1 Introduction

In this first volume of a trilogy on 'scientific theology', McGrath offers prolegomena to his project and discusses the secular concept of nature in relation to the Christian doctrine of creation. Subsequent volumes are announced for October 2002 and October 2003, dealing with 'reality' and 'theory'. The book is dedicated to 'Thomas F. Torrance, a scientific theologian'. The author seeks to extend an approach advocated by Torrance, including Torrance's realist appropriation of the more Kantian theological ideas of Karl Barth. McGrath's 'scientific theology' is not a theology shaped by the sciences, but rather a theology that seeks to be scientific by rigorously adhering to a theological method considered scientific. In his book the author also comments critically on the work of others in 'religion and science', the present reviewer included. I will first seek to summarize the two main parts of this book.

2 Summary

'Part One: Prolegomena', begins with a chapter on the legitimacy of using the sciences in theology. McGrath draws upon the traditional notion of an ancilla theologiae, a helpful servant for theology. Just as Platonism and Aristotelianism have fulfilled this role, the natural sciences may be brought into the conversation. However, a role as servant should be ministerial (serving) rather than magisterial (governing); it would be inappropriate if the sciences would be invoked to prove or disprove Christianity. McGrath offers an informative analysis of debates on the role of philosophy in the patristic period and a critical consideration of appeals to the social sciences, as these tend to become domina rather than ancilla. With respect to the natural sciences as ancilla theologiae, McGrath points out risks, such as lapsing via deism into naturalism. However, a dialogue with the natural sciences is required given the Christian understanding of nature as God's creation. McGrath refers to the Belgian Confession of 1561, which explicitly states that knowledge of God can be acquired through Scripture and through the natural order.

The second chapter informs the reader of McGrath's own intentions and his view of alternative approaches. His own approach has two core elements. (1) He focuses on method rather than on content as the prime meeting ground...
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between theology and the sciences. (2) He locates himself within the orthodox Christian tradition, which he takes to encompass Eastern Orthodoxy, Roman Catholicism and protestant evangelicalism—his own position. He rejects most current work in 'religion and science' as being too soft on theology, too much indebted to current, provisional scientific insights, and too much working with a general notion of 'religion', thereby neglecting differences among religions and the specific possibilities of a Christian approach.

'Part Two: Nature' begins with a chapter titled 'The Construction of Nature'. McGrath, rightly in my opinion, emphasizes the moral and cultural connotations of 'nature'. Thus, he writes that 'the concept of 'nature' is ... not an objective entity in its own right. Unless the potentially meaningless or conceptual fluid notion of 'nature' is given an ontological foundation through the more rigorous Christian doctrine of creation, the continued appeal to 'nature' is without intellectual justification or merit.' (87) The chapter considers the Greek notion of 'physis' and its transformations from the early Christian theologians up to the rise of modern science. He offers an interesting discussion of images of nature, as theatre, as a book, as a mirror, as female, as a mechanism. Such changes in the iconography of nature lead him to a 'deconstruction' of nature. 'Nature' 'cannot serve as an allegedly neutral, objective or uninterpreted foundation of a theory of theology' (113). He then shifts from the constructed character of any concept of nature to the constructed character of nature in the material sense, as landscapes influenced by human presence. He asserts that his considerations on deconstruction 'do not pose any insurmountable challenge to Christian theology. While any claims it might make to privileged status would be contested, the specific doctrines which it affirms are more resilient to the post-modern critique than has been appreciated.

Yet the postmodern approach to texts and their analogues radically undermine those who assert that the category of "nature" is an intellectually stable external reality, which can act as the basis of theoretical reflection and speculation' (120f). The chapter ends with a critique of naturalism, including writings of the present reviewer.

The next chapter deals with 'The Christian Doctrine of Creation'. McGrath draws on the work of the English philosopher M.B. Foster and on the ways in which the notion 'creation' functions in the Old and New Testament. The development of an explicit doctrine of 'creatio ex nihilo' is set in the context of a Christian engagement with Greek philosophical ideas. The doctrine is traced through the middle Ages, the Reformation, and the writings of Karl Barth. Among the assertions involved in 'creatio ex nihilo', two stand out: The doctrine 'is primarily concerned with ontological origins, rather than with temporal beginnings' (166), and even less with chronology or dating. Furthermore, it affirms God's freedom in creating the cosmos; there was no pre-existing material that could limit this freedom. The following chapter deals with 'Implications of a Christian Doctrine of Creation'. McGrath sees human rationality as rooted in our being created in the image of God. Theological roots apply also to spiritual and moral rationality, as well as to order and beauty.

In the final chapter, on 'The Purpose and Place of Natural Theology', McGrath...
approaches the issues via history. Natural theology arose in response to the rise of biblical criticism, the rejection of ecclesiastical authority, the rise of the mechanical world-view, and the quest for a religion of nature. He discusses Barth's objections to 'natural theology' and some earlier, more appreciative views from within the Calvinist tradition (John Calvin, Theodore Beza, Jean-Alphonse Turrettini). He also discusses Scripture and recent Reformed philosophy of religion, ending with Thomas F. Torrance and with the implications of sin for natural theology.

3 Critique

McGrath's agenda is 'philosophy of science' rather than 'philosophy of nature'; that is, he prefers to concentrate on methodology, rather than on the content of scientific insights. This is, in my opinion, an important part of the 'religion and science' discussion, though I hold that science is neither defined by content nor by method alone. Given his emphasis on methodological issues, it is somewhat surprising that his criticisms are often directed against others who were engaged primarily with issues of content, such as Ian Barbour and Arthur Peacocke, while not entering into a critical dialogue with contemporary authors who, like McGrath, have focused primarily on methodological issues, such as Philip Clayton, Nancey Murphy, Mikael Stenmark and J. Wentzel van Huyssteen.

In his theological orientation McGrath seeks to be 'Christian Orthodox'. This correlates with an outspoken rejection of 'revisionist' programs in understanding religion, such as advocated in the 'religion and science' discussion by Peacocke, Barbour and process theologians. The line taken by McGrath works well for those who stand within a particular tradition. However, in my opinion, it communicates less convincingly with outsiders, or the potential outsider within the churches.

The objections raised by McGrath against too simplistic a use of 'nature' as normative, can be transposed to the history of theology. In defining orthodoxy, issues of power have been involved and the diversity of voices is streamlined. And is the orthodoxy as referred to by McGrath sufficiently coherent to count as a well-defined position? McGrath's reference to orthodoxy as 'governed by both Scripture and a long tradition' covers up tensions between the Evangelical emphasis on the Bible and Roman-Catholic emphasis on tradition and the metaphysics it has brought forth. McGrath dismisses theologies shaped by 'a temporary change of cultural mood' in the 1970s, who were indebted to 'notions which, though dominant at the time, have proved to be transient'. However, the current dominance of conservative philosophies of religion and theologies might be transient as well; whatever it is, transience is not an argument.

Though orthodox, McGrath allows for dynamics in the 'reception of doctrine'; 'the maintenance of theological integrity is not the wooden repetition of the doctrinal formulations of yesteryear.' (42). However, the fundamental issue then becomes which modifications are legitimate and which are not. I remember a chart in a Lutheran parsonage in Eastern Germany, representing the history of Christianity—up to the 16th century; there was one clear stem with some twigs branching off. In the 16th century, the stem continued vertically, with a major side branch—the branch being dubbed 'Roman-Catholic'; the main stem being
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inscribed as 'Evangelical Lutheran'. 'Orthodoxy' is often defined with hindsight as the trajectory leading up to one's own position.

References to 'Scripture' as normative are made with a naiveté which, in my opinion, is problematical for a historian. McGrath's problem awareness with respect to appeals to 'nature' is not matched by a similar care in his appeals to Scripture—which makes the 'scientific' in his label 'scientific theology' a theological pretension which should not be confused with respect for the standards of Biblical and historical scholarship of our days.

While dynamics need not undermine orthodoxy, according to McGrath, the dynamics of science is a reason to keep scientific insights at arms length. McGrath speaks of the risk 'to overlook the continuing development of the natural sciences' (45f.). That is why he prefers to look for 'methodological parallels between Christian theology and the natural sciences', rather than to engage with content. In order to deal with provisionality without dismissing established insights, I would suggest that a distinction between three segments of scientific work might be helpful. There is consolidated knowledge such as the spherical Earth, plate tectonics, the Periodic Table. Besides, there is current research, where we deal with what is not yet known, but where empirical work may well give good grounds to rule out certain ideas. And there are the speculative reaches of theoretical physics and cosmology, where we may have to live with underdetermination and provisionality, due to limited guidance by experiments. If we need to be cautious, we nonetheless have nothing better than the best current assessment of the way the world is—claiming a different view would be a license to all forms of nonsense; what else but the best available should be used in the face of imperfection? McGrath presents himself as a realist (71–78), but then, why not be a realist about the more consolidated parts of science? Or else, if the history of science is a reason to plead caution, why not live with a similar provisionality in theology?

McGrath speaks of 'radical discontinuities in understanding in [the course of] the history of the natural sciences, even though the fundamental methods of investigation of the world, and their accompanying assumptions, have remained unchanged, save for technological reasons' (48). In my opinion, this is inadequate as an assessment of the history of science. Ideas about method have changed as well, not just during the early years of the Scientific Revolution but also in the subsequent centuries. Biology has seen an enormous shift from classification to theory formation, while the way biologists approach the world has been transformed by the interaction, if not even integration with neighbouring disciplines (e.g. in molecular biology). In physics, changing opinions on links between causality, determinism and predictability have not only led to new ideas, but also led to changing conceptions of what counts as explanation. Computer modelling is not merely a new technology, but also affecting visions of the nature of the disciplines involved.

As McGrath writes, 'the natural sciences are breaking new ground, gradually rendering obsolete those understandings of the world which once seemed secure' (48). However, obsolescence threatens especially the more speculative explorations in cosmology. Even though knowledge is in principle provisional, it

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seems unlikely that we ever will get rid of a spherical Earth, the Periodic Table, the million year long time scales of biologists and geologists, or the insight that humans are evolutionary close relatives of chimps and bonobo's. Science is open ended in metaphysics, but consolidated in many substantial domains of knowledge. The meta-induction that we have failed so often in the past that we are likely to be wrong now, is itself a grand theory in history which is highly problematical. Let me refer readers to Philip Kitcher’s *The Advancement of Science* (Oxford UP, 1993) as an example of serious philosophy of science that moves way beyond any relativism inspired by Kuhn and others, while acknowledging the historical and human character of science.

McGrath argues that ‘A theology which is grounded in the alleged “certain findings” of the natural sciences will therefore find itself outdated with every advance in scientific understanding’ (48). ‘Grounding their theology in the findings of science’ is not what others in the field, such as Peacocke and Barbour, are doing. Besides, if one seeks ‘to avoid becoming committed to the accepted scientific wisdom of the day.’ (49; emphasis added), one avoids the risk of divorce at the price of being sterile. There is wisdom, of course, in distinguishing between Aristotelian presuppositions in medieval theology and faith itself, and thus in going beyond the Aristotelian setting of the medieval expressions—but what if the medievals had not made the attempt to articulate their faith in the terms available to them, those of Plato and Aristotle? Too afraid to make mistakes, one forgets to live.

One of the concerns McGrath has with Barbour is Barbour’s reliance upon process theology, ‘Such has been Barbour’s influence at this point that this unsatisfactory theology has almost come to be the “establishment” position within institutions dedicated to fostering the dialogue between science and theology’ (38). It is true that Barbour’s books have to a large extent shaped the contemporary Anglo-American discussion on religion and science. However, this is more for their breadth of scholarship than for Barbour’s own position. The reliance on process theology and philosophy has been criticized within the ‘religion and science’ community on many occasions. Thus, I wonder which ‘establishment’ institutions McGrath has in mind. Arthur Peacocke who created the Oxford based Ian Ramsey Centre has criticized process philosophy on various occasions, and so have colleagues in Cambridge (Watts, Polkinghorne), Berkeley (R.J. Russell, T. Peters, N. Murphy and various others associated with the Center for Theology and the Natural Sciences), and at the Zygon Centre for Religion and Science in Chicago (Ph. Hefner et al.).

In briefly discussing (and rejecting) process philosopher David R. Griffin’s *Religion and Scientific Naturalism* he ends with some appreciation of Griffin: ‘There are unquestionably valuable insights within this work, particularly in relation to Griffin’s critique of the purely naturalistic approach to religion found in the writings of Willem Drees.’ (41). McGrath might have noted that I have criticized in my *Religion, Science and Naturalism* (Cambridge UP, 1996, 252–259) explicitly the process views of Griffin and others; hence, the complement could have been reversed as well. McGrath writes: ‘Griffin correctly notes that Drees fails to offer adequate support for his central assumption’ (41); however, one page
later McGrath writes about his own trajectory: 'The approach adopted throughout this study' (emphasis added), thereby making himself vulnerable to a tu quoque argument in the issue of assumptions adopted.

Later in his book, McGrath criticizes me for acknowledging that 'a completely independent justification of naturalism is impossible' (McGrath, 131; Religion, Science and Naturalism, 23), adding: 'Well, so does Marxism.' McGrath does not quote the preceding lines in my book: 'Some justification can be found if one is able to develop a naturalist view which is comprehensive, coherent, and fruitful (or satisfying other such criteria which themselves might perhaps be justified by their past successes), and without an equally satisfactory alternative. However [and this is the sentence which leads to the conclusion that there is no completely independent justification possible], such arguments assume criteria such as coherence or success. If all such criteria are rejected, or applied in a fundamentally different way, any attempt to justify naturalism comes to a halt.' Does McGrath reject criteria such as coherence and fruitfulness? McGrath continues with a reference to authors who argue that naturalism is self-defeating, as it cannot account for adhering to this position. However, that would only apply to a form of methodological naturalism that limits itself to the natural sciences as the only means for justification; it misses my preference, argued for a few pages before, for ontological rather than methodological naturalism. And the summary McGrath gives of my own position: 'Drees's account of the relation of science and religion proceeds on the assumption that, since there can be no gods, any human discussion of or reference to gods must rest upon the false construal of social factors' (129) totally misses the point of my reflections on Limit Questions and on transcendence (e.g. in Religion, Science and Naturalism, 259-274, 279-280). Given his theological interest, McGrath is right to disagree with me, but accurate analysis and criticism—of my writings and of those of various others—is not the strength of his book.

McGrath intentionally focuses his book on Christianity. He argues that others in trying to deal with religion in general or the plurality of ‘religions’ have relied too much on problematic definitions of religion. Defining religion(s) may be highly difficult (50), but such difficulties are no excuse to dismiss the challenge of alternative worldviews and ways of being in the world. (By the way, using Eliade to refute Durkheim (52, while giving a quote from Durkheim which can hardly count as his definition of religion) is logically unavailable to McGrath, precisely because Eliade does operate on the basis of assumptions regarding religions that McGrath rejects. It is as if all enemies of his enemies become friends, at least for the moment.).

McGrath’s book is rich in historical detail and in footnotes (I wish they had been covered by the index as well), and very outspoken in its judgements—often via adjectives: ‘a magisterial study’, ‘a noted historian’, or ‘perverse and distorting controlling assumption’. However important the topic and the central thesis about the cultural character of conceptions of nature, I find the book falling short in the accuracy with which it deals with other positions and with complex issues such as the philosophical arguments pro and contra scientific realism (where for the non-realist reality itself is not at stake but only the quality of our ideas) and theological realism (where the reality putatively related to is at stake).

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