
Book review

Lloyd Geering

From the Big Bang to God – our awe-inspiring journey of evolution

Reviewed by Hamish Campbell

This book is presented in a chronological order and structured into an introduction, three parts and twelve chapters entitled as follows:

INTRODUCTION

Where did we come from?

PART 1: THE EVOLUTION OF THE PHYSICAL UNIVERSE

Cosmogogenesis: the coming into being of the universe:

from 13,750,000,000 years ago

Geogenesis: the emergence of the earth:

from 4,500,000,000 years ago

Biogenesis: the emergence of life on earth:

from 3,000,000,000 years ago

Anthropogenesis: the coming into being of humankind:

from 570,000,000 years ago

Logogenesis: the coming into being of language:

from 2,000,000 years ago

PART 2: THE EVOLUTION OF THE HUMAN THOUGHT WORLD

Noogenesis: the coming into being of the noosphere:

from 50,000 years ago

Polytheogenesis: the emergence of the gods:

from 20,000 years ago

Monotheogenesis: the emergence of one god:

from 2,500 years ago

Homogenesis: god comes down to earth in humankind:

from 250 years ago

PART 3: THE HUMAN SITUATION

Who are we?

Where are we going?

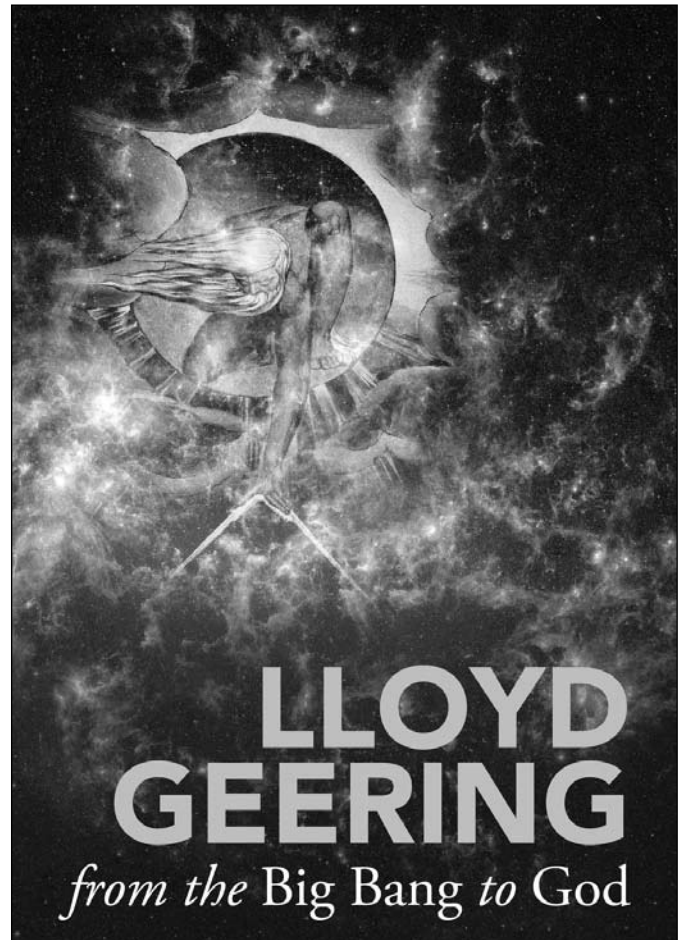
This book is very unusual and may qualify for the Guinness Book of Records. Why? Because not many of us get the chance to read a book by an author who has written, published and launched it at the age of 95.

There must be an explanation for this remarkable quality, and I think that I have worked it out – at the very least it is a reasonable working hypothesis. I put it to you that Sir Lloyd Geering has long robust telomeres (chromosomal terminations). How else can we explain the remarkable youthfulness of his physical being and equally extraordinary freshness of his mind? He appears to defy the ageing process. A simple bit of clinical cytology is in order – subject to agreement from him, of course!

I hesitate to delve so deep into the cell contents of such a venerated New Zealand luminary, but I know that he would have no qualms in doing so. To understand what I mean, I urge you to grab a copy of his latest book: 'From the Big Bang to God: our awe-inspiring journey of evolution'. There is no scale or dimension that he has not grappled with.

Every scientist should read this book. It is a distillation of total immersion in the machinations of the collective human mind and its most conspicuous products: culture, religion, and science. In the words of the author, it is a 'new Great Story', an explanation of everything.

It is of biblical proportions in terms of scope, elegant in its simplicity, and immensely powerful in terms of its explanatory power. Above all it is evidence-supported and razor-sharp in impeccable logic. It conforms perfectly to the scientific mind, and accordingly is just so compelling and satisfying. It is also fluent, concise, and very readable. You won't be able to put it down.



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In terms of reach, this book should be translated into all languages. It is claimed that the Bible has been translated (at least in part) into more than 2,500 languages and that there are at least 6,500 recognised languages.

The person who wrote this is an outstanding scholar, a very significant intellect, and has a singular clarity of mind. He also has an unparalleled knowledge of history, philosophy, etymology, psychology, religion, and science. More specifically, the author is acknowledged as having cut his teeth with a degree in mathematics at Otago University and then having become a practitioner and minister of Presbyterian Christianity. From here he took up academic studies of the Old Testament and the Hebrew language. He progressed further in his distinguished career, exploring the phenomenon of all religions, their provenance and antiquity, commonalities and points of difference, their history and relevance, as well as their longevity and future.

Not bad going for a boy who grew up on the Titri Fault, which snakes along the eastern margin of the Taieri Plains between Milton and Dunedin! This fault serves to accommodate compressional plate collision-related tectonic forces acting on that part of the Otago coast, causing uplift of the Coastal Ranges; they are literally trying to climb up over the Taieri Plains.

At this point you might wonder why a geologist should be writing this book review. Let me explain. It relates to my role as 'resident geologist' at Te Papa under the auspices of a sponsorship relationship between GNS Science (my employer) and Te Papa.

In early 2010, I had an email from Sir Lloyd saying that he was in Scotland and had lost his passport and wallet, and could I 'please send money immediately.' I thought that this was completely out of character so I rang him at his home in Wellington. He answered, and yes he had indeed been scammed. While on the phone, I took the opportunity to ask if he would consider talking again at *Science Express* at Te Papa. He had done so a few years earlier. I asked him to specifically address this question: 'What is the biological significance of religion?' He agreed to do so with some expression of delight and noted that he had not previously tackled this particular topic.

Te Papa's *Science Express* is a monthly free public 'café scientifique' forum held on the first Thursday of each month from 6:30 to 8:00 pm and is sponsored by GNS Science and the Wellington Branch of the Royal Society of New Zealand. As required by the rules governing café scientifique protocol, *Science Express* is held in a café (Espresso Café, Level 4, Te Papa) and no AV (audio-visual) aids are allowed, apart from a microphone. This means that PowerPoint presentations are off limits. The topic must have a science component and the speaker is allowed a 10 minute Introduction. Then there is a 10 minute recess followed by 60–70 minutes of interaction with the audience whereby the speaker responds to questions and comments from the floor and/or chairperson. This tried and tested format makes for a very stimulating event that can be immensely satisfying for speaker(s) and audience alike. *Science Express* is a significant forum in the context of Te Papa because it is a public communication device that enables discussion of contemporary issues and topics with authorities and experts, in contrast with permanent standing exhibitions within museums, which struggle to address the contemporary.

In due course Sir Lloyd addressed his topic at *Science Express* in October 2010. Needless to say it was a masterly performance and was extremely well-received by a large and appreciative audience. I was the chairperson that evening. However, despite the popular success of the evening I remember thinking that Sir Lloyd was slightly off-topic; he had not quite sated my interest in that original question of mine about the biological significance of religion. Within weeks, if not days, he contacted me and told me that he had been inspired to write a book on this topic. The rest is history. Now that I have read the book, I have come to appreciate the enormity of that original question and how it must have exercised his mind. I am just so glad that I had the sense to ask it.

Let me say a little about the book and some of the ideas that it embraces. Central to the thesis of the book are ideas derived from a series of notable thinkers, including Ludwig Feuerbach (1804–1872), Pierre Teilhard de Chardin (1881–1955), and Karl Popper (1902–1994). Sir Lloyd has added substantial new lustre and expression to what they were on about – that the world as we know it includes (1) the physical world, (2) the mental world, and (3) the mental product world.

Accordingly, Part 1 of the book addresses human knowledge and understanding of the physical world and Part 2 deals with the mental product world, or the 'world of human thought'. And it is in this context that Sir Lloyd explains that gods and God are constructs of the human mind, simply products of collective human thought. In a nutshell, we humans made God. It is not the other way around; God did not make us. This therefore means that the question 'Does God exist?' is a non-question.

More particularly, Sir Lloyd explains why such constructs arose, why they were necessary. In so doing, he has answered that original question: What is the biological significance of religion?

You the reader need to find out for yourself and enjoy the book in the same way that I did, but by way of a taste, here are some notable quotes and thoughts that caught my fancy as I read the book (page number indicated):

- 'The cosmos outstrips in magnitude and creative potential our traditional mental images of a creative God.' 31
- 'Earth was formed more by accident than by design...' 41
- Our species *Homo sapiens* has been in existence for just '100 Christian eras...about 200,000 years' 62
- 'the importance of the emergence of language cannot be over-emphasised' 66
- 'The most important tool developed by *Homo sapiens* is language.' 67
- 'the origin of the human language has been described as the most difficult problem in science' 69
- Logos...'reasoned thought' 88
- 'noosphere...the world of human thought...from 'nous' meaning mind or intelligence 89
- 'the gods were created by the collective human imagination' 102
- 'this inspiring account of creation (the book of Genesis) was in part a by-product of Jewish desire for self-preservation... an unintended consequence...' 117
- 'Theodicy...the morality of God' 120

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- 'God is a humanly created word meaning the oneness of all reality.' 126
 - Variation in the scale of God...theism, deism, pantheism 128
 - 'The age of God is drawing to a close.' 130
 - 'Whereas the old world said that God had made humankind, the truth is that humans have made God.' 147
 - 'The practice of religion is the chief characteristic distinguishing humans from all other animals'. 149
 - 'The basis for this embryonic religion of the future is the new Great Story..' 182
 - 'the evolutionary process is a truly awe-inspiring phenomenon.' 182

To compare chapters may seem trite because the entire book is an absolute gem, but Logogenesis and Noogenesis are especially compelling. They are so refreshing in that they explain so clearly the biological advantage that we humans have gained over all other biological entities on Earth: the evolution of language and hand in hand with it, our extraordinary mental capacity. Once you understand this in the context of life on Earth, it becomes immediately apparent that any collective human constructs of the 'human thought world' are simply unexpected artefacts of evolutionary potential.

There are just a few glimpses that reveal the brilliant nature of the mind that has produced this book. On page 97, Sir Lloyd reveals: 'I had a dream within a dream..' Try it! I failed miserably. Mind you, on page 116 Sir Lloyd asks us to do something just as difficult: 'Have you ever tried to imagine 'nothing'?'

Sir Lloyd courageously looks into the future and in so doing raises many interesting questions that will get us all talking.

For instance, we perceive ourselves as the alpha organism on Earth and Sir Lloyd accepts this unquestioningly, but are we? We think we are, but that doesn't mean that we have necessarily got it right. Communication via language may not be the ultimate form of communication after all. Perhaps there are organisms that have ways of communicating that exceed our capabilities?

My father used to exhort us children that the only purpose of life is to pass on genetic information (and therefore please get on with it). Taking this explanation as real, we might ask what organisms are doing best globally in the gene-passing-on stakes? I would suggest that it is the grasses (Poaceae or Gramineae), which embrace pasture grasses, lawn grasses and all the cereals (rice, wheat, maize, millet, oats, barley), sugar cane and bamboo. Seemingly unbeknownst to us, the grasses have quietly and cleverly harnessed humanity to destroy forests and thereby create space for ever more grasses and dramatically increase their potential to propagate and pass on ever more genetic information.

And what about bacteria? It is estimated that a person of average weight (60–80 kilogrammes) is home for 2 to 2.5 kilogrammes of bacteria (!). We are told that the human body serves as a condominium for bacteria and that the biomass of bacteria on Earth far exceeds the sum total of all complex life. In this scenario, bacteria are clearly the 'elephant in the room'.

The book ends on a strongly philosophical note, exploring who we (humanity) are and where we are going. A 'new religion' is hinted at as something necessary to replace the old ones and perhaps counter those dark forces, the fanatical fundamentalist tendencies within humanity. The point is made that something needs to replace what is lacking, and what is lacking is a strong collective sense of purpose which is exactly what fundamentalism runs on. Hence the need for a 'new religion', a new collective human spirit.

I fully endorse this book as a must-read by every sentient being, not just scientists but everyone. Sir Lloyd has explained the seemingly inexplicable: the origin and biological significance of religion.

The book was launched at St Andrew's on The Terrace (Presbyterian Church) on 29 May 2013 and I had the great honour of saying a few words on this occasion.

Sir Lloyd Geering was interviewed about the book by Kim Hill on the Radio New Zealand 'Saturday Morning with Kim Hill' show on Saturday 13 July 2013.

By way of some explanation, there are old family connections between the Geering family and the Campbell family that relate to Dunedin. Hamish Campbell grew up in Opoho (Dunedin), very near to where the Geering family lived when Sir Lloyd was a lecturer at Knox Theological Hall. He was in the same year at school as Sir Lloyd's youngest daughter, Elizabeth, and both families attended Opoho Presbyterian Church.