, also 2015:175–220) offered an overview of the CTNS and Vatican Observatory project, deliberately opting for preaching as a test case of where God's actions are best evident.

It is obviously impossible to offer an overview of this debate here. It may suffice to note that understanding what the laws of nature entail lies at the core of this debate.[15] Whilst a deterministic understanding of such laws is typically operative in positivist circles, relativity theory and especially quantum mechanics point to some inherent indeterminism in nature. There are relatively few 'hard' laws in physics and thermodynamics; most others are of a stochastic nature, expressing probabilities. All these laws are historical in the sense that they came to apply only at a certain point in the (very early) history of the universe. Increasing levels of complexity (such as atoms, molecules, minerals, cells, consciousness and self-consciousness) emerged over time and then in such a way that the 'laws' that applied at a lower level of complexity remain valid but underdetermine the emergent properties at a higher level of complexity. This allows for both bottom-up causation (lower levels of complexity determining what is possible at higher levels of complexity) and top-down (or whole-part) causation (higher levels of complexity determining specific outcomes). This leaves the question whether God acts mainly through the laws of nature (that the Creator presumably established) or through indeterminacy, that is by opting for specific outcomes that were in any case possible. Whether this leaves room for a sense of divine intentionality and purpose (if not design), from the very beginning, remains disputed. Most scholars in the field conclude that the laws of nature are less rigid than reductionist critics assume. These laws may be likened to the rules of grammar that have to be adhered to in order to make any sense, but they still allow the kind of creativity evident in poetry or novels, perhaps even in theology.

On a theology of nature

In discourse on Christian ecotheology and on theology and science, a distinction is often made between natural theology and a theology of nature, although this is seldom developed much further (see especially Barbour 1997:98–103). In reformed terminology the former refers to theological reflection that takes place on the basis of God's general revelation (only). Often the intention is to offer proofs for God's existence on that basis (e.g. in terms of the notion of design). The latter refers to theological reflection on a particular theme. Arguably, such reflection can draw on all the available sources of theology, including the Methodist quadrilateral of Scripture, tradition, reason and experience. A different, more inductive approach was followed by Herman Bavinck in his erudite *The Philosophy of Revelation* (1909) – which has been less influential in reformed circles in South Africa. He focuses on the 'whole revelation' of God, therefore including general revelation. In a chapter on 'Revelation and nature' (1909:83–112) he offers a critical and up to date review of literature from the natural sciences of his day. He argues that nature itself cannot be understood adequately without reference to God – or else ends up in intractable problems.

What would such theological reflection on nature entail? I would suggest that, in addition to the traditional dogmatic loci (where nature would readily be discussed under the doctrine of creation), one may identify some transversal themes that invite further theological reflection. Nature may be one such a theme, but others abound. Some of these are biblical themes (such as covenant, hope, justice, God's reign, prayer, worship), and others are doctrinal (often soteriological) constructs that serve to relate the whole of the Christian faith to contemporary needs (such as liberation, healing, reconciliation, reconstruction or development). Some are prompted by contemporary experience (human dignity, blackness, gender, sexual orientation), whereas others are more explicitly of an ethical nature and therefore readily placed within particular ethical subdisciplines (political, economic, sexual, biomedical, environmental, etc.).

Such pervasive themes cannot be restricted to one doctrinal rubric but require reflection through the lens of the whole of the Christian faith. Often the Trinity is used as such a lens to explore a selected theme, but there are also other lenses, such as the distinction between the royal, the prophetic and the priestly, or the distinction between faith, hope and love, or between *kerygma*, *koinonia* and *diakonia*. In this way theological tools are employed to explore such a theme and to gather insights that can then also be shared with other disciplines. However, it is crucial to note that some of these themes may themselves also be employed as such a lens (or 'doctrinal key') to explore any other theme. This indicates that the selected theme has gained a centralised function indicated by the use of a genitive construction (e.g. a theology of hope). The original theme then typically becomes an adjective describing a mode of theological reflection on such other themes. Well-known examples include liberation theology, feminist theology, black theology, process theology and ecotheology. The adjective may then also describe a characteristic of doing theology. Liberation theology, for example, accepts the need to demonstrate its liberatory praxis. Feminist theology must itself yield emancipation for women.

15.One of the best discussions in this regard may be found in an essay by Stoeger (1993), who is trained as a physicist, philosopher and a theologian.

Of course, this cannot apply to a theology of nature because that would lead to confusion with natural theology. One may also consider other examples such as a theology of revolution or a theology of the death of God – which illustrate that not all such themes can readily gain such significance as a lens through which other themes could be explored fruitfully.

What, then, does a theology of nature actually entail? How does that differ from natural theology and interpreting nature as a whole as God's own beloved creation (i.e. creation theology)? Can examples of such a theology of nature be found in the South African context? The proceedings of the South African Science and Religion Forum entitled *Nature, God and Humanity* (ed. Du Toit 1996) may be a step in that direction, but, except for four leading essays by Arthur Peacocke, the theme of nature was hardly explored from a theological perspective. Except for one further example, namely an article by Johan Buitendag (2009), I am not aware of contributions to such a theology of nature from a reformed perspective in the South African context. Buitendag acknowledges the critique of apartheid as a form of natural theology and then draws extensively on North Atlantic literature to develop his position on the need for a theology of nature, which he understands as discerning in nature that which is transcendent and on that basis interpreting the natural world as God's creation.[16]

Elsewhere, under the generalised rubric of 'nature', one may find explorations of the natural elements (earth, water, air and fire) or reflection on winds, seas, mountains, rivers, lakes, plants, birds and animals (see Faricy 1982). Often this approach is tied to a form of nature-centred spirituality based on the conviction that one can experience God also through pristine nature.[17] This is often tied to an ecofeminist spirituality.[18] The polemical intention is to argue that such alternative forms of spirituality have become more attractive than ecclesial forms of spirituality. Some contributions fall into the trap of a romanticised notion of the beauty of nature, whilst others maintain a healthier tension between nature as a threat (storms, droughts and predators) and as a source of beauty, order or moral instruction. Indeed, nature can be described both in terms of awe (*fascinans*) and trembling (*tremendum*). Of course, it can also be regarded in terms of natural resources that are available for extraction, exploitation, management and stewardship. Where this aspect becomes central, such theological reflection is typically categorised under the rubric of economic ethics; where this aspect is disregarded, the discourse simply becomes naïve.

In very many theological contributions to wider discourse on science and theology, the historical tendency towards a secularising of natural science and a theological retreat from cosmology into personal faith (see Moltmann 1985:36) is discussed. Such contributions describe how theological discourse on nature was influenced by the rise of modern science and how contemporary scientific developments led to new insights. However, such contributions do not by themselves yield what may be called a 'theology of nature'. In reformed theology one may mention the multiple contributions in this direction of especially Alister McGrath, Jürgen Moltmann, John Polkinghorne, Bram van de Beek and Michael Welker, given their influence on current South African discourse.[19]

A rather different form of a theology of nature emerges when a generalised notion of nature is avoided to consider a particular aspect of nature in conversation with scientific disciplines such as astrophysics, geology, evolutionary biology, animal ethology, palaeoanthropology or the cognitive sciences. This becomes an entirely different ball game and can yield reflections on cosmology, theistic evolution, evolutionary theology, human uniqueness[20] and the like. Arguably, such contributions could also resort to a theology of nature, but this may lead to unnecessary confusion. Even further removed are theological and ethical reflections on astrobiology, technology or artificial intelligence. These are also aspects of nature insofar as humans and whatever they do form part of nature, but these are rarely discussed under the rubric of a theology of nature.

A brief conclusion

The examples of theological discourse on nature, as discussed above with reference to South African reformed literature, may suffice. Others may be added, for example on human nature, on the nature of human sexuality, on nature and nurture (in personal development), on the category of the supernatural, on what is natural (material) and what is spiritual and so forth. Often the term 'nature' is then used in the sense of a type of thing or as the defining characteristics of something – which could then include almost everything else. One may also mention discussions of creationism and intelligent design, but the reference to nature is often more implicit than explicit.

On this basis a very brief conclusion may be offered. The examples of theological discourses on nature as discussed above illustrate the confusion that reigns. Such confusion is also found in secular debates on nature. Often connotations attached to 'nature' derived from other disciplines are being imported into theological discourse, which then requires methodological clarification. To merely juxtapose such examples does not help to overcome such reigning confusion, but is a necessary step in that direction.

16.To understand nature as creation would be how I would describe creation theology. This offers a redescription and ascription of the world around us by viewing it as God's beloved creation, despite and in response to the prevalence of suffering and evil. See Conradie (2014), also following Moltmann (2010:202–206).

17.My earlier contribution on an 'earthly spirituality' (see Conradie 2006b) should not be understood as such a nature-centred spirituality. The adjective 'earthly' was chosen deliberately and is typically tied to that which is material, bodily and earthly.

18.South African examples of such a nature-centred, ecofeminist spirituality include contributions by Van Schalkwyk (2011).

19.It would be futile to add references to contributions of such prolific authors. The clearest example of an emerging theology of nature may be found in Moltmann's oeuvre (especially 1985, 2003, 2010 and most recently 2019:57–68).

20.From a South African perspective, the towering example here is the contributions by Van Huyssteen (2006) on human uniqueness.

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