ALISTER E. MCGRATH

DARWINISM AND THE DIVINE

EVOLUTIONARY THOUGHT AND NATURAL THEOLOGY

WILEY-BLACKWELL

DARWINISM AND THE DIVINE

DARWINISM AND THE DIVINE

EVOLUTIONARY THOUGHT AND NATURAL THEOLOGY

THE 2009 HULSEAN LECTURES UNIVERSITY OF CAMBRIDGE

ALISTER E. MCGRATH



A John Wiley & Sons, Ltd., Publication

This edition first published 2011 © 2011 Alister E. McGrath

Blackwell Publishing was acquired by John Wiley & Sons in February 2007. Blackwell's publishing program has been merged with Wiley's global Scientific, Technical, and Medical business to form Wiley-Blackwell.

Registered Office John Wiley & Sons Ltd, The Atrium, Southern Gate, Chichester, West Sussex, PO19 8SQ, United Kingdom

Editorial Offices 350 Main Street, Malden, MA 02148-5020, USA 9600 Garsington Road, Oxford, OX4 2DQ, UK The Atrium, Southern Gate, Chichester, West Sussex, PO19 8SQ, UK

For details of our global editorial offices, for customer services, and for information about how to apply for permission to reuse the copyright material in this book please see our website at www.wiley.com/wiley-blackwell.

The right of Alister E. McGrath to be identified as the author of this work has been asserted in accordance with the UK Copyright, Designs and Patents Act 1988.

All rights reserved. No part of this publication may be reproduced, stored in a retrieval system, or transmitted, in any form or by any means, electronic, mechanical, photocopying, recording or otherwise, except as permitted by the UK Copyright, Designs and Patents Act 1988, without the prior permission of the publisher.

Wiley also publishes its books in a variety of electronic formats. Some content that appears in print may not be available in electronic books.

Designations used by companies to distinguish their products are often claimed as trademarks. All brand names and product names used in this book are trade names, service marks, trademarks or registered trademarks of their respective owners. The publisher is not associated with any product or vendor mentioned in this book. This publication is designed to provide accurate and authoritative information in regard to the subject matter covered. It is sold on the understanding that the publisher is not engaged in rendering professional services. If professional advice or other expert assistance is required, the services of a competent professional should be sought.

Library of Congress Cataloging-in-Publication Data

McGrath, Alister E., 1953-

Darwinism and the divine : evolutionary thought and natural theology / Alister E. McGrath. p. cm.

Includes bibliographical references and index.

ISBN 978-1-4443-3343-5 (hardback) – ISBN 978-1-4443-3344-2 (paperback) 1. Natural theology. 2. Faith and reason. 3. Evolution (Biology) 4. Evolution (Biology)–Religious aspects–Christianity. 5. Darwin, Charles, 1809–1882. On the origin

of species. 6. Paley, William, 1743-1805. Natural theology. I. Title.

BL183.M335 2011 231.7'652–dc22

2010039893

A catalogue record for this book is available from the British Library.

1 2010

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

Contents

| Li | st of Figures | Х |
|----|---|----|
| Pr | Preface | |
| A | cknowledgments | XV |
| In | troduction | 1 |
| Pa | art I Conceptual Clarifications: | |
| | On the meaning of terms | 9 |
| 1 | Natural Theology: A Deeper Structure to the Natural World | 11 |
| | Natural Theology in the Classical Tradition | 13 |
| | The Conceptual Fluidity of Natural Theology | 15 |
| | The Eternal Return of Natural Theology | 18 |
| 2 | Darwinism: A Narrative of Evolution | 27 |
| | Darwinism: A Defensible Term? | 28 |
| | Darwinism as an Ideology | 32 |
| | The Metaphysical Inflation of Evolutionary Thought | 36 |
| | Conclusion to Part I | 40 |
| Pa | rt II Historical Exposition: Darwin and the | |
| | English natural theology tradition | 47 |
| 3 | English Natural Theology of the Augustan Age, 1690–1745 | 49 |
| | The Emergence of English Natural Theology | 50 |
| | Newtonian Physics and Natural Theology | 53 |
| | The Protestant Assumptions of English Natural Theology | 56 |
| | A Foundation for Consensus: The Doctrine of Creation | 61 |
| | Physico-theology: The Appeal to Contrivance | 63 |
| | Natural Theology and the Beauty of Nature | 72 |
| | | |

| | The Problem of Development within Nature | 74 |
|----|--|-----|
| | Assessing Evidence: Changing Public Perceptions | 75 |
| 4 | A Popular Classic: William Paley's Natural Theology (1802) | 85 |
| | Introducing Paley's Natural Theology | 85 |
| | Paley's Source: Bernard Nieuwentyt's Religious | |
| | Philosopher (1718) | 88 |
| | The Watch Analogy: The Concept of Contrivance | 91 |
| | Paley on Intermediary Causes within Nature | 97 |
| | The Vulnerability of Paley's Approach | 99 |
| 5 | Beyond Paley: Shifts in English Natural Theology, 1802–52 | 108 |
| | The Impact of Geology upon Paley's Natural Theology | 110 |
| | Henry Brougham: A Natural Theology of the Mind | 112 |
| | Evidence, Testimony, and Proof: A Shifting Context | 115 |
| | A New Approach: The Bridgewater Treatises | 119 |
| | John Henry Newman: The Theological Deficiencies of Paley | 127 |
| | Robert Browning's "Caliban Upon Setebos": | |
| | A Literary Critique of Paley | 130 |
| | English Natural Theology on the Eve of the | |
| | Darwinian Revolution | 133 |
| 6 | Charles Darwin, Natural Selection, and Natural Theology | 143 |
| | The Development of Darwin's Views on Natural Selection | 146 |
| | Problems, Prediction, and Proof: The Challenge | |
| | of Natural Selection | 150 |
| | Natural Selection and Natural Theology: An Assessment | |
| | of Darwin's Impact | 155 |
| | Conclusion to Part II | 171 |
| Pa | rt III Contemporary Discussion: Darwinism | |
| | and natural theology | 183 |
| 7 | A Wider Teleology: Design, Evolution, and Natural Theology | 185 |
| | Directionality within the Natural World | 187 |
| | Teleology: Introducing an Idea | 188 |
| | Chance, Contingency, and Evolutionary Goals | 191 |
| | The "Wider Teleology" of Evolution | 194 |
| | The Inference of Design and Natural Theology | 197 |
| | Suffering, Evolution, and Natural Theology | 202 |
| 8 | The Concept of Creation: Reflections and Reconsiderations | 217 |
| | The Seventeenth Century: The Regnant Theology of Creation | 218 |

| Creation as Event and Process: Augustine of Hippo | 222 |
|--|-------|
| Evolution and an Emergent Creation | 230 |
| God's Action within the Evolutionary Process | 233 |
| 9 Universal Darwinism: Natural Theology as | |
| an Evolutionary Outcome? | 247 |
| The Darwinian Paradigm and Cultural Development | 249 |
| The God-Meme: Natural Theology and Cultural Replicator | s 254 |
| Religion: Evolutionary Adaptation or Spandrel? | 262 |
| Natural Theology and Evolutionary Theories | |
| of the Origins of Religion | 265 |
| Conclusion to Part III | 267 |
| Part IV Conclusion | |
| 10 The Prospects for Natural Theology | 279 |
| Natural Theology and the Human Evolutionary Past | 281 |
| Natural Theology, Observational Traction, | |
| and the Best Explanation | 283 |
| A Community of Discernment: The Church | |
| and Natural Theology | 285 |
| In Quest of Meaning | 288 |
| Index | 294 |

List of Figures

| 2.1 | Engraving of Charles Robert Darwin (1809–82) in old age. | 28 |
|-----|--|----|
| 2.2 | Frontispiece of the Origin of Species by Charles Darwin, | |
| | published in 1859. | 30 |
| 2.3 | Daniel C. Dennett, University Professor and Austin B. Fletcher | |
| | Professor of Philosophy, and Director of the Center | |
| | for Cognitive Studies at Tufts University, photographed | |
| | in his office at Tufts, November 28, 2005. | 36 |
| 2.4 | British evolutionary biologist, philosopher, and author | |
| | Richard Dawkins listens to a question during a press | |
| | conference on the occasion of his being granted an honorary | |
| | doctorate by the Universitat de Valencia, March 31, 2009. | 36 |
| 3.1 | Isaac Newton (1642–1727), English physicist | |
| | and mathematician. Among other things, Newton | |
| | discovered the ability of a prism to separate white | |
| | light into its composite colors. | 53 |
| 3.2 | John Wilkins (1614–72), English mathematician and founder | |
| | of the Royal Society, c. 1655, in an engraving of 1708. | 64 |
| 3.3 | A meeting of the Royal Society in Crane Court, | |
| | Fleet Street, where it had rooms from 1710 to 1782. | |
| | Isaac Newton is in the President's chair. Artist's | |
| | reconstruction. Wood engraving c. 1880. | 67 |
| 4.1 | English writer and theologian William Paley | |
| | (1743–1805), c. 1790. | 86 |
| 4.2 | Movement view of a gold open-faced, quarter | |
| | repeating, perpetual pocket watch. No. 3 (or No. 33) | |
| | by Abraham-Louis Breguet. Paris c. 1790. | 89 |
| 5.1 | The Central Court and Arcades of the Oxford University | |
| | Museum. This engraving shows the interior of | |
| | Oxford University's Museum of Natural History in 1860. | |

| | The collection was arranged along the lines suggested | |
|-----|--|-----|
| | by William Paley's Natural Theology in 1836. | 109 |
| 5.2 | Portrait of the British polymath William Whewell | |
| | (1794–1866). | 114 |
| 5.3 | Cardinal John Henry Newman, c. 1870. | 128 |
| 5.4 | Lithographed portrait of Robert Browning, c. 1880. | 130 |
| 6.1 | Engraving of HMS Beagle, the ship that carried | |
| | Charles Darwin during the voyage that inspired | |
| | his theory of evolution. | 144 |
| 6.2 | Daguerreotype of Anne Elizabeth Darwin (Annie), 1849. | 158 |
| 6.3 | Asa Gray (1810-88), American botanist. Photograph, 1880s. | 163 |
| 6.4 | Queen Victoria's favorite pets. Sir Edwin Landseer | |
| | (1803–73): Hector, Nero and Dash with the parrot, Lory, | |
| | 1838, oil on canvas, 120.2×150.3 cm. Commissioned | |
| | by Queen Victoria. | 170 |
| 7.1 | Engraving of English biologist Thomas Henry Huxley | |
| | (1825–95), in 1874. | 186 |
| 9.1 | American paleontologist Stephen J. Gould, January 1982. | 255 |
| | | |

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 seventeenthcentury 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

Acknowledgments

The editors and publisher gratefully acknowledge the permissions granted to reproduce the copyrighted material in this book.

- Figure 2.1 Science Photo Library.
- Figure 2.2 Science Photo Library.
- Figure 2.3 © Rick Friedman/Corbis.
- Figure 2.4 © Kai Foersterling/epa/Corbis.
- Figure 3.1 © Bettmann/Corbis.
- Figure 3.2 SSPL/Getty Images.
- Figure 3.3 World History Archive/TopFoto.
- Figure 4.1 Rischgitz/Getty Images.
- Figure 4.2 Horologicam/TopFoto.
- Figure 5.1 © Illustrated London News Ltd/Mary Evans Picture Library.
- Figure 5.2 Science Photo Library.
- Figure 5.3 © Hulton-Deutsch Collection/Corbis.
- Figure 5.4 © Chris Hellier/Corbis.
- Figure 6.1 Science Photo Library.
- Figure 6.2 © English Heritage Photo Library, Down House, Kent.
- Figure 6.3 © Bettmann/Corbis.
- Figure 6.4 The Royal Collection © 2010, Her Majesty Queen Elizabeth II.
- Figure 7.1 Science Photo Library.
- Figure 9.1 © Wally McNamee/Corbis.

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.

Darwinism and the Divine: Evolutionary Thought and Natural Theology, First Edition. Alister E. McGrath. © 2011 Alister E. McGrath. Published 2011 by Blackwell Publishing Ltd.

2 Introduction

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.

Part I

Conceptual Clarifications

On the meaning of terms

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" to refer to a capacity to see beyond the empirical to discern deeper truths about the world. This, she argued, is to be contrasted with "strict" or "scientific" thinking, which focuses on what is merely observed. An imaginative engagement with the world builds on the surface reading of things, taking the form of "a type of reflection on people, events, etc., which builds detail, adds colour, conjures up possibilities in ways which go beyond what could be said to be strictly factual."³

Murdoch's point here is that the imagination supplements what reason observes, thus further disclosing – without distorting – a richer vision of reality. If we limit ourselves to a narrowly empirical account of nature,

Darwinism and the Divine: Evolutionary Thought and Natural Theology, First Edition. Alister E. McGrath.

© 2011 Alister E. McGrath. Published 2011 by Blackwell Publishing Ltd.

we fail to appreciate its full meaning, value, or agency.⁴ The Christian faith is also able to offer an approach to nature that is grounded in its empirical reality, yet possesses the ability to discern beyond the horizons of the observable. It provides a lens through which questions of deeper meaning may be explored and brought into sharp focus.

Although some limit the meaning of the term "natural theology" to an attempt to prove the existence of God on the basis of purely natural arguments, this is only one of its many possible forms.⁵ The field of "natural theology" is now generally understood to designate the idea that there exists some link between the world we observe and another transcendent realm. The idea possesses a powerful imaginative appeal, inviting us to conceive – and, in some of its construals, to anticipate inhabiting – a world that is more beautiful than that which we know, lacking its pain and ugliness.

Yet the appeal of the notion is not purely emotional or aesthetic; it has the potential to offer a framework for intellectual and moral reflection on the present order of things. A Christian natural theology is fundamentally hospitable toward a deeper engagement with reality. It provides an intellectual scaffolding that enables us to understand our capacity to engage with the world, and reaffirms its objectivity.⁶ For example, the mathematical awareness implanted within us enables us to discern and represent the rational patterns of the universe we inhabit, just as the moral awareness implanted within us allows us to orientate ourselves toward the good that lies at its heart. A robust Christian natural theology allows believers to pitch their tents "on the boundary between the manifest and the ineffable."⁷ It is a cumulative enterprise,⁸ weaving together observation and reflection on the deep structures of the universe and the particularities of human experience.

One of the most familiar statements of this approach is found in the Hebrew Psalter, where the observation of the wonders of nature is explicitly connected with a deeper knowledge of the covenant God of Israel as the ultimate transcendent reality:⁹

The heavens are telling the glory of God; and the firmament proclaims his handiwork (Psalm 19:1).

The basic affirmation here is that the glory of the God whom Israel already knew through the Law was further displayed within the realm of nature. The specific God who is already known to Israel through self-disclosure is thus known at a deeper level through the natural world. This passage does not suggest that nature proves or implies the existence of God; rather, it affirms that nature attests, declares, and makes manifest this known God.

A similar line of thought, without any necessary presumption of theistic entailment, is found in Plato's theory of Forms, perhaps the most familiar philosophical account of this notion. Plato's theory can be argued to arise