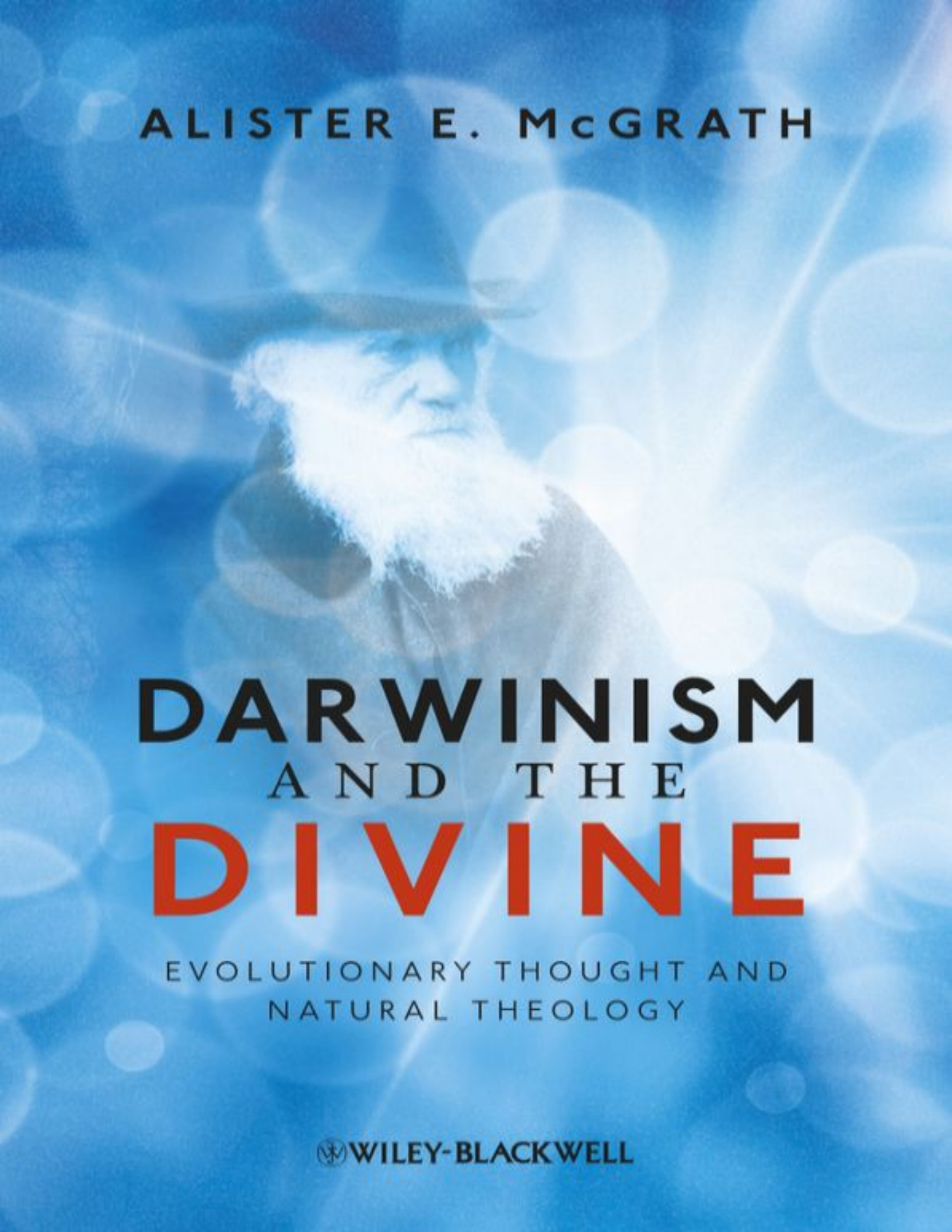
ALISTER E. McGRATH



DARWINISM AND THE DIVINE

EVOLUTIONARY THOUGHT AND NATURAL THEOLOGY

WILEY-BLACKWELL

Contents

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EVOLUTIONARY THOUGHT AND NATURAL THEOLOGY

THE 2009 HULSEAN LECTURES
UNIVERSITY OF CAMBRIDGE

ALISTER E. McGRATH

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For the Principal, Fellows, and Staff of Harris Manchester College, Oxford

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Preface

Natural theology is enjoying a renaissance, catalyzed as much by the intellectual inquisitiveness of natural scientists as by the reflections of Christian theologians and biblical scholars. It offers an important conceptual framework for the exploration of Christian theology as a rational enterprise, and a clarification of how the inner logic of the Christian faith relates to scientific rationality. Natural theology, in the full sense of the term, mandates a principled engagement with reality that is rigorously informed, both theologically and scientifically. It has the potential to open up new vistas of understanding and critical yet positive dialogue between scientific and religious cultures and communities.

There remains, however, a widespread perception that Charles Darwin's theory of natural selection marked and continues to mark the end of any viable natural theology, particularly as it had been given classic formulation in the writings of William Paley (1743–1805). Paley's theory is often interpreted as marking the apex of Christian thinking, which is thus portrayed as having been comprehensively routed and discredited by Darwin's theory of natural selection. As it happens, Paley's approach is the late, popular flowering of a relatively recent and distinctively *English* approach, the origins of which can be traced back to the late seventeenth century, and which was already in some difficulty at the time when Darwin's theory of natural selection was developed. Natural theology may have developed in new directions after Darwin; if so, it was merely deflected from some of its seventeenth-century implementations, rather than defeated in its intellectual vision. It was not the Christian enterprise of natural theology that was discredited by Darwin, but a specific form of such a

theology, which emerged in England after 1690 and was already rejected by many Christian theologians by 1850. The Darwinian debates about science and religion were, in one sense, thoroughly English, reflecting local approaches to natural theology, rather than those of the Christian tradition in general.

There is clearly a need for an extended and detailed examination of the implications of evolutionary thought for natural theology, both at the time of Darwin himself and in more recent times. *Darwinism and the Divine* sets out:

1 to identify the forms of natural theology that emerged in England over the period 1690–1850 and how these were affected by the advent of Darwin's theories; and

2 to explore and assess twenty-first-century reflections on the relation of evolutionary thought and natural theology.

This book is an expanded version of the six 2009 Hulsean Lectures at the University of Cambridge, marking the 200th anniversary of Darwin's birth, and the 150th anniversary of the publication of his *Origin of Species.* Cambridge was an ideal location at which to explore these issues. Both Charles Darwin and William Paley were students at Cambridge University; indeed, they are believed to have occupied the same student room at Christ's College, Cambridge. These lectures built on the renewed interest in Darwin and the theory of evolution, making use of this welcome opportunity to reopen the whole question of the relation of evolutionary thought and natural theology, both as historical and contemporary questions. I have always taken the view that there is much to be gained from the creative yet principled encounter between evolutionary science, conscious of its own limits, and a self-critical theology, rooted in an awareness of the ultimate mystery of its subject matter. I hope that this work will stimulate further discussion of their themes, even if it cannot hope to resolve them.

I owe thanks to the Hulsean Electors of the University of Cambridge for their kind invitation to deliver these lectures, and the large audience that turned out to hear the lectures for their perceptive comments and questions, which were invaluable in redrafting the material. In particular, I would like to thank my Cambridge colleagues Professor Eamon Duffy, Professor David Ford, Dr Peter Harland, and Dr Fraser Watts for their warm hospitality throughout my visits. I also acknowledge the kindness of the John Templeton Foundation in supporting the substantial research underlying this work.

The detailed engagement with primary sources of the seventeenth, eighteenth, and nineteenth centuries, which is such a significant feature of the second part of this work, was carried out primarily in the Bodleian Library, Oxford, and the Tate Library of Harris Manchester College, Oxford. I am immensely grateful to both institutions for the help rendered. Even though many of the relevant primary sources became available online at the time of writing this work, there is still no substitute for the experience of physically handling ancient works, and enjoying a sense of physical solidarity with their chains of readers down the centuries.

In the end, research depends upon the support and encouragement of a community of scholars. I thus take great pleasure in dedicating this work to the Principal, Fellows, and Staff of Harris Manchester College, Oxford. I had the privilege of becoming a Senior Research Fellow at the college while serving as Professor of Historical Theology at Oxford University. It is a privilege to remain part of its fellowship, and I acknowledge the collegiality, warmth, and generosity of this vibrant college community with gratitude and admiration.

Alister E. McGrath
King’s College London
May 2010

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Introduction

The natural sciences throw up questions that insistently demand to be addressed; unfortunately, they often transcend the capacity of the scientific method to answer them. The sciences raise questions of the greatest interest and importance, which by their very nature often go beyond the realms in which science itself is competent to speak. One group of such questions is traditionally addressed by what is generally known as natural theology. Might the natural world be a sign, promise, symbol, or vestige of another domain or realm? Might the world we know be a bright shadow of something greater?

There is resistance to discussion of such questions within some sections of both the scientific and religious communities. Some natural scientists, for example, fear that such metaphysical reflections might erode the distinctive identity of the natural sciences. Without necessarily denying the validity of such metaphysical questions, some scientists would nevertheless regard them as inappropriate, given the specific remit and limits of the scientific method. The "demarcation problem" remains at least as significant in the early twenty-first century as it was in the late nineteenth century. Many natural scientists attribute certain specific characteristics to the practitioners, assumptions, methods, and values of the sciences, in order to construct a social boundary that distinguishes the sciences from other intellectual activities.[1] Boundaries must be drawn and respected. Scientists, like all other professionals, are strongly territorial and resent intrusion on their territory by those who are not members of the guild. Natural theology, some of their number would maintain, represents such a

scholarly trespass, opening the door to intellectual contamination.

There is an important point about intellectual authority and competency under consideration here, which unfortunately can easily degenerate into a cultural turf war. While it may indeed remain important for certain purposes to maintain an absolute separation of the sciences from other disciplines, there are many – including myself – who hold that science is at its most interesting when it engages in dialogue with other disciplines – including theology, religion, and spirituality.

Yet misgivings about natural theology are not limited to the scientific community. Some religious thinkers also have reservations about enhanced levels of dialogue with the natural sciences. Might a growing scientific understanding undermine core religious beliefs? Might a scientifically accommodated version of a religion emerge, standing at some considerable distance from its more traditional forebears? Psychologist Paul Bloom gently hinted at this possibility in a recent article, suggesting that increasing scientific understanding inevitably leads to erosion of traditional religious beliefs, and hence the gradual secularization of a religious perspective. “Scientific views would spread through religious communities. Supernatural beliefs would gradually disappear as the theologically correct version of a religion gradually became consistent with the secular world view.”[2]

Bloom may have a point. As we shall see in the next chapter, during the late seventeenth century English natural theology shifted away from the “signs and wonders” approach of earlier generations, and focused on the rationality and order of the natural world. Such a natural theology bears little relation to the vision of God as an active, transforming power found, for example, in modern Pentecostalism. Might this represent the kind of scientific

accommodation that Bloom has in mind? However understandable this development may have been within the cultural context of the English scientific revolution, it inevitably meant a move away from a notion of a God who is experienced as active in history toward that of a God whose past imprint may be reasonably discerned within the structures of nature.

Darwinism and the Divine sets out to explore the impact of Darwinism on the generic enterprise of natural theology, whether this is described (for its variety of interpretations are such that it cannot be *defined)* in terms of the "proof" of God's existence from the natural world, or the exploration of the degree of intellectual resonance between the Christian vision of reality and what is actually observed in nature. The term "natural theology" is open to multiple interpretations, and does not designate a single narrative or program.[3] Although the term is routinely paraphrased as "proving God's existence from nature," this is only one way of conceptualizing the enterprise. Nevertheless, a significant degree of "family resemblance" can be discerned between these various approaches, most notably their engagement with the natural world with the expectation that it may, in some manner and to some extent, disclose something of the divine nature. Natural theology is about maximizing the intellectual traction between the Christian vision of reality and observation of the natural world.

This work seeks to explore the impact of evolutionary thought on Christian natural theology, reflecting partly the historical importance of the issue, and partly the need to evaluate competing notions of natural theology in the light of their capacity to accommodate such thinking. Elsewhere, I have developed and defended the notion of natural theology, considered not as an attempt to prove the existence or character of God from nature, but as a Trinitarian direction of gaze toward nature.[4] On this

approach, natural theology is the understanding of the natural world that arises when it is seen through the interpretative lens of the Christian faith, allowing its rich Trinitarian ontology to illuminate both the status of the natural world and the human attempt to make sense of it. This, however, is only one of many approaches. An evaluation of their capacity to provide theological maps of the evolutionary landscape is potentially an important indication of their adequacy.

The first major part of this work attempts to achieve some degree of clarification of the multiple meanings of both “natural theology” and “Darwinism,” noting how issues of definition are central to any evaluation of their relationship. Particular emphasis is placed upon the uneasy and often unexamined relationship between Darwinism considered as a provisional scientific theory, and Darwinism considered as a universal theory – what some would call a worldview or metanarrative.

The second part of the study deals with a specific family of approaches to natural theology that emerged within England during the seventeenth century and continued to be of major religious and cultural significance into the late nineteenth century. The historical analysis presented in this part of this work cannot be regarded as an unnecessary diversion from the real business of the book. Today’s debates about the impact of evolution upon religious thought invariably make historical assumptions, draw implicitly upon historical analysis, and make theological judgments shaped by memories of the past. Today’s discussions of these themes are often subtly shaped by the lengthening shadows of earlier debates, not always accurately recounted or assessed.

This substantial part of the study consists of a critical re-reading of the tradition of natural theology that developed in England during the later seventeenth and eighteenth

centuries, and a review of its role in shaping the theological dimensions of public discussion of Darwin's theory of natural selection. The analysis opens with a study of the types of natural theology to emerge in England during the "Augustan age" (1690–1745). This is followed by a re-evaluation of the approach of William Paley, particularly in his classic *Natural Theology* (1802), and the reception and revision of this approach in England until the eve of the publication of Darwin's *Origin of Species* (1859). These chapters, based on a critical and close reading of primary sources, highlight the need to re-evaluate some traditional judgments about the types of natural theology that developed in England during this period, and their role in shaping the reception of Darwin's theories.

I had been concerned for some time that certain reflexive habits of thought appeared to have developed in some of the secondary literature, especially in relation to Paley's classic *Natural Theology* (1802). I therefore decided to read the primary sources once more – especially the core writings of John Wilkins (1614–72), John Ray (1627–1705), William Derham (1657–1735), William Paley (1743–1805), and William Whewell (1794–1866) – in chronological order, taking care to contextualize these works against the intellectual culture of their day. For obvious reasons, this approach also had subsequently to be extended to the works of Darwin and his close associates, particularly Thomas H. Huxley (1825–95). I did not undertake this close reading of Darwin and his circle until I had completed reading and assessing works of English natural theology up to 1837, in order that I could read Darwin in the light of the conceptual nets thrown over the interpretation of nature by these various styles of natural theology, rather than retrojecting more modern assessments and opinions onto his age. By the end of this critical re-reading, it was clear that some traditional judgments concerning Darwinism and

natural theology – including several that I myself had adopted even in the recent past – could not be sustained on the basis of the evidence.

The most obvious, and perhaps most important, such conclusion is that it cannot be maintained that Darwin's theory caused the "abandonment of natural theology."[5] The enterprise may have been refined and redirected; it was certainly not abandoned, in England or elsewhere. Furthermore, Darwin's writings, when seen in this context, cannot be said to have "abolished" the notion of teleology. Not only are Darwin's writings on evolution marked by implicit and explicit teleological statements; it is clear that his approach demands not the abolition of teleology but its reform and restatement – the "wider teleology" of which Huxley correctly spoke.

This extended historical analysis considers how the English tradition of natural theology was shaped by its English intellectual and cultural context. In particular, it shows how certain features of English Protestantism of the seventeenth century – specifically, its implicit "disenchantment" of nature, and its explicit commitment to belief in the cessation of miracles within nature on the one hand, and the providential guidance of the natural world on the other – led to the emergence of approaches to natural theology that emphasized its sense-making capacities, and focused on evidence of apparent design in the biological realm. Paley's *Natural Theology*, which is considered in some detail within this section, is to be seen as a late flowering of this approach.

These distinctively English forms of natural theology proved to be of defining importance for the German *Aufklärung.* Thus Johann August Eberhard's influential *Vorbereitung zur natürlichen Theologie* (1781), which served as an important source for Immanuel Kant's views on natural theology,[6] explicitly identifies a series of English

writers as major influences on the reshaping of natural theology in response to the new intellectual currents of the eighteenth century.[7] Kant's impact upon German-language discussions of natural theology was considerable. Indeed, it may be suggested that Karl Barth's critique of the generic notion of "natural theology" is actually and unwittingly an indirect critique of this specifically English approach.

Yet by the time Victoria came to the British throne in 1837, shifts in English culture were forcing revision of such approaches to natural theology. Changing public attitudes toward the assessment of evidence, evident in parliamentary debates over criminal justice in the 1830s, pointed toward more inferential approaches to evidence. The celebrated Bridgewater Treatises of the 1830s adopted a more nuanced approach to natural theology, often accentuating the harmony or consonance between the Christian faith and the scientific observation of nature.

It is against this complex and shifting intellectual background that Darwin's theory of descent with modification through natural selection is to be set. The leading features of Darwin's theory are here considered within their intellectual and cultural context, and their implications for prevailing forms of English natural theology assessed. It is impossible to avoid the conclusion that this is a peculiarly English debate. The theological context, which established the conceptual frameworks that would give rise to potential tensions between Darwin's theory and natural theology, was distinctively English, reflecting the assumptions and debates that had defined the emergence of English natural theology from the seventeenth century onwards. Although the American biologist Asa Gray (1810–88) played no small part in assessing the relation of Darwin's theory to natural theology, Darwin's dialogue partners in this discussion are predominantly English. If Darwin's theory had developed against a theological

background shaped by alternative approaches to natural theology, such as those characteristic of the Greek patristic tradition, a somewhat different outcome would have resulted.

Having explored the historical background to the relation of evolutionary thought and natural theology in some detail, I then turn to consider the contemporary evaluation of this relationship. The third part of this work focuses on the most significant challenges, issues, and opportunities for natural theology that arise from contemporary scientific understandings of the development of biological life. What does it mean to speak of “creation”? How does the suffering and waste of the Darwinian process fit into a theistic worldview? Can one consider evolution to be a providentially directed process? Can one speak of belief in God itself as the outcome of an evolutionary process? A concluding chapter offers some reflections on both the future of natural theology as an intellectual enterprise, and which of its possible forms might be best adapted to both the challenges and the opportunities it now faces.

Evolutionary thought, like all aspects of the scientific enterprise, is to be considered as a work in progress. There is, inevitably and rightly, a significant degree of provisionality implicit in scientific theorizing, including evolutionary thought. This study is therefore to be seen as an exploration of the present-day understanding of a series of important questions bearing on the relation of evolutionary theory to natural theology. It is essential to emphasize that future generations may understand and assess the relation of “Darwinism and the Divine” in quite different manners.

Since this book sets out to explore the relation between natural theology and evolutionary thought, it is inevitable that we must begin our analysis by considering some questions of definition and approach, attempting to achieve

at least some degree of clarification over how the terms “natural theology” and “Darwinism” are to be used. As already noted, the term “natural theology” denotes a family of approaches, rather than a specific method or set of ideas. The use of the term “Darwinism” also turns out to be a little problematic, and requires closer attention. There is a significant debate taking place at present within the evolutionary biology community about whether the term should be retained, and if so, what it should be understood to designate. There is a similar ambiguity about the term “Darwinism.” It is impossible to proceed further without exploring both notions in greater detail.

We therefore begin our explorations by reflecting on what is meant by the phrase “natural theology.”

Notes

1 For this issue, see Gieryn, Thomas F., “Boundary-Work and the Demarcation of Science from Non-Science: Strains and Interests in Professional Ideologies of Scientists.” *American Sociological Review* 48 (1983): 781–95; Gieryn, Thomas F., *Cultural Boundaries of Science: Credibility on the Line.* Chicago: University of Chicago Press, 1999, 1–35.

2 Bloom, Paul, “Is God an Accident?” *Atlantic Monthly* (December 2005): 1–8, see especially 8.

3 As noted by Fergusson, David, “Types of Natural Theology.” In *The Evolution of Rationality: Interdisciplinary Essays in Honor of J. Wentzel Van Huyssteen,* ed. F. Le Ron Shults, 380–93. Grand Rapids, MI: Eerdmans, 2006. A failure to grasp the multiplicity of conceptual possibilities designated by “natural theology” has impeded theological discussion in recent years: note, for example, the somewhat restricted concept of natural theology discussed in Gunton, Colin E., “The Trinity, Natural Theology, and a Theology of Nature.” In *The Trinity in a Pluralistic Age,* ed.

Kevin Vanhoozer, 88–103. Grand Rapids, MI: Eerdmans, 1997.

4 See McGrath, Alister E., *The Open Secret: A New Vision for Natural Theology.* Oxford: Blackwell, 2008, 1–20; McGrath, Alister E., *A Fine-Tuned Universe: The Quest for God in Science and Theology.* Louisville, KY: Westminster John Knox Press, 2009, 21–82.

5 This assertion mars the analysis of the American situation in Russett, *Darwin in America,* 43. Russett's discussion of Paley's contribution (32–6) is also very weak. See Russett, Cynthia Eagle, *Darwin in America: The Intellectual Response, 1865–1912.* San Francisco: W. H. Freeman, 1976. For an important corrective, see Roberts, Jon H., *Darwinism and the Divine in America: Protestant Intellectuals and Organic Evolution, 1859–1900.* Madison, WI: University of Wisconsin Press, 1988, 117–45.

6 Kant's pre-critical essay "Untersuchungen über die Deutlichkeit der Grundsätze der natürlichen Theologie und der Moral" is of interest here. This lecture, delivered in 1762 and published in 1764, primarily concerns itself with the relation of mathematical and metaphysical truth. For comment, see Engfer, Hans-Jürgen, "Zur Bedeutung Wolffs für die Methodendiskussion der deutschen Aufklärungsphilosophie: Analytische und synthetische Methode bei Wolff und beim vorkritischen Kant." In *Christian Wolff, 1697–1754: Interpretationen zu seiner Philosophie und deren Wirkung,* ed. Werner Schneiders, 48–65. Hamburg: Meiner, 1986.

7 For Kant's annotations on this work, see Kant, Immanuel, *Gesammelte Schriften.* 30 vols. Berlin: Reimer, 1902, vol. 28, 491–606.

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Part II

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Part III

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Darwinism and natural theology

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1

Natural Theology: A Deeper Structure to the Natural World

“It is not too much to say that the Gospel itself can never be fully known till nature as well as man is fully known.”[1] In his 1871 Hulsean Lectures at Cambridge University, F. J. A. Hort (1828–92) set out a manifesto for the theological exploration and clarification of the natural world. These words are a fitting introduction to the themes of this work. How can God be known through a deepening knowledge of nature itself, as well as of human nature? The delivery of Hort’s lectures coincided with the publication of Charles Darwin’s *Descent of Man*,[2] thus raising the question of how the debates about both the natural world and human nature resulting from Charles Darwin’s theory of descent with modification through natural selection affect our knowledge of God.

So are the structures and symbols of the observed world self-contained and self-referential? Or might they hint at a deeper structure or level of meaning to the world, transcending what can be known through experience or observation? Christianity regards nature as a limiting horizon to the unaided human gaze, which nevertheless possesses a created capacity, when rightly interpreted, to point beyond itself to the divine. The philosopher and novelist Iris Murdoch (1919–99) used the term “imagination”