Nature as creation from an eco-hermeneutical perspective: From a 'natural theology' to a 'theology of nature'

Author:
Johan Buitendag[1]

Affiliation:
[1]Department of Systematic Theology and Christian Ethics, University of Pretoria, South Africa

Correspondence to:
Johan Buitendag

e-mail:
johan.buitendag@up.ac.za

Postal address:
Faculty of Theology, University of Pretoria, Pretoria 0002, South Africa

Keywords:
natural theology; theology of nature; epistemology; Karl Barth; Darwin

Dates:
Received: 24 May 2009
Accepted: 14 Aug. 2009
Published: 23 Nov. 2009

How to cite this article:
Buitendag, J., 2009, 'Nature as creation from an eco-hermeneutical perspective: From a "natural theology" to a "theology of nature"', *HTS Teologiese Studies/ Theological Studies* 65(1), Art. #272, 10 pages. DOI: 10.4102/hts.v65i1.272

This article is available at:
http://www.hts.org.za

ABSTRACT

For researchers who are interested in the relationship between theology and the natural sciences, 2009 is of special importance. It is now 500 years since Calvin was born and 450 years since his *Institution of the Christian Religion* was finally published. It is also 200 years since Darwin's birth and 150 years since his *On the Origin of Species* appeared in print for the first time. Calvin and Darwin are representative of two separate lines which converge in a particular 'transversal space'. Such insights are regenerating light on our search for scientific truth today. Neither the absolutisation of transcendent revelation, nor that of immanent knowledge of nature, provides an accountable understanding of reality. Against this background, the challenge for Systematic Theology today is to conceive of a 'theology of nature', which can be offered as a dialectical third option. An 'eco-hermeneutics' offers a possibility of establishing such an option for theology. However, such an option will, on the one hand, have to deconstruct the reformed criticism of a natural theology and will, on the other hand, have to make serious work of an evolutionary epistemology.

INTRODUCTION

In this festival year of both the anniversary of Charles Darwin's birth 200 years ago, as well as of the publication of his *magnum opus, On the Origin of Species*, 150 years ago, I wish to pursue the following intimation that he makes in the concluding chapter of the book regarding the meaning of his theory for Protestant theology:

> *In the distant future I see open fields for far more important researchers. Psychology will be based on a new foundation, that of the necessary acquirement of each mental power and capacity by gradation. Light will be thrown on the origin of man and his history.*
>
> (Darwin [1859] 1999:399)

I wish to propose, in this essay, that Protestant theology ought to shake off the anathema expressed in certain circles towards the concept of *natural theology*. The time is ripe for us to be able, in an accountable way, to arrive once again at a *qualified* natural theology. Thanks to the contemporary dialogue with various other sciences, it is indeed possible now for theology to consider the matter under review.[1]

The reason for the decades of virtual aversion to a natural theology – especially in the terms of a Western Protestant theology – can probably be directly ascribed to the adamant role taken by Karl Barth in his dispute with Emil Brunner in the 1930s. Such an approach can be applied, together with Barth's famous (or notorious) *'Nein!'*, to any form of natural theology. In the past several decades, the debate in Protestant theology about Barth's standpoint, in terms of the above-mentioned dispute, has been conducted in terms of at least five different approaches:

- the *ignoring* of Barth's standpoint, with the result that his debate with Brunner is dealt with perfunctorily, as practised by F.H. Cleobury
- the *maintaining* of Barth's standpoint, but with greater emphasis on the analogous aspect of his theology, as advocated, among others, by C. Link
- a *reinterpretation* of Barth's standpoint, as practised, for example, by T.F. Torrance
- a *rehabilitation* of Barth's standpoint, involving the adoption of a new approach to the theory of Creation, which discounts the insights provided by other sciences, such as those described by A.E. McGrath
- a complete *break* with Barth's standpoint and the rise of Process Theology, as developed by such theologians as J. Cobb.

I choose to take the rehabilitative approach in this essay. My point of departure is that both the Enlightenment and Liberalism had such a profound influence on theology that, during the 19th and 20th century, at least two main categories of epistemology developed, which are no longer tenable today. The one category makes too much of reason, whereas the other category makes too much of faith. We can no longer sharply distinguish between revelation and nature. Due to human beings being both the object and the subject of choices, they possess a 'naturality', as well as an 'ex-naturality'. Contemporary neuroscience regards both the body and the psyche as mere functions of the brain, in terms of which thinking a human being is merely an embodied mind. However, I do not wish to imply that a human being can be reduced to matter without residue. Although genes hold culture on a leash (Edward O. Wilson), we still cannot claim that our neurons are responsible for our actions (Murphy & Brown 2007).

I wish to illustrate, with regard to apartheid theology, the sharp, though artificial, distinction that Barth draws between revelation and nature. I wish to do so, not so much because such a theology is still very

1.Peacocke (2004:49), in his book titled *Evolution: The disguised friend of faith?*, openly discusses the value that the other sciences, and particularly evolution, hold for theology: 'In the history of the people of Israel, God was always raising up apparent scourges, such as Cyrus, that were in reality blessings in disguise leading his people through the trauma that would alone enable them to apprehend new truths.'

much alive in certain reformed churches in some countries, but because, in my opinion, Hitler's National Socialism was one of the most important motivations for Barth to fight tooth and nail against any form of natural theology. Such churches in South Africa ostensibly wished to invoke Barth, with his appeal for revelation and his consequent aversion to the concept of natural theology. Despite such invocations, one could just as easily resort to calling upon the natural laws and the ordinations of Creation in apartheid literature. I shall attempt to show that using such literature as a point of departure is a mixture of both revelatory and natural theology. Resorting to such a point of departure is only possible due to an extra-biblical maxim, to which Barth also resorted in his theology. By means of using this particular argument, I hope to indicate that one of the main objections to a natural theology, namely that it seeks to entrench particular national interests, is unfounded, leading to the unjust contamination of an inclination towards the acceptance of a natural theology.

The direction in which I wish to seek the solution to such a problem is that which Darwin intimated when saying that 'psychology will be based on a new foundation'. The difference between revelation (faith) and nature (reason) lies not in which precedes, or overshadows, the other, but rather whether they are, in fact, two distinct aspects. Whether such a distinction underlies this particular form of epistemology, making it a disguised form of Platonic dualism, is debatable. I think that an evolutionary epistemology succeeds in overcoming such a diastasis, placing it meaningfully within a transversal space of interdisciplinary dialogue (Van Huyssteen 2006).

My argument is constructed as follows. Initially, I consider the epistemological dispute between Brunner and Barth, which centred on 'the [other] task of theology'. Protestant theology splits at this point into a revelatory theology and one that is natural. Next, I deal with some of the insights provided by the Enlightenment, in terms of how they influenced processes of understanding. The writings of William Paley,[2] an important architect of natural theology, are then juxtaposed against those of Darwin, preparing for the discussion of an *evolutionary epistemology*.[3] The hybrid epistemology of apartheid theology is then closely examined, exposing its special ideological points of departure. Inspired by such theologians as Thomas Torrance, who could reinterpret Barth and who could also become involved in the physics of his day, as well as by such philosophers of religion as William Alston, who developed an epistemology of religious experience, I attempt, in my conclusion, to arrive at certain contours of a 'revival of' (Polkinghorne 1998:70) or a 'Christian' (Torrance 2001:107) natural theology. Ultimately, my proposal is that of a *theology of nature*. I conclude my argument with the conviction that Christians must consciously form their preconception in terms of the evidence of Creation, as articulated in the Scriptures. Such an epistemology, rather than preceding science *a priori*, forms a subdivision of it, allowing itself to be decisively determined thereby, and remaining in continuous interchange therewith. In short, *heredity* and *selection* remain the keys to the unlocking of an evolutionary epistemology (Altner 2003:11).

THE [OTHER] TASK OF THEOLOGY

The Barth–Brunner debate took place in 1934, which was the year in which Adolf Hitler came to power in Germany. Although one should assess such a background cautiously, as James Barr (1994:10, 111–117) indicated, the debate has to be seen in terms of such a context. Barth (2002:71) refers to a time 'roughly after 1929' when Brunner, as far as he was concerned, began voicing unacceptable utterances, such as in speaking of 'the other task of theology' and 'the point of contact'. John Hart points out that Brunner, for his part, had, as long before as 1918, already begun expressing concern about Barth's 'one-sided' conception of revelation (McGrath 2008:161).

Brunner's accommodating and modest style is particularly sharply contrasted to Barth's anger, bitterness, and even arrogance. Whether Barth (2002:78–79) intentionally reflects Brunner's concept '*Wortmächtigkeit*' (capacity for speech) invariably as the concept '*Offenbarungsmächtigkeit*' (capacity for revelation) is debatable. Brunner conceived of believers as having a basic capacity to *be addressed*, but not to experience revelation independently of the Word itself. In short, he chose not to speak of an '*Offenbarungsmächtigkeit*'. Accordingly, in his opening words he assesses the Barth–Brunner debate as having shifted, in that neither asked about the *Deus in nobis*, with both theologians seeking the *revelation in Jesus Christ* (Brunner 2002:17). A source that acknowledges the validity of both faith *and* reason is as much unacceptable to Brunner as it is to Barth. In addition to both the theologians offering their own vision, and discrediting that of their opponents, throughout the debate, the *pièces de résistance* comprise two moments: their respective standpoints, as well as their interpretations of Calvin in particular. Brunner sets the agenda by placing six points on the table, which he thought encapsulated the essence of a natural theology. Each of them handles the points of debate by presenting his own insights on the topic, as well as criticising the standpoint of the other theologian on it.

The *imago Dei*

Brunner (2002:22–24) distinguishes between the formal and the material aspects of the *imago Dei*. He regards the former as being what makes humankind unique in Creation, as well as what retains it, irrespective of the amount of sin that it commits. A subject of humankind, accordingly, is responsible for participating in Creation. The material aspect of the *imago Dei*, in contrast, became totally lost at the time of the Fall, making human beings 'anti-personal persons', who are without justification. To Barth (2002:79–80), the result of distinguishing between the formal and the material aspects of human beings as the image of God results in an artificial classification. Such an imposed scheme renders human existence as subjects illicit (Barth 2002:75). Only Jesus Christ can exist as subject and the Scriptures are the only *quod* that can exist. As far as Barth (2002:77) is concerned, Brunner is guilty of devising a system of thought, resulting in the latter making theology a foreign task.

General revelation

Brunner (2002:25) deems the Creator's fingerprints to have remained as they were at Creation, so that they can be regarded as the self-revelation of God. He regards human consciousness, likewise, to have remained the same since then, which posits the conscience as a special consciousness of God. In the light of such thinking, the responsibility of the sinner and the awareness of the will of God are one and the same concept. Therefore, general revelation does, indeed, exist. Such a 'double' revelation in nature and in Christ has the same origin, however, relating the two forms of revelation directly to each other. Brunner (2002: 26–27) claims that, in order to understand the relationship of the two forms of revelation to each other, we must distinguish between the human and sinful subject and the Divine objective revelation in Christ. Only one who has met Christ 'has the true natural knowledge of God' (Brunner 2002:27). For Barth (2002:80–82), the only possibility is that God can speak in Christ. He suspects Brunner of inconsistency because, on the one hand, Brunner says that humans are blind, but, on the other hand, he says that people can *somehow* recognise God in Creation. Barth claims that Brunner undermines the concept of the Trinity, by thinking that he can reach the Father in the absence of the Son and the Holy Spirit.

General grace

Brunner (2002:27) claims that contemplation of the omnipotence

2. Darwin writes about Paley: 'I do not think I hardly ever admired a book more than Paley's *Natural theology*. I could almost formerly have said it by heart' (as cited in Peters & Hewlett 2003:42).

3. This expression was introduced into academic discourse mainly by Donald T. Campbell (see Van Huyssteen 2006:76).

of God, as well as of the sinfulness of human beings, leads one to deduce the merciful nature of the maintenance of Creation. In terms of such thinking, Creation must, as it were, be protected by means of the bestowal of general grace from the total perdition of sin. Such 'general grace' is different to redemptory grace. Barth (2002:85) asserts that such a view leads to the conceptualisation of the *cooperation* of God and humans, which brings primary and secondary causes into question. Instead of Brunner distinguishing between justificatory and sanctifying grace, his understanding of the concept leads to the conceptualisation of a double theory of grace, which affects the concept of the *sola gratia*.

Ordinances in nature

In accordance with Luther's way of thinking, Brunner (2002:29) regards particular ordinances, such as marriage and the State, as being founded in Creation. Such ordinances can be seen as essentials which are vested in nature that must be interpreted by faith (Brunner 2002:31). Barth (2002:86) is clear that the revelation in Christ results directly from such ordinances. Regarding humans as instinctively being aware of the will of God, he asserts that neither reason nor instinct can tell us what *the form* of marriage should be.

Point of contact

Humankind's capacity to cope with *words* and responsibility makes it unique and enables it to receive the Word of God (Brunner 2002:31). As already seen in terms of the *imago Dei*, such receptivity should be understood as formal, rather than as material. The brokenness of humankind allows it to understand the Divine message of mercy. The 'possibility of being addressed' includes not only the essential essence of *humanum*, but everything that is connected with the 'natural' knowledge of God. Barth sees, in such a concept, the crux of a natural theology, since such an understanding is based on the assumption of the formal aspect of humans as being the *imago Dei*, which was not lost in the Fall. He persists in understanding such a point of contact, as conceived by Brunner, as bearing the 'capacity of revelation' (Barth 2002:88). Such an understanding implies that human beings are not absolutely affected by sin, but that they retained some of their original righteousness and readiness for God. Barth claims that, by holding to such a belief, Brunner deviates from the *sola Scriptura* and the *sola gratia* principles of the Reformation.

Reparation of the formal aspect of the image

Brunner (2002:21) states that Creation is not only recreated, but also repaired. Only the material, and not the formal, aspect of humankind dies off after conversion (Brunner 2002:35). The subjective life of human beings, which consists of their self-consciousness, is not uplifted on conversion. The material aspect becomes 'the life of Christ in me'. Accordingly, the Holy Spirit 'testifies with my spirit', meaning that the formal aspect continues to exist. The new Creation merely repairs the aspect, but does not recreate it. Therefore, the continuity remains continuous. Barth's (2002:92) objection to such a concept is that, in terms of such thinking, the human point of contact is seen as preceding the revelation of God. In addition to the revelation in Jesus Christ, there is also talk of another knowledge of God. Barth (2002:93) prefers to invert Brunner's thesis of 'it is not possible to repair what no longer exists' to read: 'But it is possible to repair a thing in such a way that one has to say this has become quite new.'

In Brunner's (2002:38–45) analysis of Calvin's natural theology, it is clear that he uses the above-mentioned six points as a matrix for reading Calvin. He regards Calvin and Luther as both being supportive of his own standpoint. Barth's accusation directed towards Brunner that he is Thomist or Neo-Protestant in his thinking applies primarily to Brunner's Calvinist leanings, rather than to Calvin's advancement of such an approach, asserts Brunner (2002:36). However, Brunner finds a substantial difference between the thinking of Calvin and that of Roman Catholicism. Although Calvin draws a clear distinction between the objective and the subjective aspect of the *natura*, Roman Catholicism holds that the two aspects coincide fully (Brunner 2002:45–46). In terms of Roman Catholic belief, humankind did not lose its *imago Dei* with the Fall, but only its *perfectio originalis*. Therefore, a framework of independent thought in support of a natural theology could come into existence, independent of the revelation. Only supernature, meaning that which bears upon redemption, is reserved in the form of faith. In this way, dialectics came to amount to a dualism and nature became independent. In short, Brunner regards natural theology as the receptivity of humankind to God's word, because a 'remnant' of the *imago Dei* was preserved in human beings. Such *Wortfähigkeit* does not exist to prove God, but to proclaim the gospels (the 'what?' question) in love (the 'how?' question).

Barth (2002:95, 103, 108) reacts sharply, accusing Brunner of a warped interpretation of Calvin and Roman Catholicism. He deems Brunner to have missed the sovereignty and the election of God in Christ, which is the point of departure in Calvin's work. Justification and sanctification, as Divine actions, account for the reasoning capacity of human beings. Theology has no 'other' task than to witness Christ. Barth (2002:109) reproaches Brunner for cold malice in presenting as reality and fact the hesitation and conditionality present in the writings of Calvin. According to Barth (2002:117, 121), Brunner has established a *Weltanschauung*. Natural theology is an answer to the false question of 'how?', which is not the task of theology (Barth 2002:123).

In summary, Brunner and Barth both can be seen to have approached the issue one-sidedly, though they are two birds of the same feather. Barth opined that a natural theology could not be rehabilitated, whereas Brunner believed that such a theology was capable of renewal. Brunner's accusation against Barth that he allowed no 'conceptual space' for human beings' active involvement in the process of understanding nature appears to hold true. Barth's fear that theology would be dictated to by anthropology allowed him to overlook what might otherwise have become valuable insights. Although Barth inverted the roles that the Enlightenment allocated to God and humankind, to him human beings remained passive. However, both such theologians understood perception – no matter how important it was considered to be – as a mainly passive process, in terms of which the human subject was on the receiving end of Divine mercy. McGrath (2008:163) recognises the existence of such a shared perception and praises Brunner for elevating the status of human observation in his acknowledgment that human beings ontologically possess a particular *Fähigkeit*. To Barth, in contrast, human activity and involvement were merely incidental.

THE EPISTEMOLOGY OF THE ENLIGHTENMENT

In his *Discourse on method*, René Descartes (1596–1650) reveals his conviction that individuals determine their own beliefs rationally, rather than automatically accepting the commonsensical or traditional. By rejecting conflicting metaphysical assumptions, Descartes prepared the way for the development of a new scientific approach to reality. Underlying the adoption of such an approach was his conviction that reality has a decidedly mathematical structure (Descartes 1912:xiv). Such a conviction served to reinforce the individualism that was expressed by the Reformation, by taking as its point of departure that the rational individual could arrive at the truth 'clearly and distinctly' by means of logical deduction. Descartes (1912:86) asserted that everything that is certain is the result of thinking: *cogito ergo sum*. In his *Meditations on First Philosophy* (1641), Descartes sought *certainty* as the absolute foundation of knowledge. He asserted that nothing that can be doubted can be true, resulting in the *res cogitans* being the means of privileged access to real knowledge. By contrast, the body and the corporeal reality are known as the *res extensa*. Descartes is universally regarded as the

HTS Teologiese Studies/Theological Studies Article #272

father of mind–body dualism, as well as of phenomena–reality dualism (Schroeder 2005:2). By conceiving of dualism in this way, he clearly detached the conscious observer from real-world experience, the latter of which he relegated to a subordinate position. According to Descartes (1912:123), to think of God is to think of God's existence, in just the same way as thinking of a triangle is to think of its three angles being equal to two right angles, or thinking of a mountain is to think of a valley.

William Paley (1743–1805), once the archdeacon of Carlisle, gave his last, and most important, work the title of *Natural theology*. The work was written during the Napoleonic wars, while England was in the throes of an economic slump, which partly accounts for the evolution of his thought to the concept of the Goodness of the Deity. In his foreword he wrote that, although the work was to be his last, it should be read as a preface to his others (Paley 2006:4), as, in it, he presents his 'comprehensive design'. Charles Darwin, in reading the work, rediscovered the 'invisible hand' of natural selection (Altner 2003:24). The closing paragraph of Darwin's later work, *On the origin of species*, was indubitably inspired by Paley. Darwin only corrected, rather than rejected, Paley's account of biological life, to which Darwin referred as the notion of 'perfect adaptation' (McGrath 2006:78). The structure of Paley's *Natural theology* is like the two halves of a hinge, with the first half dealing with human anatomy and the second half with the Divine attribute. The axes of the hinge are formed by the classical four elements of nature and astronomy. For the first time, *biology* was envisaged within the realm of theology. The book begins with the well-known analogy that he draws between the world and a pocket watch, which was technologically very advanced for the times in which he lived. Paley stated that, If one were to encounter a stone on a heath, its presence there would not elicit any questions, whereas finding a clock, with its 'intricacy of its parts', in the same location would elicit surprise, since the presence of such an object definitely would indicate that an intelligent designer had been there (Paley 2006:7–8). The remainder of *Natural theology* demonstrates that the world, in fact, resembles a huge clock made by a wise and benevolent God. Nature invariably shows signs of 'contrivance', purposeful design and fabrication, to a far greater extent than does a clock. The composition of the eye is probably the best example of such planning and conception (Paley 2006:16). Based on an empirical analysis, Paley (2006:237) deduces that the design of the contrivance is beneficial, with the Deity having superadded *pleasure* to the feelings of animal sensation. Such ideas regarding the beauty and symmetry of nature were well received, and made the development of a natural theology acceptable to many.

Living in the times that Paley did, he made at least two assumptions. On the one hand, it seemed that the knowing subject could dispose of nature from a distance, and could therefore be an objective observer. On the other hand, it seemed that God could be seen as an entity of nature and that, through accurate inductive investigation, not only could God's attributes be determined, but also his existence. Such assumptions link up with Isaac Newton's (1642–1727) formulation of the regularity of nature, specifically in terms of constants, such as the relationship between gravity and the orbits in which the planets move. Such a formulation led to reality being conceived in accordance with strict scientific laws, meaning that it could be rationally and universally revealed by the investigative mind. In this way, reliable knowledge could also be obtained about God. McGrath (2008:141) alludes to such a means of obtaining knowledge about God in the title of one of his most recent books, which is titled *The open secret*, in which he states: 'There is no 'secret' or 'hidden' meaning of nature, in that the human mind is capable of uncovering its true, public meaning.' Such a statement makes clear that the cognitive approach to reality is one which regards nature as fully knowable and, therefore, understandable. The human observes nature, and then reflects on how best to understand it.

Immanuel Kant (1724–1804) built further on such an understanding, placing God fully in the *noumenal* sphere, which is beyond the bounds of any contact with humankind. According to Kant ([1993] 2000:211), the *noumenon* is 'not an object of our sensible intuition'. In terms of such thinking, God is effectively taken out of nature and declared unknowable. In his three critiques, the *Critique of pure reason*, the *Critique of practical reason* and the *Critique of judgment*, Kant defines the boundaries of reason as forming the basis for ethics and judgement (Schroeder 2005:17). The Copernican revolution, which Kant brought about, regarded the source of understanding and coherence as being displaced from the object to the subject. According to Kant ([1993] 2000:59), '[t]ime and space are, therefore, two sources of knowledge, from which, *a priori*, various synthetical knowledge can be drawn.' All manifold appearances are arranged and viewed in terms of pure sensible intuition. What we can know of nature is, therefore, constrained by *a priori* human ideas and categories, which are capable of assimilating *phenomena*, but not the entire transcendental reality beyond them. An entity cannot be known in itself, but simply as it *appears* to us. Kant's approach saw as unbridgeable the gulf between nature and God. Such a gulf was seen to prevent humankind from being able to say anything meaningful about God. In this way, humankind became a non-participatory observer of nature.

The metaphor of the 'two books', authored by the same Divine hand, has been universally known since Galileo. In terms of such thinking, two sources exist on which to rely when practising theology and understanding reality. Nature is read and interpreted, as is a text. The classical example of nature being read in this way is naturally the renowned work, titled *The excellency of theology compared with natural theology*, which was produced by Robert Boyle in 1674. The two books can, moreover, be read and appreciated independently of each other too. The danger is obvious: God is largely taken out of Creation, with the concept of God's Providence being undermined in process. Barth's aversion to a natural theology consisted of such thinking, in terms of which there was a disjunction between Creator and Creation, resulting in a deistic concept of God (Torrance 2001:87–89).

In conclusion, the Enlightenment upheld an epistemology that overvalued humankind as knowing subjects, ultimately declaring God to be in an 'inaccessible light'. However, Paley contributed to our shaping of a natural theology, in that nature would, henceforth, not represent only mountains, rivers and vegetation, but incontrovertibly also humankind. An ontology of nature that sets out what the world *is*, appears to be so significant that it allows for our responses to be determined thereby, rather than by personal likes and dislikes. Such an understanding is a *sine qua non* in any critical intellectual discourse (McGrath 2001:121). Ricoeur (Changeux & Ricoeur 2000:46, 65, 93) prefers to call the basis of such a transition from a semantic foundation to one that is ontological the 'substrate' to denote the relation of the body-as-object to the body as it is experienced, and therefore to denote the transition from the physical brain to cognitive awareness.

AN EVOLUTIONARY EPISTEMOLOGY

Charles Darwin (1809–1882) was the first scientist to provide empirical evidence for the hypothesis of evolution, exposing the mechanism behind it. The closest biological relations of human beings are primates, of which the chimpanzee is closer to a human being – to as great an extent as a 95% correspondence (Ridley 2003:209) – than even the gorilla, though less than the orang-utan (Ayala 1998:33). The hominid line, which separated from that of the other primates somewhere between 5 to 7 million years ago, developed linearly on the African continent from *homo habilis* to *homo erectus* to *homo sapiens*. The last-mentioned species originated about

400 000 years ago, whereas *homo neanderthalensis* survived up to 40 000 years ago. Neanderthals continued to survive for a time after 'modern man' arrived about 100 000 years ago.

Darwinism is a theory that considers the three elements of *variation*, *selection* and *reproduction* (Buskes 2008:42). In terms

of such elements, voluntary variation is, firstly, the source, or fuel, of evolution. The specific fitness of a species increases its chances of survival. Such survival occurs randomly, and is characterised by an abundance of different elements. Secondly, natural selection is the engine of evolution, which uses certain organisms, and not others. Certain elements are, consequently, more stable than others. Reproduction, thirdly, is the vehicle of evolution, which cumulatively conveys the evolutionary process from one generation to the next. The three elements, in all of which an evolutionary algorithm is present, are, therefore, capable of copying themselves. Consequently, if certain clearly defined steps are followed, a specific outcome can be achieved. In this way, biological adaptations may arise which, in turn, lead to new populations, which can survive in a particular environment. As the process is a cumulative one, with the output from one round becoming the input for the next, the degree of adaptability can also, consequently, be continuously increased (Buskes 2008:221).

The theory of Universal Darwinism refers to a wider application of evolution than that which transpires within mere biological boundaries. Such a theory holds that a causal relation exists from the genotype to the phenotype, though not the converse. Dawkins (1995:4) explains in his book, titled *River out of Eden*, that '[t]he river of my title is a river of DNA, and it flows through time, not space. It is a river of information, not a river of bones and tissues: a river of abstract instructions for building bodies, not a river of solid bodies themselves. The information passes through bodies and affects them, but it is not affected by them on its way through.' Biological evolution, in such terms, leads to cultural evolution. Similarly to how biological evolution uses *genes* as building blocks, so does cultural evolution use *memes* as replicators. Such replicators can convey their coded information accurately by means of copying technique and symbolism (Dawkins 2006a:191). Whereas, in the case of genes, information is primarily conveyed vertically by means of sexual reproduction, in the case of memes, information is primarily conveyed horizontally by means of *imitation*. Such a theory was later developed into one which saw memes as the units of information that *give rise to* cultural artefacts and ideas.

What Paley ascribed to a special Divine Designer, who created everything, Darwin explained by means of the theory of natural selection. To the notion of natural theology, Darwin added the concept that nature, which is without an inherent *telos*, develops *spontaneously*. Dawkins, a scientific naturalist, consequently pays Paley a somewhat backhanded compliment in his much-discussed *The blind watchmaker*:

> *We have seen that living things are too improbable and too beautifully 'designed' to have come into existence by chance ... Darwin's answer is step-by-step transformations from simple beginnings, from primordial entities sufficiently simple to have come into existence by chance. Each successive change in the gradual evolutionary process was simple enough, relative to its predecessor, to have arisen by chance ... The cumulative process is directed by nonrandom survival.*
>
> (Dawkins 2006a:43)

Such thinking poses a significant challenge to classical theism, as Dawkins (2006b) wishes to show in his *The God delusion*. However, Dawkins' approach, which disallows God's transcendence and intervention, is a fully naturalistic extreme, which we need not take seriously.

A second aspect indicated by Darwinism requires deeper introspection in terms of a natural theology. Such an aspect, which Paley overlooked, consists of the astonishing suffering which results from natural selection. The question arises as to why God did not seek out a better way of maintaining Creation. Why so many species had to be wiped out in the course of evolution is debatable. The Malthusian principle holds that, despite the possibility of an exceptional increase in organisms taking place, the 'struggle for existence' retains its dimensions and allows the weakest of such organisms to die out (Darwin [1859] 1999:55). No wonder this led to questions such as theodicy or anthropodicy (Bennett 2008:10). The 'good Creation' now seems to have a very large price. George Williams even goes as far as to state that 'Mother Nature is a Wicked Old Witch!', and that the goodness in nature ought to be discounted by an evolutionary ethic (McGrath 2006:82).

The source of *a priori* knowledge was only gradually realised, 25 years after Kant's death and with the publication of Darwin's *On the origin of species*. By means of natural selection, our ability to know developed with a specific function. Human cognition is but a small part of a far wider spectrum of information gathering. Kant, in his understanding of time and space, still took as his point of departure the Newtonian preconceptions of absolute time and space, with the difference being that they were transferred from the Divine realm to that of human consciousness. By making such a transfer, he separated faith and science so absolutely that he robbed faith of any objective or ontological reference, leaving it without any recognisable content. By emphasising necessity, Kant elevated Newton's determinism to a metaphysical magnitude. The result was that Euclidian geometry figured as an epistemological maxim, whereas it belongs squarely within the realm of physics itself (Torrance 2001:26, 92). Moreover, the theory of relativity does not postulate a three-dimensional Euclidian space, but rather a curved time–space theory with more than three dimensions. In the same breath, quantum mechanics also breaks away from Kant's idea of the phenomenal world, which is causal and determined. An evolutionary epistemology, however, displaces both the content of knowledge and causality largely to the world itself once more. The move, therefore, is again made from idealism to realism.

McGrath (2002:33–34) refers frequently in his works to the value of W. Quine's important essay, 'Five milestones of empiricism', as a theological epistemology. Quine rejects the idea of a 'first philosophy', which must precede science. Absolute certainty and unassailable points of departure are, by definition, not possible. Investigators should concern themselves with reality as it is presented, and empirical science should become the cornerstone of an epistemology. Having no dry dock for repairs, we are like sailors adrift in a boat on the open sea, who have to resign ourselves to the inevitable (Otto Neurath). We then lack a 'vantage point' from which to evaluate our beliefs, apart from in terms of our already existing beliefs. Murray (2002:79) formulates such a standpoint by stating that the 'God's eye' point of view is, in essence, nothing other than the 'God's I' point of view. In terms of such thinking, cognitive and perceptual systems are restricted by natural selection to those aspects of the objective world that are relevant to the organism concerned. Knowledge is, accordingly, the result of the Darwinian algorithm of variation, selection and replication. As human beings are *aware* of their knowledge equipment, they are also the first who cannot surmount and correct their cognitive niche (Buskes 2008:251).

Mark Twain commented, 'Faith is believing what you know ain't true'. Alvin Plantinga (2008:9) is correct in his assertion that such thinking is a gross error. The realms of revelation and nature, fideism and naturalism, faith and reason should not be set against one another, but should rather complement and interpret each other. Although nature lends itself to different readings and interpretations, it does not provide its own authorised interpretation. However, preconceptions, which are always in evidence, concern choices, some are of which are made *for* you and others that are made *by* you. When organisms adapt to their environs, genetic change takes place, in terms of natural selection. However, only humans can adapt by also changing their environment to suit those needs that are present in their genes (Ayala 1998:39). By means of being able to reject their assigned cultural roles, they can choose to be responsible and relational beings (Dingemans 2005:313). As our personhood is

HTS Teologiese Studies/Theological Studies Article #272

inextricably bound up with our physicality, it is tied to the God-created cosmos, being the summation of our life experiences and relationships (Green 2008:179).[4]

A SOMEWHAT WARPED OUTCOME

Evolution has its definite outgrowths. Social Darwinism or, better stated, *Social-Lamarckism*, can be traced back to Jean-Baptiste Lamarck's (1744–1829) interpretation of evolution. Lamarck's interpretation posits that acquired characteristics can be hereditary, and every new generation continues to build on the achievements of the previous generations (Buskes 2008:380). Consequently, the selection process is clearly streamlined, progressive and linear. As a result, Herbert Spencer thought up the term 'survival of the fittest' in reference to the dying off of the weak in order that the species might be strengthened.

Spencer's approach rests on the existence of a metaphysical law in the absence of a tested hypothesis. In the opinion of Buskes (2008:382), Spencer merely wanted to sanction the *laissez-faire* capitalism of his time and to justify concurrence and oppression. Only a small step further lay imperialism, colonialism and slavery, which, in turn, led to racism,[5] as Gaymon Bennett stated in his introduction to the anthology, *The evolution of evil*:

> *In some of the most conspicuous moments of political evil in the 20th century – such as eugenics and Nazi 'racial hygiene' – the theory of evolution and the logic of survival-of-the-fittest was taken up to justify the ethics of racism, imperialism, and domination.*
>
> (Bennett 2008:9)

Although Altner (2003:56, 76) thought that the assumptions made in terms of Social Darwinism were not conceived of in terms of Darwin's own vision, his standpoint is not convincing. The subtitle of *On the origin of species*, for example, is *The preservation of favoured races in the struggle for life*.

Barth opined that Brunner's natural theology might, indeed, be used to support Hitler's eugenic aims. Barr (1994:11) believes that the evolution of Barth's thought caused him to *perceive* the German situation in terms generated by his own theology, and therefore to regard Brunner's theology as the extreme manifestation of a natural theology. German totalitarianism, therefore, placed the issue in the foreground for Barth.

> *What the 'German Christians' wanted and did was obviously along a line which had for long enough been acknowledged and trodden by the Church of the whole world: the line of the Enlightenment and Pietism, of Schleiermacher, Richard Rothe and Ritschl. And there were so many parallels to it in England and America, in Holland and Switzerland, in Denmark and the Scandinavian countries, that no one outside really had the right to cast a stone at Germany because the new combination of Christian and natural theology effected there involved the combination with a race nationalism which happened to be rather uncongenial to the rest of the world, and because this combination was now carried through with a thoroughness which was so astonishing to other nations.*
>
> (Barth 2004a:174)

Though South Africa is only implicitly referred to in the above quotation, the country is referred to more directly elsewhere in the *Church dogmatic*:

> *It was quite intolerable when some twenty years ago the rise of Hitler was seriously claimed as a kind of divine revelation, or when to satisfy the racial laws of National Socialism it was proposed to found special congregations of Jewish Christians. How much longer will it be possible in the United States and South Africa to ratify the social distinctions between whites and blacks by a corresponding division in the Church, instead of calling it in question in the social sphere by the contrary practice of the Church?*
>
> (Barth 2004b:703)

In personal correspondence conducted in 1952 between Barth and the South African theologian Ben Marais, the former adamantly expressed his opposition to the system of apartheid, which he regarded as a form of National Socialism (De Cruchy 1988:141–143). Marais asked Barth whether the Bible, according to his view, prescribed, permitted, or prohibited the existence of a *volkskerk* (meaning an ethnic church). Barth's response was the last-mentioned. To Marais' asking whether all racial mixture was against the will and ordinance of God, Barth declared that he rejected such a belief as being part of Nazi theology.

Stanley Hauerwas (2002) explores natural theology and Barthian witness in depth in his 2001 Gifford Lectures. He asserts that Barth's discovery that the proper subject of theology is God cannot be seen independently of the theologian's cultural criticism (Hauerwas 2002:156, 170). The positive converse to Barth's aversion to a natural theology can be found in his appreciation of the *an/enhypostacy* in Christology post-Chalcedon (451 A.D.), which resulted in the positioning of Christ on the central stage. Barth (1991:157) formulates such an understanding as follows: 'The humanity of Christ, although it is body and soul, and an individual, is nothing subsistent or real in itself. Thus it did not exist prior to its union with the Logos. It has no independent existence alongside or apart from him. Those who want to see revelation in the idea of humanity as such are grasping at something that in itself is not just meaningless but nonexistent.' In terms of such thinking, Christ is the interface between God and man, as it is in Him that God and man meet (Barth 1967:43). Christ's role as the interface is also *the* truth, which is simultaneously the *prima*, and the *ultima*, *veritas* (Barth 1979:26).

Taking such as the point of departure also links up directly with the first doctrine of the *Barmen Thesen* of 1934, in which Barth played the leading role. The rise of National Socialism in Germany, and the Messianic role that Hitler began adopting in the movement, alerted Barth (2004b:172) to the dangers that lay ahead. The *Barmen declaration* pertinently concerns the revelation that can take place only through Jesus Christ:

> *Jesus Christ, as He is attested to us in Holy Scripture, is the one Word of God, whom we have to hear and whom we have to trust and obey in life and in death. We condemn the false doctrine that the Church can and must recognise as God's revelation other events and powers, forms and truths, apart from and alongside this one Word of God.*
>
> (Barth 2004a:174)

Hauerwas criticises those theologians who regard Barth as supporting 'theological metaphysics' (2002:142) and 'system coercion' (2002:154), as well as of being 'totalitarian and imperialistic' (2002:169) and 'a dogmatic theologian' (2002:178), stating that theology has no stake in imitating, or even conversing with, other sciences (2002:202). Barr's sharp criticism is noteworthy in this regard. He concludes not only that 'From beginning to end Barthianism was above all an intellectual, philosophical-dogmatic, system' (Barr 1994:103), but that 'Barth broke his own principles: his whole approach to exegesis was designed, I believe, in order to obviate the possibility that scripture might contain evidence for natural theology' (Barr 1994:136). Van Niekerk's (1984) research on Barth accords fully with such thinking. Barr (1994:190) enquires whether Barth had not developed his personal credo to an impressive dogmatic paradigm. Veldsman (2007:1344) expresses similar thoughts when he writes that: 'You first have to believe in Barth, then in God. He thus fell prey to precisely that psychological subjectivism which he sought to escape.'

4. In this respect, I can, therefore, also reconcile myself to Nancey Murphy's *non-reductive physicalism*, or to Arthur Peacock's *emergentist monism*, which judges that the soul can be explained by the functions of the brain, as well as by socio-cultural factors, of which the most important is our relationship with God. The human being's ex-naturality, therefore, lies in his or her being addressed by God ('capacity for speech'). Such ex-naturality constitutes their uniqueness, as embodied in the *imago Dei*, as indicated by Van Huyssteen (2006).

5. The point of Herrnstein and Murray's *The bell curve* is that the highly intelligent are becoming separated from those members of the general population who have average and below-average intelligence (1994:121). They are of the opinion that both genes and the environment have something to do with racial differences.

In his recent groundbreaking work, *Imitating Christ*, Richard A. Burridge (2007:365–382) points out that apartheid theology superimposed an external doctrine on the Bible. Deist (1979:57) asserts that the Word of God has always been contingent to, rather than constantly referred to in, theology. He bases such a finding on G.E. Lessing's conclusion that the Christian faith itself has never been based on the entire Bible, or on the Bible alone, as external doctrines have always been involved in such faith. Barr (1994:6) correctly, therefore, alleges that Barth and Brunner are birds of a feather. Both invoke revelatory theology and their exegesis is equally recognisable by the assumptions that it makes. Burridge (2007:366) points out that those theologians who supported apartheid consistently invoked the revelation of God. The Dutch Reformed Church also states pertinently that the concept of 'Scriptural principle' should be treated circumspectly, although the Bible offers 'fundamental data and principles' (NGK 1974:8).[6]

In conclusion, the exegesis of an apartheid theology was dictated by an external doctrine, probably being influenced by Social Darwinism,[7] but, owing to the particularity of its limited ramifications, it could not be typified as being purely a natural theology. The features of a purely natural theology, which are typically those of, among others, *rationality* and *universality* (Barr 1994:112), are almost completely missing in such a theology. Moreover, the classical *Sitz im Leben* of natural theology, which is intended to prove the existence of God, is also missing in such a theology. Barr (1994:115) might rightly ask whether theology is not, in any case, both 'natural' and 'revealed'. On the basis of his analysis of Athanasius's (1993) *On the Incarnation*, Torrance (2001:76–77) also concludes that knowledge of God and of the world have the same basis, namely the *Logos*, being the rationality of God the Creator. No real difference exists between natural and supernatural knowledge, since both forms of knowledge are vested in Christ's incarnation.

A THEOLOGY OF NATURE

The different epistemological perspectives, consisting of an implicit empiricism, rationalism, idealism and realism, that have been discussed so far approximate McGrath's (2008:60) categorisation of the four approaches taken in a natural theology:

- *ascending from nature* to the transcendent, in terms of which nature is seen as the launch pad to attainment of the Ultimate;
- *seeing through nature* to the transcendent, in terms of which nature serves merely as a portal to the transcendent beyond;
- *withdrawing from nature* into the human interior, in terms of which the point of departure is of a psychological nature and truth is vested in humans themselves; and
- *discerning in nature* that which is transcendent, in terms of which nature is deemed to contain *within it* a special capacity to reveal the supernatural.

The last-mentioned approach probably offers the greatest potential for development as a theology of nature. Unlike the first three of the categories listed above, discerning the transcendent in nature neither relies on the establishment of a dualism between reason and faith, nor, in particular, on a denigration of the material and a reaching out to something higher. The naturalness of humankind implies, by definition, an engagement with nature by means of a specific *observation* (discernment). The physicist and philosopher Klaus Müller distilled the essence of his epoch-making book, *Die präparierte Zeit* (1972), in his aphoristic conclusion that *discernment* was the essence of all reality (Müller 1978:9).

However, nature cannot be observed as such, but has always to be observed *as something*. Consequently, there is no transcendent reality above, behind or in front of the observable, but rather a transcendent reality *in* the relationship that man has with nature. When interpreted correctly, nature therefore *becomes* Creation to the faithful. As epiphany and transfiguration can only occur in the presence of discernment, the knower is implicitly involved in the process of knowing, resulting in the possession of a realistic perspective on the world. Gadamer (2004:446–447) sees the truth as the interaction between the *interpretandum* and the *interpretans*, which leads to the querying of objective knowledge (foundationalism).[8]

Human beings are embodied, and human minds are embrained. Such dualism is incommensurate with any picture of the world that is consistent with scientific observation (Peacocke 2004:91). There is solely a continuous change in brain states, a distillation of history, emotion, instinct, experience and the influence of others. Matt Ridley (2003:278) concludes: 'I hope I have shown that the more you discover genes that influence behaviour, the more you find that they work through nurture, and the more you find that animals learn, the more you discover that learning works through genes.' There is, in other words, a 'co-evolution' of genes and culture (Haught 2003:109). The solution lies in finding a fundamentally new relationship between understanding and experience, perception and cognition. The perceiver both acts on the world and is acted upon by the world. The perception is also personal, in terms of its expressing the unique 'bio-cultural paradigm' (Gregersen 2000:7). It embodies being human in all of its joints, biology, culture, psychology, and the *imagination*. The human person possesses an ex-naturality which overcomes any neurogenetic determinism.

The individual and personal 'addressing' or 'attraction' in such thinking is noticeable. The 'cocktail party effect', which is a well-known psychological phenomenon, refers to the ability of a person immediately to hear the mention of his or her own name, despite the multitude of other sounds present in the environs (McGrath 2008:100). Within the complex network of nature, culture and personality, the sensitive individual hears the revelation brought about by the utterance of God's voice.

In my view, the focus in natural theology has shifted. Initially, such theology was clearly aimed at finding evidence of the existence of God in nature. The classical three proofs of God (ontological, cosmological and teleological) have been thoroughly explored, especially by Kant ([1993] 2000:412–427). Such thinking, in a more sophisticated form, is still prevalent today among such religious philosophers as Plantinga (Plantinga & Tooley 2008), Mackie (1982), and even Swinburne (2004). Since the origin of the ecological debate in the 1970s, speaking of a *theologia naturae* has become increasingly popular. The challenge, therefore, has shifted to answering the question as to whether our knowledge of God holds for our knowledge of nature. A theology of nature

6.*cf.* Gilliomee (2003:454–457), who argues that, historically, the Afrikaans churches provided the apartheid ideology of a theological substrate. Though Gilliomee focused, in particular, on the Dutch Reformed Church (DRC), Wolff (2006) applies the argument *mutatis mutantis* to the second largest Afrikaans-speaking church, the Nederduitsch Hervormde Kerk van Afrika (NHKA). He indicates that the NHKA followed a 'racial-nationalistic paradigm' in its interchangeable use of the words *volk*, *Afrikaner*, *White* and *race* (Wolff 2006:157–161).

7.In terms of both the apartheid ideology and the universally known research of De Cruchy (1986), Darwinism has yet to be considered. In the recently published proceedings of the conference of the South African Science and Religion Forum (SASRF), which was held to commemorate the 200th anniversary of Charles Darwin's birth, Van den Heever (2009:155) draws a parallel between evolution and apartheid, pointing out that Afrikaners modeled their religion on a political master plan. 'The Calvinism developed in South Africa was narrow, prescriptive and did not allow for a wider interpretation of the Biblical text. Thus religion was tailored to support a political master plan and became colloquially known as *Boere Calvinism*. In this context the DRC became a *volkskerk* (church of the people) and handmaiden to Afrikaner political aspirations.'

8.McGrath (2002:200–201), in his awareness of criticism by such anti-realists as Derrida, Foucault, Rorty, Cupitt, Murphy, and others, wants to assume in this approach the following three requirements, on the basis of Roy Bashkar's *critical* realism: a) there can be no *a priori* foundation for theology; b) critical realism plays an ancillary, rather than a fundamental, role; and c) critical realism is an *a posteriori* activity, whose central ideas come to the fore on the basis of a spiralling path of appropriate dialogue or conversation that is conducted between the knower and the known.

interprets the natural world as God's Creation (Peters 2005:2). Such a theology, rather than being a reflection upon nature, of which we are part and parcel, consists of a movement away from an epistemic fact towards a hermeneutical observance. Such a hermeneutics assumes an interaction between subject and object, with the object encompassing both the Creator and Creation (Newlands 1994:77).[9]

While wanting to understand a theology of nature in terms of the voice of God to which there is a response, *De Stem van de Roepende* (Dingemans 2005), I have to emphasise the role of religious experience. A dialogue between the neuroscientist, Jean-Pierre Changeaux and the philosopher Paul Ricoeur, is described in the book titled, *What makes us Think?*. The thesis of the dialogue is that an understanding of the brain helps us to understand our consciousness (minds). Changeaux (Changeux & Ricoeur 2000:110–125) presents a model linking external and internal experience. The model follows the Darwinian assumption that variability exists on every level: as a generator of pre-representations; then as a process of selection; and then as an amplifying mechanism, which is connected with the storage of memory traces for later reutilisation. The brain acquires knowledge through a process of selection, according to a cerebral architecture which is peculiar to the human species (Changeux & Ricoeur 2000:111). Eleven leading German neuroscientists conducted a sober and balanced assessment of brain research, titled the *Manifesto on the present and future of brain research*. Of the middle level of the brain, we know 'terrifying(ly) little' (Küng 2007:181). Knowing *where* we think is different to knowing *how* we think, never mind *what* the content of such thinking is (Küng 2007:189).

William Alston's (1993) approach is equally exciting. The putative direct awareness of God and the reaction to such an awareness is, in the derivative sense of the word, also an indication that God exists (Alston 1993:9). Only in a 'doxastic' practice (which is characterised by the forming and evaluating of belief, in comparison with George Lindbeck's 'socio-linguistic' niche) is it first possible to determine whether a subject really experiences a given object, so that 'epistemic justification' exists for the witnessing of faith. For this reason, 'religious experience' is not a purely subjective phenomenon either, but has to be interpreted within a larger framework. The 'cloud of witnesses', as described in Hebrews 12, as well as the 'heavens and the firmament' of Psalm 19, exercise a particular 'mystical' persuasive power on the individual within his or her bio-cultural sphere. Human beings respond to the presence of such a power by constructing a symbolic universe. In such an interaction of 'act upon' and 'act', I can also concur with Berger (Berger & Luckmann [1966] 1991:122) when he states: 'Symbolic universes, which proclaim that *all* reality is humanly meaningful and call upon the *entire* cosmos to signify the validity of human existence, constitute the furthest reaches of this projection.'

Following on Ricoeur (1980:86), I wish to interpret the expressions *ethos* (the sphere of human action) and *cosmos* (the sphere of the world), which two spheres meet and interpret each other, as meaning the *coram Deo*. Such an interpretation avoids the pretentious use of 'from above' or 'from within', while, at the same time, offering the possibility of a modest, yet honest, search for the presence and will of God in, and resulting from, our bio-cultural network. Ricoeur (1980:102) understands revelation as the resonance with one or the other of the aspects of the biblical message. Accordingly, God's transcendence as internal reference lies within the ambit of the discourse surrounding faith. The world to which the text refers is not the world behind the text, but a projected world in front of the text in terms of the witness of the subject, which consists of the *witness* of the text.

9. The eco-hermeneutics of Habel and Trudinger (2008) comes strongly into play in this respect. They want to read the Bible a) with suspicion, so as to expose all unfair anthropocentrism; b) in solidarity, in the sense that human beings are an integral part of the fabric of nature; and c) by retrieval of the Earth, which allows giving voice to Her neglected role in the biblical narratives.

As a biblical scientist, Richard Burridge (2007:90–391) wishes to develop a particular hermeneutic key from the Bible. In the language of orthodoxy, the Bible is, after all, the *norma normans*. In his seminal work on New Testament ethics, he uses apartheid theology as a case study. His conviction that 'imitating Jesus' is the distilled heuristic point of departure for interpreting the Scriptures and for acting in the world is also an *inclusive* paradigm, which not only assumes such an imitation, but which also is its result. Such a perspective can be seen in the following:

> *Crucially, one cannot respond alone; rather, it is to be lived out within an open and inclusive community of others who are also seeking to follow and imitate him. Now therefore we must bring this approach to bear upon our South Africa test-case to see how these twin aspects of imitating Jesus in the context of an inclusive community might be applied to the way in which scripture was read under apartheid.*
>
> (Burridge 2007:389)

Burridge states (2007:409), however, that South African churches failed to notice the *inclusive nature* of the gospels. The prophetic voice of the 'interpretative community' and the sigh of nature were long ignored, or even gagged.

Closely resembling George Newlands' hermeneutical point of departure, being *love* as a material characteristic of God, (which is, once again, distilled from the Scriptures) present in all understanding (*cf.* Augustine), the hidden presence of God is appropriated in the response of faith:

> *The understanding of God as love, of God's purpose for the created order as leading to fulfilment in love, has sweeping implications for individual and social ethics, and for the life of the Christian community, the Church. Love is to be the informing principle, not just in special cases but in all human social life. Here is the perennial relevance of an impossible ideal.*
>
> (Newlands 1994:41)

In terms of such thinking, what God *is* determines how he *acts*. The natural, physical, biological, human and social worlds are the realm of God's immanent action, and therefore the manifestation of his creative presence (Peacocke 1986:129). Such a God can be learned of through nature, being ontologically identical to the God who is made known by means of Self-revelation. If such were not the case, the perception of God would fall subject to the Gnostic disjunction. Following on the work of such theologians as Torrance (2001:118) and McGrath (2002:306), I therefore wish to say that the Divine incarnation determines our epistemology. Christ functions as both the foundation of, and criterion for, an authentically Christian natural theology. Ontology, therefore, precedes the doctrine of an epistemology, resulting in a particular theological realism.[10] A theology of nature, apart from working a posteriori, can also be regarded as taking the same direction that Charles Darwin took. McGrath (2002:158) regards *On the origin of species* as the best example of how, from a variety of opposing explanations, one can, eventually, find the best possible solutions. Charles Peirce termed the use of such a posteriori activity to reach the best explanation *abduction*. The vast range of observational data could best be explained by Darwin in terms of natural selection, rather than in terms of the special creation of species. Schleiermacher ([1999] 2008:738–751) was correct in not placing the Trinity tenet at the forefront, as Barth does in his dogmatics, but at the end, as a *conclusion* of his theory of faith. That the Church has long first achieved insight into the Tri-unity of God illustrates well the classical expression: *lex orandi, lex credenda*.

CONCLUSION

In order to reach an evolutionary epistemology which overcomes the radical concept of dualism arrived at by the Enlightenment

10. John Polkinghorne (2004:79) asserts, in terms of his 'top down' approach, that, in contrast, 'epistemology models ontology', although he calls himself a realist.

and to reopen the field for a Christian natural theology, it was necessary to configure at least two diachronic lines. On the one hand, we began at *On the origin of species*, which was read in context with William Paley's *Natural theology*, on account of the biological substrate which Paley advocated in his teleology, and the influence that his natural theology had on Darwin. Humankind's naturality is offered as a given in terms of evolution, which has a direct influence on our ability to know. People have a particular epistemological apparatus, resulting from the bio-cultural paradigm in which they find themselves. The brain is custom-made for, and by, its environment. Rather than resembling a computer, it is like a Swiss army knife, with its different components that are aptly suited to its various tasks (Haught 2003:104).

On the other hand, it was necessary to deconstruct the standpoint of the doyen of a revelatory positivism, namely Karl Barth, in relation to Brunner's natural theology, with his ontological 'capacity for speech'. Barth should, as a child of his time, be read in terms of his outspoken opposition to the Liberal theology of the 19th century and the rise of German National Socialism in the 1930s. The ferocious verbal attacks that he launched against Brunner exposed the source of his problem: Nazism.[11] The converse of his revulsion is a Christomonism, which must be applied as an absolute principle. Such a perspective also helps to clarify the traditional objections made in Protestant circles to the viability of a natural theology. The focus on apartheid theology was due not only to the possibility of drawing definite lines to a (Social) Darwinism, but also to showing that Barth's criticism definitely had such a theology in mind. Both apartheid theology and Barth had, as their point of departure, a metaphorical assumption.

A critical-realistic approach to reality opens up the possibility for a Christian natural theology to develop, in terms of which members of the faithful can both interact from within a bio-cultural niche, as well as experience the *coram Deo*, as well as in terms of which love can be hypostasised. A theology of nature, therefore, amounts to the human perception of nature, as it is shaped through a specific lens. Due to the involvement of the total human being, such a lens is consciously and subconsciously shaped within a bio-cultural framework, in which human experience and imagination play a significant role. A member of the faithful hears the voice of the Caller in a manner that accords with Scriptural norms, and reacts by striving to lead a life of all-encompassing love.

A natural theology, therefore, offers a framework within which nature can be interpreted and admired as the Creation of God. The meticulous investigation of the natural scientist, the richly imaginative horizons of the artist, and the Divine far-sightedness of the theologian, are brought into discourse with one another, leading to an appreciation which is larger than the sum of the parts. Where Systematic Theology calls for the intrinsic coherence of theology, a *Christian theology of nature* extends such a coherency to an appreciation of theology and of the *intellectual world as a whole*.

A revision of traditional natural theology is essential, with the birth of a *theology of nature* having already taken place.

REFERENCES

Alston, W.P., 1993, *Perceiving God: The epistemology of religious experience*, Cornell University Press, London.

Altner, G., 2003, *Charles Darwin – und die Dynamik der Schöpfung*, Gütersloher Verlagshaus, Gütersloh.

Athanasius, 1993, *On the Incarnation*, C.S. Lewis (ed.), St Vladimir's Seminary Press, New York.

Ayala, F.J., 1998, 'Human nature: One evolutionist's view', in W.S. Brown, N. Murphy & M.H. Newton (eds.), *Whatever happened to the soul?*, pp. 31–48, Fortress Press, Minneapolis.

Bannister, R.C., 1979, *Social Darwinism: Science and myth in Anglo-American social thought*, Temple University Press, Philadelphia.

Barr, J., 1994, *Biblical faith and natural theology*, Clarendon Press, Oxford.

Barth, K., 1967, *The humanity of God*, Fontana Library, London.

Barth, K., 1979, *Dogmatics in outline*, transl. G.T. Thomson, SCM Press, London.

Barth, K., 1991, *The Göttingen dogmatics*, vol. I, transl. G.W. Bromiley, Eerdmans, Grand Rapids.

Barth, K., 2002, 'No!', in E. Brunner & K. Barth (eds.), *Natural theology*, pp. 65–128, Wipf & Stock, Eugene.

Barth, K., 2004a, *Church dogmatics, vol. 2: The doctrine of God, Part 1*, vol. II.1, transl. G.W. Bromiley & T.F. Torrance, T & T Clark, Edinburgh.

Barth, K., 2004b, *Church dogmatics, vol. 2: The doctrine of God, Part 1*, vol. II.1, Libronix Digital Library edn., vol. II.1. G.W. Bromiley & T.F. Torrance (eds.), transl. G.W. Bromiley, T & T Clark, Edinburgh.

Bennett, G., 2008, 'Introduction: Eviland evolution', in G. Bennett, M.J. Hewlett, T. Peters & R.J. Russell (eds.), *The evolution of evil*, pp. 7–16, Vandenhoeck & Ruprecht, Göttingen.

Berger, P. & Luckmann, T., [1966] 1991, *The social construction of reality*, Penguin Books, London.

Brunner, E., 2002, 'Nature and grace', in E. Brunner & K. Barth (eds.), *Natural theology*, pp. 15–64, Wipf & Stock, Eugene.

Burridge, R.A., 2007, *Imitating Jesus: An inclusive approach to New Testament ethics*, Eerdmans, Grand Rapids.

Buskes, C., 2008, *Evolutionair denken: De invloed van Darwin op ons wereldbeeld*, Uitgeverij Nieuwezijds, Amsterdam.

Changeux, J-P. & Ricoeur, P., 2000, *What makes us think?*, Princeton University Press, Princeton.

Darwin, C., 2004, *The descent of man*, Penguin Books, London.

Darwin, C., [1859] 1999, *The origin of species*, Bantam Books, New York.

Dawkins, R., 1995, *River out of Eden: A Darwinian view of life*, Perseus, New York.

Dawkins, R., 2006a, *The blind watchmaker*, Penguin, London.

Dawkins, R., 2006b, *The God delusion*, Bantam, London.

De Cruchy, J.W., 1986, *The church struggle in South Africa*, Collins Liturgical, London.

De Cruchy, J.W., 1988, 'Racism, reconciliation, and resistance', in C. Villa-Vicencio (ed.), *On reading Karl Barth in South Africa*, pp. 139–155, Eerdmans, Grand Rapids.

Deist, F.E., 1979, 'The Bible – The Word of God', in W.S. Vorster (ed.), *Scripture and the use of Scripture*, pp. 41–74, UNISA, Pretoria.

Descartes, R., 1912 [1637], *Discourse on method: Meditations and principles*, transl. J. Veitch, Everyman's Library, London.

Dingemans, G.D., 2005, *De stem van de roepende*, Kok, Kampen.

Gadamer, H.-G., 2004, *Truth and method*, 2nd rev. edn., J. Weinsheimer (ed.), transl. D.G. Marshall, Continuum, London.

Gilliomee, H., 2003, *The Afrikaners: Biography of a people*, Tafelberg, Cape Town.

Green, J.B., 2008, *Body, soul and human life: The nature of humanity in the Bible*, Baker Academic, Grand Rapids.

Gregersen, N.H., 2000, 'Varieties of personhood: Mapping the issues', in N.H. Gregersen, W.H. Drees & U. Görman, *The human person in Science and Theology*, pp. 1–17, T & T Clark, Oxford.

Habel, N.C. & Trudinger, P., 2008, *Exploring ecological hermeneutics*, Symposium Series, 46, Society for Biblical Literature, Atlanta.

Hauerwas, S., 2002, *With the grain of the universe*, SCM Press, London.

Haught, J.F., 2003, *Deeper than Darwin*, Westview Press, Oxford.

Herrnstein, R.J. & Murray, C., 1994, *The bell curve*, Free Press, New York.

Kant, I., [1993] 2000, *Critique of pure reason*, V. Politis (ed.), Everyman's Library, London.

Küng, H., 2007, *The beginning of all things*, Eerdmans, Grand Rapids.

11.Barth's *Church dogmatics* contains nineteen references to Hitler's name.

Mackie, J.L., 1982, *The miracle of theism*, Clarendon Press, Oxford.
McGrath, A.E., 2001, *A scientific theology: Nature*, vol. 1, Eerdmans, Grand Rapids.
McGrath, A.E., 2002, *A scientific theology: Reality*, vol. II, T & T Clark, London.
McGrath, A.E., 2006, *The order of things: Explorations in scientific theology*, Blackwell, Oxford.
McGrath, A.E., 2008, *The open secret: A new vision for natural theology*, Blackwell, Oxford.
Müller, A.M., 1972, *Die präparierte Zeit: Der Mensch in der Krise seiner eigenen Zielsetzung*, Radius Bücher, Stuttgart.
Müller, A.M., 1978, *Wende der Wahrnehmung*, Kaiser, München.
Murphy, N. & Brown, W.S., 2007, *Did my neurons make me do it?*, Oxford University Press, Oxford.
Murray, M.J., 2002, 'The God's I point of view', in W.P. Alston (ed.), *Realism & antirealism*, pp. 79–96, Cornell University Press, London.
Nederduitsch Hervormde Kerk van Afrika (NHKA), 1986, *Wet en bepalings van die Nederduitsch Hervormde Kerk van Afrika*, NHW Press, Pretoria.
Nederlandse Gereformeerde Kerk (NGK), 1974, *Ras, volk en nasie en volkereverhoudinge in die lig van die Skrif*, NG Kerk, Kaapstad.
Newlands, G.M., 1994, *God in Christian perspective*, T & T Clark, Edinburgh.
Paley, W., 2006, *Natural theology*, Oxford University Press, Oxford.
Peacocke, A.C., 1986, *God and the new biology*, Everyman, London.
Peacocke, A.C., 2004, *Evolution: The disguised friend of faith?*, Templeton Foundation, Philadelphia.
Peters, T., 2005, Natural theology versus theology of nature, *Theology and science* 3(1), 1–2.
Peters, T. & Hewlett, M., 2003, *Evolution from Creation to New Creation*, Abingdon, Nashville.
Plantinga, A. & Tooley, M., 2008, *Knowledge of God*, Blackwell, Oxford.
Polkinghorne, J., 1998, *Science & theology*, Fortress, Minneapolis.
Polkinghorne, J., 2004, *Science and the Trinity: A Christian encounter with reality*, Yale University Press, New Haven.
Ricoeur, P., 1980, *Essays on biblical interpretation*, L.S. Mudge (ed.), Fortress Press, Philadelphia.
Ridley, M., 2003, *Nature via nurture*, Fourth Estate, London.
Schleiermacher, F., [1999] 2008, *The Christian faith*, 2nd edn., H.R. Mackintosh & J.S. Stewart (eds.), T & T Clark, London.
Schragg, C.O., 2006, 'Traces of rationality: Acknowledgement, recognition, and repetition', in F.L. Shults (ed.), *The evolution of rationality: Interdisciplinary essays in honor of J. Wentzel van Huyssteen*, pp. 19–29, Eerdmans, Grand Rapids.
Schroeder, W.R., 2005, *Continental philosophy: A critical approach*, Blackwell, Oxford.
Stone, J.A., 2008, *Religious Naturalism today: A rebirth of a forgotten alternative*, State University of NY Press, Albany.
Swinburne, R., 2004, *The existence of God*, 2nd edn., Clarendon, Oxford.
Torrance, T.F., 2001, *The ground and grammar of theology*, T & T Clark, Edinburgh.
Van den Heever, J., 2009, 'Creationism in the colonies: Science, religion and the legacy of apartheid in South Africa', in C.W. du Toit (ed.), *The evolutionary roots of religion: Cultivate, mutate or eliminate?*, 13, pp. 145–163, RITR, UNISA, Pretoria.
Van Huyssteen, J.W., 2006, *Alone in the world?: Human uniqueness in science and theology*, Eerdmans, Grand Rapids.
Van Niekerk, E., 1984, 'Methodological aspects in Karl Barth's church dogmatics', ThD thesis, Department of Systematic Theology, UNISA.
Veldsman, D.P., 2007, 'Karl Barth's epistemology: A critical appraisal', *HTS Teologiese/Theological Studies* 63(4), 1337–1345.
Wolff, E., 2006, 'Anatomie van 'n teologiese ideologie: Die Hervormde Kerk se steun aan die apartheid ideologie', *Historia* 51(1), 141–162.

Article #272
HTS Teologiese Studies/Theological Studies