

these chapters inordinately disturbing in that they seem to view traditional systematic theology as inerrant.

The fourth part of the book includes, in my estimation, the best chapter—Thomas R. Schreiner's exposition of Romans 5:12–19. He begins by stating, "Clearly Paul believes Adam is a historical figure" (p. 271), and argues convincingly that "five times in verses 15–19 judgment and death are attributed to Adam's one sin" (p. 276). Schreiner contends that the "universal consequences of Adam's sin" were not limited to him only because "it introduced sin and death into the world," and he qualifies that "both physical and spiritual death are intended" (p. 272). In attempting to restrict the extent of death, Schreiner claims that reference to "the world" in Romans 5:12 "refers specifically to humans beings" (p. 272). With this being the case, it is not surprising that he completely dodges Paul's reference to the cosmic Fall in Romans 8:20–22. Of course, belief in the cosmic Fall has been falsified by the fossil record. Physical death has been in the world for billions of years prior to the entrance of human sin.

This book is an excellent demonstration of the entrenchment of concordist hermeneutics within modern evangelicalism. All the contributors assume that scripture reveals historical and scientific facts regarding human origins. None deal with the possibility that the biblical creation accounts and Pauline references to Adam are undergirded by an ancient Near Eastern conceptualization of origins, specifically the *de novo* creation of humans. This book also reveals the dictatorial power of Christian tradition and systematic theology, which, at times, seem to function like inerrant texts. It is worth noting that over half of the contributors have connections to Presbyterian theology, including training or teaching at Westminster Seminary or Concordia Seminary. The book might have been subtitled "Presbyterian Perspectives."

Interestingly, the introduction by editors Madueme and Reeves cites Article 31.3 of the Westminster Confession. "All synods or councils, since the apostles' times, whether general or particular, may err; and many have erred. Therefore they are not to be made the rule of faith, or practice; but to be used as a help in both" (xi; their italics). In the light of modern biblical scholarship and the evolutionary sciences, I conclude that *Adam, the Fall, and Original Sin* continues within the Christian tradition that "many have erred." Had this book been written in the sixteenth and seventeenth centuries when the most important evangelical confessions of faith undergirding systematic theology were composed by young earth

creationists (e.g., Luther and Calvin), it would have been excusable. Despite my conclusion, I certainly recommend that evangelicals read this book, in the same way that I encourage my students to read Richard Dawkins and Ken Ham.

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CAN ANIMALS BE MORAL? by Mark Rowlands. New York: Oxford University Press, 2012. 274 pages. Paperback; \$24.95. ISBN: 9780190240301.

In this well-written and carefully argued book, Mark Rowlands defends the claim that some nonhuman animals can, indeed, be moral. At the intersection of animal science, moral philosophy, and many faith-based perspectives on morality and human nature, this book is as much about what makes human animals moral as it is about what makes some non-human animals moral.

Rowlands is a much published analytic philosopher and the focus of *Can Animals Be Moral?* is primarily conceptual and philosophical rather than empirical and scientific. He does assume that the scientific evidence makes a *prima facie* case for the claim that some animals, especially social mammals, can be motivated to act by various emotions that have an identifiable moral content. These emotions are all species of concern for the fortunes of others, which he takes to be the hallmark of a moral attitude, such as compassion, sympathy, grief, courage, malice, spite, and cruelty. As a matter of fact, he himself believes that a wide array of animal studies provides us with a growing body of evidence that some animals do, in fact, experience such emotions and are motivated to act by them. But the concern of the book is not to present and evaluate the scientific evidence for such a factual claim, but rather, to clarify and explain the meaning of the central concepts involved in making such a claim; secondly, to develop an extended argument for the claim that some animals *can* be moral subjects but not moral agents; and finally, to defend that claim from philosophical objections that have been thought to be decisive by the vast majority of thinkers in the Western philosophical tradition. In the course of that defense he examines and rejects a deeply entrenched conception of reason and human cognitive functioning that has provided the basis for a widely held paradigm of what it means to be moral, a paradigm incompatible with animals being moral subjects.

The foundation for his larger argument comes in the second chapter, by far the most difficult chapter

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in the book, in which he explains what it means to ascribe emotions to animals. Emotions are understood as intentional states involving propositional content which is both factual and evaluative. If I am afraid of the large dog that is charging toward me, there is a factual component: I believe that there is a large dog charging toward me who looks vicious. But there is also an evaluative component: this dog is the sort of thing that should be feared. Moral emotions have the same structure except that the evaluative component involves not a prudential “should” but a moral “should.” When I act on compassion for the suffering of someone, I believe that someone is suffering and that the morally right thing to do, what I morally should do, is to help that person. How is it possible to ascribe such intentional states with propositional content to animals when, as far as we can tell, they seem not to be able to entertain or reflect on the relevant propositions in the way that we do, when we experience emotions? The difficulty here arises, according to Rowlands, because we do not understand how animals represent objects in the world to themselves. To deal with this problem, he distinguishes between the *tracking* of a true proposition and the *entertaining* of a true proposition. Emotions, to be legitimate, will track true propositions, but they do not require that the subject of an emotion entertain, or even be capable of entertaining, such true propositions. If this distinction is acceptable, the way is open to ascribe morally laden emotions such as compassion to animals and to argue that they are sometimes motivated to act on them, and to argue further that, when they do, they are acting for moral reasons.

The next step in the argument is to develop and defend a distinction between moral subjects, which animals can be, and moral agents, which animals cannot be. A moral subject is someone who is motivated to act by moral reasons. A moral agent is someone who is morally responsible for, and so can be morally evaluated (praised and blamed) for, his or her motives and actions. For Rowlands, all moral agents are moral subjects but not all moral subjects are moral agents. The concepts of moral subjecthood and moral agency are as distinct, he argues, as the concepts of motivation and evaluation. Thus some animals can be moral subjects without being moral agents. In the last chapter, Rowlands suggests that as moral subjects, animals are worthy of moral respect and that thinking of them in such a way will make a difference for how we feel about them and act toward them.

But there is a widely held view among philosophers of what it means to be motivated to act by moral

reasons that is not compatible with this way of distinguishing moral subjecthood and moral agency. On this view, one’s motivations and actions are not moral, and they have no normative grip on one, unless one has control over them. And secondly, such control is conferred by a certain metacognitiveness that enables one to critically scrutinize one’s motivations and actions and deliberately choose them just because they are morally right. On this view, the distinction between moral subjecthood and moral agency collapses, and animals cannot be moral subjects because they cannot have moral motivations. In a series of carefully argued chapters, using a series of effective thought experiments, Rowlands does a good job of challenging the connections between critical scrutiny and control and between normativity and control on which this objection rests. He calls the view that the ability to critically scrutinize our motivations and actions confers control over them a case of the fallacy of the *miracle-of-the-meta*. Any issue of control at the level of motivation and action, he argues, will also arise at the level of metacognition. And he develops a Wittgensteinian-style account of normativity that grounds it not in internal, psychological features of individuals but in participation in the practices of a community.

The final step in Rowlands’s argument is an explanation of the concept of moral agency. Unlike moral subjects, moral agents are morally responsible for, and so can be morally evaluated for (praised or blamed), their motives and actions. According to his reconstruction of the concept of moral responsibility, the extent to which one is morally responsible, and hence, a moral agent, “is the extent to which one understands what one is doing, the likely consequences of what one is doing, and how to evaluate those consequences” (p. 240). On his view, responsibility and agency come in degrees because the understanding in question comes in degrees, “... and in the case of animals the degrees involved are small enough that, if we were thinking in all-or-nothing terms, we would be inclined to say they were not agents” (p. 241).

These comments on responsibility are very brief and will need further development if they are going to provide a minimally adequate account of responsibility that explains the distinctiveness of human moral agency. In the first place, people can be responsible for actions they do not understand and for the consequences of actions they did not foresee or intend. Furthermore, even if understanding our actions enables us to take *responsibility* for our motives and actions, it is not at all clear how and why simply understanding them *makes* us responsible for them

in the first place. It is also difficult to see how some account of the role of control can be avoided (perhaps an alternative to the critical scrutiny account rejected by Rowlands), if only to make room for the possibility of moral progress.

One of the broader theological issues here for Christian thinkers concerns how to distinguish humans as moral agents from other animals. Christian thinkers will likely appeal to the theological claim that humans are uniquely made in the image of God, if this is understood as involving a call to a certain responsibility before God. Is that view compatible with the view of reason, morality, human moral agency and animal moral subjecthood developed by Rowlands in this book? One virtue of this book for Christian thinkers is that it will encourage them to reflect on the extent to which their interpretation of biblical material has been influenced by traditional conceptions of the human found in Western philosophy and to reflect critically on those conceptions themselves. Furthermore, even though Rowlands's own views of the deep kinship between humans and other animals seem to be grounded in a form of evolutionary naturalism, there may be good reason for Christian thinkers to affirm a similar kinship on the basis of the biblical account of creation.

I highly recommend *Can Animals Be Moral?*, especially to Christian animal scientists and Christian philosophers. The author writes clearly and develops his arguments carefully with an understated sense of humor. Whether or not, in the end, you agree with Rowlands, reading this book will deepen your understanding of the issues it addresses and is sure to provoke you to an ongoing engagement with questions regarding your own relationship with animals.

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THE PHYSICS OF THEISM: God, Physics, and the Philosophy of Science by Jeffrey Koperski. Chichester, UK: John Wiley & Sons, 2015. 279 pages. Hardcover; \$89.95. ISBN: 9781118932810.

Theologians and philosophers of religion are increasingly interested in science, especially physics. Subtopics of physics such as the fine-tuning of universal constants, quantum mechanics, relativity, and cosmology are surprisingly common subjects where religion is involved. Bridging the gap between these fields, however, has proven to be quite difficult. Those in religion and the humanities typically interact with the mathematical sciences only at a popular level, and physicists are often dismissive of meta-

physics and religion. Fortunately, the philosophy of science provides a middle ground between these disciplines. In this book, Koperski provides a critical analysis of the ways in which physics is brought into play in matters of religion.

Jeffrey Koperski is a professor of philosophy at Saginaw Valley State University. In addition to PhD and MA degrees in philosophy, his education includes an undergraduate degree in electrical engineering. This training gives him the STEM (Science, Technology, Engineering, Mathematics) background to grasp some of the more complex issues in physics, but what stands out is the practical perspective of an engineer.

Koperski has written previously on the intelligent design movement, specifically the 2008 *Zygon* paper, "Two Bad Ways to Attack Intelligent Design and Two Good Ones." This book has the same even, scholarly presentation as the previous work. In this book, Koperski indicates largely what physicists and philosophers of science think and why they think the way they do, without passing judgment. Koperski comes across as someone who feels no need whatsoever to attack personally those with whom he disagrees. In fact, he writes, "Placing the black hat on one's opponent is no substitute for an argument" (p. 205).

Late in the book, he makes an observation which seems motivational for the enterprise.

If methodological naturalism is supposed to be a no trespassing sign, scientists don't take it as such ... it does appear that the boundary only works one way. Scientists can cross at will; those on the religion side must stay where they are. (p. 210)

By way of example, he quotes Mano Singham, who wrote in "The New War between Science and Religion" (*The Chronicle of Higher Education* [May 9, 2010]), that

the scope of science has always expanded, steadily replacing supernatural explanations with scientific ones. Science will continue this inexorable march ... After all, there is no evidence that consciousness and mind arise from anything other than the workings of the physical brain, and so those phenomena are well within the scope of scientific investigation. What's more, because the powerful appeal of religion comes precisely from its claims that the deity intervenes in the physical world, in response to prayers and such, religious claims, too, fall well within the domain of science.

In other words, naturalists may comment upon religious assertions, but the reverse is inappropriate.