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NOTES ON CONTRIBUTORS

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Norman Wirzba is Research Professor of Theology, Ecology and Rural Life at Duke Divinity School.

EDITORIAL

The University Press Officer told me the other day that Darwin was old news, so it is clearly time to look forward rather than back – fascinating though the evolutionary debates of the last year have been.

I am very grateful for two major contributions to this issue. Wesley Wildman uses Keith Ward's summary work *The Big Questions in Science and Religion* to explore what are the major issues facing the science-religion debate at present. With characteristic energy and clarity Wildman points up the extent of the evidence for real points of contact and 'conceptual traction' between the sciences and religious thought. He affirms Ward's skill in avoiding the pitfall of interdisciplinary oversimplification – writing theology in this era without attention to developments in the philosophy of science would be an example. He also congratulates Ward on the extent to which his approach is alive to the perspective of a range of world faiths. Excellent as he finds the book to be, Wildman is still able to suggest a range of improvements, particularly suggesting that more consideration of non-theistic religions such as Buddhism would have borne fruit.

Our other review article in this issue comes from Michael Northcott, who looks at three recent books on climate change. I write this with prospects for the Copenhagen summit on this issue still very fraught. There is surely no current area in which well-informed thinking about science, and careful reflection on theological ethics, is more necessary to pursue. Northcott's own *A Moral Climate* (2007) remains in my view the most important current text. Here he gives careful attention to two major ecofeminist theologians' treatments of the subject, and also to how ecological concern has influenced a conservative evangelical college in the US. Not to be missed.

With this issue we also add further to our distinguished list of international reviewers - not only Wildman (Boston University) but also Professor Norman Wirzba from Duke Divinity School. And two new works from the indefatigable Celia Deane-Drummond, former Chair of the Forum, receive reviews.

Finally, I want to note two competitive initiatives particularly aimed at younger scholars – the Arthur Peacocke Prize and a workshop stemming out of the ‘STARS’ initiative. Deadlines for this are at the end of December and January respectively, so readers are urged to consider if there is someone who might benefit by entering. Details follow the report of the Forum’s very congenial and successful 2009 conference, recently held in Cambridge.

**CONFERENCE REPORT – Science and Religion
Forum Conference, Cambridge, September 2009**

“Evolving Darwinism:
From Natural Theology to a Theology of Nature”

Some quotations:

“We should not be surprised at Natural Theology’s capacity to adapt”

“Natural selection cannot not occur”

“Evolution is the basis for all biological understanding”

“Self awareness is a blessing and a curse”

“Eden is an evolutionary impossibility”

“Divine determinacy at the quantum level is gap theology”

In a year full of Darwiniana, the Forum conference had to take a somewhat eccentric perspective on the subject, and “bringing Darwinism up to date” seems to have been a successful approach. The lecturers led us through the impact of evolutionary theory on biology, on natural theology, and on the expressions of Christian faith in the 150 years since the Origin of Species. Two contemporary attempts to relate religious belief to natural selection were also analysed: Intelligent Design theory and a highly original approach to trinitarian incarnation. Eighty-five participants enjoyed the intellectual feast, the fine hospitality of Wesley House and Westcott House in Cambridge, and excellent late summer weather.

In his lecture “Biology since Darwin”, Professor Sam Berry revealed the varying fortunes of natural selection

in five fluctuating periods since 1859, leading eventually to the Neo-Darwinian synthesis of the 1920s-1940s and the genetic discoveries continuing to the present-day. Of particular interest were the discoveries of gene combinations which had shown that objections to the potential benefits of mutations were unfounded. The total randomness proposed by Jacques Monod, the modified randomness of Stephen J. Gould and the directionality of Simon Conway Morris were also compared. Professor Berry introduced the concept of *homo divinus*, a supposed palaeolithic group or individual physically descended from the ape-homo line but taken into a new relationship with God and providing the basis for the biblical Adam. Celia Deane-Drummond, respondent to Professor Berry, did not approve of *homo divinus*, and Mike Poole suggested that the concept of spiritual development would be more acceptable if expressed in the form of emergence.

The public Gowland Lecture by Professor David Fergusson also used a five-part structure, in this case five variants of Natural Theology, from a strongly theistic form aiming to establish consistency between revelation and truths known to reason, through gradually weakening forms to the weakest form of Professor Fergusson's taxonomy, an alignment of belief with the results of other disciplines. The main impacts of natural selection on theology were perceived to be the apparent remoteness of God as scientific explanations were increasingly productive, the emphasis on chance, the problem of evil emphasised by the amount of waste and suffering in nature, and human insignificance. Professor Fergusson considered that the weaker forms of natural theology were the most appropriate in the present circumstances, but for this he was criticised by his primary respondent Professor Sarah Coakley who appealed robustly for a return to aspects of some at least of the higher categories.

The Forum's President, Professor John Brooke, spoke on "Christian Darwinians". In his customary way, Professor Brooke eschewed any simplification or categorisation of history – his message was that it had never been impossible to reconcile Christianity and Darwinism, but the variety of ways in which this was done shows how divisive Darwin was. One of Darwin's lesser known goals was to diminish divine responsibility for those parts of nature deemed unattractive or evil to human perception. Professor Brooke's account of the variety of Christian reactions to natural selection was extended by his respondent David Knight, who introduced the conference to parson naturalists, Christian agnostics and pillars of the establishment.

A clear and thorough "Critique Of Intelligent Design" was proposed by Dr Denis Alexander who argued that the statistical basis of recent ID arguments was unfounded and that gaps in current scientific explanations should not be treated as the locus of divine activity. This was a familiar critique, but offered with great lucidity and an up-to-date knowledge of the ID movement. Dr Alexander's own guess was that the movement would wither away in due course for lack of scientific support. His respondent Sjoerd Bonting agreed that scientific explanation should be accepted where it was available, but suggested that God intervenes to prevent the process from going off the rails. But where the rails ought to be, or where they were leading, or how serious a derailment was sufficient for divine intervention, were not explained.

Brains were stimulated in a totally new direction by the "New Theology of Evolution" offered by Dr Christopher Southgate and Dr Andrew Robinson. Using semiotic concepts derived from the philosophy of C.S. Peirce, and mathematical modelling demonstrating the benefits to an entity of interpreting its environment, they argued that processes within living things could be seen as 'vestiges of the Trinity' (a concept that goes back to

Augustine). They also showed how their project, sponsored by the 'STARS' initiative, had led to novel predictions both in origin of life research and in human evolution. It was of particular interest that the latter predictions had come out of theological reflection on human being, so that theology was helping to shape scientific inquiry (so much of the work the Forum exists to share moves only in the opposite direction).

In his final presentation as the Forum's retiring Chair, Professor Neil Spurway summarised the conference, far more effectively and entertainingly than this brief report can achieve. Three short papers by conference participants added to the richness of the Forum's exploration of Darwinian themes. One of these papers discussed Darwin's seven-fold contribution to theology. The persistence of theological debate about natural selection during 150 years serves to emphasise the value of Darwin's original publication and the amazing longevity of his contribution to scientific research and to other areas of human learning.

Peter Colyer, supplemented by the Editor
September 2009

Editor's Note:

I take this opportunity on behalf of the Forum to thank Neil Spurway in print for his excellent, resourceful and determined leadership of SRF in the last three years. The Conference just held is testament to the energetic place and good heart in which the Forum finds itself. Neil has also done a great deal to make possible our joint conference with ESSSAT next April (for details see below).

I wish the new Chair, the Revd Dr Kenneth Wilson, former Principal of Westminster College, an equally successful term in office.

ANNUAL CONFERENCE 2010

JOINT WITH THE EUROPEAN SOCIETY FOR THE STUDY OF
SCIENCE AND THEOLOGY (ESSSAT), EDINBURGH,
APRIL 7-11 2010.

IS RELIGION NATURAL?

The conference will be hosted by The School of
Divinity, University of Edinburgh

The topic of the conference will be approached from
the perspectives of the psychological and social sciences,
religious studies, and theology, with particular reference
to the cognitive science of religion. We are happy to be
able to announce four of our plenary speakers:

Justin Barrett (Cognitive Science, USA/UK)

Ilkka Pyysiäinen, (Comparative Religion, Finland)

Mona Siddiqui (Islamic studies, UK)

Christoph Schwöbel (Systematic Theology, Germany)

We intend to be scientifically and theologically cutting
edge – addressing evolutionary perspectives on religion
and religious experience as well as theological concepts
of the naturalness of religion, and discussing these in
the context of the current dynamics of the “return of
religion” and the “new” atheism. As always, there will be
generous scope for contributed papers on the conference
themes.

ESSSAT will award two prizes in connection to the
conference, the ESSSAT Student Prize (submission
deadline January 15th 2010) and the ESSSAT Research
Prize (submission deadline November 1st, 2009). For
more information on the prizes, see www.esssat.org.

Registration will close on 1 March. Fees, detailed call
for papers, information on application for prizes and
scholarships, arrangements and other details will be

published shortly before 1 Sept, on the two websites: www.ESSSAT.org & www.srforum.org.uk and circulated at that time to members of both organisations in flyers and posters.

Contact:

For information on papers and workshop programme:

Scientific Programme Officer:

Dr. Taede A. Smedes

E-mail: programme@esssat.org

Other information concerning the conference, prizes etc.:

Secretary

Dr. Marie Vejrup Nielsen

e-mail: secretary@esssat.org

All questions concerning registration should go to:

Registration Officer

Alison Spurway

e-mail: registration@esssat.org

**ARTHUR PEACOCKE ESSAY PRIZE 2010:
CALL FOR SUBMISSIONS**

In memory of its founding President and former Chairman, the Revd Dr Arthur Peacocke, the Forum offers a prize for an essay directly relevant to the theme of its annual conference. The purpose of the Prize is to encourage scholars embarking on a career in the field of science-and-religion. This call is for submissions relating to the 2010 conference (see above) on the theme: "Is Religion Natural?"

The Prize is open to those who, on the closing date for submission, are matriculated students (full-time or part time, undergraduate or post-graduate) registered at a UK university. The Prize will consist of a cash award of £100, free membership of the Forum for one year, and

the UK travel and accommodation costs of the winner's participation in the Forum's 2010 conference. An abstract of the winning essay will be published in the Forum's journal *Reviews in Science and Religion*, and the full text posted on its website.

The essay should not exceed 5000 words in length, including footnotes but excluding references. It should be preceded by an abstract of no more than 250 words, and should be submitted as an email attachment in Word, no later than 31st December 2009 to Dr Louise Hickman: l.hickman@newman.ac.uk. Dr Hickman will answer any queries about entry for the Prize. All submissions will be acknowledged within 1 week of receipt.

The essay should be the original work of the applicant – unacknowledged quotation from the work of others will automatically disqualify the entry. Copyright in the essay will remain with the author. Each submission should be accompanied by a statement from the author's Supervisor or Head of Department, confirming the author's student status and indicating awareness that the essay has been submitted. The adjudicators reserve the right not to award the Prize if no entry of sufficient standard is received. Their decision will be final, and no correspondence about it will be entered into.

DARWIN, PEIRCE AND GOD: STARS summer workshop for early-career researchers in philosophy, biological science and theology.

June 20-23 2010 at Berkeley, California.

Deadline January 31 2010.

Details at www.EvolutionCreationSemiotics.org.

Sponsored by the University of California at Berkeley and the Graduate Theological Union.

Topics:

- The origin of life as the physical emergence of semiosis.
- Semiosis and meaning in human evolution.
- Peircean study of Incarnation and Trinity.

Faculty: Philip Clayton, Terrence Deacon, Niles Lehman, Andrew Robinson, Robert J. Russell, Christopher Southgate, Bruce Weber.

Tuition, accommodation and travel funded for 10 doctoral or postdoctoral participants by competitive entry.

This program is made possible by funding from the Science and Transcendence Advanced Seminar Series, www.ctnsstars.org.

Any members of the Forum who are interested, or who know of students or young colleagues who might want to be considered, are urged to email Christopher Southgate on c.c.b.southgate@ex.ac.uk for further details.

FARADAY INSTITUTE - TEST OF FAITH DVD

The Institute's 'Test of FAITH' documentary:

- has won a 2009 Redemptive Storyteller Award (www.redemptivefilms.com)
- was Highly Commended in the Feature Film Category of the 2009 IVCA Clarion Awards (<http://www.ivca.org/award-schemes/clarion-awards.html>).

For clips from the documentary go to

<http://www.testoffaith.com>

or

<http://www.youtube.com/thetestoffaith>.

If you do not yet have your copy of the Test of FAITH pack you can buy it at a generous discount from the Faraday online shop:

<http://graphite.st-edmunds.cam.ac.uk/faraday/Shop.php>.

The Test of FAITH schools pack is now available from the Faraday online shop at an introductory price of £12 (£4 off) until December. The pack includes a teacher's book with lesson plans for UK GCSE and A-Level Religious Education lessons, and a special edition of the Test of FAITH DVD.

The Test of Faith materials will be reviewed in *Reviews* during 2010.

REVIEW ARTICLES**Keith Ward, *The Big Questions in Science and Religion*.**

Templeton Foundation Press 2008; paperback, pp. 272, ISBN 978-1599471358, £11.99.

REVIEWED BY WESLEY J. WILDMAN

Introduction

I recently finished reading Keith Ward's *The Big Questions in Science and Religion*. I consider this book important and in this somewhat unconventional review essay I will say why. To anticipate, the book's importance lies not so much in its content, which is reliable and fascinating; nor in its rhetorical style, which is scholarly and yet accessible; but rather in its relation to the entire range of works in science and religion.

At the present time I have a clearer understanding of the entire sweep of science-religion writing than I have had for many years, and probably clearer than I am likely to have at any time in the future. It is to this thoroughly bracing and sadly transitional awareness of the entire field that I owe my special appreciation of Prof. Ward's book. I shall explain...

Despite teaching and writing in the area of science and religion, I have increasingly struggled to keep up with the burgeoning literature outside whatever happens to be my immediate research or teaching interest. In this business, if we stop paying attention to new books for just a few months, we miss yet another publisher starting a science-religion initiative, perhaps a series of books in the area—not to mention a trolley load of new books from existing publishing programs. Moreover, there are so many angles and interfaces, so many philosophical and scientific specialties relevant to almost any science-religion inquiry, that few of us in

this business even know how to find all of the new publications in the field as a whole, outside what we happen to be focusing on at any given moment.

Almost two years ago I decided to devote a significant portion of my time to catch up with books published in the science-religion area. Fortunately, I had the opportunity to mount this catch-up campaign with a small group of gifted scholars and marvellous friends. This group covered a variety of disciplinary skills and academic temperaments, which was helpful. We were reading only books, not articles, and that left plenty of gaps. But it was an ideal situation for learning and enormously enjoyable in practice. We did not read everything. But we did read and discuss several hundred of the very best books in and around the network of fields of inquiry that we call “science and religion”.

I have almost completed the exhausting re-education process. It has been satisfying, though I dread to think how quickly I will fall behind again. Like any active researcher, I don't have time to keep this up. Nevertheless, at this point, I feel ready to sit back and ponder what I have learned about the whole field. This is where Ward's book enters the picture. There is a remarkable congruence between the notable characteristics of *The Big Questions* and my new-found interpretation of the entire sweep of science-religion literature, as I hope to show.

Breadth and Depth of Expertise

It has been humbling and moving to behold the variety and sheer quantity of books in the science-religion marketplace, as well as the splendid quality of many of these books. There is tremendous breadth and depth of expertise present among science-religion writers.

Keith Ward exemplifies this feature of the wider literature in a very special way. We might be beyond the age when any one person can know a lot about everything but Ward comes as close as anyone in our time does. Four hundred years ago he would have been called “a Renaissance man”—knowing almost everything there is to know and able to move from piano keyboard to sacred altar to lecture podium to university senate to author’s study with striking agility, winning respect at every turn.

The Big Questions presents Ward working comfortably across a vast loom full of disciplines, picking up threads of insight with a keen eye for salience and economy, and weaving them with the sensibilities of a master tapestry maker. He is not uniquely skilled in this ability; Ian Barbour, Holmes Rolston, Philip Clayton, and a few others exhibit a similar degree of versatility in science-religion issues. Nevertheless, it is safe to say that he is one of a small handful of science-religion authors worldwide who can manage this many disciplines with apparent effortlessness.

The book is well titled, promising to answer or at least discuss the big questions in science and religion. Ten such questions are tackled, one chapter apiece. Ward describes each in a more academic and a more popular way. To make the point about Ward’s breadth and depth of expertise, I list here the ten themes in a slightly modified version of Ward’s double chapter titles.

- Is there an ultimate explanation for the universe?
- Does the universe have a goal or purpose?
- How can the apparent cruelty and waste of evolution be reconciled with creation by a good God?
- Are the laws of nature absolute or miracles possible?

- What are space and time, and can temporal actions be free?
- Does science allow for a non-physical soul or life after the death?
- Is science the only or best path to reliable knowledge?
- Can science effectively explain morality and religion in naturalistic terms?
- Does science support or undermine the hypothesis of God's existence?
- Does science allow for divine revelation or divine action?

The breadth of expertise needed to cover this array of topics is obvious. This versatility is also amply evident within each chapter, as is Ward's depth of knowledge. By this I mean that he never fails to look at a question from diverse but relevant disciplinary angles. For example, in the second chapter on the goal and purpose of the universe, he moves comfortably and competently among the disciplines of religious studies, philosophy, theology, physical cosmology, and evolutionary theory. He registers not one but several important religious, philosophical, theological, humanistic, and scientific perspectives on the way to introducing competing answers to the chapter's question. He does this in a nuanced and fair way, in the manner of the high quality encyclopaedia. And he also argues for his own take on the matter, which is an impressive intellectual synthesis and criticism of all the views he considers.

This sensitivity to diversity of disciplinary outlook is sadly missing in several large segments of the science-religion literature. Scientists in science-religion writing are rarely aware of sophisticated philosophy of science or theological nuance and write as if their familiar

science perspective is sufficient. Theologians writing in the area rarely know about so many diverse sciences in such detail. The problem is not disciplinary parochialism, as everyone writing in this field is working across disciplines to some degree. Rather, the problem is disciplinary truncation and abstraction, which prevents one or more disciplines from attaining a properly subtle and powerful presence within the inquiry. I don't know how to mitigate this problem beyond working to educate people in science and religion from an earlier age more effectively. In the meantime we can celebrate Ward's intellectual agility and skill, as manifest in this book, holding it up as an example for experts and students alike.

Domain Independence as Abstraction

It is instructive to realize just how many substantive points of conceptual contact there are between science and religion. Hundreds of researchers around the world have found meaningful traction between the sciences and religion or theology, or have designed inquiries in which both sciences and religions are vital stakeholders. Place this vast effort of inquiry, driven by concrete awareness of conceptual contact between the sciences and religions, in one pan of an imaginary two-armed scale of justice. In the opposing pan, place all of the hearty assertions of domain-independence, from Stephen Jay Gould's non-overlapping magisteria (NOMA) to Ian Barbour's kindler, gentler description of two-worlds or two-languages approaches. Then let the scale rock freely and see where it ends up. Judging from the entire sweep of science-religion literature, there is no contest. The scale crashes with a thud on the side of meaningful conceptual contact between science and religion—and it falls so decisively that it flings the meagre offerings on the domain-independence side off their pan and into the air.

How can this be? That is, how can domain independence be relevant as a theoretical characterization of science-religion relations and yet stunningly inept as a prediction of science-religion research activity? It is completely implausible to suggest that the few domain-independence arguments are wholly sound while the vast hordes of substantive inquiries are fundamentally misguided. Spending just a modicum of time with the relevant literature makes plain that there is often genuine conceptual contact between science and religion. It is equally implausible to suppose that there is nothing to say for domain independence because there are questions on which there is very little conceptual or logical traction between scientific theories and theological claims.

In short, the domain-independence claim in its varied forms applies to science-religion relations in certain narrow respects but not to the field overall, and not even to most possible inquiries within the field. A slew of difficult questions flows from this realization. Where do we draw the line between respects in which domain independence applies and respects in which it does not? How can we avoid the error of pernicious abstraction in generalizing from a few specific instances to the entire array of science-religion inquiries? And by what art do we manage the complexities associated with multiply connected suites of disciplinary perspectives without falling prey to the twin errors of oversimplification and useless confusion?

Enter *The Big Questions*. Ward routinely demonstrates the art of judiciously estimating the mode and strength of conceptual contact between the sciences and religious thought. The virtuosity with which he does this underlines just how little hope there is for a fully systematic approach to the question of possible science-religion relations at the level of disciplines. For example, in the third chapter on the prospects for reconciling creation and evolution, Ward artfully draws a series of

lines indicating where conceptual traction holds strong and where it starts to slip. One such line: to say that God creates the universe should mean that there are signs in the universe that indicate this all-important fact, and yet we have nothing to which this universe, created or not, can be compared, so it is difficult to decide what signs of creation would count as evidence for creation by a good God. A careless approach to this question quickly allows one side to consume the other. Ward keeps both insights alive precisely to the degree that the strength of possible conceptual traction requires. This appreciation for the complexity of conceptual relations among sciences and religions is less common than it should be even in the best science-religion writing.

From Christian Insularity to the World Religions

The most desperate field-wide weakness in science-religion books is religious insularity and corresponding theological parochialism. There are very few people expert in world religions writing in science and religion. An enormous number of authors direct their efforts to a particular religious community, dealing with narrow theological topics of great relevance to that community, but neglecting the importance of allied theological questions that arise, differently voiced, in other theological traditions and other religious communities. In my view this is an intellectual embarrassment and political disaster. It keeps science-religion experts out of reputable religious studies departments because most of the science-religion field appears to the outsider as an elaborate apologetic effort on behalf of one or another religious community, and too ignorant of the diversity of religious thought across the world's religions to coexist with the sensitivities and vast knowledge bases characteristic of the academic study of religion.

It is not only education in world religions that will address this woeful state of affairs. It is also recognizing

that the audience for science-religion books need not be merely the members of a particular religious community. We can write for one another, for our colleagues in religious studies, and for the vast segment of the wider public who care about more than just the single communal species within the single religious genus that defines their religious identity.

Ward is one of the very few scholars writing in science and religion who light the path in a more hopeful direction. *The Big Questions* works comfortably across Western and South Asian religious traditions—not as much as in some of his other works, to be sure, but enough to escape the insularity to which any avowedly Christian author might be vulnerable. For example, in the first chapter on the origins of the universe, Ward accurately surveys a variety of answers to this question that structure the imaginative world of several religious traditions. He does this respectfully and competently, which is essential. But he also does it substantively, which is far more difficult. It is difficult to offer an answer to any profound theological question that takes seriously many religious outlooks, rather than merely one familiar favourite outlook. The difficulty lies in admitting extra constraints on the constructive theological proposal: the answer must not only comport properly with scientific considerations but also make sense of diverse religious ideas without merely dismissing all but one of them as delusional.

It is astonishing to me that more science-religion writers working with theological ideas do not grasp the global insult implied in failing or refusing to admit other religious ideas as constraints on their inquiries and theory-building efforts. At this point in the development of religious studies, ignorance is no excuse. Neither does targeting a book to a specific religious sub-community relieve the author of the intellectual obligation to take directly relevant ideas and arguments with the seriousness they deserve. Ward understands this. *The*

Big Questions shows that discharging this intellectual obligation makes a difference in science-religion inquiries.

How does Ward's taking seriously the world's religious ideas make a material difference to his answers to The Big Questions? In other books and from a variety of angles in this book, Ward articulates an important version of classical theism. This is not the strictly personal theism of most of the Bible and Qur'an, which is so common in popular religious piety. It is a philosophically voiced theism in which God is neither strictly personal nor impersonal but an all-embracing reality, a being possessing all virtues to a supreme degree. A Christian philosopher and theologian such as Ward might be forgiven for emphasizing the more personal aspects of divinity, given that they are so prominent in the sacred texts and piety of his surrounding tradition. But Ward has a deep historical knowledge of the development of theistic ideas, which points in other directions. He also demands of his theism that it make sense in an optimal way of the affiliated theistic outlooks of Sankara and Ramanuja in south Asia, of Anselm and Aquinas in the Christian west, of Maimonides within Judaism, and of Al-Gazzali within Islam. These inter-religious criteria even more than historical considerations draw Ward toward the particular position he adopts.

Ward's viewpoint is always humbly expressed as a serious intellectual possibility rather than a foregone conclusion. He regularly acknowledges that there is a lot about the world, and even more about whatever passes for ultimate reality, that we do not currently know, and probably cannot possibly know. Yet he rarely invokes this inevitable mystery prematurely, by contrast with some theologians who seek to protect their views from potential scientific or philosophical confrontations. That is, he allows the criteria governing his inquiry—from the sciences, from historical theology, from philosophical

analysis, and from the world religions—to exercise their full influence. This makes inquiry more challenging, yes. But it also makes the results more intellectually satisfying. We can only hope that more science-religion writers will follow Ward's example.

Could this Book be Improved?

Given what it sets out to do, Ward's *The Big Questions in Science and Religion* is a gem of a book. As I have tried to argue in this essay, when measured against the wider field of science-religion writing, its virtues make the book stand out from the crowd as a model of multidisciplinary work. We would all do well to go forth and do likewise, in regard to serious depth and breadth of expertise, sophistication in handling conceptual contact between science and religion, and seriousness of purpose in engaging the world religions with philosophical sophistication and theological subtlety.

These impressive virtues notwithstanding, no project is beyond improvement, in principle if not always in practice, not even *The Big Questions*. Improvement in this instance is not an easy goal, such is the quality of this book, so my three suggestions for improvement do not rise above the minor, subtle, and wishful, respectively.

First, the minor point concerns organization. Each chapter's arc of argumentation is complex and extends naturally from one subtopic into the next. Structural cues in the form of section headings are helpful but not always descriptively accurate, and on the whole they do not help the reader track the overall shape of the argument. That is, within any given chapter, the section headings usually offer pertinent information about content but rarely yield relevant insights into the unfolding chain of reasoning. The section headings, considered separately from the text, read like a mere list of elements, almost arbitrarily arranged. From a literary

point of view, therefore, the chapters might be improved if the section headings were excised. From a publishing point of view, this is plainly impossible. Thus, the attentive reader is left wondering whether the section content could have been described more lucidly with the arc of argument firmly in mind.

Along the same lines, the chapters themselves do not always remain closely tied to the question that supposedly defines their topic. For example, the seventh chapter on paths to knowledge and the reliability of religious experience actually says very little about religious experience and instead emphasizes traditional philosophical considerations from epistemology and philosophy of science. There is not a sentence of unwelcome or unfocussed material but the chapter title is slightly misleading. In general, then, better structural cues could have aligned the reader's expectations with the book's content more effectively.

Second, the subtle suggestion concerns theological argumentation. Despite Ward's aforementioned sensitivity to conceptual linkages among a web-like variety of disciplines, I do think he leaves a few strands unexplored. He occasionally invokes mystery, declares an evidential stalemate, or overlooks a conceptual point and thereby effectively ends inquiry, even though it seems possible to exploit the small amount of traction still remaining to take the inquiry a step or two further.

For example, in a number of places in the book, when Ward expounds the philosophical idea of God described above, he speaks of this theology as if it were more or less compatible with both personal and impersonal God ideas, as well as with a range of allied ideas of God from Western and South Asian religions. But I worry that this is too easy a synthesis. Does it not make sense to ask, rather more sharply than Ward seems willing to do, whether or not God is focally aware of anything, or whether or not God intentionally does anything? These

questions seem to require a metaphysical choice between conflicting features within the divine life.

Ward seems implicitly to block such questions by pointing out that we find it difficult to understand God, and that we express what we think we know analogically. If these sharp questions are sound and applicable, however—and they certainly seem to be—then Ward’s all-embracing view of God faces a serious challenge of coherence. In fact, these questions force the metaphysically-minded theologian into an either-or position with regard to personal attributes. Refusing the either-or question requires a premature invocation of the protective shroud of mystery, while leaping either way on the question of personal attributes quite dramatically specifies the metaphysical framework as essentially personalist or essentially non-personalist, with a theory of religious symbols explaining how the type of language that does not fit the metaphysics nevertheless allows us to engage ultimate reality. The existence of this challenge indicates that unexplored lines of conceptual contact remain unexplored in Ward’s presentation.

Third, the wishful suggestion pertains to Buddhism, Chinese religions, and other religious worldviews offering philosophically voiced non-theistic views of ultimate reality. Ward primarily engages philosophically voiced theistic views. If he had engaged non-theistic philosophical visions of ultimate reality more energetically, his idea of God would have been placed under important new pressures. Specifically, where Ward stresses the supreme being of the all-embracing God, speaks freely of God’s existence, and is willing to interpret different theistic frameworks as incomplete perspectives on a mysterious all-embracing whole, non-theistic accounts of ultimate reality push any all-embracing God-theory in the direction of the apophatic mystical theologian’s God-beyond-God. This view of ultimate reality can be rendered reasonably compatible

with mystical representatives of both non-theistic and theistic theological traditions. It is also compatible with a type of religious naturalism, which is of enormous importance to a variety of contemporary scientists. If Ward had followed his own procedure more thoroughly, his theological resting place may have been slightly different than it is.

In the large scheme of assessment, these three suggestions are rather minor. I am grateful for Ward's book. We should all be grateful to him and heed the example he has set.

Sallie McFague, *A New Climate for Theology: God, the World, and Global Warming.*

Fortress Press 2008, pp. 176; paperback, ISBN 978-0800662714, £12.99.

Lindy Scott (ed.), *Christians, the Care of Creation, and Global Climate Change.*

Pickwick Publications 2008, pp. 144; paperback, ISBN 978-1556358449, £10.32.

Anne Primavesi, *Gaia and Climate Change: A Theology of Gift Events,*

Routledge, 2008, pp. 156; paperback, ISBN 978-0415471589, £16.99.

REVIEWED BY MICHAEL NORTHCOTT

Given the cultural and scientific saliency of anthropogenic climate change it might be expected that we would see a growth in theological reflection on the issue. Climate change is becoming the most salient moral issue for industrial civilisation, threatening as it does not just the continuity of this peculiarly fragile form of civilisation but the health and welfare of billions of future people and the extinction of myriad species. Two of the books reviewed here are by theologians with an established record of theological reflection on the ecological crisis. The third is a report of theological and organisational change in relation to climate change at a prominent American evangelical higher educational institution, Wheaton College. Sallie McFague has written a number of books in the last twenty years on ecology and theology first from Vanderbilt, Tennessee and now from Vancouver, Canada. In her latest book we encounter many of the themes familiar from her earlier writing. The earth is the body of God and humanity as a species is uniquely responsible for caring for it. North

Americans were not less happy - indeed she cites evidence they were happier - when they owned one car per household, lived in smaller houses with fewer electronic entertainment devices, and their children walked to school. She surveys the science of climate change with the help of the 2007 IPCC report, although she notes with the Australian science writer Tim Flannery that its conclusions are very conservative. Since its publication ice melt at the Pole, drought in the Amazon, melting of subterranean methane in Siberia, point to climate 'tipping points' that would seem to indicate a more precipitate climate shift than the IPCC predict, and in the present century a larger sea level rise than that of 0.6 of a metre, and a larger temperature rise than that of 4.5 degrees centigrade. McFague notes with Elizabeth Kolbert the unique nature of the problem of global warming whose long and gradual train of causation means that when the crisis really begins to affect those most responsible in developed industrial cities most responsible it will already be too late to do anything about it. McFague tells how she first became really aware of the implications of global warming at a World Council of Churches conference on global warming in 1988.

When she heard about the melting of glaciers and arctic ice she thought with longing and regret of the ice- and snow-covered Rockies in Canada, the moraine lakes and ice-filled valleys, in which she hiked. Global warming would mean this landscape would change forever.

In the face of ecological crisis, and global warming, McFague commends a revised anthropology to that of humanism and rationalism in which human beings are understood as truly creatures of the earth, even although they have a special place among the creatures. This creaturely status means that humans can no more live against the conditions of ecological existence than any other creatures. But the principles of ecology and

the practices and procedures of the industrial economy are in conflict. McFague argues that neoclassical economics needs replacing with the ecological economics commended by Herman Daly and John Cobb in their book *For the Common Good*. Former World Bank economist Herman Daly has long argued that economic growth is a poor predictor of human welfare and that the goal of quantitative growth should be replaced with a measure of the quality of human and ecological life. In this approach assessments of human wellbeing, and of the state of ecological resources such as forests or fish in the ocean would be entered on national measures of gross domestic wealth instead of the present monetised measures of wealth. Beyond such practical measures, for McFague the ecological crisis is also a spiritual crisis that calls for a reconnection between the human spirit and the divine Spirit whose presence is in all creatures. Worship, meditation, poetry - especially the poetry of Gerard Manley Hopkins - to her are the most powerful means for the conversion of industrial humanity from greed to grace in their uses of the planet.

The second of these books is an edited collection of short papers emanating from an interdisciplinary panel discussion on climate change held at Wheaton College in 2006 which included an atmospheric scientist, a conservation biologist, an economist, and a political and international relations specialist. Added to the addresses given at that occasion are four more reflective short papers on the Christian duty of creation care by a scientist, a Christian environmental activist, and Wheaton College's risk manager. The book is more significant for what it represents than McFague's for here we see the charting of a genuine cultural shift. The authors of this book have mostly come recently to the cause of creation care and they are engaged in a process of ideological and organisational change that has the potential to be part of a much larger shift in American religious culture.

The chapters on the greening of Wheaton College are revealing for they chart the deep resistance in evangelical protestant circles to the kinds of ecological stewardship that are second nature to McFague. Fear of paganism is one element in the culture of resistance.

Another is the belief that the earth is given to human beings as their property, to dominate and dispose of in the pursuit of redemption. Not everyone at Wheaton is however persuaded of the urgency of addressing global warming by mitigating energy use and the other kinds of measures Wheaton is now taking on its own campus. The chapter on the economics of climate change is by a Wheaton economist, P. J. Hill, who argues that dollar for dollar action to mitigate climate change should come very far down the list of moral priorities for those who want to divert funds - either charitably or from government resources - for addressing human suffering. Like environmental sceptic Bjorn Lomborg, Hill proposes that tackling HIV and AIDS, malaria and malnutrition, lack of potable water and drains, inadequate housing, lack of medical services, are all global development priorities that should take priority over efforts to reduce greenhouse gas emissions. For Hill those such as Howard Stern who argue that there is an economic as well as an ethical case now for changing the practices that will produce dangerous climate change later in the present century are wrong because they do not properly discount future costs against present benefits. Hill's chapter well illustrates the point made by McFague, and Kolbert.

Economists and the politicians who follow their advice do not understand that the problem of global warming is radically different to any other ecological limit problem. The costs of global warming will not decline in the way that will make them more manageable later in the century because of economic growth and technological improvements. Six degrees of global warming - which will be reached by the end of the

present century if greenhouse gas emission continue to grow at present rates of 3 per cent per annum - will make the planet uninhabitable for life, including human beings living at all latitudes below those of Montreal and Stockholm, or above those of Auckland and Santiago. Wildfires of the kind that came close to Melbourne suburbs in 2009 will devastate the Amazon, Congo, Java and Borneo. Spain, Portugal, Greece and Italy, Mexico, Texas, California. Technology and economic growth cannot reduce the catastrophic effects of such ecological collapse.

Anne Primavesi's *Gaia and Climate Change* is a more bracing and engaging read than the other two. Like McFague she has also written previous books in this general area but I think this is her best yet. The book is written with a passion - a kind of warming Celtic fire burns through the text - which carries the reader along through her engagements with philosophers Hannah Arendt and Jacques Derrida, scientists James Lovelock and Lynn Margulis, and theologians from Augustine to John Wesley. The argument of the first half of the book is that climate change, and the larger ecological crisis, is indicative of a series of problems in modern Western traditions that remain influential even in modern humanist thought. These include the doctrine of God in Western theology with its emphasis on the unaccountable and even violent power of God, the doctrine of election in Augustine of Hippo with its eternal division of people between the saved and the damned, the Reformers' theology of work which turns work into an idol, Locke's theory of property and money which justified the colonial enclosure of the 'waste' lands of indigenous peoples and their subjugation in the process, and the imperial and patriarchal mindset of Christendom theologians who also justified this subjugation. This is quite a list and it might be thought that the consequence is a theology so far from the Christian tradition that it would never find listeners at a

place like Wheaton. But actually that is not the case. What is so impressive about this book is the way in which Primavesi weaves her account of the origins and character of the crisis of Gaia into a reading of the life and teachings of Jesus Christ, and into an Orthodox theology of creation and redemption as a divine economy of gift exchange. This makes the book both deeply Christological, and thoroughly Trinitarian.

The second half of the book takes a form of a series of meditations on Jesus in the Gospels much influenced by the Jesus Seminar. In these chapters Primavesi describes Jesus as the paradigmatic 'gift event' who reveals 'the economy of the mystery of God' which is so unlike the human economy of contract and exchange that it is in Derrida's language 'outside of sense'. Jesus is then read as the anti-imperial Christ whose poverty and nonviolence challenged Caesar and the imperial mindset of power and control that finds supreme manifestation in the fossil fuelled global economy that is driving climate change. Jesus' sayings are then summarised as the divine option for the poor. This is an option, like anti-imperialism, that the Church has resiled from through most of its history.

And this resiling is reflected in a notion of God as pure power over creation, and over human history, that climate change reveals urgently needs rejecting. Climate change threatens the daily existence, shelter and sustenance of the poorest people on earth. Primavesi suggests that the God of the anti-imperial Christ, the God of love, not the God of power and empire, is the God who will be among the poor in a climate changed world.

This reading of the Gospels will be familiar to students of the Jesus Seminar and of a variety of other modern readings, including those of Yoder and even the present author in a recent work. How though might these readings instil a new attitude to the earth among industrial humans. Here Primavesi has fewer positive

suggestions than McFague but she offers one vignette in interaction with the work of Hannah Arendt. For Primavesi the core issue concerns forgiveness. She asks if Gaia can forgive us and suggests that this will only be possible if modern humanity retraces the steps that have led to the imperilling of Gaia, and seeks to recover a mode of life which involves again gift exchange, and the divine economy of love, instead of debt and contract. Here Primavesi and McFague are in agreement that at the heart of the climate change crisis is an economy of greed and violence that ultimately threatens the future of life on earth. Can humanity change? Both concur that without radical economic change there is no prospect of mitigating the coming storm of climate change. Present evidence from the global economic crisis is that politicians and business leaders are united in their efforts to attempt to revive the present ecologically, and now socially, bankrupt model of endless growth. And here we are faced with the kairos moment to which all three of these books point: economic growth threatens to extinguish life on earth as we know it. But it has already extinguished in the hearts and minds of those who presently attempt to steer the global economy a spiritual vision of life beyond consumerism, growth and money.

REVIEWS**Christopher C. Knight, *The God of Nature: Incarnation and Contemporary Science.***

Fortress Press 2007, pp. 180; paperback ISBN 978-0800662219, £11.99.

REVIEWED BY ANDREW ROBINSON

Christopher Knight's aim in this intriguing and important book is to develop a version of 'strong theistic naturalism' that is nevertheless compatible with a traditional Christian understanding of God's providential activity in the world. The burden of the book can perhaps be summed up by saying that it seeks to show that the concept of 'Incarnational naturalism' is not an oxymoron.

Knight begins by arguing that the coherence of the naturalistic paradigm in science, especially when combined with a recognition of the reality of 'emergence', invites the development of a 'new theology of nature' (Chapter 1). This is not an old-style natural theology but a way of demonstrating that 'once faith has been entered into experientially, the new perception of the world that accompanies this entry may be seen as consonant with the evidence on which contemporary scientific understanding is based' (Chapter 2). A problem with theistic naturalism is the question of whether God can be said to, in some sense, act providentially in the world or, alternatively, whether God is relegated to the deistic role of merely initiating the process. Here Knight offers a clear overview of the divine action debate. He is unconvinced by versions of 'weak naturalism' in which 'non-interventionist' acts of special providence are postulated via the ontological openness of the created order (Chapter 3). Instead he boldly proposes that everything that Christian theology has previously

attributed to special providence can conceivably be reframed in terms of an expanded understanding of general providence (Chapter 4). He illustrates this claim with reference to the analogy of a parent making financial arrangements for a child at University. In the human situation it would be hard for the parent to organise this satisfactorily without using both general and special providence: this much money will go into your account regularly, but let me know if you need extra for car repairs. In contrast God, he suggests, may be able to create the world in such a way that everything that happens naturally in the created order is an appropriate (general providential) response to the needs of the situation.

To avoid this 'fixed-instruction' view of providence becoming simply a more sophisticated form of deism it must, he argues, be combined with a panentheistic view of the immanence of God in creation. He introduces the term *pansacramentalism* to describe this view of 'the tendency of created things to be naturalistically oriented towards God's ultimate intentions'. Perhaps surprisingly, he regards this pansacramentalist version of strong theistic naturalism as potentially compatible with the occurrence of miracles in a fairly conventional sense (including, for example, the virgin birth), though understood as the 'breaking out' of new emergent laws of nature rather than the 'breaking in' of an interfering deity (Chapter 5). He further uses the idea of the pansacramental nature of the world to suggest (Chapter 6) how, 'Just as the material universe had, from its beginning, the naturalistic potential to give rise to humans, so humans may be seen as having the potential to be receivers of God's soteriologically oriented self-revelation and to respond in an appropriate way'.

According to this 'psychological-referential' model of revelatory experience (Chapter 7) certain visionary experiences (such as the disciples' experiences of the Resurrection) can only occur in the conditions provided

by an appropriate 'psycho-cultural niche'. Since different religions have evolved in different psycho-cultural niches it is possible to pursue Christian engagement with other religions in a way that is 'neo-inclusivist' (Chapter 8). By this Knight means an approach that is, neither exclusivist (denying the validity of insights from other traditions) or relativist (achieving inclusiveness by denying that there is objective referential content in any of the traditions). Such a view is consonant with the strand of Logos-theology in which (quoting Philip Sherrard), 'through the Incarnation the divine Logos incorporates Himself not in the body of a single human being alone but in the totality of human nature, in mankind as a whole, in creation as a whole' (Chapter 9).

Sherrard's creative, even 'prophetic', interpretation of the Eastern Orthodox tradition is an important resource in Knight's thinking. Another influence is the artist and poet David Jones. Following Jones, Knight argues that humans are distinctively sign-making beings and that art and the sacraments are particular uses of signs that enable us 'to approach realities that will remain out of focus if approached only with discursive reason' (Chapter 10). Further chapters explore the relevance of the pansacramentalist approach to a 'natural law' approach to ethics (Chapter 11), questions of fallen-ness and redemption (Chapter 12) and ecological and feminist perspectives (Chapter 14). The overall movement of these later chapters is from the general pansacramentalist view of nature towards a full-blown 'incarnational naturalism' (p. 112). After a summary of the overall proposal (Chapter 15) he ends by reflecting on the relevance of his proposal to the practice of 'praying to the God beyond time' (Chapter 16).

This is an important and bold book. It is important because it takes up the challenge of developing a 'strong' version of theistic naturalism in a form that is consonant with the heart of the Christian theological

tradition. It thus goes beyond much of the usual pattern of science and religion dialogue by making Incarnational theology central to the exercise, rather than merely seeking to show, say, how the Incarnation may be regarded as plausible in the light of science. The boldness of the book comes through in the proposal, as part of this 'pansacramental' vision, for a new approach to the question of divine action. I found this aspect of Knight's thesis intriguing and welcome, not least because, as someone committed to exploring the possibilities of theistic naturalism, I have never been happy about my own inarticulateness when it comes to answering the question of what God actually 'does' in the world. Nevertheless, I found myself questioning whether Knight's proposal may end up conceding exactly the ground that theistic naturalism must surely most prize. If the idea of pansacramentalist divine action depends on postulating the breaking out of new laws of nature that are effectively beyond the grasp of science (because the conditions for their reproduction are elusive – p. 36) then I wonder how much has been gained over the 'weak' versions of theistic naturalism that Knight himself finds unconvincing. Perhaps the idea of pansacramentalist divine action could still fly – with just as radical an affirmation of the reality of God's providential working in and through the natural structures of the created order – without relying so much on the idea of the eruption of laws of nature that are largely beyond the reach of science?

My main puzzlement about the book is what seems to me to be a strange lacuna just where I expected to find the fulcrum of Knight's argument. The attentive reader of this review will have noticed that I did not refer above to Chapter 13, 'The Word Made Flesh'. I expected that Knight would use that chapter firmly to root his ideas about the pan-cosmic incarnation of the Logos in the tradition of Trinitarian thought. This expectation was not based, I should emphasise, on any sense that I

think Christian theologians ought to be obliged prominently to wear the badge of Trinitarianism. Rather, it stems from the fact that the whole Christian motivation for adopting and constructively developing the Hebrew and Greek concepts of the Word / Logos – concepts that are central to Knight’s argument – surely rests on the way in which that concept has been found to be an appropriate and fruitful way of reflecting on the eternal significance of the human person Jesus of Nazareth. It seems surprising, therefore, that Knight chooses to make so much use of the Logos concept, including the way that it has been developed in certain strands of the Orthodox theological tradition, without more explicit acknowledgment of the roots of Trinitarian thought. Perhaps Knight would respond by saying that this connection is implicit in the book (and in fairness he does dip his toes into the waters of the lacuna that I perceive). But I am puzzled to find him saying, for example, that, ‘The nuances of Trinitarian theology are, however, extremely subtle, and I do not here [a discussion of the relation between the Logos and Wisdom / Sophia / feminine imagery] want to base my argument too much upon them’ (p. 109).

These observations should be taken, however, in the context of my overall admiration for this book. One of its strengths is the conciseness with which Knight sets out his complex and nuanced argument. The chapters are short and written with exemplary clarity, and mostly left me wanting more. If I felt frustrated at the absence of a more explicit connection with the mainstream of Trinitarian thinking then this was partly because the sweep of the argument is otherwise so wide and well thought out. I commend this as a novel and important contribution to the field.

Agneta Sutton, *Christian Bioethics: A Guide for the Perplexed*.

T&T Clark Continuum 2008, pp. 180; hardcover ISBN 978-0567031969, £55.00, paperback ISBN: 978-0567031976, £14.99

REVIEWED BY CHERRYL HUNT

Books on bioethics too often focus only on medical issues: topics linked to the status of the pre-birth human, (IVF, stem cells and abortion), questions arising from the use of genetic technology (pre-implantation genetic testing, cloning, hybrids), and those consequent upon the development of modern medical techniques (organ transplantation, euthanasia). Refreshingly, after a brief but useful examination of the short history of the discipline itself, this volume also includes other biologically relevant topics such as the treatment of animals and ecological ethics (although self-consciously omitting population growth).

The author, in her preface, notes the intention, where appropriate, to contrast the 'old and new medicine': the Christian and Hippocratic tradition and the sanctity of human life, often represented by the thought of Pope John-Paul II, with the secular, utilitarian approach as exemplified by Peter Singer (5-6). On subjects where Roman Catholic teaching differs from other Christian approaches, she herself generally adopts a position consonant with the former, although she draws on Christian voices from other traditions to some extent. Surprisingly, I found no reference to the Eastern Orthodox Church's positions on any topics under discussion, even where its teaching on bodily integrity would have been relevant.

The writing is generally clear, chapters and sections are laid out in a logical fashion, and links are drawn between related topics. There are few errors in

referencing and fewer still in grammar. The background, including the science of each topic, is covered fairly well in most instances; technical terms are explained in the text and/or included in a glossary. The author is also fairly even-handed in outlining the secular approaches to the subject. A good example is the chapter on eugenics, explaining its practice in different countries at different times. Having said that, there are a few minor confusions (it is unclear why Gaia theory 'leaves no room for the Darwinian understanding of evolution'), infelicitously explained topics (human embryo /life /individual /person being used interchangeably), or surprising omissions (such as the use of gene therapy to treat so-called 'bubble babies'). In Ch. 2, a diagram would have helped the description of stages in embryonic development. For some well-known issues, such as climate change, there is rather more than necessary on the background.

Unfortunately, what I find lacking with regard to several topics is the content of Christian bioethics. This is most noticeable in the chapter on the uses of adults and children as research subjects where there is no mention of specifically Christian ethical contributions aside from a reference to the so-called 'Golden Rule of the Bible' (119). On a number of issues justice is not done to the sometimes wide spectrum of opinion within Christian thought. The chapters covering embryos and genetic modification (2, 3 & 7) cover well the different arguments put forward on scientific grounds but do not discuss the different Christian attitudes to the embryo, stem cells, or genetic enhancement. For instance, there is no mention of the opinions of Ted Peters, Ronald Cole-Turner, or John Bryant and John Searle. There is an assumption (26) that embryos are either persons or 'disposable material' and no consideration of a gradual acquisition of personhood (and consequent respect) throughout development. The last chapter, on ecology, includes a lot on CJD and GM foods, global warming

and Gaia, and a brief note to the effect that the latter is not inconsistent with a belief in God as sustainer and director of life. However, there is no mention of the biblical or doctrinal bases for suggested approaches to the non-human creation; the concept of stewardship (disputed amongst Christians) is assumed and only mentioned in passing, again with no reference to textual evidence. Celia Deane-Drummond's work is only footnoted, and no reference is made to the alternatives put forward in other important work by, for instance, H. Paul Santmire or Michael Northcott. There is no discussion of bio-, theo- and anthropocentric attitudes towards the environment. Instead of reasoned biblically based argument there is appeal to intuition and common sense (25, 28, 33, 103) without a recognition that much common sense is culturally conditioned. Sometimes, such as in the chapter on animal treatment, there is coverage of some different Christian positions (Linzey, Aquinas, Barth) but there are also some insufficiently substantiated generalisations, such as the claim that both Christian testaments teach that 'the beasts living with man on earth enter through us into a special relationship with God' or the assumption of 'caretaker responsibility' for the natural world (133; see also p. 7). Appeal is made to the *imago Dei* (32, 117) without any acknowledgment that there is an enormous debate as to what it means. At other points arguments are made against practices on the basis of technical dangers (transgenic transfer of viruses in the case of xenotransplantation [108-9] or the risks of the generation of new viruses in crowded factory farming conditions [138]). While pertinent to general discussion of these topics, these arguments are hardly central to a discussion of Christian bioethical arguments. There are other points at which I would take issue with specific conclusions (aside from one's position on the status of an embryo, it could be argued that an adult derived from a cybrid of human nucleus and animal egg would

be more human than one in receipt of a donated kidney from a genetically modified pig donor) but my main concern is that her conclusions are being made in a book which is a guide to Christian bioethics, without sufficient acknowledgement that her opinions are not necessarily those of most Christians let alone all. It might be argued that such a book should not be providing conclusions at all but summaries of a range of positions.

Guides for the Perplexed are intended to provide 'clear, concise and accessible introductions' especially with a view to helping readers understand difficult aspects, 'key themes and ideas' of the topic in question. With regard to bioethics in general, this volume succeeds in pitching its style and clarity for the intended audience but it fails to do full justice to Christian reflection on the topic.

Celia Deane-Drummond, *Christ and Evolution: Wonder and Wisdom.*

SCM Press 2009, pp. 272; paperback ISBN 978-0334042136, £30.00.

REVIEWED BY NICOLA HOGGARD CREEGAN

Where does Christ fit into evolutionary history? This theological question is often overlooked or dealt with last when the vexed questions of God's entanglement with creation are exhausted. This excellent and unusual book is a welcome departure from the norm, attempting as it does to reverse the order, and deal with the creation/God problem through Christology, and to stay within the credal and Trinitarian norms as well.

Thus an important emphasis is that dealing with the dual nature of Christ and the disruption and discontinuity evident in incarnation and resurrection. The taking on of all creatureliness is an easy association with Jesus in an evolutionary context, but this often renders all notion of divinity harder. The author uses Kathryn Tanner's arguments concerning the radical transcendence of God meaning that God's divinity and omnipotence are not competing powers as human agents often are to argue for the possibility of divinity in humanity. Rather than logos, though, Deane-Drummond prefers to appropriate Sergii Bulgakov's images of Sophia and the language of wisdom, Sophia connoting both a part of creaturely existence and divine creativity.

Sophia, then, is the major Christological category of this work. In an interesting chapter on beauty Deane-Drummond argues that Sophia is responsible for the beauty one glimpses in creation, which is evidence of divine glory; the divine passion redefines and widens our understanding of beauty and gives us an appreciation of the suffering of the creation and of God with the creation.

A third sophia is also introduced, Bulgakov's mysterious "shadow sophia", in some sense denoting the shadow side of creation, yet in a way that intentionally defines neither the shadow's origins nor its precise effects. The emphasis upon Sophia brings out Deane-Drummond's dual approach—insisting on the drama of divine action, whilst nevertheless also pointing to the immanent work of God in creation as well.

A third emphasis is theodrama—from Hans Urs von Balthasar—defined in opposition to the collapsing of drama and tragedy and encounter into the long epic or narrative of history. Evolutionary theology has been particularly prone to the narrative in which discontinuity is subsumed under layers of continuous natural law. In theodrama the particular and the individual and the contingent matter as much or more than the laws and necessity of history. Both creation and humanity are a part of this drama. In looking at evolutionary theory, then, Deane-Drummond prefers the punctuated equilibrium of Stephen J. Gould over more gradualist accounts of evolution, and in theology she emphasises the incarnation, resurrection and eschatology along with the role of Mary who heeded and was open to the Word to an unusual extent.

Theodrama lends itself to a high Christology in spite of evolution, and to the drama of God's entry into the world and God's incorporation of humanity back into divinity. The author appreciates and interacts with Teilhard de Chardin, Karl Rahner, Jürgen Moltmann and others like John Haught and Arthur Peacocke who have gone before her in this task, but marks out her contribution by a change of emphasis in both biology and theology. Theodrama stands in marked contrast to the gentle non-dramatic lure of process types of synthesis, and also to some forms of kenosis and emergence which essentially become forms of Christology from below. The second part of the book on the drama of hope, deals with theodicy, atonement,

resurrection and eschatology, all requiring drama and encounter between the divine and the human embedded in evolutionary processes and history. In considering the atonement and theodicy she uses Luther and von Balthasar to emphasise love as the primary category of a nevertheless objective redemption, extended to incorporate the sufferings of the non-human creation and the overcoming of the mysterious shadow sophia as well.

In a chapter on Evolutionary Psychology (EP) Deane-Drummond argues that this increasingly popular version of extended Darwinism is a form of idolatry (using the strong language of anti-Christology) giving false and illusory explanations for the emergence of humanity and of human religious belief. She thinks it is not an accident that EP fits so well with an atheistic agenda and rhetoric, and points to the irrationality of its wishing to advocate a morality that is inconsistent with the selfish gene that is supposedly at the centre of the evolutionary drive. Similarly she ends the book with a critique of the false optimism of the transhumanist experiments and rhetoric.

Christ and Evolution raises the difficult question: How do we do theology and science? Systematic theology is influenced enough by Karl Barth to be wary of all scientific discourse. Science is at least methodologically atheistic and sometimes more than that. Combining these disciplines is always going to be fraught. History can simply apply the same principles it always has. No new method is required. Theology struggles.

This book unusually does justice to both theology and science, but in the process it does not always achieve unity—perhaps evidence of the tension which J. Wentzel van Huyssteen argues should be an aspect of transversal dialogue between the disciplines. At times also, fascinating as the dialogue with von Balthasar and

Bulgakov is, I wished for more of the author herself, for the tantalising insights around the edges to be expanded, and for some of von Balthasar's more eccentric tendencies to be given less space.

Yet this work is also refreshingly feminist—and wise. Deane-Drummond plumbs the depths of two theologians many feminists would ignore because of their patriarchal flaws. She is generous enough to find strength and the depth of theological reflection required for interaction with science, while nevertheless resisting and critiquing the misogyny and the stereotyping of both. But the link between Jesus and Mary, Mary and creation, Mary and God is drawn out of von Balthasar and is done in enlightening ways.

This is overall a wonderful book, a new departure in theological engagement with Christology from an evolutionary point of view. It will be of great interest to working theologians and students engaged in the science/theology interface.

**Celia Deane-Drummond & David Clough (eds),
*Creaturely Theology: On God, Humans and
Other Animals.***

SCM Press 2009, pp. 288; paperback, ISBN 978-0334041894, £30.00.

REVIEWED BY NORMAN WIRZBA

It is a complicated thing to do theology fully aware of one's creatureliness. The moment we try to figure out what it means to be a creature we run into all sorts of quandaries. The problem is not simply that we need to understand what it means to be finite, mortal, ignorant, and fallible – all significant concerns in their own right – but that we also need to define ourselves in relation to other creatures that may or may not be like us. Humans share their creaturely status with other animals that, as scripture reports, were created on the same day and made from the same ground. Together we share God's animating and sustaining breath of life.

Creaturely Theology is not a theology of animals, even though it represents a sustained examination of animality. It would be more accurate to say that this is a book that is testing the lines of what constitutes an animal – in what sense are humans animals? Is human animality in opposition to the animality of other creatures? How has the conceptual framing of “the animal” distorted or clarified self-understanding, moral obligation, and theological discernment? This question also challenges basic theological assumptions and categories. As the editors note, a major challenge of our time is to give an account of “our connection to, relationship with and solidarity alongside others of God's creatures, rather than of differentiation from them, which has been the more common starting point.”

Creaturely Theology is divided into five parts. In Part One there are three essays detailing how animals are

understood in the thought of Thomas Aquinas, Martin Luther, and Orthodox iconography. Reading them we discover that the treatment of animals is considerably more complex than we might first think. John Berkman shows that Aquinas is less anthropocentric and his treatment of animal rationality more nuanced than many textbooks make him out to be. David Clough demonstrates that Luther consistently argued for human superiority over animals while also recognizing deep similarities between (and affection for) them. Esther Reed argues that the positioning of animals in Orthodox icons opens up a variety of avenues for thinking the place of animals in the drama of God's creative and redemptive ways.

Part Two presents two essays that speak most explicitly about how a consideration of animals has implications for themes in systematic theology. Denis Edwards, in a reading of Athanasius, develops a theology of redemption that includes animals and the creation as a whole. God's incarnation in Jesus into flesh, as well as God's deification of it, should be taken to include "the whole 3.8 billion-year evolutionary history of life on our planet, with all its predation, death and extinctions, as well as its diversity, co-operation, interdependence and abundance." David Cunningham offers a rich reading of the *imago Dei*, arguing that the language of "image" may be much more expansive than first thought. He also argues that "flesh" is a more appropriate category for thinking about God's relation to creation, a category that must take seriously the flesh of non-human creatures.

Part Three takes up the thorny hermeneutical question of how animals are to be interpreted, while Part Four addresses the moral status of animals. Clearly, these two questions are closely inter-related: the way we treat animals depends on what we think they are. In essays by Aaron Gross, Rachel Muers, and Stephen Clark we learn that animals appear on multiple levels of

meaning, ranging from practical encounter and social construct to idealized (even fantasy) types that reflect changing cultural assumptions and views. When we appreciate how (and why) the meaning of “animality” changes we can then rethink the meaning of humanity and the nature of human responsibility. In essays by Peter Scott, Celia Deane-Drummond, and Neil Messer the treatment of animals is elucidated with examinations of class structure, commodification, political rights, teleology and eschatology. Considering the lives of animals deeply enables us to see not only moral obligations people may have with respect to animals, but also that the very character of moral reflection and deliberation may need to change because of what animals stand to teach us.

In Part Five essays by Michael Northcott and Christopher Southgate develop larger cultural and ecological concerns. Northcott considers the history of violence with respect to animals and the inability of environmental philosophers and scientists to appropriately understand, let alone address, this violence as a cultural force. Southgate asks whether or not global climate change, and the spectre of unprecedented species extinction, compels us to develop practical strategies for the rescue and preservation of whatever species we can. Both essays argue that scriptural texts provide resources for envisioning a healthier, diverse, and peaceable world.

The range of these essays is great, making it difficult to find something like a “thesis” for what a future creaturely theology will look like. That is entirely in order, however, because as the editors conclude, one of the main aims of this book is to open new lines of research and conversation. Considering the lives of creatures and animals together makes possible new dialogues with scientific disciplines, fresh lines of scriptural interpretation and historical understanding, and a reappraisal of what animals (and the human

animal) mean and why they matter. An added bonus is that the book provides an excellent bibliography for those who want to pursue further research on the many meanings of animality and creatureliness.

PUBLICATIONS BY MEMBERS OF THE FORUM

Connie Bertka (ed.) *Exploring the Origin, Extent and Future of Life*. Cambridge: Cambridge University Press, 2009 (includes an essay by Celia Deane-Drummond)

James Hannam, *God's Philosophers: How the Medieval World laid the foundations of modern science*. London: Icon Books 2009

John Polkinghorne, *Theology in the Context of Science* SPCK 2008

John Quenby and John Macdonald Smith (eds) *Intelligent Faith*, O Books 2009 (including a number of essays by members).

BOOKS RECEIVED FOR REVIEW

Mark Graves, *Mind, Brain and the Elusive Soul* Aldershot: Ashgate, 2008

Noreen Herzfeld, *Technology and Religion*, W Conshohocken, Pa.: Templeton Foundation Press, 2009

Tatha Wiley, *Creationism and the Conflict over Evolution* Cambridge: James Clarke & Co., 2009

The Editor welcomes offers to review these publications. Please contact him on c.c.b.southgate@ex.ac.uk.