

concepts ‘sustainability’ and ‘diversity’ and the often unexamined assumption that sustaining diversity is a good. Wiltshire notes that few would promote the preservation of those life forms inimical to human flourishing, such as some viruses.

The blurb speaks of ‘environmental engagement in the context of religious convictions’, but in the final two papers Zbigniew Liana draws on Popper to discuss diversity in beliefs within a faith and Dirk Evers considers Christian approaches to religious pluralism and scientific enquiry; neither specifically discuss the environment.

Generally, this collection presents a hugely varied, and sometimes thought-provoking set of approaches to the topic of diversity. Its value to readers will depend on their background and interests. A few of the ‘scientific’ examples and illustrations made me wince, as they betrayed a rather cursory or naive scientific understanding, and there were places where clarity seemed to have been lost in translation. However, generally the quality of writing is clear and the papers should be accessible to readers of this journal.

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### **Jacob Klapwijk**

#### ***Purpose in the living world? Creation and emergent evolution***

Cambridge University Press, 2008. 311 pp. pb. £14.99. ISBN 978-0-521-72943-7

When is an explanation not an explanation? Answer: when it is a ‘philosophical framework’. Lured by the sub-title, casual readers may begin reading this book in the hope of finding an explanation, or at least a definition, of ‘emergent evolution’. If so, they will be disappointed, though they will not find the experience unrewarding. The central

question of the book is whether or not evolution proceeds purely by chance or can be seen to give expression to purpose. How does the philosophical framework of emergent evolution provide evidence of purpose?

Modern atheism, emboldened by the success of modern science and its reductionist method, declares confidently that the universe is simply an accident out of which we humans have emerged by chance. Our world-view is now infected with the notion that since physics reduces everything to a chaotic dance of elementary particles there can be no meaning to life. It is biology, however, and in particular evolution, based on random mutations, that has been most corrosive of belief in purpose. The logical continuity of reductionist explanations seems to undermine all our ‘higher’ level concepts – leaving them ultimately as effects of merely physical causes. It is not however simply the logical force of the argument that is a problem, it is that it persuades us that any explanation that does not proceed in this way isn’t an explanation at all. We have become conditioned to accept only explanations that use reductionism in an unbroken chain to take us to something simple that we believe we understand. Herein lies the problem in following the argument of this book, for, ultimately, it cannot use this form of explanation! It is not until the reader is more than halfway through that he or she discovers that emergent evolution is not an explanation in the conventional sense but a way of seeing and thinking about other explanations that highlights their limitations. We find that Jacob Klapwijk, an emeritus professor of philosophy, has been leading us to think about our thinking. This is of course the purpose of philosophy!

The first part of the book surveys models of creation and provides a critique of creationism and intelligent design as well as the category mistakes inherent in philosophical naturalism before introducing the ideas of emergence that were

first developed towards the end of the nineteenth century. Klapwijk writes from the perspective of the Catholic tradition and bases his critiques on the prescient ideas of Augustine who first expressed the notion that time itself was created. Thus creation needs no special interventions or designed features of irreducible complexity since everything is designed! Furthermore Klapwijk separates himself from theistic evolutionists by taking the Augustinian view that evolution is the unrolling of a pre-written script. All the features apparently revealed to us by evolution are simply the effects of time uncovering the inherent creaturely aspects put there at the beginning of time itself.

This Augustinian perspective informs the second part of the book where Klapwijk considers the implications of emergent evolution in various contexts such as culture, the philosophy of mind and the interface of science and faith. He introduces emergence as a kind of 'irreducible novelty' that defies explanation in reductionist terms. Thus properties emerge at various levels in creation that are not causally connected to lower levels of being – in his philosopher's jargon, this is 'ontological stratification'. The gaps between the levels simply have to be accepted as they are. At first sight this seems a risky tactic – a kind of 'God of the very thin gaps' – since the idea of 'irreducibility' had been comprehensively demolished earlier in the book in his treatment of Intelligent Design theory. His escape from this trap has been prepared by his concept of emergence since it is not contingent upon the physical connections between levels. Thus even if physical explanations close the gaps, say, between neurons in the brain and thought processes, the concepts of logic and ideas are independent of such physical relationships. Klapwijk is wisely aware of the dangers of developing a metaphysics of emergence that could lead to unprofitable speculations. He counsels a rigorously empirical approach whereby experience is the final test.

There remains, however, a lingering doubt in my mind that since experience needs to be interpreted we have to make some kind of faith commitment to make any progress in understanding. The validation of 'emergent evolution' therefore must remain incomplete.

This book is not an easy read. I found it helpful to have a dictionary close by when reading it. Klapwijk's learning oozes from every page. His familiarity with disciplines beyond philosophy is impressive. Much of the book could be described as 'extensive ground clearing' and in so doing he sweeps a wide range of topics with his rigorous philosopher's brush. His message is that purpose cannot be detected by reductive naturalism – a change in perspective is required that is sensitive to the way the world is. Evolution has produced a complex interlocking and organic system where the emergence of mind and awareness of logical connections is itself the evidence of purposeful development. He provides no easy answers and no trite definitions of the purpose of life. The connections to the Christian's hope in the Kingdom of God are arrived at in the closing pages, but left for the individual to explore in personal experience. This is a challenging book and its satisfactions are gained by those who, like me, are not well-versed in philosophical discourse, only by careful and thoughtful reading – and re-reading.

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**Alexei V. Nesteruk**

***The Universe as Communion: Towards a Neo-Patristic Synthesis of Theology and Science***

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For the vast majority of Western Christians, to enter the world of Eastern Orthodox thought is to begin an exploration of a *terra incognita* in which the familiar landmarks of the West are either