

## Understanding the Christianity–Evolution Relationship

The relationship between science and religion is a topic that runs rife with misconceptions, misunderstandings and debates. Are science and religion always in conflict? Is Darwin's theory of evolution through natural selection atheistic? How does history shape current debates around science and religion? This book explores these questions in a neutral and balanced way, focusing on the Christianity–evolution relationship. It shows that two paradigms – the world as an organism and the world as a machine – have critically informed and guided the discussions. The author uses his deep understanding of the history and philosophy of science, particularly Darwinian evolutionary theory and its controversies through the past 150 years, to bring fresh ideas to the debate and to wider discussions such as environmental issues and hate. *Understanding the Christianity–Evolution Relationship* provides a lively and informative analysis and lays out multiple views so that readers can make their own judgements to increase their understanding.

Michael Ruse is Professor Emeritus at the University of Guelph, Ontario and recently retired as the Lucyle T. Werkmeister Professor of Philosophy at Florida State University, Florida. His research interests focus on Darwinian evolutionary theory. He is a Guggenheim Fellow, a Gifford Lecturer, a Fellow of the Royal Society of Canada and the recipient of four honorary degrees. He is the author/editor of over 60 books, including *The Cambridge Encyclopedia of Darwin and Evolutionary Thought* (Cambridge University Press, 2013), *The Cambridge History of Atheism* (Cambridge University Press, 2021) and *Understanding Natural Selection* (Cambridge University Press, 2022).

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The ***Understanding Life*** series is for anyone wanting an engaging and concise way into a key biological topic. Offering a multidisciplinary perspective, these accessible guides address common misconceptions and misunderstandings in a thoughtful way to help stimulate debate and encourage a more in-depth understanding. Written by leading thinkers in each field, these books are for anyone wanting an expert overview that will enable clearer thinking on each topic.

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“The indefatigable Michael Ruse has produced a fascinating and most distinctive book in his *Understanding the Christianity–Evolution Relationship*. Eschewing a conventional approach to exploring this aspect of the science and religion question, Ruse uses his exceptional knowledge of the history and philosophy of biology to look at a very wide range of aspects of the Christianity–evolution relationship. These he illuminates with his inimitable turns of phrase and frequent deep insights.”

Revd Professor Michael J. Reiss, University College London and the International Society for Science and Religion

“As a prolific and insightful commentator on Darwin and all things Darwinian, Michael Ruse has few, if any, equals. Devotee of modern Darwinian science, but no hater of Christianity, he offers refreshing balance by showing how both Christianity and science have been influenced, though differently, by the same rival paradigms of mechanism and organicism. Readers should not expect a deep theological treatise, but they will find a lively introduction to discourse about science and religion, written with striking informality and providing plenty of stimulus to polish their own thinking.”

John Hedley Brooke, University of Oxford

“The compatibility, or not, of science and religion (specifically Christianity) is a centuries-old issue, which intensified in 1859 with Darwin’s extension of the mechanistic explanation of the structure and behavior of the world around us to living things, including humans. Ruse offers, not an answer, as such, to this debate, but a skillful examination of the intellectual chess-match: moves and counter-moves. The template of his narrative centres on the mechanistic and organismic views of nature. This thread is brilliantly embellished with clear expositions of all the perspectives advanced over the last two or so centuries.”

R. Paul Thompson, Professor Emeritus, University of Toronto

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“In this little book, Michael Ruse reaps a huge harvest from decades of writing on the relationship between evolutionary science and Christianity. Displaying an admirable breadth of learning in both Christian theology and evolutionary biology, Ruse shows that in their best formulations, neither human enterprise needs to wage war against the other. Ongoing hostilities originate either from bad articulations of Christianity (Creationism), bellicose banishment of final causes from science (New Atheism), or (as often) both together. In thought-provoking fashion, Ruse also diffuses the differences by relativizing them as boiling up in part from conflicting root metaphors, or paradigms – mechanistic vs. organistic pictures of the world. ... Above all, the book should make us consider, at least, that contrary to common opinion, an intellectually honorable peace between Darwinism and Christianity is not only possible but is advantageous to science, to Christianity, and to society as a whole.”

John R. Schneider, Professor Emeritus, Theology, Calvin University



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To the memory of David Murray, University of Guelph, Canada  
And for Sam Huckaba, Florida State University, USA

CAMBRIDGE

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## Foreword

There are so many books about science and religion. Yet another one? OK, you may think, this one is not about science and religion in general, but about the life sciences and Christianity in particular. But so what? Rather than being about Galileo and the Inquisition, will it be about Darwin’s “Bulldog” Thomas Henry Huxley defeating Bishop Samuel Wilberforce (a.k.a. “Soapy Sam”) in Oxford, and the like? Well, the answer is emphatically no. The present book is like no other book on science and religion that you have ever read. Based on his 55 years of scholarship and teaching, Michael Ruse has produced a splendid, and thoughtful, account of the deeper differences and similarities between the ways that the life sciences and Christianity approach nature and humanity. Drawing on the distinction between organicism and mechanism, Ruse shows how we can find influences of both on both the life sciences and Christianity. In the end there is no right versus wrong, no bad versus good, but a complicated relationship among two human endeavors to understand nature and our place in it. This is why one can accept both, only one, or neither of them. Read this book, and your understanding of both science and religion will never be the same again.

**Kostas Kampourakis, Series Editor**

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## Preface

Evolution and Christianity? Start with evolution, or more broadly with science itself, the effort to describe and understand the natural world, understanding this to mean the mental as well as the physical. Already, constraints (or guidelines) start to appear. In the words of the eminent historian Lynn White Junior: “One thing is so certain that it seems stupid to verbalize it: both modern technology and modern science are distinctively Occidental. Our technology has absorbed elements from all over the world, notably from China; yet everywhere today, whether in Japan or in Nigeria, successful technology is Western.” He does not deny the historical importance of cultures with religions other than Christianity, the dominant Western religion – Islam, in the Middle Ages, stands out. But even here, the modern debt is to such elements as these, the legacy of great thinkers, as taken into our culture: “Indeed, not a few works of such geniuses seem to have vanished in the original Arabic and to survive only in medieval Latin translations that helped to lay the foundations for later Western developments,” leading to the conclusion: “Today, around the globe, all significant science is Western in style and method, whatever the pigmentation or language of the scientists.”

What of the life sciences, or, as they are perhaps better known, “biology” or the “biological sciences”? This is the area of science that deals with living things, past and present: animals and plants, most obviously to us humans, but also a myriad of micro-organisms. It ranges across anatomy, the shape of things; physiology, the working of things; embryology, the growth of things; ecology, things in their environments; and most obviously, evolution, the history of things. Is each area equally important? Well, yes, in a sense it is.

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## xviii PREFACE

But this little book is about the life sciences and Christianity, the dominant religion in that part of the world from which modern science emerged. This shapes our judgment of “importance.” Christianity is a historical religion. It has a story of origins involving God and human relationships to Him, of our present obligations, and something about how it is all going to end in the future. It requires no great talent to see that the area of biology that will interact most directly with religion is the area of biology that deals with history: evolution. In an important way, this is a plus rather than a minus. The eminent biologist Theodosius Dobzhansky used to say: “Nothing in biology makes sense except in the light of evolution.”

Hence, this book will focus primarily on evolution and Christianity. Primarily, but not exclusively. Throughout the book, putting things in context, there will be discussion of evolution and its relationships to other areas of biology – molecular biology and ecology, for instance. I am a philosopher and historian of science, not a theologian. As you might expect, my interests and expertise lie more with the former than the latter. Showing this immediately, I shall start right off in the first chapter discussing some philosophical aspects of science, setting them in historical context. Questions of religion will be picked up in the second chapter and continue right through to the final chapter, the sixth. Concluding, as is the custom in the series in which this book appears, there is a list of “common misunderstandings.” Although I make no explicit reference to these in the book’s general discussion – too many suggestions and directions make for stilted reading – I have the misunderstandings very much in mind. For this reason, I suggest that readers start this book by looking at the misunderstandings, and then you yourselves can figure out my answers to the questions they pose. I doubt you will agree with all my answers. As a teacher for over 50 years, I shall feel my task is well done if I stimulate you to work out answers that you think correct – and perhaps ask questions that I overlooked. If you agree with everything I say, I shall not think you are taking me seriously.

## Acknowledgements

Three people have been very influential on me, guiding and informing my thinking. First, the late Edward O. Wilson, the pre-eminent evolutionist of his day, a pioneer in the field of sociobiology, the study of social behavior from an evolutionary perspective. For over 40 years, he was a mentor and friend. Second and third, Robert J. Richards at the University of Chicago and Joseph Cain at University College London. Friends also, the former has helped me to understand the history of evolutionary theory in the nineteenth century, and the latter has helped me to understand the history of evolutionary theory in the twentieth century. The Institute on Religion in an Age of Science has an annual, week-long conference on Star Island off the coast of New Hampshire. The members, mainly Unitarian-Universalists or members of the United Church of Christ, are as modest as the title of their organization is pretentious. I have been part of the group for 40 years now, welcomed in although my non-belief is known to all. I cannot thank them enough for their friendship and friendly, if critical, support of my journey through this vale of soul making.

I am deeply grateful to my series editor, Kostas Kampourakis, as well as to the team at Cambridge University Press. Special mention must be made of my press editor Olivia Boulton and my copyeditor Lindsay Nightingale. Working with such people as these is a joy and a privilege. As always, my chief debt is to my wife Lizzie, ever there to give me love and encouragement, which does not preclude warning me when I am going over the top. My dedication is to two of the deans under whom I have served. The first is to the late David Murray at the University of Guelph and the second to Sam Huckaba at Florida State

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University. I choose them both as friends and leaders in themselves, but also as representatives of my many colleagues over 55 years of teaching who made it all so very much worthwhile. This book is a small token of my thanks.

Finally, no acknowledgements by me would be complete without mention of my cairn terriers, Scruffy McGruff and Duncan Donut. They are ever ready to tell me to drop tools and go for a walk in the park, which, on reflection, is not a bad idea right now before I start into the main text of this book.