



**Crafting a book that will inform and
transform people's thinking as to why
belief in God is reasonable**

By

Nicholas Hawkes
BSc(hons), MAgSc, BTh, DipPS, DMin

*Thesis
Submitted to Flinders University
for the degree of*

Doctor of Philosophy by Prior Published Work

College of Humanities, Arts and Social Sciences

11th February, 2022

Table of Contents

	Page number
Thesis summary	3
Declaration	5
Acknowledgements	6
Introduction	7
Publications (with commentary)	
Hawkes, N J, “Reading the Mind of God,” pp.3-10 in <i>Trinity Occasional Papers</i> , (Trinity Theological College, Queensland, Australia) Vol.XI, No. 2, March, 1993.	10
Hawkes, N J, <i>Who Ordered the Universe?</i> (Monarch Books, Oxford, 2015).	22
Hawkes, N J, 2019, “Clues From Quantum Physics that Tell Us What Mathematics Actually Is,” in the ISCAST Online Journal, <i>Christian Perspectives on Science and Technology</i> , (June, 2019) see: http://iscast.org/node/702	203
Hawkes, N J, 2019, “The Challenge of Quantum Physics for Atheism,” in the ISCAST Online Journal, <i>Christian Perspectives on Science and Technology</i> , (June, 2019), see: http://iscast.org/node/702	214
Hawkes, N. J, “Towards a New Enlightenment,” <i>Crucible</i> , Volume 11.2, (November, 2020). Accessed as ... https://www.crucibleonline.net/wp-content/uploads/2020/11/A-New-Enlightenment-NH-3-Crucible.pdf	228
Reflections on quantum physics	239
Accompanying thesis	246
Context for the accompanying thesis	246
Excerpts from the book: <i>God and Me: Reasons for Faith</i> (being prepared for publication).	256
Conclusion	353

Thesis Summary

This PhD seeks to craft a book that is relevant to the social climate of the day, one that will inform and transform people's thinking as to why belief in God is reasonable. The original contribution to knowledge in this PhD by Prior Publication is the development of a tool for apologetics, to enable arguments and debate. This form of this PhD is summoned through three books. Each monograph commences at the concluding point of the previous research.

The first apologetic book (*The Dance Between Science and Faith*) gave the scientific case for why Christianity was scientifically reasonable. However, because the book featured a lot of science, those not interested in science found it too technical. Another book was therefore required.

The need for another book was also stimulated by a theological conviction. This was the realization that God has not just left an invitation to reach out to him in the cosmos for physicists to appreciate, but that he hangs his business card in *all* disciplines that search for truth: including physics, biology, sociology, philosophy... indeed, in every area of human experience. This resulted in researching and writing the book *Who Ordered the Universe? Evidence for God in unexpected places*. This book broadens the scope of apologetics into some exciting new areas such as mathematics, the notion of truth, and death.

The original research displayed in this book is not only evidenced in the scope of the work but also in its exploration of the vexing issue of suffering—and the place of God in it all. Its conclusions are emancipatory and give solid reasons for hope.

A paper spawned by the book on mathematics attempts to solve a paradox that has baffled mathematical philosophers for two-and-a-half-millennia concerning what mathematics actually is. It does so by appealing to recent research conducted over the last one-hundred years into quantum physics.

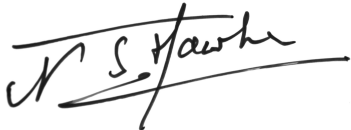
Other papers explore the relevance of quantum physics to apologetics. They note that science is now bumping up against meta-questions and that the times may be calling for a New Enlightenment in which the Aristotelian “ultimate cause” (once banished by Francis Bacon *et al.* from scientific discourse) be allowed to make a reappearance. Evidence for the existence of an overarching consciousness is explored.

The need for a third book was brought about by the harsh reality of the publisher of *Who Ordered the Universe?* moving into voluntary liquidation at the time the book should have been marketed. In the five years since it was published, debates have been refreshed and reconfigured. There has been a reconfiguring of Christian history and intricate epistemological re-evaluations of theories of truth. A desire for autonomy has redefined morality, and emotionalism has replaced rationalism. This called for a third book, *God and Me: Reasons for Faith*—excerpts from which are

included in the accompanying thesis (but it is not included as one of the prior published papers, as it has not yet been published).

Declaration

I certify that this thesis¹ does not incorporate without acknowledgment any material previously submitted for a degree or diploma in any university; and to the best of my knowledge and belief, does not contain any material previously published or written by another person except where due reference is made in the text.

A handwritten signature in black ink, appearing to read 'N. S. Hawkes', with a long horizontal flourish extending to the right.

Nicholas Hawkes (10th March, 2012)

1 See “Introduction” for caveat.

Acknowledgements

Every higher degree thesis is, to a degree, a team effort. As such, I would like to acknowledge the grace and guiding hand of my supervisors, Professor Andrew Dutney and Professor Tara Brabazon.

Friends are a blessing, doubly so when they are possessed with an intellect that challenges, teaches and encourages. As such, Dr Leonard Long (medical practitioner, philosopher, historian and theologian) rightly deserves my thanks.

Finally, I would like to thank the many young adults from The Journey Uniting Church who shared their thinking, questions and friendship with me.

Introduction

The corpus of material submitted here is part of a wider narrative that involves three books—each being a development of the last. The story of the first book began with reading Paul Davies’ book, *The Mind of God*. This led to writing a paper on his book and a brief meeting with Paul. The upshot of this was a DMin thesis that included catching up with Professor John Brooke at Oxford University, (who was at the time, acting Master of Harris Manchester College). John is an expert on Charles Darwin. Whilst at Oxford, I became a reader at the Bodleian Library. This gave rise to a DMin and my first apologetic book *The Dance Between Science and Faith*. The book gave the case for why Christianity was scientifically reasonable. However, because it was a book that featured science, those not interested in science were not greatly attracted to it. It was too technical for many.

A new book was therefore called for—one with a broader appeal.

The need for another book was also stimulated by a theological conviction. This was the conviction that God has not just left an invitation for us to reach out to him in the cosmos for physicists to appreciate, but that he hangs his business card in *all* disciplines of thought that genuinely seek truth: including physics, biology, sociology, philosophy... indeed, in all disciplines of life that humans experience. This resulted in researching and writing the book *Who Ordered the Universe? Evidence for God in unexpected places*. This is the book that forms the main plank of the submission for a PhD by prior publication.

The material contained in *Who Ordered the Universe?* contains new information from that presented in *The Dance Between Science and Faith* (particularly regarding the evidence of God in suffering, mathematics, society, truth and death). However, there necessarily needs to be some overlap in subject material as both books are apologetic. Both touch on the scientific credibility of faith. Similarly, a few paragraphs in the first book concerning the Mandelbrot Set and a theological insight into death, have been rewritten and used as a springboard to launch into a deeper understanding of both subjects.

The research done for *Who Ordered the Universe?* has spawned a number of papers. These, together with the book, will form the “clustered articles” required for a PhD by prior publication.

But that is not the end of the story. Three factors called for a third book. The first of these was the harsh reality of my publisher, Lion Hudson (Oxford, UK) going into voluntary liquidation. It came about at the very worst time for the book. All the promises made for its promotion in the UK and the USA fell by the wayside. As such, the book failed to launch in any significant way.

The second reason a third book was called for was that in the brief five years since the last book, society changed a good deal. Tolerance of Christianity in the West has declined,

(see Greg Sheridan’s book, *God is Good for You*).² Christianity is now routinely pilloried in the media and sidelined in society. The church has largely brought this on itself with its inability to speak with one voice about what it believes, and because of the dreadful cases of abuse that have occurred within its institutions. People are also losing confidence in empirical truth and are making judgments about Christianity based more on moral and emotional factors. This doesn’t mean that rational arguments are not required; rather, *more* is required than rational arguments.

The Boundaries of the Thesis

This is not a thesis that explores comparative religions. Nor is this a thesis that explores the differences in theological understanding between Christian denominations – except where it impinges on the message of the apologist concerning the question of God’s existence. The reason this thesis doesn’t engage with different theologies at depth is that it is irrelevant to the central issue of whether God exists. The conversation of this thesis is with agnostics, not with theologians who wish to parse the idiosyncrasies of their particular denomination.

Literary Review

To a very real extent, the entire corpus of material comprising this thesis is a literary review. It reviews the literature relevant to the issue being discussed as it journeys through the work. As such, it was felt that little would be gained from rewriting the material under a separate heading of “Literature Review”. It would also be almost impossible to do, as the range of academic disciplines an apologist can (and needs) to touch on is vast. These two factors suggest that a literary review is best done in the context of the issues *as* they are being discussed, by imbedding it throughout the corpus of material herein submitted.

Bibliography

The bibliography for the main ‘clustered article’ presented (*Who Ordered the Universe*) is included in full after the article. None of the other clustered articles were published with a bibliography, and so they are not shown here.

2 Greg Sheridan, *God is Good for You*, (Sydney & London: Allen & Unwin 2018), chapter 1.

Commentary, Context and Reflections

The different publications are framed by discussions that give commentary, context and reflections on the different publications. These discussions will be signaled by the heading: COMMENTARY, CONTEXT AND REFLECTIONS.

Reading the *Mind of God*

COMMENTARY, CONTEXT AND REFLECTIONS

The Beginning

Being a research biologist for ten years (both in the UK and in Australia) steeped me in the world of science. My first two degrees were in science. One of them was a Master's degree (by research) into a mystery disease that was killing turf in South Australian bowling greens. After ten years in this tidy discipline, I trained for the ministry. This put me in the position of being both a scientist and a theologian—which almost inevitably led into the world of apologetics (giving reasons why Christianity was intellectually reasonable).

As the role of apologist began to evolve, two 'role models' showed me how to go about the task. They were the late Ravi Zacharias (the Indian/American apologist),¹ and Dr John Lennox (the Oxford mathematician and apologist). Both men modelled mental acuity, humility and grace. They chose never to take offense; always turned a bad question into a good one, and whilst giving strong answers, never humiliated or demeaned. This, I might say, was in stark contrast to the 'new atheists' such as Richard Dawkins and Christopher Hitchens, both of whom routinely draw grotesque caricatures of those they contended with in order to pour scorn on them. The American-Canadian theoretical physicist and cosmologist, Lawrence Krauss, goes one step further. He admitted to using ridicule as a tool to denigrate those advocating theistic faith.

Another apologist I respect is Dr William Lane Craig. He founded the "Reasonable Faith" forums that exist around the world where people can debate issues surrounding the credibility of faith. He has a clinical style of apologetics in which he sets forth the case for the cosmological and teleological arguments for God with precision and clarity. To my mind, however, he lacks the 'common touch'. He comes across like his dancing (he enjoys ballroom dancing)—strictly formal.

William Lane Craig also seems to attract more than his fair share of antipathy both from within the church and without. The American Orthodox philosopher, David Bentley Hart, is dismissive of some of his theology; whilst Richard Dawkins refuses to debate him (with the outrageous claim that William Lane Craig is not a worthy opponent). In truth, Dawkins would not fare well against Craig's clinical reasoning. Dawkins is not a philosopher. He does well when he can interrupt, bully and ridicule. Dawkins also offered the excuse that he cannot take

1 Since this text was first drafted, it has come to light that Ravi Zacharias' engaged in significant sexual misconduct. This has come as a terrible shock to many and it has resulted in his legacy being discredited. His is a salutary lesson. Every Christian (particularly those in leadership) must live a congruent Christian life. As he was a good apologist before he became a bad Christian, his words will still be quoted in this work.

seriously anyone who believes in a God who intervenes in history—given the allegedly vile behaviour of God in the Old Testament.

Craig's theological position is actually the majority view in Christendom—certainly it is the view shared by such Christian philosophical luminaries as Alvin Plantinga and Richard Swinburne. David Bentley Hart, however, aligns himself more with Thomism (the thinking of Thomas Aquinas and his followers). He accuses Craig of being a 'theistic personalist'. By this, he means that Craig believes in a God who can be personally known.

Thomism believes in the doctrine of 'divine simplicity'. God doesn't have an essence and cannot be defined. God is simply what he is. This unquantifiable unknowingness about God (him being completely 'other' than us) means that he doesn't intervene in history (in opposition to the natural laws of nature) to do miraculous things.

Craig finds this view to be unacceptable and points out two things. The first is that if God did not continually intervene and uphold the world and the cosmos, it would cease to exist. He says that God is God of *both* primary causes (the laws of nature) *and* secondary causes (miracles). Secondly, Craig believes that to embrace Thomism is to embrace agnosticism. God *has* chosen to be known... and the Bible teaches us rather a lot about him.²

This brings us to an *agnostic* apologist for theism—a scientist who was responsible for launching me into the world of cosmology.

From 1990 to 1996, the University of Adelaide was fortunate enough to employ the celebrated cosmologist and quantum physicist, Paul Davies, as a Professor of Natural Philosophy. When I could, I travelled to Adelaide to listen to him speak. He even came to the small town of Keith once (where I was the minister) on a 'cultural tour'. On that occasion, I was lucky enough to speak with him. He was kind enough to take a copy of my review of his book *The Mind of God* and comment on it later by letter.

What follows is that review.

Davies' book, *The Mind of God*, was responsible for propelling me into the world of science and faith. It introduced me to the themes I would develop further in my calling as an apologist, *vis*: quantum physics, the issue of suffering and the place of faith in relation to science.

2 See William Lane Craig being interviewed at: <https://www.youtube.com/watch?v=xU2WLZ9mO8o> (uploaded April 11, 2016).

Reading “The Mind of God”

(a book review with theological reflections)

by

Nicholas Hawkes

Trinity Occasional Papers, March 1993 Vol XI, No 2, pp.3-10

Paul Davies’ book *The Mind of God* is one of the most significant books I have read in recent years. As such, I am not surprised that the book required a reprint within its first year of publication. Surely it is extraordinary that a book written by a mathematical physicist should prove to be so popular in Australia. Why is this so? Let me suggest two reasons.

The first is that the book scratches where people itch. It is a book about science, evidence for God, and the ultimate meaning behind life.

The fact that Australians have flocked to buy the book indicates that although many Australians seem to be pleasure-seeking individualists, there is nonetheless within us an underlying hunger and thirst for meaning. Whilst many are suspicious of conventional religion (and have not heard the church articulate well the meaning to life’s fundamental questions) they have found in Paul Davies a scientist of international repute, prepared to comment on the meaning of the universe from the ‘believable’ perspective of mathematics—it being “the guarantor of precision and objectivity” (p.92).

The second reason for its popularity is that Davies is a good communicator. The book is well written and easy to read. He has the open style of an honest inquirer. Davies makes good use of pithy quotes and has organized his material well. Technical details are kept to a minimum. The downside of this is that one is occasionally left wanting to know more. I wanted to know, for example, what the anthropic principle actually was (which I have since found out).

I also wanted him to say more in his thumbnail sketch of religious philosophy through history. His brevity left the implication, for example, that Christian theology was invented by the likes of Augustine and Aquinas to cope with current philosophical ideas. Whilst they may well have articulated ideas in response to the questions of their time, their theology was not produced like a rabbit out of a hat. It was essentially grounded in the unchanging biblical witness.

Davies explores the latest mathematical and scientific understanding of the universe, (the tension between randomness and order, chance and design) and examines them for insights as to whether there is meaning and purpose in our universe. Davies does not espouse

any new philosophical theory. The old chestnuts remain basically the same. He does, however, place them within the framework of the latest scientific discoveries.

Davies does not hold to any ‘religion’ in the conventional sense. His god may simply be described as the fundamental ‘organising principle’. Sometimes you wonder whether he reduces God to a fundamental ‘scientific law’. It becomes apparent in his book that the god Davies concludes might exist is one who is able to choose to create—presumably for some purpose. This enables him to posit the conviction later in the book (p.172) that this god would be rational, omnipotent, perfect and omniscient—all of which are qualities of the God espoused by Christianity.

Davies admits freely that he would rather not believe in supernatural events, yet he is aware of the limitations of science in explaining the reason for the universe.

It is still not clear that science could in principle explain everything in the physical universe. There remains that old problem about the end of the explanatory chain ... “ultimate” questions will always lie beyond the scope of empirical science (p.15)

As Davies takes us on a whirlwind tour of the latest theories of cosmology and mathematics, it becomes evident that science has not made ‘wonder’ and ‘mystery’ obsolete. Indeed, not only does science compel us to wonder, it also compels us to take seriously the existence of God.

In *The Mind of God*, science seems to wax between two extremes. At one point, science (the ultimate equation) is almost seen as God and is accorded many of the attributes of a deity (p.92). When Davies does this, he is referring to the ordering principles of laws of the universe. However, Davies’ book is also a plea for scientific humility in which he seeks to put science in its place by acknowledging that there will, “always be some mystery at the end of the universe” (p.15).

Davies therefore challenges the existentialist philosophy that has become the *leitmotif* of science, *vis*, that “there is no significance in human life beyond that which humans themselves invent” (pp.20-21) by giving evidence that there are good scientific reasons to believe that the universe is purposed. We are therefore not compelled to embrace the mournful philosophy of the French biologist Jacques Monod who said:

The ancient covenant is in pieces: man at last knows that he is alone in the unfeeling immensity of the universe, out of which he has emerged only by chance. Neither his destiny nor his duty has been written down.!

Davies notes that buried within mathematics is a capacity to generate principles that are as complex as genuine biological organisms. Mathematicians experimenting with computer mathematics have discovered a complexity and a beauty that is indicative of self-organising organic life. The fact that these mathematicians have received from mathematics more than they have sought from it leads Davies to wonder whether mathematics is more than a tool

humankind has invented to make sense of existence; that in some way, mathematics has an independent existence.

Christian thinking allows for the independent and eternal existence of mathematics but would insist that it does so within the person of a rational God.

Davies sounds the death knell to the idea that everything in the universe is determined and can be understood simply by understanding the mechanics of things.² He speaks of recent key experiments in quantum physics that have confirmed that uncertainty is “inherent in quantum systems” (pp.30-31) and that “physical objects are spontaneously appearing all the time—without well-defined causes—in the quantum micro-world” (p.62). This therefore puts paid to the idea of the universe being a “deterministic machine” (p.182). He also suggests that this uncertainty makes creativity possible and allows for the emergence of new things. This uncertainty, however, seems to be contained within a creative system that makes for an ordered universe. This is consistent with Christian thinking that declares the “creative system” to be God.

Paul Davies makes the bold claim that physics can now offer a plausible theory as to *how* the universe came about. This might alarm Christians, as he seems to challenge the cosmological argument for the existence of God. (This argument states that there must inevitably be an impasse in our explanation of the universe, beyond which science cannot penetrate, and which only the existence of a god can explain.) However, Davies has pushed the cosmological argument for God beyond understanding *how* the universe came about, to understanding *why* it came about.

Davies reviews the philosophical and scientific theories on whether the universe actually had a beginning. He concludes by dwelling on the theory put forward by Hartle and Hawking, which he finds particularly significant because it is the first serious attempt to explain the origin of the universe solely within the framework of physics.

It is an intriguing theory and one with which I have difficulty, largely because it takes too many ‘givens’ for granted, such as points of infinite compression known to mathematicians as a “singularity”. I have learned to become nervous of the word “infinity” as it too easily seems to become the ‘infinite escape clause’ that allows any theory. Where does a “singularity” come from? Where do quantum fluctuations come from, and upon what would they act (p.61)? Has Davies simply pushed the cosmological argument for ‘how’ back a notch?

Hartle and Hawking affirm that time began as matter was born. (This is compatible with St Augustine’s idea that God stands outside of time, and that time began when God created.) However, the theory also presents the intriguing mathematical possibility of there not actually being a starting point for the universe. This, I confess, left me wondering whether Hartle and Hawking have simply indulged in geometric “sleight of hand” to obscure the beginning of time by postulating a spherical origin, (which, being spherical, has no beginning point). However, Davies says, “The fact that the universe might have no origin in time does not explain its existence, or why it has the form it does” (p.56).

What is not in dispute is that the universe will end. Time, (at least as far as this universe is concerned) is linear.

Today, we recognize that no star could keep burning forever, anyway. It would run out of fuel. This serves to illustrate a very general principle: an eternal universe is incompatible with the continuing existence of irreversible physical processes (p.46)

He goes on to say: “In some respects, it is rather like a clock slowly running down” (p.47).

This means that even if the beginning is obscure, science at least compels us to face an ‘end’ which we need to make sense of—particularly in the light of the order and design that seems to exist in the universe.

What, then, are the main things that lead Paul Davies to conclude that humankind is purposed?

Firstly, he notes that the parameters that bring about life as we know it, are very difficult to bring about.

There are endless ways in which the universe might have been totally chaotic ... There seems to be no logical obstacle to the idea of such an unruly universe. But the real universe is not like this. It is highly ordered. There exist well-defined laws of physics and definite cause-effect relationships ... the various forces of nature are not just a haphazard conjunction of disparate influences. They dovetail together in a mutually supportive way (pp.195-196).

He agrees with the English physicist, Fred Hoyle, who suggests that it would require so many “monstrous series of accidents” that people could not help but conclude it was a “put-up job”. But as Davies says, “There is no natural way to quantify the intrinsic improbability of these known ‘coincidences’”. (p.204)

Davies suggests that given this apparent ‘design’, the laws of nature become a profound mystery. “Where do they come from? Who sent the message? Who devised the code” (p.81). He also reminds us that the laws of physics could not have come into being with the universe, as the laws of physics that would allow the universe to come into being would not exist until the universe existed (p.92) because “a contingent physical universe cannot contain within itself an explanation for itself” (p.171). Davies therefore believes that it makes perfect sense to seek an explanation outside the physical world. He sees theistic faith as being scientifically reasonable and no more absurd than “belief that the universe exists, and exists in the form it does, reasonlessly” (p.231).

He goes on to say that if God is responsible for the laws of physics, then God has chosen those laws that have given rise to our world, presumably from alternatives that might have been possible. This divine “choice” is highly significant in Christian thinking. The fact that God *chose* to create in the way he has means that we are purposed.

Davies suggests that humankind is purposed and, if not special, is at least unique in its ability to be divine code breakers (or solvers of the divine “crossword puzzle”). It is almost as if the universe is in dialogue with us—as if we were meant to understand it.

The fact that science works, and works so well, points to something profoundly significant about the organization of the cosmos (p.21).

What is remarkable is ... that the human mind has the necessary intellectual equipment for us to “unlock the secrets of nature.” (p.148)

Davies believes that our minds reflect somewhat the qualities of the mind of God. In other words, that there is a similarity between us and God. This understanding is, of course, a key aspect of Christian teaching: “Then God said, ‘Let us make humankind in our image...’” (Genesis 1:26).

Davies concludes that our existence is not a “mere quirk of fate, an accident of history, an incidental blip in the great cosmic drama, but that we are truly meant to be here” (p.232).

A theological reflection on the mystery of God

Paul Davies is a mathematical physicist. This is the colour of the spectacles through which he sees life, and this is reflected in his writing. However, whilst there may be some cause to believe that the mind of God is best understood by mathematicians, we need to remember that they are not the only ones contributing to understanding. Perhaps it is time for knowledge to be emancipated from the exclusive clutches of science.

The British philosopher, Mary Midgley, makes the point that knowledge (as an aspect of wisdom) has contracted in the last two centuries to be concerned simply with empirical data about the physical world. She points out that both Plato and Aristotle had a reverence for thought and science, but understood that knowledge “was not separate from love”.³ Midgley therefore suggests that the intellect should not be exalted such that it no longer knows how to relate to the rest of human experience.⁴

Davies also acknowledges the insufficiencies of science, and suggests in his final chapter that mysticism (in its broadest sense) could help us understand more. But in doing this, I can’t help but wonder whether Davies has simply substituted the discredited “god of the gaps” (a god who is invented simply to explain those things science can’t yet explain), for ‘mysticism of the gaps’.

Perhaps the most glaring omission in helping us understand the meaning of the universe stems from Davies’ nervousness at discussing things relational. Davies’ god can look a little like a distant poser of cosmic crossword puzzles; a distant being who is watching us white mice run about in a maze. This is a long way from the Christian belief that God came to us in Jesus—who was born as one of us, and suffered as one of us.

Christians believe that the ‘meaning of life, the universe and everything’ is bound up in relationships, specifically, a *love* relationship with God and with each other. It is this that

touches the heart of all things. (An indication that this is true can be seen when such relationships are denied. The resultant damage, psychologically and socially, is extreme.)

The challenge of *The Mind of God* to the Christian church is for theologians to justify belief in a personal God in the light of there being no ‘knockout’ proof of such a God’s existence. In pondering how I might respond, I was reminded of a story about a group of people who travel a vast distance to visit a famous religious leader. They take with them a servant. At the end of their quest, they discover that servant who has travelled with them is the very leader they travel so far to find. He was with them all along, but they didn’t realize it. In a similar way, I suspect that the truth about the meaning of the universe is closer to Paul Davies, and to each of us, than we know.

We need to ask, nonetheless, why is it all so mysterious? If God is seeking a personal relationship with us, he (or she) seems to make things very confusing and not at all obvious. On top of this, we have the perennial problem that if God is a good, all-powerful God and personally interested in us, why is there so much pain and suffering? Some ask, quite reasonably, how we can have a genuine two-way relationship with a Creator if he is absolutely passive and uninvolved in our lives. If the fundamental purpose of creation is a relationship, then the relationship is a pretty poor one. True relationships occur only when two agents freely choose to communicate their love, share their resources, and respond to each other.

However, I believe that God *does* act, particularly in the lives of those who have accepted God’s invitation to a loving relationship with him. I believe God *does* contribute actively to a relationship with his people. It’s just that God acts in a way that does not compel faith. He hides his action so that they can only be comprehended ‘by faith’.

God has not, however, left himself without witness. One ‘witness’ is the order and complexity of the universe—so well described by Paul Davies. In the final analysis, Davies has discovered no more than the ancient psalmist who wrote:

*The heavens declare the glory of God;
the skies proclaim the work of his hands.
Day after day they pour forth speech;
night after night they reveal knowledge.
They have no speech, they use no words;
no sound is heard from them.
Yet their voice goes out into all the earth,
their words to the ends of the world. (Psalm 19:1-4)*

Contemplation of the cosmos certainly can prompt the question of God’s existence, but it doesn’t necessarily provide the full answer. The apostle Paul was bold enough to think that it did, however. He said:

...since the creation of the world, God's invisible qualities—his eternal power and divine nature—have been clearly seen, being understood from what has been made, so that humankind is without excuse (Romans 1:20).

What is it then that gives definition to this mysterious God?

Christians would answer by saying “not what, but who... and that ‘who’ is Jesus”. Even so, God (through Jesus) has still chosen to be known only through the humbling door of faith (Hebrews 11:6). He has not chosen to be known through scientific or intellectual study alone, for such would favour the academic. Faith is, therefore, the great ‘leveller’ that places all of us on the same footing. This is why Jesus taught that unless we have the humble faith of a child, we would not enter the Kingdom of God (Matthew 11:25; 18:4; Mark 10:15). God never compromises this need for faith. Put simply: We need to have faith... to know the object of faith.

It can be argued that this faith formula is one that would also enable you to believe in fairies at the bottom of your garden. The essential difference, however, is that following the “leap of faith”, God proves true, and fairies do not.

It has been the experience of Christians over many centuries that nothing so satisfies the depths of their being as a loving relationship with God. They give testimony that God *does* involve himself in the affairs of those who have responded to God's offer of friendship, but that God always does so in a way that retains the need for faith. This means that no miracle is so compelling that it can be believed without faith.

Many Third World Christians are teaching us that lack of faith in our Western churches is a reason why God has not been involved in our lives as much as he offers to be involved. I believe this to be true. However, even amongst the most faithful Christians, not all people are healed. Christians still die in earthquakes and car accidents. Things are not perfect for them. As we have said; they can't be perfect if people are going to embrace Christianity simply to stop bad things happening to them, for that would make for an inauthentic relationship—one that was not freely chosen.

The necessity for God to be hidden behind a ‘veil of faith’ indicates that the nature of our current relationship with God is incomplete. We need to remember that it is not only incomplete for us but also for God. He too wants a complete relationship with us and, like us, suffers in its absence. We see something of the pain this costs God when we see Jesus on the cross. However, Christians believe that this ‘incompleteness’ points to a future that will be wholly complete. They believe that this life is an imperfect prelude, consisting of both joy and pain, in which the reality of God can only be known by faith. After this prelude, those who have chosen to accept God's love and lordship will share in the ‘new order’ with God, when

he reveals all things and makes all things new (Revelation 21:1-4). The apostle Paul describes this, saying: “For now we see into a mirror dimly, but then face to face. Now I know in part; then I shall understand fully” (1 Corinthians 13:12).

Christians therefore look forward to a future ‘complete’ relationship with God—which will be the final triumph of God’s purposive action.

---oOo---

End notes

1. Jacques Monod, *Chance and Necessity*, (tr.) A. Wainhouse (London: Collins, 1972), 167.
2. Determined: as in the slavish unwinding of a machine. It does not, however, mean that the universe could not be purposed.
3. Mary Midgley, "Science Versus Religion", pp.40-57 in *The Gospel and Contemporary Culture* (ed.) H. Montefiore, (Mowbray, 1992), 42.
4. *Ibid*, 40-41.

COMMENTARY, CONTEXT AND REFLECTIONS

What is original work that makes a contribution to knowledge?

A doctorate in its many modes is defined by an original contribution to knowledge. Therefore, the task in this contextual statement is to verify the aspects of the gathered research that verifies a contribution to knowledge. This paper presents a challenge to scientists who, sometimes for ideological reasons, find the concept of there being a beginning to the universe unpalatable. One such person is the American physicist, Lawrence Krauss, of whom more will be said later. Davies has reported on Hartle and Hawking's idea of the universe not having a beginning because the beginning could actually be a curve rather than a single point and, because it is a curve, it has no beginning. The question posed in this paper was whether this was legitimate, or was it geometric 'sleight of hand'? In other words, have Hartle and Hawking committed what is known in the philosophical world as a "category error" in proposing their idea of the universe not actually having a beginning?

It is a question that remains to be answered and is worth exploring further.

One of the tasks in this doctorate is to reveal and revel in the complexity and the ambiguity of the science/faith debate and track arguments and assumptions, rather than give platitudes and definitive answers.

Who Ordered the Universe?

COMMENTARY CONTEXT AND REFLECTION

Language

Technical PhDs have been written about the nature of apologetics and the subjects embraced by it, but I know of no PhDs that have sought to craft a tool (a book) that will inform and transform people's thinking as to why belief in God is reasonable. This is not surprising. The language used in academia is vastly different from that used by an apologist who is engaged in market-place evangelism.

An apologist lives in two worlds. He or she needs to inhabit the technical world of science, history, philosophy and theology... and then reflect that learning in a winsome, non-intimidating way—in the manner of a friend talking to friend. In a very real sense, an apologist acts like a transformer. They need to fully adsorb 240 volts of technical research and learning... and then meter it out to people in the form of a useful 12 volts. In this sense, apologists are like missionaries. They need to appreciate the culture they are taking their information into and make a connection—marrying the two together.

The craft of apologist is therefore as much an art as it is science. It is both technical and relational. The relevance of this for the material being presented here is seen in the language used. Because the aim of the thesis is to craft a book that will inform and transform people's thinking, the language of the book is easy-going, personal and winsome. This does not mean that it is academically lightweight. The work will hopefully show evidence of the full 240 volts of academic rigor—and do so across many disciplines. Sometimes, as seen in the papers discussing quantum physics, the particular stance of the theologian (in this case, the apologist) can even add to science and contribute original thinking—as I hope will become evident.

I therefore invite you to appreciate the full 240 volts of academic rigor, and also appreciate how it is conveyed—in warm, usable 12 volts of relational communication.

Drawing conclusions

There are a number of reasons why apologetics has been the orphan child of theology. Not only does its language have to be accessible to the ordinary person rather than the academic, but its tone needs to give confidence rather than ambiguity. However, it has to be a justifiable confidence. Apologetics is therefore the language of summary and conclusion. Apologists don't have the luxury of listing all the nuances of every facet of every subject of every discipline. Theirs is the skill of giving a fair summary in a language that is accessible – the language of the marketplace. Their ability to do this is the measure of their skill, and it is by that skill that an apologist stands or falls.

The craft of being an apologist is, as I've said, as much of an art as a science. This means that apologetics can activate frustration from the pure theologian, mathematician, physicist and philosopher – all of who want a thesis that focuses on the exactitudes of their particular discipline. As such, apologetics has rather too often become the orphan subject of academia, a subject reserved for religious zealots rather than academics.

This has had a detrimental result on theological education. The church requires scholars and citizens skilled at promoting and defending the gospel, but it too often gives the job of educating the next generation of its leaders to those with higher degrees in esoteric specialist subject areas that have little relevance to practical ministry.

Just as worryingly, the empty seat of the apologist at the academic table represents a loss of academic inquiry, and this is why. Apologetics sits untidily across all disciplines. It can therefore, by its naivety (and by virtue of its wider perspective) ask questions and make connections that those who are embedded in a singular discipline often cannot do. This means that their place at the academic table can result in significant academic fruitfulness – as I hope this thesis will show.

Who Ordered the Universe?

Evidence for God in Unexpected Places

Nick Hawkes

MONARCH
BOOKS

Oxford UK, and Grand Rapids, USA

Text for the Back Cover

“Engaging, passionate, knowledgeable and gracious.”

PROFESSOR DAVID WILKINGSON

If God made the universe, we should expect to see his fingerprints. Dr Nick Hawkes ranges widely across science and society, history and mathematics to seek out evidence for God.

Nick examines the cosmos and the arguments for a Creator behind creation. He looks at biology, and draws out lessons concerning suffering. He reviews the phenomenon of mathematics, and what it tells us about the nature of existence. He considers the history of society, teasing out which models of living work best, and why, and takes a hard look at ideas about the afterlife.

“Anyone who thinks faith is unreasonable should definitely read this book. The author covers an impressively wide range of evidence in making the case for Christian faith.”

—Dr Denis Alexander, (Emeritus Director, Faraday Institute for Science and Religion, Cambridge University)

“The obedience and respect for truth learnt by Nick in his training as a scientist have enabled him to deal effectively and robustly with issues surrounding the evidence for and against God.”

—Professor R.J. Berry

Copyright

Text copyright © 2015 Nick Hawkes

Unless otherwise cited, Scripture quotations are taken from the Holy Bible,
New International Version®. Copyright © 1973, 1978, 1984, 2011 by Biblica, Inc.
All rights reserved worldwide. Used by permission.

ISBN 978 0 85721 598 7
e-ISBN 978 0 85721 599 4

First edition: 2015

Contents	Page number
Foreword by Professor David Wilkinson	25
Introduction	27
Chapter 1) The Evidence of God in the Cosmos	30
Chapter 2) The Evidence of God in Nature	50
Chapter 3) The Evidence of God in Suffering	68
Chapter 4) The Evidence of God in Mathematics	88
Chapter 5) The Evidence of God in Society	110
Chapter 6) The Evidence of God in Truth	129
Chapter 7) The Evidence of God in Death	158
Endnotes	181
Bibliography	191

Foreword

by

Revd Professor David Wilkinson

BSc, PhD, MA, PhD, FRAS

Professor David Wilkinson is an astrophysicist and theologian. He is the current Principal of St John's College and a Professor in the Department of Theology and Religion at Durham University.

I have always been fascinated by evidence. My first school science project in the seventies was trying to test the then fashionable claims of extrasensory perception—from bending spoons to predicting symbols on cards. The results were inevitably less exciting than the claims! Then, at a slightly more advanced level, the evidence for the bending of light by gravity... and the energy distribution of electrons ejected from a surface bathed in radiation. This introduced me to the strange worlds of relativity and quantum theory. Here evidence led to the exciting realization that the world of everyday common sense was very different to how the universe actually is. In my work as an astrophysicist, models of galaxy evolution depended on the evidence of gamma rays, radio waves and infra-red radiation. Indeed, the model of the Big Bang itself was both supported and challenged by evidence collected over decades in the 20th century.

Yet the gathering of evidence does not easily result in scientific answers. Galileo did not point his telescope at the moons of Jupiter and immediately receive a computer printout saying “the earth is not at the centre of the universe”. Every research scientist knows that evidence has to be critically assessed. Models that interpret the evidence have to be imagined, constructed and tested. The weight of evidence for a proposed model then has to be judged. It takes both courage and faith to send your work off to be probed and questioned by the rest of the scientific community.

Such a process is not a million miles away from my experience of becoming a Christian. I was intrigued by the awe I experienced at discovering the order of the universe. The other thing that intrigued me was the ‘something else’ that Christian people seemed to have in their lives—something they attributed to the life, death and resurrection of Jesus of

Nazareth. I needed to explore the evidence behind this... and risk uncovering something I might have to act upon. But what is the best way to interpret this evidence... and does its weight point to the Christian picture of a God who desires to not simply be an intellectual explanation but to be in personal loving relationship with men and women? And finally; what does this mean for how I live my life today?

From the age of seventeen onwards, I have been shaped, challenged and sustained by this evidence as I have attempted to follow Jesus. Faith for me is trust on the basis of evidence... which leads to action. The truth of Christianity cannot be proved for at its heart is a personal God, not a mathematical equation. However, this does not mean that faith is irrational or so personal that it cannot be examined with reason, in the context of a conversation.

Nick Hawkes invites us into such a conversation. This book is not about proving God but is an invitation to consider a wide range of evidence that gives clues to the meaning, purpose and value, both of the universe and human life. It does so in a way that allows the best conversations to develop. Here is a conversation partner who is engaging, passionate, knowledgeable and yet gracious in respecting the other. From his extensive experience of science, theology and life, he invites us to examine the evidence. He does not impose simplistic answers, nor does he dodge the difficult questions.

He represents superbly the God who has revealed evidence of his love and power... but wants to be in an enriching and intimate conversation with all men and women. It is a conversation that is both life enhancing and life changing.

Introduction

What you believe is important. It is not incidental. Your beliefs define you and form your identity. They may even be something for which you are prepared to die. Your beliefs are a sacred thing... so, let me make you this promise: I shall tread gently in the places where you let me wander.

With this assurance, let me invite you to explore with me whether belief in God is reasonable. Has God left clues about his existence in the universe?

As we begin this journey, I am driven by a conviction that I find both disturbing and intimidating. It is this: Only the truth is worthy of you—so I must be careful.

Taking care with the truth means we can't just accept everything as being right. It is not the case that we can believe whatever we like, provided we are nice to people. That is simply giving up the search for truth. Being good to others is a belief that can only have meaning if we know what authentic good is. Otherwise, being good is not really good. It is just the most convenient and efficient way for most of us to get along. Fundamentally, it is an expression of the self-interest of the majority.

It is tempting in these days of political correctness to be deeply suspicious of any religion or philosophy that claims to have a handle on truth. Today's mantra is "everything must be tolerated."

To say this, however, is to capitulate to evil. It gives the worst abuses of religion the power to prevent you from searching for spiritual meaning, and it allows those abuses to be tolerated. Some religions and philosophies should not be tolerated. Honour killings (a dreadfully inappropriate name), the execution of those who convert to another faith, suicide bombers... these things should be named for what they are: evil.

The problem is, as soon as we do that, we are thrust into a dangerous world. For who decides what good is? It is sobering to think that the greatest sins committed by humankind—the starving to death of thirty million people in China during the Cultural Revolution and the murder of six million Jews by the Nazis—were legal according to the laws of the land in which each of these atrocities occurred.

Tolerance is a warm and cuddly word. But we shouldn't allow it to be a blanket under which we hide to avoid truth.

All good people want to be tolerant. Of course, we should be civil towards others who think differently to us, but this shouldn't mean we dispense with the idea of truth. We must be

allowed to search, explore and disagree. The important thing is not to be disagreeable in the process.

To tolerate everything is to believe that there are no universal truths, just personal convictions that may change according to the circumstances. Holding such a low view of truth is a very bleak position to adopt philosophically. It must inevitably result in pragmatic self-interest that competes against the interests of others.

This book invites you to take an exciting journey, to unfreeze old patterns of thinking, to consider the real significance of who you are, and to explore what your meaning is. Amidst the competing claims of a thousand different philosophies and religions, it dares to introduce you to the possibility of God—and for good reason.

Character and courage

Let me read to you a small excerpt from Lewis Carroll's *Alice in Wonderland*. Are you sitting comfortably? Then I shall begin:

“Cheshire Puss,” she began, rather timidly, “would you tell me, please, which way I ought to go from here?”

“That depends a good deal on where you want to get to,” said the cat.

“I don't much care where,” said Alice.

“Then it doesn't matter which way you go,” said the cat.

This little exchange prompts the question, Where do you want to go in life? I'm not talking about achieving goals such as paying off the mortgage or buying a new car. I'm asking what you want your life to count for.

If you believe life has meaning, then it is terribly important for you to discover what that meaning is and live in a way that reflects it. If you don't do this, your life risks becoming shallow and self-obsessed.

A book by C. S. Lewis contains a chapter entitled *Men Without Chests*. It is based on Plato's notion that the chest is the location of a person's spirit, heart and character.¹ When contemporary culture gets locked into the idea of “doing your own thing” and denies any universal truth or value, it develops a mind that is adrift, not controlled by anything other than unbridled desires. The Bible speaks about people who think like this, saying, “Their destiny is destruction, their god is their stomach, and their glory is in their shame. Their mind is on earthly things” (Philippians 3:19). Such people have no character, no chest.

There is another reason why it's important to find your true identity and meaning: quite simply, no one who lacks this knowledge is getting on very well. The famous psychologist

and philosopher, Carl Jung, once wrote:

*About a third of my cases are suffering from no clinically definable neurosis, but from the senselessness and emptiness of their lives. This can be described as the general neurosis of our time.*²

He was saying that there are an awful lot of people for whom life seems utterly meaningless. They lack purpose.

But to find your purpose, you need to work at finding out what is true.

Explore the possibility

The American journalist and satirist, Henry Louis Mencken (1888–1956), wrote:

*God is the immemorial refuge of the incompetent, the helpless, the miserable. They find not only sanctuary in his arms, but also a kind of superiority, soothing to their macerated egos; he will set them above their betters.*³

Mencken is calling me incompetent, helpless and miserable because I'm a Christian. Fortunately, I know enough wonderful and brilliant Christian people to convince me that he is quite wrong.

There is good evidence that Christianity is more than a crutch for ineffectual people with an anxiety complex. Christian faith is historically, morally and scientifically reasonable—and is held to be true by millions of people across many nations and centuries. While that doesn't prove anything, it should at least suggest that we ought not to dismiss Christianity carelessly.

The fact that anything bothers to exist at all demands more from us than a shrug of the shoulders. To believe the universe came from nothing, and that its incredible mathematical order is meaningless, takes very great faith. It is not a faith I share. Neither is it one shared by thousands of the world's most eminent scientists.

So, while our physical existence doesn't prove God's existence, it does challenge us to think about the possibility of God.

The subtlety of God

If Christianity is right, then God is not one to prove his existence with overwhelming displays of might. God is subtle. He invites rather than coerces. Throughout this book, you will hear this refrain repeated time and again in different contexts. God whispers his invitation in the cosmos and in nature. His voice is insistent. It is always gentle, yet it can be heard by anyone.

As such, you will not find a “knockout” proof of God in any of these chapters. There is simply a whisper of God that is intellectually reasonable.

If God exists, then all truth (both scientific and theological) comes from the essence of who he is. This means, logically, that it is perfectly reasonable for science to point to the possibility of God. Certainly, science cannot get in the way of anyone coming to God.

The genius of God, however, is that he cannot be known through intellectual study alone, for that would mean Christianity is reserved for academic elites. The only way to know God is through the humbling door of faith. Faith is the great leveller. The professor, the peasant, the child with Down’s syndrome, the Olympic star and the Prime Minister all need faith. This is why Jesus taught that unless we have faith as humble and trusting as that of a little child, we will not enter the kingdom of God (Mark 10:15). God never compromises on the need for faith.

This doesn’t mean there is no place for reason. Science and reason can (and should) point to the possibility of God—as I hope this book will show. Both can lead you to the doorway to God, but neither can force you through it. To go in, you will need to take a step of faith—faith that is informed by reason.

If you look at the door between yourself and God, you will see that it is very low. You must bend low with humility to go through. If you take another look at the door, you will notice that Jesus has unlocked it and is there ready to meet you. He stands waiting to take you on from where science has left you. But only you can decide whether or not to walk through.

Dare to think big

This book invites you to be thoroughly discontent with shallow thinking. It is an invitation to think about the big questions of life, to discover who you are and why you exist. These are vital issues. So, may I encourage you to think big? Dare to read God’s signature on the invitations he’s sent you. Learn to be amazed at the things around you. Let yourself say “Wow!” frequently.

More than a “nasty smell”

If there is no God to give meaning and worth, then we are simply an organic accident that has drifted aimlessly to the top of an evolutionary tree to flourish briefly before dying and leaving a rather nasty smell.

My hope is that when you die, you will leave more than a “nasty smell.”

Enjoy the adventure of this book.

CHAPTER 1

The Evidence of God in the Cosmos

The universe is amazing—I mean, really, really amazing. It blows your mind.

And I have a sneaking suspicion that it is meant to. Certainly, the modernist dictum that “a scientific breakthrough a day will keep the need for God away” has started to look a little dog-eared in recent decades. The more scientists understand the universe, the more mysterious and spectacular it becomes.

This fact is not always appreciated.

I once listened to a symphony orchestra play Rachmaninoff Symphony, No 2. Now, Rach was a bloke who knew how to use an orchestra. Big, rich tones poured out like a well-aged Shiraz. This was no sweet, demure work content to be played in the background. It demanded your attention and mugged your emotions. From my vantage point in the balcony, I glanced down on the people below... and was staggered to see someone engrossed in their smart-phone.

It seems that no matter what amazing spectacle you place in front of people, some will choose not to see it.

So, let’s agree to give ourselves permission to wonder and be amazed, to recover the childlike delight of saying “Wow!”—because I think we are meant to. I think God hangs his business card in the cosmos and invites us to see it. A three-thousand-year-old songwriter certainly seemed to think so. The psalmist writes in the Old Testament:

The heavens declare the glory of God; the skies proclaim the work of his hands. Day after day they pour forth speech; night after night they reveal knowledge. They have no speech, they use no words; no sound is heard from them. Yet their voice goes out into all the earth, their words to the ends of the world. (Psalm 19:1-4)

I believe it is reasonable to suggest that the outrageous bigness and splendour of the cosmos is an invitation for us to consider the possibility of a Creator and perhaps learn a few things about him. Doing so should ensure that any conclusions we draw about God are in harmony with the best understandings we have of science.

It’s worth noting, in passing, that the Apostle Paul believed it was reasonable to expect people to ponder the significance of creation and to let this introduce them to the possibility of God. In fact, they were culpable if they did not:

For since the creation of the world God’s invisible qualities—his eternal

power and divine nature—have been clearly seen, being understood from what has been made, so that people are without excuse. (Romans 1:20)

Now, that's a bold statement!

Aren't scientific truths and theological truths irreconcilable?

No.

Perhaps I should explain. If God exists, then all truth has its origin in God—including scientific truth and theological truth. Because the two truths both derive from the essence of who God is, the two disciplines cannot fight each other. They might answer different questions, but they must ultimately be compatible. Indeed, it would be reasonable to expect each discipline to give a deeper perspective of the other. Theology goes deeper than the “how” and “when” of science, and asks why things are as they are. It seeks to do more than say, “Things exist simply because they do.” Theology, therefore, puts science in a bigger context. This brings to mind Einstein's famous aphorism, “*Science without religion is lame; religion without science is blind.*”¹

It's worth pausing here to talk a little about Einstein. If you Google “Einstein and Christianity” you will discover an unseemly squabble between Christians wanting to claim Einstein was a Christian, and atheists who want to insist he was an atheist. Each wants Einstein, and his genius, to be on their side to lend them credibility.

The truth is actually much more interesting—and, I submit, significant.

Einstein was a brilliant scientist. He was not, however, a brilliant theologian. It is perhaps unfair for people to expect him to be one—theology was not his area of study. What is highly significant is that science took Einstein as far as it could towards God. Einstein's scientific study convinced him of the existence of God. He, like Spinoza, believed the universe and the physical laws of nature to be expressions of God. As such, science gave good reason to believe in a higher being. However, that was as far as he was able to go. Although he was firmly convinced of the historical reality of Jesus Christ, he was not a Christian. He didn't believe in a personal God who had a plan for humankind. Rather, Einstein believed that humanity existed solely because of the cause and effect of physical laws—a view that has more in common with Deism.

The fact that Einstein had this understanding is perhaps, not surprising. Einstein's parents were atheistic Jews, so he didn't have a Christian heritage. He'd also experienced some overbearing behaviour from church institutions and this did nothing to endear him to conventional Christianity. Consequently, Einstein contented himself with being a theist.

Why? —because that’s where science took him. For him to know a personal God, he would have needed to journey on from science—into a knowledge of Jesus Christ. He did not make that journey.

The significance of Einstein’s story is that science led one of the greatest minds of modern history to God. To suggest that science must inevitably do the opposite is therefore quite wrong.

The universe is very big and very mysterious

The first thing the cosmos suggests about God is that he has a majesty beyond that which our minds can comprehend. The night sky has amazed people from the Bronze age to the age of the Higgs boson.

Here are some basic statistics.

We live on the third planet out from a middle-aged star called the Sun. That star sits three quarters of the way along the edge of one of the spiral arms of a galaxy called the Milky Way, containing about 300 billion stars. If that wasn’t extraordinary enough, our home galaxy of 300 billion stars is just one of over 100 billion galaxies in the universe. And this mind-bogglingly huge universe exploded into being from a tiny, almost infinitely dense particle (called a “singularity”) about 13.7 billion years ago.

You can’t help but get the feeling that God might have been showing off, just a bit.

The universe is certainly big. We have to measure the distances between galaxies and stars using the speed of light. As light scurries on at the goodly pace of nearly 300,000 kilometres per second, you can imagine it would cover a fair distance at that speed over a whole year. We call this distance a “light year,” and that’s what astronomers use to measure the distance between stars and galaxies.

The nearest star to our Sun (Proxima Centauri) is a paltry 4.3 light years away. This compares favourably with the distance to our nearest neighbouring galaxy, which is 163,000 light years away. All this, and you haven’t yet begun to seriously journey across the universe. Oh, I forgot to mention: the universe is expanding at an ever-increasing rate, so it’s getting bigger all the time!

The universe is not only big, it is mysterious. In fact, only 5 percent of it is visible. Twenty-seven percent of it is thought to be composed of “dark matter,” and 68 percent is thought to be composed of “dark energy.” Dark matter neither adsorbs nor emits any form of electro-magnetic radiation, so it can’t be seen. We only know it’s there because of the gravitational effect it has on other heavenly bodies.

Dark energy is something of a hypothesis only. Scientists have very little idea of what it is but think that it is the energy that is causing the universe to expand at an ever-accelerating rate. Certainly, some sort of force is doing this and overcoming the natural tendency for gravity to cause the heavenly bodies to crunch back together again.

You're a star

Let's talk about stars. Our Sun has a diameter about 109 times greater than the Earth. That's pretty impressive. Now imagine a star that is 1,500 times bigger than the Sun. That's the size of the red super-giant NML Cygni. To put that into perspective, if you placed Cygni at the centre of our solar system, its surface would extend beyond the orbit of Jupiter and half way to Saturn. That's big!

Stars are a crucial part of our universe—and the mechanism by which they are made is fascinating. They are made on tendrils of cosmic dust. These are known as elephant trunks and they poke out of giant dust clouds. The elephant trunks are often one light year long, so they're pretty big. Blobs of dust float off them into space. Gravity then causes the dust in these blobs to clump together, and to do so with such force that hydrogen is fused into helium, producing a massive release of heat. When that happens, hey presto! You have a star. Gravity keeps pressing in, causing this reaction to continue over billions of years.

This amazing scenario has given enough time to allow life to evolve on the third planet out from a middle-aged star—planet Earth.

Stars like our Sun are, in fact, giant ovens that cook up hydrogen and helium to form all the atoms in the periodic table up to the weight of iron. Heavier elements can only be made by the exceedingly high temperatures and pressures that occur when very big stars die in super nova explosions. All dying stars then scatter their atoms into the cosmos. Some of these atoms then clump together to form planets such as our Earth.

It's worth pondering a moment what this means. Look at yourself in a mirror. Every atom that exists within you was once cooked up inside a star. You are made of star stuff! You truly are a walking cosmic drama.

The fact that the universe is capable of producing stars stable enough to burn long enough to allow life to develop is consistent with the principles taught in the first book of the Bible, Genesis. The biblical creation accounts make it clear that because a rational God has caused the universe to exist, it is a rational, stable place. You may not be impressed by this, but it is actually very different to most of the thinking that was around in ancient times.

The Genesis account of Noah's ark and the flood have some similarities with the

ancient Mesopotamian epic of Gilgamesh. In fact, it's quite possible that the early biblical authors felt free to borrow its framework in order to write God's story. But in doing so, they made an important distinction. Whereas the ancient Mesopotamians were terrified that the world would collapse into chaos at any moment, the writers of Genesis wanted us to understand that God's creation was stable and presided over by a benevolent God.

This matches what we see. The fact that the universe appears ordered and operates according to beautiful mathematical equations suggests the existence of a mind. While our universe is one in which suffering and extinctions occur, this should not blind us to the fact that it is amazingly well ordered and appears to be finely tuned in order to allow life. Scientific observation therefore supports the teaching of Genesis which says there is a mind behind the order of the universe.

Multiverses and turtles

An objection to this thinking has come from those who believe our universe is just one of an infinite number of universes—which, because there are an infinite number of them, must eventually chance upon a set of scientific rules able to develop intelligent life. After all, if this were not so, we wouldn't be here to observe ourselves.

We'll talk more about "multiverses" later, but the challenge to the existence of God posed by multiverses can be met in part by saying this: It isn't just *that* we exist which is the miracle; it is the *manner* of our existence. The self-observing life form we call "humanity" is not simply a blob of brain able to know itself to be alive for a brief moment of time. It is significantly more. It is Mozart. It is Mother Teresa. It is humour, compassion, creativity, love, heroism and science. It is also a shy but persistent ache that compels 96 percent of us to reach towards a higher being, someone who will give us meaning. The life form that is us really is very remarkable—too remarkable, I suggest, to lazily dismiss as simply the chance product of an infinite number of universes.

So, it is not just a case of life existing but of appreciating the *manner* and *nature* of that life.

I've heard someone explain the significance of this with an analogy.

Suppose some drug smugglers had tampered with your travelling case while you were touring in a foreign country, and customs officials had found five kilograms of heroin inside it. The judge refuses to believe you are innocent and condemns you to be shot to death by a firing squad. You are led out of prison, placed against a wall and blindfolded. Ten of the army's top marksmen stand eight paces away. At a command from the officer, they cock their

weapons. Then you hear, “Ready, aim... FIRE!”

To your amazement, you discover that you are still alive. You feel all over your body, but don’t find any bullet holes. Might I suggest that at this point you would do more than shrug with indifference and say, “Well, since I’m here to report on the situation, I must have fluked a set of circumstances that has enabled me to do so.” No. You would justifiably seek some sort of explanation.

Caution needs to be exercised when using the term “infinite” to dilute the significance of the existence of humankind. The word “infinite” is not an escape clause that allows any possibility. It is not a magician’s hat from which anything can be produced. We still need to ask, Who or what began the first universe? Why has “chance” been given the opportunity to build a universe that is able to develop humankind?

You do not explain a book simply by pointing to a library of books. Neither do you explain our ordered universe by pointing to the possibility of an infinite number of universes. More needs to be said.

On the first page of his book, *A Brief History of Time*, Stephen Hawking describes a conversation in which a woman disagrees with a scientist’s description of the solar system. She says something like this: “You are quite wrong, young man. The world is really a giant plate sitting on the back of a giant turtle.”

“And what’s the turtle sitting on?” replies the scientist.

“Young man, you can’t trick me. It’s standing on another turtle. There are turtles all the way down.”²

While we might smile at the naivety of the woman, all that atheistic scientists are proposing with their multitude of universes... is a multitude of turtles. They don’t actually answer the question.

The cosmologist, Paul Davies, agrees:

*The multiverse theory is increasingly popular, but it doesn’t so much explain the laws of physics as dodge the whole issue. There has to be a physical mechanism to make all those universes and bestow bylaws on them. This process will require its own laws, or meta-laws. Where do they come from? The problem has simply been shifted up a level from the laws of the universe to the meta-laws of the multiverse.*³

Who’s monkeyed with the physics?

Many of the world’s top scientists who claim no faith are scornful of those who suggest that

the evolution of intelligent life in the cosmos is purely the product of chance. This, I suggest, is significant.

One of them was the English physicist and astronomer, Fred Hoyle (1915–2001). Notwithstanding his atheistic convictions, Hoyle wrote that the likelihood of chance alone being responsible for making even the simplest of living cells was about the same as that of a tornado sweeping through a junkyard and assembling a Boeing 747 aeroplane.⁴

Hoyle's atheistic convictions were shaken a number of times in his life. It happened when he was trying to work out how a carbon atom could be made. As all living things are carbon-based, it was a relevant question. The trouble was, it seemed that making carbon inside a star from the component atoms of beryllium and helium was impossible. The necessary intermediate reaction states were just too unstable to allow time for a carbon atom to be made. Fred therefore reasoned that there had to be a special "resonance state" within the nucleus of carbon which would allow reaction rates to increase dramatically, and that this energy state would need to correlate exactly to the temperature found inside a star. He managed to persuade a research team at California Institute of Technology to look for this proposed resonance state. They found it at the temperature Hoyle predicted. When they did, Hoyle wrote:

*A common sense interpretation of the facts suggests that a superintellect has monkeyed with physics, as well as with chemistry and biology, and that there are no blind forces worth speaking about in nature.*⁵

Coincidences like this have even caused the physicist, Stephen Hawking, who is ambivalent and sometimes antagonistic about faith, to wonder about religious implications. He once said, "The odds against a universe like ours emerging out of something like the Big Bang are enormous. I think there are clearly religious implications."⁶

I think he's right.

The anthropic principle

The fact that our universe seems remarkably conducive to the evolution of intelligent life has led to the development of the 'anthropic principle'. This is the idea that the universe appears to exist in a very precise way which has allowed the existence of humankind. (Anthropic literally means 'of humankind'.)

Certainly, our universe is very special. Billions of things had to be just right for life as we know it to evolve. This is particularly the case for the four main forces foundational for

the existence of our universe. These forces are 1) gravity, 2) the electromagnetic force; 3) the strong nuclear force, and 4) the weak nuclear force. The strength of these forces was established less than one millionth of a second after the big bang. Now here's the thing: If the value of any one of these forces had differed even slightly, the universe could not exist. For instance, if the ratio between the nuclear strong force and the electromagnetic force had differed by one part in 100,000,000,000,000,000, no stars could have formed.

Similarly, the force of the Big Bang had to be just right. The universe could not expand too quickly or it would become too diluted for matter to clump together to form galaxies. However, it could not expand too slowly, or gravity would cause it to clump back together too quickly to allow time for life to develop.

The universe also needed to have matter scattered evenly throughout it, otherwise there would be catastrophic cosmic turbulence. But the distribution of matter could not be too even; it had to exist in clumps so that galaxies could form.

We even needed to have the right planetary neighbours. Without a massive planet like Jupiter nearby to drag asteroids away from us with its gravity, a thousand times as many would hit the Earth's surface—and life could not exist.

The level of fine-tuning necessary to allow life to exist defies imagination. I would like to suggest that God's signature is writ large on the cosmos... and that it is there for those who want to take notice of it.

Copernicus and Galileo... and their fracas with the church

No discussion about God, Christianity and the universe would be complete without talking about Copernicus and Galileo. Atheists often cite the rather shabby behaviour of the church towards these two astronomers in the sixteenth and seventeenth centuries as proof that Christianity is inherently antagonistic towards science.

In reality, the relationship of these two men with the church was a great deal more complex than those pushing ideological barrows would have us believe. Let me explain.

The Polish astronomer, Nicolaus Copernicus (1473–1543), popularized the idea that the Earth rotated on its axis once daily and travelled around the Sun once annually.

Copernicus sent his ideas around to respected astronomers in 1513. This work gave him such standing in society that he was invited, the following year, by the Roman Catholic Church to resolve the problem of their yearly calendar, which had become inaccurate by an extraordinary ten days!

Some years later (in 1533), Pope Clement VII and some cardinals heard a presentation of Copernicus' theory about the movement of the Earth given by his papal secretary, John Widmanstad, in the Vatican Gardens. It is worth noting that no antagonism was expressed in response to this presentation. In fact, Cardinal Schönberg wrote a kindly letter to Copernicus (via the hand of John Widmanstad) a few years later. This is what he said:

*Nicholas Schönberg, Cardinal of Capua,
to Nicholas Copernicus,
Greetings.*

Some years ago, word reached me concerning your proficiency, of which everybody constantly spoke. At that time, I began to have a very high regard for you, and also to congratulate our contemporaries among whom you enjoyed such great prestige. For I had learned that you had not merely mastered the discoveries of the ancient astronomers uncommonly well but had also formulated a new cosmology.

In it you maintain that the Earth moves; that the sun occupies the lowest, and thus the central, place in the universe; that the eighth heaven remains perpetually motionless and fixed; and that, together with the elements included in its sphere, the moon, situated between the heavens of Mars and Venus, revolves around the sun in the period of a year.

I have also learned that you have written an exposition of this whole system of astronomy, and have computed the planetary motions and set them down in tables, to the greatest admiration of all. Therefore, with the utmost earnestness I entreat you, most learned sir, unless I inconvenience you, to communicate this discovery of yours to scholars, and at the earliest possible moment to send me your writings on the sphere of the universe together with the tables and whatever else you may have that is relevant to this subject.

Moreover, I have instructed Theodoric of Reden to have everything copied in your quarters at my expense and dispatched to me. If you gratify my desire in this matter, you will see that you are dealing with a man who is zealous for your reputation and eager to do justice to so fine a talent.

Farewell.

Rome, 1 November 1536.

Copernicus was so encouraged by this letter that he included it as the introduction to his famous book, *De Revolutionibus Orbium Coelestium*. This book had a foreword written by

the Lutheran theologian, Andreas Osiander, and the entire work was dedicated to Pope Paul III. With the encouragement of Tiedeman Giese, the Bishop of Kulm, Copernicus' book was published in 1543, just months after his death. It was said that he held a copy of the book in his hands just before he died.

At this point, there was no hint of ecclesiastical censure.

De Revolutionibus did not become contentious until Aristotelian philosophers began objecting to it. They said it challenged the literal meaning of some texts in the Bible, particularly Joshua 10:12 where Joshua commanded the Sun to stop still so that he would have time to defeat the Amorites. The Aristotelian philosophers believed the Earth was a place of change and decay, whereas the heavens were perfect and unchangeable. For Copernicus to suggest that the Earth circled the Sun was a direct challenge to this view.

About this time, the Roman Catholic Church convened the Council of Trent in order to reform a church threatened by schism and which had been fractured by the Protestant Reformation. It was a lengthy affair that lasted from 1545 to 1563. One of the things the Council resolved was that only doctors of the Catholic Church were authorized to interpret Scripture. (The Protestants had made interpretation of Scripture a divisive affair.)

The Aristotelians used the church's disciplinary authority to attack not only Copernicus' ideas but also a new person who was now championing them: a scientist from Pisa by the name of Galileo Galilei. Galileo had developed the telescope and used it to make observations that supported Copernicus' theory.

Although Galileo had once enjoyed the favour of the Pope, he fell from grace for three reasons. First, the Aristotelians pointed out that Galileo was effectively reinterpreting Scripture without authority.

Second, Galileo did not have the 'knock out' proof that he required to be totally convincing. He needed an instrument that was accurate enough to measure the angle to a distant star so that he could compare the star's position in winter with its position in summer. Aristotle himself had said centuries earlier that this was the proof which would be required to indicate that the Earth revolved around the Sun. The instrument capable of measuring this didn't exist until Joseph Fraunhofer built a heliometer some two hundred years later. Friedrich Bessel was the first to use it to confirm the heliocentric movement of the Earth.

Third, Galileo sabotaged himself by doing some very unwise things. One of these was to put the Pope's arguments against Galileo's theory in the mouth of the fool, Simplicius, a fictitious character in his book, *Dialogue Concerning the Two Chief World Systems—Ptolemaic and Copernican*. This was published in 1632. The Pope had earlier given

permission for Galileo to write a book presenting arguments for and against the Copernican theory, asking only that Galileo not merely advocate Copernicus' heliocentric view. It was a request that Galileo chose not to heed.

One way or another, things came to a head. Galileo was brought to trial on 22 June 1633, after which he was required under threat of torture to “abjure, curse and detest” his Copernican theories.

It is worth remembering that although Copernicus and Galileo fell foul of the Roman Catholic Church, both remained deeply religious men who were committed to their faith.

Some atheists have been guilty of recasting these events in order to paint the Christian church as ‘anti-science’. This is a simplistic interpretation. Copernicus and Galileo actually fell foul of the politics of Aristotelian philosophers in a time of heightened sensitivities caused by the Reformation. Galileo also sabotaged his cause by his singular lack of tact.

One fiction sometimes heard is that Catholic clerics refused to look through Galileo's telescope. This was not so. It was the Aristotelian professors, Cesare Cremonini and Giulio Libri, who refused to look through it. In contrast, the Jesuit Cardinal, Bellarmine, agreed to do so in 1611 (after first asking Jesuit scientists in the Vatican Observatory to verify that Galileo's telescope was observing true images and not simply flaws in the glass lens). The Jesuits were actually much taken with the telescope. One of them, Christoph Scheiner, used a telescope to record information about sunspots that he published a year later in 1612.

An indication of just how important it is to have a right understanding of what really happened between Copernicus, Galileo and the church is shown by the fact that two nineteenth century Americans—the educationalist and diplomat, Andrew White, and the philosopher and physician, John Draper—used the Galileo trial to help promote the notion that Christianity has always been at war with science. This is still believed by some today, even though serious scholarship has debunked the myth. (The erroneous idea that there is a war between science and Christianity will be explored further in the next chapter.)

It is good to know the facts. Truth is every bit as important in history as it is in science.

Please take care with your claims

It is worth us all retaining a degree of humility when searching for truth. Certainly, the scientific community needs to avoid the overbearing, all-controlling stance it once accused the Christian church of adopting at the start of the Enlightenment.

I say this because it is not always easy to separate fact from opinion in the writings of some of today's scientists. Stephen Gould's comment that humankind is no more than “a

fortuitous twig, budding but yesterday on an ancient and copious bush of (evolution)”⁷ is a personal conviction. It is not a scientific fact, for it belies the reasoning of other scientists such as the physicist and cosmologist, Paul Davies, who says:

*I belong to the group of scientists who do not subscribe to a conventional religion but nevertheless deny that the universe is a purposeless accident. Through my scientific work I have come to believe more and more strongly that the universe is put together with an ingenuity so astonishing that I cannot accept it merely as a brute fact ... I cannot believe that our existence in this universe is a mere quirk of fate, an accident of history, an incidental blip in the great cosmic drama. Our involvement is too intimate ... We are truly meant to be here.*⁸

Ideological blinkers exist in the scientific community just as much as anywhere else. Steven Weinberg concludes his book, *The First Three Minutes*, by saying that it is farcical to think that human beings are anything more than an “outcome of a chain of accidents reaching back to the first three minutes ... (*Earth*) is just a tiny part of an overwhelmingly hostile universe ... The more the universe seems comprehensible, the more it also seems pointless.”⁹

In contrast to this, Freeman Dyson, a research physicist at the Advanced Institute at Princeton, looks at the same cosmos and says, “The more I examine the universe and study details of its architecture, the more evidence I find that the universe in some sense must have known that we were coming.”¹⁰ This leads Dyson to say, “Twentieth Century science provides a solid foundation for a philosophy of hope.”¹¹

So, scientists: don’t lock yourself into an empiricist prison that fails to allow for the possibility of God. You don’t have the evidence to do so. Humility and honesty are required. And do be careful with your claims. Non-scientists may not have the skill to determine when you are straying from empirical fact to philosophical speculation.

Motives that are not so pure

One of the few good things to come out of postmodern thinking about science is the realization that science is rarely conducted objectively and with pure motives. All scientists bring baggage (ideologies and preconceptions) to their scientific inquiry. While this should not affect the manner of their scientific inquiry (the process for authentic scientific enquiry is well established), it can affect what is studied, why it is studied, the application of what is studied, and the significance ascribed to the study. As such, science is not as pure as some rational empiricists would claim. The humanity of scientific researchers stubbornly emerges

like weeds in a vegetable patch.

Let me give you some examples.

Despite compelling evidence for the universe beginning with a Big Bang (evidence obtained by satellites measuring the temperature of space and photographing the ripples in the background radiation of space), the English physicist, Fred Hoyle, didn't want to believe it. He wanted to believe in a 'steady state' eternal universe that had always existed. His unwillingness to believe in the Big Bang had nothing to do with any scientific objection. He objected to the concept simply because he was an atheist. He didn't want to consider anything so inexplicable as a beginning because it suggested that God would be necessary to push the start button. (The difficulty in explaining the ultimate origin of why things exist without factoring in God, is shown by Terry Pratchett's whimsical comment: "In the beginning there was nothing, which exploded.")¹²

The concept of the Big Bang was also viewed with suspicion by Soviet cosmologists during the cold war. The American scientific historian, Loren Graham, mentions a book by V. I. Sviderskii, published in 1956, which rejected the Big Bang model and described it as an "unscientific Popish conclusion."¹³ This, I submit, is not a scientific comment.

Even the search for a theory that might allow for the existence of an infinite number of universes (so nullifying the significance of our own universe) is not without grubby ideological fingerprints. The Russian American theoretical physicist, Andrei Linde, admitted that his work on inflation theory and the concept of multiverses was partly motivated by his ideological difficulties with questions like, "Who gave the command for the universe?"¹⁴

Recent ripples

Whenever there is a significant cosmic discovery, TV chat show hosts invariably put forward the proposition that our new understanding has made the idea of God obsolete. It happened with the discovery of the ripples in the background radiation left over from the Big Bang, and it happened again when a telescope at the Amundsen-Scott South Pole Station collected data between January 2010 and December 2012 for "The Background Imaging of Cosmic Extragalactic Polarization 2" (BICEP2) experiment. Just over two years later, the results were published. There was huge excitement because the researchers claimed to have found ripples in the universe called gravitational waves. These ripples were first mooted to exist by the American physicist, Alan Guth, of the Massachusetts Institute of Technology, when he proposed the theory of "inflation" in 1980. This theory proposed that the universe expanded faster than the speed of light in the first fraction of a nanosecond after it was born. If this was

the case, scientists felt that such an event would have caused ripples in the fabric of “space-time.”

Scientists claimed to have identified these ripples in 2014. Other scientists, however, have since challenged their findings, saying that the readings could have come from dust clouds within our own galaxy.

If these ripples have, in fact, been found, they would, of course, neither prove nor disprove God. They would simply help us to understand the mechanism whereby a remarkable and highly unlikely universe came into existence. The ‘why’ behind the ‘how’ still requires explanation.

Both science and Christianity require faith

It is not the case that science is driven by scepticism, observation and experiment, while Christianity requires you to believe six impossible things before breakfast. Science and Christianity are both built on evidence... and both require faith.

Paul Davies puts this well. He says:

*All science proceeds on the assumption that nature is ordered in a rational and intelligible way. You couldn't be a scientist if you thought the universe was a meaningless jumble of odds and ends haphazardly juxtaposed. When physicists probe to a deeper level of subatomic structure, or astronomers extend the reach of their instruments, they expect to encounter additional elegant mathematical order.*¹⁵

He goes on to say that the intelligibility of the cosmos is reflected in the laws of physics—the fundamental rules that determine how nature runs. These laws of physics are regarded as sacrosanct, as phenomena that have always existed in our universe. The obvious question prompted by this is, of course, Where did these laws come from? After all, the idea that they exist without reason is anti-rational. This is not a question that can be shrugged aside.

Davies says, “Clearly, then, both religion and science are founded on faith—namely, on belief in the existence of something outside the universe, like an unexplained God or an unexplained set of physical laws.”

He concludes by saying, “Until science comes up with a testable theory of the laws of the universe, its claim to be free of faith is manifestly bogus.”¹⁶

That’s not a bad conclusion from a renowned scientist with no conventional faith.

A Tree in the desert

Those who point to the size of the cosmos in order to dismiss the significance of Earth have an invalid argument. If you take a beautiful, blue planet that has intelligent life on it and put it alongside a hundred other planets that don't have life, it doesn't make the blue planet any less remarkable. If you put the same blue planet against a million or a billion other planets that don't have life, that doesn't make it any less remarkable either. Until it can be shown that the universe is teeming with intelligent life which has come about as the result of common chemical processes, life on Earth has every right to consider itself to be pretty special.

I once buried a small golden bead in a large tray of sand, then invited the members of a youth group to find it by digging through the sand with tablespoons and pouring what they scooped through a sieve to see if they had unearthed it. No one did. When I retrieved the gold bead, I asked them if it was any less significant simply because it was surrounded with lots of very common sand.

They all answered "No."

I then suggested that in the same way, our Earth remains special, even though it is surrounded by a very large universe.

The physicist, Robert Russell, makes the same point using the analogy of a tree in a desert. He says:

*Suppose you are lost and thirsty in a vast, dry desert. Suddenly you spot a palm tree on the horizon. Are you going to say, "Well since the desert is so vast and barren, that wavy tree is insignificant, a statistical fluke not worth taking seriously"?*¹⁷

Please don't lightly dismiss the uniqueness of your own planet.

And to help you remember this, here's a quip by the Scottish comedian, Arnold Brown: "I sometimes look at the stars and think: how significant I am."

Good night, it's all over: making sense of the end of the universe

I like happy endings... but the prospect of our universe having one, is remote.

Scientists tell us that our Sun will die in 4.5 billion years' time. Sadly, if you manage to escape to another solar system on a spacecraft, you are not out of the woods, because the universe itself is due to die and fade away into low level radiation—an event which scientists have dubbed "heat death."

The astrophysicist and theologian, David Wilkinson, writes, "This end of Universe in

the heat death of futility raises a great deal of pessimism within the scientific community.”¹⁸ Paul Davies is one who typifies this feeling. He says: “(An) almost empty universe growing steadily colder and darker for all eternity is profoundly depressing.”¹⁹

Atheistic philosophers are no happier. The twentieth century English philosopher, Bertrand Russell, wrote:

*The world which science presents for our belief is even more purposeless, and more void of meaning ... all the labours of the ages, all the devotion, all the inspiration, all the noonday brightness of human genius, are destined to extinction ... and the whole temple of man's achievements must inevitably be buried beneath the debris of a universe in ruins.*²⁰

The huge question each of us needs to answer is, Why? Why does anything exist at all? Does our existence have any meaning, particularly in the light of the fact that our universe will end?

Science is, and has to be, silent on this. For more understanding, we need to turn to theology.

Meeting some objections

There are two objections commonly aired when considering evidence for the proposition that God intended humanity to exist. So, let's take a look at them.

Objection 1: Humans occupy such a minuscule part of the universe that it is impossible to believe we are in any way significant.

The theoretical physicist, John Polkinghorne, does not agree. He says that we need not be upset about our apparent insignificance in a large universe. The universe had to be as big as it is, he reasoned, if life was to develop on any one planet. The size of the universe was necessary so that planets and galaxies were far enough apart to avoid gravity clumping them back together before intelligent life could evolve.²¹

Can I be honest and confess to some mild frustration at being caught between two groups of atheists saying different things? One group seems unable to appreciate the bigness and wonder of the cosmos, and therefore fails to see any evidence of divine mind. The other sees the vastness of the universe very clearly, and concludes that we are so insignificant that we could not possibly be intended by a god.

I'd like to get the two groups together!

Let's leave the last word on this to C. S. Lewis, who said, "If it is maintained that anything so small as the Earth must, in any event, be too unimportant to merit the love of the Creator, we reply that no Christian ever supposed we did merit it."²²

Objection 2: It is probable that the universe is teeming with other forms of intelligent life, which, if true, makes a nonsense of the special status of humankind.

While precursors to life on Earth may have been splashed onto Earth by meteorites crashing into Mars, there is, as yet, no evidence of any intelligent life existing elsewhere in the universe. It would be unwise to allow mere speculation to cancel out the wonder of what unquestionably does exist.

If intelligent life were found elsewhere in the universe, this need not necessarily be incompatible with Christianity. It might indicate that life is not due to unlikely chance events but to the guiding hand of God who has designed an inherently fruitful universe.

Jesus makes sense of it

If we concede that there is good reason to believe God exists, what can we know about him?

Is God just an impersonal force that puts the ingredients of a self-developing universe together, then steps back behind the veil of mystery to watch what galaxies, planets and life forms will come into existence? Is God's role simply to invent and sustain a giant game of chance? Did God specifically intend humankind or not? Are we the chance winners of an evolutionary race, destined to flourish briefly until we are overtaken by other life forms on our planet?

If we were to rely on science alone, we might think this was the case. However, the event that crashes against such mournful thinking is God's self-revelation to us, most significantly as Jesus.

The fact that God has demonstrated his love for us through Jesus answers why the universe bothers to exist. It indicates that God is intentional and is the driving force behind the evolution of human beings. God's love for his creation transforms a chance existence into a divine goal, the meaningless into the sacred, the unplanned into the purposed, the impersonal into the personal, and the unloved into the cherished.

Hope

In the midst of our bewilderment about our existence, God reached down to humanity in Jesus, declared his love for us, showed us his character, died a hideous death to pay the price for our sins, and now invites us to share in the adventures of eternity with him. Another name for Jesus—*Immanuel*—literally means “God with us.” God is with us, and that gives us hope.

All atheists can do is wave their fists in defiance at meaninglessness and strive to manufacture the illusion of progress to distract themselves from the fact that the only thing they have to look forward to is futility.

In contrast to this, Christians have an eternal hope. The Apostle Paul wrote, “If only for this life we have hope in Christ, we are of all people most to be pitied” (1 Corinthians 15:19). He expressed the idea again when writing to the Ephesians: “Remember that at that time you were separate from Christ, excluded from citizenship in Israel and foreigners to the covenants of the promise, without hope and without God in the world” (Ephesians 2:12).

It may interest you to know that in Hebrew, the word “hope,” *tiqvah*, literally means “a twisted cord used to attach” (that is, to make safe). Without hope, therefore, you are unsafe.

How safe are you feeling?

Conclusion

As a scientist, I can tell you that the odds against you coming into existence were enormous. Our universe is very special. It is sometimes referred to as the “baby bear” universe (from the Goldilocks fairy tale) because it is “just right.”

There are many things, it seems, which happen to be just right. The English physicist, Stephen Hawking, speaks about one of them, saying, “If the rate of expansion one second after the big bang had been smaller by even one part in a hundred thousand million, million, the universe would have re-collapsed before it even reached its present size.”²³

They are odds you wouldn’t like to bet on in a horse race!

So, I invite you to marvel at the fact that you exist—for when you understand how miraculous your existence is, a whole lot of truth about your significance on this planet will become evident.

It will invite you to consider the possibility that God intends you to exist, and that he has worked through the laws of nature to see that you do.

Now if this is true, then you are faced with a whole new set of realities:

1. While you may not have been planned by your parents, you have been planned by God.
2. Although there are six-and-a-half billion people on this planet, you matter.
3. Your life is not yours to throw away. God has a plan for it.
4. You have the right to inherit the purposes that God has reserved for you.
5. You must honour other people who have also been intended by God.

You are meant to exist.

CHAPTER 2

The Evidence of God in Nature

This probably isn't very comforting, but you are a bit of an oddity. Your existence as a carbon-based life form is a highly unlikely thing. Just getting the carbon atom, as I said in the last chapter, was unlikely enough, but that's only the beginning of some rather amazing things that needed to happen in order to produce you.

One of the things that causes scientists to wonder is protein. You're made of quite a lot of it.

The idea of God making things took a bit of battering in 1953 when Harold Urey and Stanley Millar, researchers at the University of Chicago, introduced some electrical sparks to a mixture of gasses and water that simulated the Earth's early atmosphere. After a few days, the water discoloured with a mixture of amino acids. As amino acids are the building blocks of protein, the basis of all life, some people claimed that the idea of God was redundant. Brute circumstances can fluke the existence of amino acids. The mystery of how proteins and life came about was solved.

Alas, this is not so. Leaving aside the rather obvious fact that God began with nothing—no laboratory, no flasks, no chemicals, no physical laws—the fact is that while making amino acids is relatively easy, making proteins capable of sustaining life is mind-bogglingly difficult.

To build a protein, you have to put amino acids in precisely the right sequence. As a typical protein consists of two hundred amino acids, the likelihood of making one protein by chance would be equivalent to spinning a slot machine with two hundred wheels, each with twenty symbols (to represent the twenty most common amino acids)... and then getting the winning combination.

You don't reckon that's a big deal? Let me explain. It would require you to spin the wheels more times than there are atoms in the universe.¹

It has become almost a reflex action of the human psyche to explain the existence of highly unlikely complex structures by attributing them to evolution. The trouble is, no mechanism which allows the evolution of proteins has yet been discovered. This is not to say that it won't be discovered. But the fact that no mechanism has yet been discovered should at least mollify some atheistic hubris and lend it a blush of humility. The brutal reality is this: Evolution, as it is currently understood, can only work at the level of living organisms that are able to reproduce and die—and a complex protein molecule is not a living organism.

If the problem of building a protein wasn't big enough, there remains the rather obvious question of what it is exactly that brings life. What is the mysterious thing that enlivens trillions of uncaring atoms to build a living and breathing you?

It's odd seeing a dead body. I've seen a few as I've watched the strange phenomenon called "life" trickle away... turning a friend into a corpse. The really weird thing is that the body, at the point of death, contains all the elements necessary for life to exist—and yet there is only death. So, what is the mysterious life force that breathes fire into the unlikely pile of atoms that make up your body? And, more intriguingly, why does this life force exist? These musings bring to mind a comment by St Augustine:

And men go abroad to admire the heights of mountains, the mighty waves of the sea, the broad tides of rivers, the compass of the ocean, and the circuits of the stars, yet pass over the mystery of themselves without a thought.²

When pondering the possibility of God, it is important to study nature. If God exists, then the canvas upon which he painted his purposes was biology. The objects that God chooses to create and love are cast in the form of living, biological machines. As such, it is reasonable to expect that God might have left some clues to his own existence, character and purposes in nature.

If the biblical witness to God is true, we would expect these clues to be subtle so that they don't compel faith in God, but invite it. The question, then, is, "Do we see evidence of God in nature?"

Please don't use God as a gap-filler

In ancient times, human beings were not as scientifically informed as they are today. They operated on the premise of "cause and effect." If something existed that was extraordinarily complex and ordered, experience had taught them that it was the product of mind. So, when they saw the complexity of nature, they ascribed it to a mind—a mind that they called "god." Sometimes, they ascribed it to many gods. They sought to understand and define those gods through their own cultural filters, a process which has resulted in the existence of more than four thousand religions today.

On the face of it, this was pretty reasonable. Evidence suggested the existence of an intelligence behind the order of creation. Two things then occurred in human history to modify this understanding.

The first was the insertion of Jesus Christ into human history. No longer did humanity have to invent religions to try to reach God; God had come to us and was reaching out to us in

Christ Jesus. The historical reality of Jesus, as witnessed to by contemporary historians (such as the Roman historian, Tacitus, and the uncontested parts of the writings of the Jewish historian, Josephus), now informed our understanding of things.

The second was the emergence of the discipline of science, which people found to be remarkably fruitful in uncovering the causes of much that was previously mysterious and inexplicable. Many of these mysterious and inexplicable things had been attributed to the direct action of God. With advances in science, however, the complexity of a seashell and the path of a meteorite through the night sky were no longer explained as being the direct actions of a god. Consequently, the need to invoke God to explain things began to retreat.

This was not the killer blow to theistic faith that some atheists assert; far from it. Evidence of reason and mind pervades the universe just as much today as at any other time in history. What it did mean was that God's involvement was a good deal more subtle; it indicated that he chooses to work through the laws of nature—laws that he put in place to build a universe.

God should not be lazily invoked to explain gaps in our scientific knowledge. This is because whenever something previously ascribed to God's action subsequently becomes explained by science, the need to postulate the existence of God retreats. This can promote the idea that evidence for God is slowly being eroded by the "pure" truth of science... which is not the case at all.

To help us gain an understanding of the relationship between science and faith, it will be worth having a quick look at history. Apart from anything else, it is a fabulous story!

A whistle-stop tour of the relationship between the biological sciences and faith

The very nature of Christianity has made it particularly receptive to the ideas of science. It provided a nurturing manger within which infant science could mature. It did so because it understood that God was rational and that he had built a rational universe. The very fact that we had physical laws and the mathematical tools that enabled us to study the universe pointed to the reasonableness of this belief. Because God was rational, it was expected that the universe would be understandable. To study his handiwork was to uncover the creativity of God. As such, the act of research could be viewed as an act of worship.

Another reason why Christianity was fruitful to science was its central conviction that God created all things. This meant that none of the things which existed in nature were themselves God. Researchers could therefore investigate, dissect and codify nature without being impious.

The Italian Dominican friar, Thomas Aquinas, was an immensely influential philosopher and theologian from the thirteenth century. He was one of the first to articulate the notion of “intelligent design.” Aquinas wrote a dissertation in which he gave five proofs of God’s existence, known as the “Five Ways.” One of these proofs was the complexity of life seen in nature. Aquinas suggested that this complexity indicated that there must have been a designer.

This view held sway for much of history—and still exists today, albeit in a more qualified form.

The fathers of the Reformation in the sixteenth century certainly had a great appreciation of God’s handiwork in nature. Martin Luther said, “All creation is the most beautiful book or Bible; in it God has described and portrayed Himself.”³ His counterpart in Switzerland, John Calvin, agreed. He said that nature is “before our eyes as a most beautiful book in which all created things, whether great or small, are as letters showing the invisible things of God to us.”⁴

Calvin was also helpful in explaining how the creation accounts in the opening chapters of Genesis should be understood. He taught that God has sometimes chosen to accommodate Scriptural language so that divine truths can be easily understood by humanity. Calvin therefore agreed with St Augustine that some sections of the Bible are metaphorical.⁵ Both Augustine and Calvin were highly critical of those who turned to the Scriptures for answers to cosmological questions that the writers of the Bible never intended to teach. Calvin said, “He who would learn astronomy and other recondite arts, let him go elsewhere.”⁶

In the light of this, it is perhaps not surprising that the notion that God could be understood through “two books”—the book of the Bible, and the book of nature, came to be particularly developed in the seventeenth century. Here are some beautiful quotes from that era:

Francis Bacon (1561–1662), father of scientific reasoning, said that no one “*can search too far, or be too well studied in the book of God’s word, or in the book of God’s works ... but rather, let people endeavour an endless proficience in both.*”⁷

Thomas Brown (1605–1682), physician and author, wrote: “*There two books from whence I collect my divinity: besides that written one of God, another of his servant nature ... Those that never saw him in the one have discovered him in the other.*”⁸

The eminent scientist, Robert Boyle (1627–1691) wrote in a similar way, saying: “*The two great books of nature and scripture have the same author, so the study of the latter does not at all hinder the inquisitive man’s delight in the study of the former.*”⁹

This philosophy was shared by Isaac Newton a century later. He was author of the magisterial work, *Principia*, in which he presented equations that accurately predicted the motions of the planets and the rate at which objects fall to Earth. Newton was motivated to do this research by the thought that it would point people to God. He wrote to his friend, a theologian in Cambridge, saying, “When I wrote my treatise about our system, I had an eye upon such principles as might work with considering men for the belief of a deity.”¹⁰

The argument for the existence of God from the design and complexity of natural things reached its height in the eighteenth century with William Paley. Paley, an English theologian, spoke of the analogy of finding a watch on the ground. Just as no one would seriously consider that the watch had invented itself, no one could reasonably consider that nature, which was infinitely more complex than a watch, could have invented itself. Therefore, nature must have had a designer: God

Chuck (Charles Darwin)

All this could be believed until the naturalist, Charles Darwin (1809-1882), popularized a new idea. Darwin travelled the world in the ship called *The Beagle*, collecting and recording information on wildlife and fossils. From what he observed, he concluded that some individuals of a species were able to adapt slightly in a way that made them better able to thrive in a particular environmental niche. Because they were able to thrive, the characteristics that gave them an advantage over other individuals of the same species were passed on to more offspring, causing their numbers to increase. Nature therefore selected the “survival of the fittest.” Its continual selection of what worked best ensured that all living species were able to continually adapt and develop so that they became ever more specialized at thriving in a particular ecological environment. This meant that nature did the selection and drove organisms to become more complicated. God was no longer necessary.

Darwin did not grow up with a Christian heritage. He studied theology at Cambridge largely at the insistence of his father after he had failed as a medical student. His father reasoned that if Charles became a Church of England cleric, he would have the time he needed to indulge his naturalist pursuits. Certainly, English clerics were at the forefront of biological research at the time.

Although once kindly disposed to Paley's ideas, Darwin abandoned his nascent Christian faith. He did so for three reasons. The first was his research, which indicated that God did not necessarily intend the existence of specific life forms, as Christianity suggested. The second was the death of his daughter Annie and the suffering he saw in nature. This caused Darwin to struggle with the idea that a loving God existed. (He had a poorly developed theology of suffering.) The third was Darwin's struggle with the idea that God could eternally condemn good people to hell because they weren't Christians.

However, despite walking away from Christianity, Darwin remained a theist. He said, "I have never been an atheist in the sense of denying the existence of God."¹¹

Darwin's convictions caused a good deal of consternation in the church, but not universally so. The novelist and cleric, Charles Kingsley, wrote that he found it "just as noble a conception of Deity to believe that he created primal forms capable of self-development."¹² Frederick Temple, the future Archbishop of Canterbury, also preached that "the finger of God could be seen at work in the laws of nature," and that there was "no need to oppose the extension of natural law into new territory."¹³

Avoiding warfare

If you threaten an ideology or theology that people have used to define their worth, meaning and identity, you can expect to get your fingers burnt. After all, you are messing with things that are sacred. To suggest that Darwinian thinking fell with barely a ripple on the sensibilities of Western culture, defined in large part by its Christian heritage, would therefore be wrong. Darwin himself was dismayed by the consequences he knew his theory must provoke and this probably caused him some reticence in publishing them. He waited over twenty years after returning to England from his trips abroad before publishing *On the Origin of Species By Means of Natural Selection* in 1859.

Darwin's findings caused a reaction in English society, notwithstanding the prominence of the Church of England with its relatively benevolent and accommodating culture. When that reaction came, it prompted him to reflect wryly, "Considering how fiercely I have been attacked by the orthodox it seems ludicrous that I once intended to be a clergyman."¹⁴ His teaching almost certainly caused him to be denied a knighthood, as some conservative elements in society were affronted by his ideas.¹⁵

However, it was when Darwin's teachings were used to front atheistic ideology that positions really hardened, triggering an increase in hostilities that is still seen today.

As was mentioned in the last chapter, two people in particular fuelled the idea that there

was open warfare between science and Christianity: Andrew White and John Draper. White was the first President of Cornell University, a position which he came to at the young age of thirty-three. He refused to impose any religious tests on the students and faculty because he wanted Cornell to be an institution where truth was sought for truth's sake. When pious New Yorkers objected, he hit out at Christianity in a speech given in the great hall of Cooper Union, New York, in 1869. Christianity, he claimed, was inherently antagonistic towards science and had sought to repress science throughout history. Next day, White's speech appeared in the *New York Daily Tribune* under the heading, "The Battle-Fields of Science." White followed this up with a small book entitled *History of the Warfare of Science*. This, in turn, was fleshed out in 1896 with a two-volume work entitled, *History of the Warfare of Science with Theology in Christendom*.

The American polymath, John Draper, echoed White's sentiments in his book, *History of the Conflict between Religion and Science* in 1874. Draper's writings were more dogma than reason, but his book was nonetheless a bestseller.

Both White and Draper did much to foster the idea that Christianity is inherently anti-science and that it suppresses truth. Reason and balance became lost amidst the ideological fervour that was generated, and this helped promote the idea that there is an irreconcilable gulf between science and faith.

This is not so.

There are, of course, extremists in both the Christian and scientific world... and it is a fact that any extremism tends to foster an extremist reaction. Sadly, this has happened in the debate about God. Truth, balance and reason are being torpedoed by the extreme claims of militant atheists on the one hand, and by biblical literalists on the other. So, let's agree to tread between them along the path of truth and reason.

It won't be easy to do. One of the reasons for this is that many scientists who are experts in their field occasionally allow themselves to be pulled by the gravity field of their own ideology so that they say things ideological rather than scientific. So, when the French biologist, Jacques Monod, says,

The ancient covenant is in pieces: man at last knows that he is alone in the unfeeling immensity of the universe, out of which he has emerged only by chance.

Neither his destiny nor his duty have been written down,

he is expressing a personal opinion, not a fact.¹⁶

The reality is, some of the world's most gifted scientists are saying things that are altogether different from the view expressed by Monod. Francis Collins, who directed the

thirteen-year project to map and identify the twenty-five thousand genes of a human being, says, “I have found there is a wonderful harmony in the complementary truths of science and faith.”¹⁷

It is worth noting, in passing, that biologists such as Jacques Monod and Richard Dawkins seem to be particularly attracted to atheism. Perhaps they see the harsh realities of life—the extinctions, predation and suffering—whereas physicists and mathematicians see more of the beauty and order of the universe.

Tapeworms... and other horrible things

Did God intend every organism, including the tapeworm, to exist? Because if he did, surely this doesn't say much for God's loving and caring nature.

All of us have organisms that we particularly loathe. For David Attenborough, it is the eye worm, loa loa, a parasite that causes blindness and enormous suffering.

Charles Darwin had a particular hatred of the ichneumon wasp. This tiny insect has a needle-like protrusion (called an ovipositor) on the end of its abdomen that it uses to inject eggs into caterpillars. The eggs hatch into maggots that eat their way through the caterpillar, eventually killing it.

These seemingly unpleasant organisms suggest that either God doesn't exist, isn't nice, or has set in place a haphazard universe over which he has no real control.

The idea that God would need to say, “Oops! I didn't really intend the tapeworm to exist, but I guess the giant game of cosmic roulette that I have set up has to allow for it,” is not a comforting idea. Nevertheless, it is one that some Christians who are scientists believe.

One of these is John Polkinghorne. He is an Anglican cleric who was once also Professor of Particle Physics at Cambridge University. Polkinghorne says that creation needs to have random acts of chance if it is to develop. In the reproductive cells of animals, for example, mutations can occur quite spontaneously which may be lethal to them—or alternatively, make them better adapted to their environment. He says that God, in his rationality, has created a universe that is able to produce life, but it comes in a package deal that also requires change and risk. We are therefore part of a physical universe that necessarily includes both creativity and danger. God is neither following a rigid blueprint nor abandoning existence to look after itself. The universe, within certain limits, has been encoded by God to make itself and to evolve self-conscious, worshipping beings. Physical evil is the necessary cost of this fruitful complexity.¹⁸

We shall look more closely at the issue of God and suffering in the next chapter. Two

things, however, can be said now.

Firstly, the suggestion that God has set up a giant game of cosmic chance and has no idea what the final outcome will be, is a profoundly un-Christian idea (and, to be fair to John Polkinghorne, not one that he supports). Christians understand that God stands outside of time and knows full well what the outcomes of life will be. He fully saw the development of humankind before he began his act of creation. It is therefore logically reasonable to believe that humankind was intended by God even though we know something of the convoluted evolutionary pathway that God has employed to give rise to us.

Secondly, Christians understand that the existence of suffering suggests something is amiss. Suffering is a necessary and temporary condition on the way to the realization of God's wonderful plan. In the meantime, we can know that God shares our pain because of his love, that he has experienced our pain as Jesus, and that he promises to help us in our pain through his empowering Holy Spirit.

If Christianity is right, the really good news is that humanity really was intended to exist. We are not simply the chance winners of an evolutionary game of dice... and that's probably worth a smile.

Intelligent design

If you want to pick a fight with almost anyone, speak about 'intelligent design'.

The biologist, Michael Behe, a biochemist at Lehigh University, Bethlehem, Pennsylvania, is a key proponent of intelligent design. He claims that there are some biological systems, such as the flagellum (a whip-like hair that propels single-celled organisms like bacteria through a liquid medium), which are "irreducibly complex." He points out that the flagellum is made up of forty component parts that form the rotor, stator, U-joint, drive shaft, and propeller of this molecular machine. Behe claims that thirty of these forty components do not exist in any other cellular structures. As all forty pieces are necessary for the flagellum to operate, it is difficult to imagine how the flagellum could have evolved through small modifications that added new parts over time. The component parts would confer no biological advantage until they all existed together and were constructed in a very specific way to form this particular molecular machine. The flagellum is therefore irreducibly complex and shows evidence of intelligent design.

This claim, and others like it, caused a frisson of alarm among humanists and secularists in the Western world. They were terrified that it would lead to schools having to teach children that the Earth was built by God in six days, each twenty-four hours long. The press

beat it up and petitions went flying about, causing people to retreat to their ideological bunkers and poke their tongues out at each other.

The proponents of intelligent design said they were simply putting forward scientific questions, and to stifle such questions would be gagging legitimate inquiry—the very thing that humanists once accused the sixteenth century Catholic Church of doing.

The humanists pointed out that the motives of those proposing intelligent design would be seen to be more scientifically pure if they were not all solidly in the Christian camp... and so the debate raged on.

It must be said that most biologists and biochemists disagree with Behe and point out that the bacterial flagellum is not irreducibly complex. Nature is filled with examples of precursors to the flagellum that are “missing a part” and yet have a function. For that reason, Behe’s argument is not compelling. I have to say, I agree with the majority view. Nature does not show leaps in the organizational structure of living organisms. There are always primitive precursors. Biological development really is a remarkably sequential thing.

It is therefore probably a mistake to look for evidence of God in the intelligent design of organisms. However, it is perfectly valid to see evidence of mind and intention in life generally. As such, scientific atheists need to be careful that they don’t point to evolution supposing that by doing so, they are discrediting the idea of God. While evolution is a very plausible theory that explains the development of biological diversity, it cannot explain why such a mechanism exists, how the universe began, why it is so amazingly ordered... or what life is.

Designed for life

Where does life come from? Where does the life force that is responsible for humour, worship, love, heroism and creativity originate? What is it? These questions move us well beyond the different evolutionary directions taken by Darwin’s finches on the Galapagos Islands. They are “first order” questions.

Some believe that the information responsible for generating life is simply a subset of the laws of physics. It came into being at the very first moment when the universe was born. These laws then dance with chance events, causing life forms to develop... which then continue to evolve in perfectly understandable, scientific ways. They adapt and develop according to the rules of evolution.

Those who believe this do not believe there is any underlying purpose or divine plan.

The trouble with this thinking is that it dodges the question. The all-important issue of

what the life force is, in scientific terms, is not answered. Neither does it address the question of how the information codifying the life force is transmitted to an organism. In other words, nothing is put forward scientifically to replace a fairly logical conclusion that there is a mind behind it all: God.

The nervousness of scientists considering the possibility of God is understandable. They don't want to squeeze God into a knowledge gap that perhaps science will later fill. On top of that, the very discipline of science does not allow them to consider non-measurable, non-rational things. They don't have the mandate, methodology or training to consider issues beyond science. And yet science must inevitably bump up against theology when it considers ultimate causes for the factors that science works with every day. Why is everything so precisely right in the universe to allow life? Why are the workings of the universe so transparent to us? What is life... and where does it come from? In other words, it is a perfectly rational thing to ask why the universe appears shot through with signs of mind.

The problem is, having postulated the possibility of God for rational reasons, there is no scientific way of testing it. Scientists therefore come up against a boundary. The fact that most of them then back away from that boundary to address propositions that they can test and examine with experiments, does not disprove God. It is simply that scientists don't have the tools or language to explore the possibility of God.

Reason suggests it is perfectly rational to believe there may be a mind behind the life force seen in nature. For those atheists who are scientists and who want to define their identity in purely rationalist terms, this is deeply disturbing. They want rationalism to provide all the answers. As such, they tend to shrug and claim that, given enough time, there will be a way of explaining everything rationally.

They are drawing a lot of money on a fairly blank cheque.

Some scientists believe there is evidence that life is written into the laws of physics. The American chemist, Sidney Fox, has claimed that the laws responsible for the formation of peptide bonds in the production of proteins will automatically cause life to develop in the same way that water inevitably forms ice crystals when the temperature drops.¹⁹ Fox believes that life spontaneously generates under the right physical conditions—when inorganic molecules form amino acids that join together to form amino acid polymers (which he calls “proteinoides”).²⁰

This is not convincing. Life is not just a mechanical thing; it also has a great deal to do with information. There is no evidence to suggest that amino acids contain the information necessary to confer life. Complexifying amino acids into proteinoides is simply chemistry. It

doesn't explain life any more than sticking pages into a book explains reading.

If life was an unremarkable product of chemistry, we would reasonably expect life to pop up everywhere in the universe where there was a life-friendly environment. The Belgian biochemist, Christian De Duve, is one who believes there must be many celestial bodies in our universe with a similar history to Earth and therefore a great number of opportunities for life to exist. Accordingly, he doesn't believe that life on Earth is particularly special or unlikely.²¹

The rather obvious caution regarding De Duve's thinking is that life has not been found anywhere else in the universe... and may never be found.

His thinking does mean, however, that there is quite a lot at stake, both theologically and scientifically, over whether or not life exists elsewhere in the universe.

Life on other planets

The American Congress doesn't believe there is extraterrestrial intelligence in the universe—certainly not in any form that is worth looking for. It quashed NASA's SETI (Search for Extraterrestrial Intelligence) program in 1993. NASA is now focussing on SETL (the Search for Extraterrestrial Life).

Scientists are searching our galaxy for habitable zones that exist around a star where planets or moons have an atmosphere capable of supporting liquid water on its surface. They are looking for zones which are just right for planets within them to support life. These areas have come to be known colloquially as "Goldilocks zones."

Numerous planets in such zones have now been discovered. Most are bigger than Earth, simply because the bigger planets are easier to detect. On 4 November 2013, astronomers reported that data from the Kepler space mission suggests there could be as many as forty billion Earth-sized planets orbiting in the habitable zones of stars (both red dwarf stars and normal stars).

That's a lot.

But we still haven't found extraterrestrial life. That doesn't mean it's not there; it's simply a reflection of how hard it is to discover when the distances involved are so huge and the number of solar systems is so large. Interestingly enough, the search parameters for life have recently been expanded because evidence of substantial amounts of water has been found outside the Goldilocks zones on planets and moons sustained by radioactive decay and other forms of energy.

Discoveries such as these prompt us to consider what the significance would be of

finding life on other planets?

The answer is not at all clear. If life were only found on planet Earth, it would cause us to wonder why Earth should be so special. It would certainly prompt us to consider the possibility that a divine mind intended us to exist.

If, on the other hand, life is found to be abundant in the universe, this might suggest that De Duve is right and life is not special or purposed. It is simply the inevitable product of chemistry which occurs widely throughout the universe.

Alternatively, it might suggest that life was intended by God and that he has designed the universe to allow it to occur everywhere. If this were so, and sentient life was discovered on other planets, this could be problematic for Christians because it would challenge their understanding of the unique status of humankind.

Be that as it may, no life outside planet Earth has yet been found. Therefore, to build an atheistic philosophy which depends on life being ‘unspecial’ and common in the universe would be premature and quite possibly wrong.

Judging by the way things appear now, the shadow of God can be seen both in nature and in the miracle of life.

The cleverness of death

We have spoken about the extraordinary and unlikely phenomenon of life—something which justifiably requires an explanation. However, it is worth pointing out that death is also something to wonder at. Its existence is very clever and the fact that it does exist should not be taken for granted.

For nature to exist as it does, there must be a mechanism that allows life and a mechanism that allows death. Both have to exist to allow the evolutionary process to work. All living organisms need to have built-in obsolescence. Older generations need to offer their genetic characteristics for selection by a local environment to see which characteristics result in more successful offspring. After they have done this, they need to oblige the system by getting out of the way; that is, by dying.

Death is therefore a very essential and rather clever idea. For life to exist, living things need to be engineered in such a way that they have to die.

Circling herring gulls and fishy things

We have been speaking a lot about evolution. Some people in the Christian church have suggested that, while they accept that an organism can change in order to adapt to different

environments, they struggle to believe organisms can actually evolve into new species.

The short answer to this is that they can. First, though, it might be helpful to remind ourselves what the process of evolution is. Evolution is a process of genetic change in an organism that helps it to thrive in its particular ecological niche so that it produces more offspring. Generation by generation, changes can occur that makes a species more or less likely to succeed. Nature selects those changes that make an organism more fit to survive. As a general rule, taxonomists (who name and categorize living organisms) declare that an organism has evolved into a new species when it has changed so much that it can no longer mate with its original parent species.

Numerous accounts of speciation (the development of new species) exist. Here's one about herring gulls.

Seven discreet populations of *Larus spp.* (the genus of the herring gull and black-backed gull) are found around the edge of the Arctic. Populations of *Larus* changed over the years as they migrated around the edge of the Arctic until the resultant species had changed so much that its adults could no longer mate with the original parent species.

This is just one of a number of examples which indicate that evolution is both observable and measurable.

Evolution is a very powerful mechanism which allows for the diversification and development of life. There are some amazing examples of this. A favourite for the American biologist, Stephen Gould, is a freshwater mussel called *Lampsilis*. This mussel lies partly buried in the bottom of lakes and has a structure on its protruding end that looks exactly like a little fish. It has side flaps, a tail, a streamlined body, and an eyespot. The flaps even undulate in a swimming motion. When a real fish comes to investigate it, the mussel discharges its larvae, some of which find their way onto the fish's gills where they continue to develop inside cysts. When the larvae mature, the cyst ruptures, releasing the *Lampsilis* to the lake floor where they complete their adult life.²²

It is extraordinary to consider that evolution should be responsible for such an exquisite mechanism.

Doing justice to the facts

If science claims to have the sole prerogative on knowledge, it will preserve its empirical chastity, but risk trapping itself in an empiricist prison of its own making. This is quite okay if scientists are content to restrict their comments to science, but when atheistic scientists claim a scientific mandate for scorning the idea of God, then they are asking things of science that it

simply can't deliver. There are huge restraints on what scientists can validly say about God from a scientific perspective. God, almost by definition, has to be beyond the ability of scientists to investigate, quantify and codify. This doesn't mean that God doesn't exist; it simply means that scientists don't have the language to make a judgement about God other than to suspect his existence on the basis of what they observe.

The genius of God, it seems, is that he chooses to be known as much by a child wondering at the night sky as by a scientist mapping the human genome.

Without God, things become logically difficult. Atheists have to look at a world riddled with order and codes and say that it all comes from nothing as a result of mechanisms that are not known. All the atheist can do is reach for the "infinite" escape clause and say that life has arisen because there are an infinite number of universes that exist, and therefore it is not surprising that at least one of them has stumbled on the ability to synthesize life. Chance alone has resulted in a species that is able to value love, justice, altruism, self-sacrifice, music, humour and art.

This is not a satisfactory argument. Chance may determine where a particular football player stands on a playing field at any one time, but it doesn't explain why the football team is on the playing field.

It is difficult to avoid the suspicion that such atheistic thinking has arisen from ideological preconceptions rather than from facts. Atheism is a conviction that atheists bring *to* science, it is not one that they get *from* science.

Christians, on the other hand, look at the marvels of life and say that what they see is consistent with the idea of God. What they observe convinces them that belief in God is reasonable.

Dispensing with creation like a badly made pot

I have been making the case that there is evidence of God in nature. Life, in all its hues, is an extraordinary and highly unlikely thing. While its form can be explained scientifically, its existence cannot.

So, what is it that Christians believe about life, nature and the universe? What are God's intentions for it?

Christianity teaches that God will eventually bring this imperfect universe to an end so that he can renew it, combine it with a new heaven, and inaugurate the kingdom of God—the final realization of his purposes.

If this is so, a question that might reasonably be asked is: If God's creation is so special,

why does Christianity teach that God will remake it as a potter might remake a flawed shape on his wheel? Should we expect to see God's handiwork in nature if it is so flawed? Should we really consider nature to be special?

Yes, we should.

Christians are supposed to care for the environment and for the creation around them for two very good reasons. The first is that God made it, values it and instructs us to care for it. The second is that God will pattern his future kingdom on aspects of our present existence. As such, it makes no sense to desecrate that pattern. Yes, everything will change with the inauguration of God's new kingdom, but this doesn't mean that the coming kingdom has no continuity with our present creation. The Bible speaks of creation waiting to be redeemed... and of us being transformed (Romans 8:20-23; 1 Corinthians 15:51). The one verse that does suggest complete annihilation of the Earth is 2 Peter 3:10. Properly understood though, this verse speaks of the destruction of the Earth in terms of the judgement of sin. It goes on to say that all will be "laid bare"; in other words, uncovered and put on show to display what it really is.

We get a clue about the continuing yet transformed nature of God's coming kingdom in the nature of Jesus' resurrected body. The first thing to note is that he was no vapid ghost. The resurrected Jesus was real and could be touched. He was, however, different in that he wasn't always recognized by his disciples and he wasn't restricted by some of our physical laws. He could, for example, enter a room with locked doors (John 20:19).

The Apostle Paul describes the difference between our current earthly body and our future spiritual body by saying that our earthly body is like a seed, pregnant with the possibilities of God—which only realizes its full potential when it is transformed into its intended goal and becomes a magnificent, mature plant (1 Corinthians 15:42-44).

The significance of this is that we should not scorn this present creation. It has continuity with the kingdom to come. That kingdom will be the full realization of God's intentions for all that he has made. It is little wonder, then, that the Apostle Paul speaks in Romans 8:22-23 of all creation longing to be renewed.

These motives are enough for me to care for the environment. I respect God's creation because God made it and told us to take care of it.

And because God made it, I am not surprised to see evidence of his handiwork in it.

The need for both science and theology

Both science and theology are necessary. Theology asks if there is more to be understood

about science's laws of nature than the simple fact that they exist. It goes beyond the realm of empirical fact to address questions such as why things are as they are.

Because science and theology are different ways of knowing truth, they have the ability to inform and constrain each other so that each becomes the other's moderator and mentor. Without science, theology can become polluted with illogical dogma. Without theology, science will struggle to make sense of existence and people's experience of the spiritual. Frazer Watts, Professor of Science and Theology at Cambridge, says:

*Science and religion cannot be confined to their separate compartments and ignore each other. They are each concerned with truth and there cannot be multiple truths which are completely unconnected with each other.*²³

It is therefore important to allow both disciplines. If science allows theology, it might surprise itself by discovering the "why" behind the "what." Some scientific disciplines, such as cosmology, are already pushing up against metaphysical questions. The astronomer and physicist, Robert Jastrow, makes this point when he says:

*At this moment, it seems as though science will never be able to raise the curtain on the mystery of creation. For the scientist who has lived by his faith in the power of reason, the story ends like a bad dream. He has scaled the mountains of ignorance; he is about to conquer the highest peak; as he pulls himself over the final rock, he is greeted by a band of theologians who have been sitting there for centuries.*²⁴

Made in the image of God

God says in Genesis 1:26, "Let us make mankind in our image, in our likeness." What does this mean?

Can I suggest that it means this?

- The big-heartedness of God lives in us.
- The passion for good to win lives in us.
- The creativity of God lives in us.
- The desire for significance lives in us.
- The ache for the love of God lives in us.
- The hunger for the eternity of God lives in us.

It also explains why:

- Death is obscene to us.

- Lack of meaning is obscene to us.
- Lack of relationships is obscene to us.
- Lack of a purpose is obscene to us.
- Lack of being able to give and receive love is obscene to us.

All this makes sense if we are made in God's image as spiritual beings.

Christians believe that we are the result of a deliberate act of self-expression on the part of God. We are made in his image. This is profound. No other religion in the history of the world has made this claim.

Being made in the image of God means we have the ability to make spiritual, intellectual and moral judgements in a way that no other created animal can—even those to which we are closely related biologically. Dr Ian Tattersall, in his book, *Becoming Human*, says that humanity represents a totally unprecedented entity on Earth.²⁵

Being made in the image of God also means we are sacred. We are therefore not free to abuse, kill, exploit or hate each other. If we are unsure how to behave or how we should express ourselves as those who bear God's image, we have a fabulous role model in Jesus.

The clues God has left us in nature concerning his existence indicate that he wants us to find him. He wants to be found, but he leaves room for our co-operation. He wants to be known, but he leaves room for faith. He wants to be obvious, but not so obvious as to compel faith. Rather, he invites faith.

God has done everything in his power to suggest his existence without compelling us to believe in him. He has created a universe so finely tuned that it not only allows life; it allows life that is self-conscious, that laughs, that composes symphonies, that paints like Monet and Renoir, that writes like Shakespeare, that feels compassion like Mother Teresa, and that is heroic like Jesus. The miracle is not just that we exist, but it's the manner in which we exist.

God wants to be found in nature. The Bible says, "The heavens declare the glory of God; the skies proclaim the work of his hands" (Psalm 19:1). It also says, "God's invisible qualities—his eternal power and divine nature—have been clearly seen, being understood from what has been made" (Romans 1:20).

Clearly, God expects something of his identity to be known from what exists in nature, even if the natural world has been corrupted by sin and suffering.

Why has God left clues about himself in nature?

Because he wants to be found.

CHAPTER 3

The Evidence of God in Suffering

This chapter is very different from the first two in that we will be looking at theology; specifically, the Christian understanding of suffering.

Suffering is a big deal. It has huge implications for what people believe about God. I once conducted a survey among 311 tertiary-trained people and discovered that 41 percent of them believed that the incidence of suffering in the world suggests no loving God is in control.¹

The trouble is, atheism does not provide a convincing alternative. When considering the extraordinary features of the cosmos and nature, the atheist has to believe that existence, order and sentient life have no significance. They are meaningless.

Another unavoidable belief that atheists must hold is that there is no ultimate justice. This, of course, doesn't prove that atheism is wrong; it is simply a logical consequence of its philosophy. The scary thing about this, as history attests, is that such a position cannot help but have implications for the moral behaviour of society. (This will be explored later in Chapter 5.)

Evangelistics

Atheists scorn the idea of the miraculous—particularly when it comes to claims of divine healing. Some of this is deserved. Christianity has not been helped by exaggerated claims of some falsely spiritual people. So, as an aside, can I gently ask these people to be careful with God's reputation? God does not require 'evangelistics' (a stretching of the truth for the sake of evangelism) from anyone. He is a God of integrity and truth.

Placing limits on God

In the previous chapter, I alluded to the danger of scientists locking themselves into an empiricist prison in which their view of truth is limited. (An empiricist is a person who will not believe anything to be true unless it has been shown to be so experimentally.) One symptom of this limited vision is seen when an empiricist grudgingly allows for the possibility that God is responsible for the universe... but then insists that God abandon his creation and leave the rest to chance.

This displays a curious and inconsistent logic. It allows God to create, but doesn't allow him to stand outside of time and know full well what sentient life will occur. Those who

believe this have a very inadequate view of God. They want to saddle him with human limitations such as not being able to know the future.

The fact is, if God exists, a great deal more is possible. However, this doesn't mean that everything is possible. God, after all, is rational and has chosen to work through our history. As such, only those actions ascribed to God which have historical and logical credibility are valid. We are not free to believe that God has made tiny planets in the shape of teapots to circle the Sun.

If God exists and has come to us as Jesus Christ, then it is logically possible for the events recorded in the gospels to have happened. Indeed, it makes them very likely. So, while God chooses never to be so obvious as to compel faith... and while God normally chooses to work through the laws of nature that he has put in place, he is under no obligation to adhere to the empiricist's dictum: "Nothing supernatural here, please."

When this is understood, it becomes possible to allow God to let you see further than the prison walls of empiricism. It becomes possible to see the resurrection of Jesus from the dead as something necessary and logical. Nothing else was going to show us that death doesn't have the last word. Nothing else was going to cause us to believe that resurrection life is possible. It was God's peerless 'show and tell'. Nothing else was going to cause us to take seriously God's plan to end this imperfect world and inaugurate his eternal kingdom.

All this has huge relevance for our ability to see evidence of God's existence, reason and character in the Bible's teaching on the hardest subject that exists in the world: suffering.

Looking for clues

If God exists, it will be almost impossible to believe that he has not left clues about himself and his purpose in this key area. Just as importantly, if it can be shown that the Bible's teaching on suffering is unusable, simplistic, inadequate or untrue, we can dismiss the idea of God. However, if biblical teaching on suffering gives the fullest and most satisfying answers possible, the signs are good that God exists.

Nothing sorts out the validity of philosophies and religions like the issue of suffering.

The Hindu Vedas teach that suffering is an illusion. We must faithfully live out our status in life and earn the right to a better life at our next reincarnation.

Buddhists say that suffering comes as a result of desire. We must therefore kill off all desire and work towards escaping this world so that we become subsumed into nothingness.

Many other religions say that bad things happen to people because they are bad.

Humanists say there is no reason, no meaning, no God and no hope. Therefore, just get on and

live life as pragmatically as possible.

I have to confess that on the basis of what I observe in life, I don't find these philosophies persuasive or helpful. They call to mind a story:

There was once a young man who fell into a pit with walls so steep that he couldn't get out. Leaders of several of the world's religions came to the edge of the pit and said that if the man had behaved better and been wiser, he wouldn't have fallen into the pit. After they left, a New Age devotee came and said to the man that if he closed his eyes and practised transcendental meditation, he could pretend the pit wasn't there. The next person who came to the edge of the pit was a postmodernist. He called down to the imprisoned man and told him that he had a valid lifestyle and had obviously been liberated from the shackles of conventionalism by being in the pit. Meanwhile, the man remained trapped in the pit.

The question is: Can Christianity fare any better? Can we see evidence of God in his teaching on suffering? Does Christianity make sense of what we see in life and address adequately the full complexities of this difficult subject?

In exploring whether we can see evidence of God in suffering, I don't just want to explore the claim that Christianity makes suffering people happy. Plenty of deluded people are happy. Neither am I content to prove that if anyone can attribute meaning to suffering, this will take its power away.

Viktor Frankl, a psychiatrist who survived the holocaust, says that if you manage to find meaning in your suffering, you will be able to bear it bravely and honourably. Finding meaning in suffering takes its tyrannical power away so that its strident demands for you to be miserable and self-obsessed are broken.²

While this makes good psychological sense, I want to go beyond helping you to adjust your thinking so that you can feel happier. I want to ask two questions that are infinitely more significant: "What is *true* about suffering?" and, "Can anything about God be learned through suffering?"

The motorbike shop

Many years ago, when I was a minister in a country town, I rode a motorbike. I used to hang out with a bunch of local bike riders behind the motorbike shop for 'happy hour' on Friday evenings. On one such occasion, I had ridden in from out of town and was wearing my bike jacket. The relevance of this was that I wasn't looking much like a church minister.

A man I'd not met before was part of the group at the workshop and it was obvious that he was angry. He was effing and blinding to anyone who would listen. The rest of the guys let him go on like this until one of them told him I was a church minister. It took a while for him to believe it. When he did, he said, "I don't believe in God. I used to, but then I went to Vietnam and got badly wounded. God didn't look after me at all."

I had every sympathy with the bloke and said, "I don't blame you. I wouldn't believe in that god either."

He was rather puzzled and thought I probably should, given that I was a church minister.

"No," I said. "You believed in a god who was a good luck charm. So when your good luck charm didn't work, you threw it away. Very sensible."

He looked bewildered, so I went on.

"But if you are interested in meeting the one true God—the God who loves you, who died for you, and who said he would never leave you, even in the bad times... if you are interested in the God who said that Christians are not immune to suffering, but would be persecuted like he was... if you are interested in the God who calls us to be faithful and to work with him on a project to defeat sin and suffering... then yes," I said, "I'd be happy to talk with you about that God—the God who actually exists."

I know a lot of people who scorn Christianity because of some tragedy in their family. They were looking for a "sugar daddy" god. But God is not that. He never has been. Even a cursory look at the lives of holy men and women in the Bible makes this clear. Horrendous things happened to them. God did not spare them from suffering. He did, however, lift them above the suffering so that it did not have the final authority in their life.

Avoidable suffering

From time to time, I conduct funerals. On such occasions, I'm often asked, "Why did this have to happen to our loved one? He/She was such a good person." The implication, of course, is that God is unfair because bad things should only happen to bad people.

This idea has existed through much of history and still exists today. It was, in fact, so popular in Jesus' time that he needed to address it.

The real difficulty with this understanding is that it is not entirely wrong.

We are all guilty of sin, and we all continue to fall short of God's standards of holiness in some way. We all make poor choices occasionally, and these choices have consequences for our lives. The Old Testament book of Proverbs tells us how life works best most of the

time. It says that ungodly, unwise behaviour generally results in suffering. Accordingly, it invites us to avoid needless suffering caused by:

- 1 Mere talk and no action (Proverbs 14:23; 28:19)
- 2 Pride (Proverbs 13:10)
- 3 Choosing not to be guided by wisdom (Proverbs 4:6; 22:3; 27:12)
- 4 Hate (Proverbs 10:12)
- 5 Sexual immorality (Proverbs 6:28-29)
- 6 Laziness (Proverbs 6:6-11)
- 7 Lack of generosity (Proverbs 21:13; 28:27)
- 8 Developing a hot temper (Proverbs 22:24-25)
- 9 Being greedy (Proverbs 23:4-5; 25:16)
- 10 Drunkenness (Proverbs 23:20-21,29-32)
- 11 Being a busybody (Proverbs 26:17)
- 12 Concealing sin (Proverbs 28:13)
- 13 Failing to discipline your child (Proverbs 29:17).

Christianity acknowledges the obvious truth that some suffering is caused by our own unwise choices.

However, while this is true, it in no way explains all suffering.

Do bad things only happen to bad people?

The belief that all suffering is caused by the victim living a bad life is a cruel and unjust one. Jesus crashes against this simplistic thinking in his teaching, recorded in Luke 13:1-5. Some people (who were probably aware of Jesus' Galilean accent) had told Jesus of a time when Pontius Pilate killed some Galileans in the temple court. Perhaps those telling Jesus this were trying to warn him to be careful. Alternatively, they might have been implying that since Galileans were notorious for causing political trouble, it served them right. (Galilee was well north of the political and religious centre, Jerusalem, and Galileans often resented its control.)

Jesus reminded those with whom he was speaking of the eighteen people who died when a tower fell on them. As this occurred near the pool of Siloam in their own sacred city of Jerusalem, the victims could in no way be considered northern troublemakers.

So, how did Jesus make sense of this needless death, a tragic accident which had nothing to do with people's poor choices?

Jesus made it plain that those who suffered and died were not necessarily more evil than others. He taught that their suffering was one of the sad consequences of the rejection of God

by *all* people, and of the world's choice to go down a path that God never intended. As such, suffering points to the need for all of us to turn to God and seek his forgiveness.

This teaching makes sense. It in no way supports the silly idea that only evil people suffer. Jesus' teaching points to the reality that life is inherently "spoiled." He highlights the responsibility we all have to co-operate with God so that things can be restored.

The universe is a good thing spoilt

At the start of the Bible, we read the story of Adam and Eve and how their disobedience resulted in the land being cursed (Genesis 3:17-19). This is not just a fanciful story. It established a principle that played out repeatedly in the history of Israel: rebellion against God results in good land becoming wasteland (Psalm 107:33-34; Jeremiah 9:12-13; Hosea 4:1-3). In a very real sense, it can be said that sin defiled the land and brought suffering (Isaiah 24:4-6; Jeremiah 2:7).

I say this to underline the fact that some suffering can be avoided by living as God intends. The Apostle Peter certainly knew this. He taught that no Christian should ever suffer as a result of folly or a lack of integrity (1 Peter 4:15).

What does this mean?

It means that the only suffering Christians can escape is that which can be avoided by good and wise behaviour.

Some suffering, however, is not avoidable. Earthquakes and tsunamis have made this very clear.

Christians are not immune to suffering caused by the accidents and incidents of life. If they were, people would become Christians just to stop bad things happening to them. This would mean that Christianity wouldn't be the free choice that God wants it to be. Christians have to be subject to the same rhythms and vagaries of life as non-Christians (Matthew 5:45). Certainly, Jesus did not mince words about the realities of hardship in this life. He said, "In this world you will have trouble" (John 16:33), so don't expect that you won't.

This does not mean, however, that we are forced to lie helplessly in the jaws of suffering, overwhelmed by evil while we wait for "pie in the sky when we die." Christians are ambassadors for God's kingdom. We are a people commissioned by God to prefigure the kingdom of God by displaying the love and truth of God. Christians are those who are being transformed by God's Spirit so that they have the compassion to address evil and suffering wherever they see it.

But we should never expect this to be easy. Christians live in an alien environment in

which they will not only experience the inherent dangers of life, but also persecution (John 15:20; 1 Thessalonians 3:2-4). All Christians are called to carry the light of God's truth and grace in a world that prefers darkness (Matthew 5:15). Life for Christians, more than anyone else, is neither fair nor easy. Jesus pointed out that if he was persecuted, his followers have no right to expect anything different (John 15:20).

This sobering reminder prevents Christians from spiralling off into a poorly founded "success theology" where they believe that because they are Christians, they will be immune to grief, hardship and suffering.

It's worth pausing here to ask the question: How is God shaping up? Does his teaching (as recorded in the Bible) stack up against your experience of suffering? Does it have the ring of truth? I hope you are finding that it does. However, there are a lot more questions still to answer, so let's continue.

Honouring God in suffering

As I ponder the extraordinary aversion to suffering of today's Western church, with its misguided sense that it has some sort of divine right to a pain-free, blessed life, I can't help but contrast it with the teaching of Scripture and the attitude of the early church.

Jesus says consistently in Scripture that those who lose their life for his sake will find it (Matthew 10:38-39; 16:24-25; Luke 9:24). This understanding led the early church to believe that it was a privilege to suffer for Christ. If you are in any doubt about this, read what Ignatius of Antioch wrote while on his way to martyrdom in Rome (early in the second century).

The early Christians understood that suffering brought about by the mere fact they were disciples of Christ meant that they were sharing in the sufferings of Christ (Colossians 1:24). They considered this to be a privilege... and something that would be rewarded in God's kingdom (Matthew 5:11-12; James 1:2-4).

Certainly, God is honoured when we are faithful in the midst of our suffering. This was the case with Job in the Old Testament. Job remained faithful despite the worst that evil could throw at him. His faithfulness in the face of suffering showed the spiritual realms of evil that God had given him the strength to stand strong and be victorious.³

The sort of faith that allows us to trust God in times of suffering is the greatest compliment anyone can give to God. Job had this faith—faith which enabled him to say, "Though he slay me, yet will I hope in him" (Job 13:15).

Now that's a faith that God can throw in Satan's face!

The question I want to ask is this: Why was it that people in the Bible could cheerfully embrace martyrdom, while the Western church today expects God to bless it in every way?

Let's join the early church at Bible school and discover some of the secrets they knew.

What does the Bible teach?

Essentially, the Bible teaches us that suffering comes from two sources. Firstly, it is a temporary expression of a broken universe that is being driven by laws which have been corrupted by sin. Nature, as well as humankind, is waiting to be made new (Romans 8:18-22). The corruption of the laws of nature explains natural evil such as tsunamis and diseases.

Secondly, the Bible teaches that suffering is a consequence of people's choice to embrace evil. Their freedom to do so explains why moral evil exists.

So, what are we to make of the fact that these sources of suffering exist? Where is God in it all?

The early Christians understood that even in the midst of suffering, God was not absent. He knew the number of hairs on their head (Matthew 10:30) and every detail of their circumstances. He cared about those who suffered and promised to be with them. He was able to identify fully with them because he himself had suffered as Jesus. This meant that while they knew they might not be saved from hardships, they would never have to face their trials alone. Jesus would never forsake them and, if invited, would walk with them through life, lending them his strength (Matthew 28:18-20; Hebrews 13:5).

It's worth remembering that God has chosen never to allow his authority to be entirely absent from any situation of suffering. Even in the most vile cases of suffering caused by evil, the voice of God, however small, can be heard giving the strength to endure, the ability to tell others about Jesus, and the courage to bring reform. This is what Christians can throw in the face of evil.

Not only will God never let his voice be entirely absent in any scenario of suffering, he sometimes (note: *sometimes*) chooses to turn the suffering into something that can be used for his purposes. God once allowed a man to be sick so that Jesus could do a work of healing that would glorify God's name (John 9:1-3). On another occasion, Paul's imprisonment in Rome resulted in his military jailers learning about Jesus (Philippians 1:12-13).

The one thing the early church particularly understood was that this life is not all there is. Their hope was in the future kingdom of God. As such, this was the kingdom in which they invested (Matthew 6:19-21).

The Bible teaches that God is honoured when people stay faithful to him in the midst of

their suffering (Job 1:8-12; 2:3-6; Ephesians 3:10). Such faithfulness bears witness to all those who are watching that God can be honoured by Christians despite the worst that Satan throws at them. Showing that you trust God despite your suffering is the greatest compliment anyone can give to God (Job 13:15). As we read before, the early disciples understood that suffering for God was a privilege (Acts 5:41; Philippians 1:29; 3:10; 1 Peter 4:12-13). It allowed them to suffer with Jesus, and so share with him in his epic plan to rescue humanity back to himself.

I can't help but notice that, while the Western church has tried to advance the gospel using the tool of commercial success, the New Testament church advanced the gospel through suffering (Colossians 1:24). The early Christians understood that being "in Christ" meant sharing in his death, in his Spirit, in his holiness, in his resurrection, and, for a short time, in his suffering. The Apostle Paul couldn't imagine that anyone could have the Spirit of Christ in them without being prepared to share in Christ's sufferings (Romans 8:16-17).

While this is so, it is important to remember that the early Christians were not spiritual masochists. Neither did they consider themselves to be helpless in the face of suffering. They attacked suffering and injustice with the love and power of God whenever they could, for this was exactly what Jesus did. He saw suffering as a form of evil, something to be overcome. Jesus sought to liberate people from all that oppressed them (Luke 4:16-21). He healed those who were sick (Matthew 8:16) and commanded his disciples to do the same using the authority of his name (Matthew 10:1).

Christians, therefore, are called to combat suffering wherever they see it.

Can suffering be explained because it allows a "greater good"?

If you said to a woman who'd had her children murdered in a Nazi concentration camp that it happened because God was pursuing a greater good, you would justifiably earn her anger and scorn.

A lot more needs to be said.

Let's proceed carefully and acknowledge that *some* suffering is necessary for us to live life well. If we felt no pain, our bodies wouldn't be able to tell us when they were damaged. We need pain to prompt us to move when we are too close to a fire. But even so, this argument is not sufficient to explain the hideous pain that goes well beyond biological necessity.

The Bible teaches that pain is not only necessary for biological reasons, it also helps us mature in character and faith so that we are able to cope with the rigours of life. James writes

in the Bible, saying:

Consider it pure joy, my brothers and sisters, whenever you face trials of many kinds, because you know that the testing of your faith produces perseverance. Let perseverance finish its work so that you may be mature and complete, not lacking anything. (James 1:2-4)

The Apostle Paul understood this. He taught that he and his colleagues had endured great suffering in order to teach them not to rely on themselves but on God (2 Corinthians 1:8-9). Still later, he went on to explain why God had not healed him of a condition that vexed him greatly. It was to prevent him from becoming too conceited as a result of the special insight and revelation that God had given him (2 Corinthians 12:7-10).

Paul does assure us, however, that suffering need not have the last word (Romans 5:3-4). He promises that if we persevere, we will grow a godly character. When we notice our character changing, we can be encouraged and see it as evidence that God's Holy Spirit is at work within us. This, in turn, gives us hope that God is getting us ready for his kingdom.

So, there it is: Suffering can result in perseverance, which can result in character, which can result in hope.

But while there are some positive sides to pain, this does not explain all pain. It does not justify torture chambers, the deaths of millions of people in plagues, or the genocide perpetrated by evil regimes. These cannot be adequately explained by saying that God has allowed it to facilitate a greater good.

So, let's dig deeper.

Is there anything to be discovered by exploring the relationship between theology's understanding of suffering and science's understanding of suffering?

How does the Christian understanding of suffering dance with science?

I am sometimes saddened by the uneven alliance that occurs between science and theology at many science/faith conferences. Too often, theology struggles to contribute much to the debate at all. Delegates seem to be content to argue the case that faith is scientifically credible—and leave it at that.

However, when it comes to suffering, this won't do. If the only voice heard in discussions about suffering is that of science, then the only conclusion to be reached is that this universe of pain was the best God could do if he wanted to build a self-sustaining universe able to produce sentient life.

More needs to be said.

Is a suffering universe the best God could do?

Arthur Peacocke, Ian Barbour and John Polkinghorne are three theologians with a distinguished scientific background. They each speak of the need for the universe to be able to generate authentic novelty in order to allow its fruitfulness to be explored. Peacocke stresses the essential role of chance in the development of the universe's potentialities. He points out that God creates through the interaction of physical laws and chance. God does not direct events by occasionally poking his fingers into gaps in the process.⁴ God is present within the epic of evolution, but chooses to work within normal laws of nature. However, the cost of evolutionary complexity is pain and suffering, for an evolutionary world must involve both predation and death. It is a cost that God is prepared to sanction in order for him to have a fruitful universe.⁵

Ian Barbour has largely adopted the philosophy of process theology. Accordingly, he thinks slightly differently. He suggests that the universe is incomplete and is still coming into being.⁶ God is not responsible for suffering because he is committed to working with us in a consensual, communal relationship. This means that he will seek to persuade, rather than coerce, existence along certain pathways. When the world fails to go down these pathways, God shares in the resultant suffering with us. Barbour goes on to say that the emergence of higher levels of consciousness will inevitably result in a greater capacity for suffering. However, this is not a bad thing, as suffering contributes to moral growth (Romans 5:3).⁷ Courage would be impossible without danger and temptation... and the opportunity to choose good would be meaningless without the opportunity to choose evil.

John Polkinghorne seeks to steer between the idea that God has love without power (he is an impotent spectator) and the contrasting idea that God has power without love (he is a cosmic tyrant). Polkinghorne suggests that God interacts with creation, but chooses not to overrule its divinely granted freedom to be itself. Created order is a package deal that includes creativity, change and risk. For example, mutations can occur spontaneously in the reproductive cells of animals which may either be lethal to them or cause them to be better adapted to their environment. The same biochemical processes that enable cells to mutate, making evolution possible, are those which enable cells to become cancerous and generate tumours. You cannot have one without the other. We are part of a physical universe with all its inherent creativity and danger. God is neither following a rigid blueprint nor abandoning existence to look after itself. Rather, he has encoded the universe to develop itself and evolve self-conscious, worshipping beings. Physical suffering and evolutionary blind alleys are the

necessary cost of this fruitful complexity.⁸

Francis Collins, who led the international team that decoded the human genome, agrees. He says:

The consequences of the evolutionary process are, admittedly, at times, things which cause suffering for individuals even today. A child with cancer may well be seen as one of those side effects of the fact that DNA copying is not perfect. It's important that DNA copying not be perfect or evolution wouldn't be possible.

He goes on to say with masterful understatement, “but if it results in a cancer arising in a child, isn't that a terrible price to pay? These are difficult questions to be sure.”⁹

Something of the inadequacy of explaining suffering from a purely scientific perspective is acknowledged by Denis Alexander, former Director of the Faraday Institute for Science and Religion at St Edmund's College, Cambridge. “These are not the kind of reflections that are likely to be of much help to someone actually passing through a period of suffering,” he writes. But then he adds optimistically, “although they might be.” He sees enough merit in the suffering-is-the-inevitable-consequence-of-God-making-a-self-evolving-universe hypothesis to suggest that it may give some comfort in times of suffering.¹⁰

I have to be honest and say that in all my years of ministry, I am yet to find anyone who has derived any comfort from this philosophy. I am left with the feeling that it is not enough. While it takes cognizance of the scientific evidence, it offers little from a theological position.

Can anything more helpful be said?

God isn't to blame; he doesn't know the future

In recent decades, a new proposal for understanding the nature of God has been advanced. It is variously known as the “open view of God,” “free will theism,” or “open theism.” Open theism (popularized by theologians such as Clark Pinnock, John Sanders and Greg Boyd) proposes that God has chosen to limit his power so that he is able to engage in a reciprocal way with people on a day-to-day level.¹¹ Our poor choices, and God's limited power, have resulted in the suffering we experience.

Open theism says that God has not locked everything into place by a foreordained plan. He has chosen, rather, to share with humankind the task of crafting the events of each day, for he has placed himself in a position where he can be persuaded to, or dissuaded from, a course of action through prayer. God therefore invites us to participate with him in bringing the future into being. This means that while God has set in place eventual endpoints and goals

that must be attained, he may not know the details of the future on a day-to-day basis.

God did not foresee the terrorist attack on the World Trade Center on 11 September 2001, and is therefore not culpable for allowing it. The attack was the terrifying price of humankind's refusal to live cooperatively in a bilateral relationship with God.

I don't believe that God can choose to be less than omnipotent and omniscient. The fact that he knows everything and stands outside of time doesn't change his ability to delight in us and interact with us as we journey through time. As such, I don't think open theism is convincing in its claim that God does not know the future. If Scriptural passages exist which suggest that God is intimately and dynamically engaged with humankind... yet already knows the future, then we need a better theology that allows for both.

We are forced to conclude that "open theism" is not persuasive in letting God off the hook with regard to suffering.¹²

Is the hope of future glory justification enough for present suffering?

Is a theology that says that this universe is the best God could do, an adequate one? Do we have to bear the consequences of God's pain-wracked initiative, comforted only by the fact that God has an eternal, pain-free life for us in the future?

In saying this, I don't want to downplay the hope that Christians have in God's future kingdom, a place where justice will finally come and every tear will be wiped dry (Revelation 21:1-5). It is highly probable that the obscenity of extreme suffering experienced now will dissolve into utter insignificance when seen against the glory of God's coming kingdom.

I also want to acknowledge that remaining faithful in our suffering (as Job did) honours God and is something that will be rewarded (Mark 10:29-30).

Be that as it may, the idea that this world of suffering is the best God can do right now leaves much to be desired. It is no comfort at all to the sole surviving member of a family killed by the natural evil of a tsunami, or to a holocaust victim who has suffered from unspeakable moral evil.

To explore whether anything more can be said, we need to examine whether this world, and the way it has been set up, really is the best God can do.

Is this the best God can do?

Yes and no.

Yes in the sense that we are being blessed by God's best. In fact, the best is all that God can do. It must be clearly understood that God's plans are always perfect and that he is the

final definition of good. As such, God's program of preparing us for his eternal kingdom is solidly on track. No better plan exists and no better plan can be conceived. No Christ-honouring debate about suffering can allow that any of God's work is anything but perfect. Our task is not to put God on trial, but to understand those things which God allows us to understand so that we can be drawn into his plans—and ultimately rejoice in them.

With this important proviso, we can answer the above question by saying “No.” God is able to create a world in which there are no tears. In fact, he has promised to do so. Scripture teaches that God will bring this current, imperfect Earth to an end and will judge and destroy all evil. He will then combine a renewed Earth with a new heaven to make one eternal kingdom in which he will be with us.¹³ God is perfectly able, therefore, to make an existence that is free of the sort of suffering against which we now rail.

But of course, this is not a fair comparison. While God is perfectly able, it may not be his perfect plan. The fact is, the world that currently exists operates with moral and relational constraints which are very different from their counterparts in the coming kingdom. A world of danger, evil and suffering is a necessary backdrop for evil to be expressed, judged, and finally killed off. A world of danger, evil and suffering is perhaps also a necessary backdrop for us to be able to freely choose whether or not to accept the love of a holy God. Our current universe and God's coming kingdom have very different divine parameters. In this world, we are deciding *whether* to let Jesus be our Lord, while in God's coming kingdom, we will be exploring *how* we can celebrate Jesus as our Lord.

Even if we accept this... there is still a niggling concern that asks, Why is there so much apparently unnecessary suffering from natural causes? Is there a better understanding of God's good plan, a plan that permits suffering in this life? Can we do more than simply trot out the bland empiricism of science? Are we able to understand more if we allow an authentic synergy between the two disciplines of science and faith?

Understanding the first three chapters of Genesis

If we are to get into the theology of pain and suffering, we must consider the theological significance and principles taught by the Adam and Eve story—the account of human rebellion against God and its consequences (an event referred to as “the fall”).

Before we do this, it is worth noting that this account is placed at the very start of the Bible—and this is no accident. It represents the eternal principles that are foundational to the rest of Scripture. In other words, if these principles (written in a language understandable to all people) are not understood, then there is little point in reading further.

Christians are divided over how literally one should understand this story. But the truths that it teaches about which most Christians agree are these:

- 1 God freely chose to create us (and the universe we inhabit) in order to embrace us with his love.
- 2 God risked giving us freewill to accept or reject his love and lordship. He did so to win our freely chosen love.
- 3 Humanity has largely chosen to reject God. The consequence of this is that suffering and death came into being, impacting humankind and all of creation.

Genesis 3 therefore invites us to take seriously the fact that something was lost and spoilt because of humanity's rejection of God's love and lordship. That rejection resulted in both physical evil (earthquakes and tsunamis) and moral evil (Hitler, Pol Pot, and perpetrators of cruel and abusive behaviour).

When God said that his creation was “good,” what did he mean?

It is worth looking at how utopian any Edenic existence would have been. What is meant by it? Was it an idealistic, carefree existence, or was it a place where some suffering was allowed to mature us? Did God allow hunger to motivate us to be stewards of his creation responsible for making unproductive land productive (Genesis 1:28-29; 2:15)? Was it only later, when the wheels came off God's best plan for us as a result of our disobedience, that this work became onerous (Genesis 3:17-19)?

Or, was it the case that when God described his creation as “*good*” (Genesis 1:3-31), he didn't mean that it excluded suffering? Maybe it was good because it was an act of creation that fulfilled God's purposes? Could God therefore have allowed the existence of painful things right from the start—for good reason?

This is unlikely. We can't push this very far without fracturing the need to take seriously the fact that something was spoilt as a result of humankind's rebellion against God. We can't consider that our current universe is the final definition of “good” that God intended without challenging the teaching of Romans 8:22-23, which says that all of nature, as well as humankind, is waiting to be renewed.

Nevertheless, it is interesting to ponder whether there could have been some physical suffering before the fall. Would people have been protected from physical evil in Eden?

Logic suggests not. If sharp objects did not hurt, if fire did not burn, the result would have been chaotic. If unpleasant consequences did not mature us—we would be less than human.

So, if some suffering existed in humanity's pre-fallen state, what is the cut-off point between necessary Edenic pain and the horrible suffering that is the consequence of our choice to rebel against God?

Or is this irrelevant because the Eden scene is a metaphor rather than reality? If theologians are so silly with their Edenic machinations and imaginings about things that are metaphor, is it any wonder that theology is banished from science/faith conferences like an embarrassing child at a social gathering of sensible adults?

So, what do the opening chapters of Genesis have to say to us? Do they just leave us with a lot of unanswered questions that Christians bicker about interminably?

There does seem to be a logical disconnect between:

1. The spoiling of an Edenic existence by the sin of humankind so that both nature and humanity wait for God's redemption (Romans 8:22-23)
and
2. Scientific evidence that an imperfect world existed well before humanoids came into being.

Both are credible, but at present they seem to be irreconcilable.

These questions invite us to look deeper.

Let's do so. Let's dare to work at uncovering something more helpful than that which currently exists.

A theory

I want to propose a theory about suffering that joins the teaching of Genesis 3 and Romans 8 to the rationalism of Collins and Polkinghorne. It has, as its basis, the following three convictions:

- 1 God exists outside of time.
- 2 Suffering, extinctions and predation occurred before the existence of humankind—before sin could ruin any Edenic existence.
- 3 Sin is an offence against God... and will ultimately be judged and destroyed by him.

If we take seriously the fact that something of God's ideal plan for us in this life was spoiled by the sin of humanity, we must ask, Why did dinosaurs get osteoarthritis?¹⁴ Why did suffering exist before humans were around to ruin things? Was the horrible suffering that existed before humanity the "good" that God wanted (expressed in Genesis 1:3-31), or was it also the product of something imperfect and spoiled?

An examination of God's character as taught in Scripture would indicate the latter. Creation, through all of time, seems to be a good thing spoiled. But how can we allow for this theologically? Is there a model of thinking that might explain why dinosaurs got osteoarthritis?

Here's my thesis.

As God stands outside of time, an offence against God by humanity at any point in time can have implications for *all* of time. In other words, a judgement on sin can go backwards in time as well as forwards. Just as the death of Jesus was retrospective in paying for all sins committed by humankind before Calvary, so human sin was also retrospective in its consequences for the universe.

What, then, does this mean for the sequence found in the Genesis 1-3 narrative? Here we read that God created all things in a state of goodness, *then* human beings sinned against God, *then* God cursed creation, *then* suffering and death entered into creation.

The answer is surely that we are to understand "first" things in the creation sequence of Genesis as primal, foremost, normative—the way things were intended to be, are still intended to be, and indeed will be. They are not to be understood literally in the sense of "earliest" or "initial."

And so, we have a model of suffering that fuses biblical principles with science. Because God stands outside of time, sin against God brings a consequence that affects all of time. The curse of sin goes backwards and forwards in history—just as the implications of Jesus' death on the cross go backwards and forwards in history.

This understanding means that:

- ◆ Dinosaurs can get osteoarthritis.
- ◆ Wasteful, primitive mass extinctions can occur.
- ◆ Human sin remains a reality.
- ◆ The need for both nature and humanity to be renewed remains intact (Romans 8:22-23).
- ◆ The hope of God's coming kingdom continues to motivate.
- ◆ The principles of Genesis remain in place.
- ◆ The scientific reality of a dangerous, creative, self-complexifying universe is maintained.

This, I submit, is consistent with biblical principles and with scientific understanding.

Father, Son and Holy Spirit... and suffering

A beautiful and comprehensive answer to the subject of suffering can be gleaned from the

Bible's teaching on the triune nature of God (Father, Son and Holy Spirit).

When we cried out against God in our suffering and despaired of there ever being a final solution, God introduced himself to us as the *Father* who will have the last word. With the certainty of one who stands outside of time, the Father has set a date when this present age will be replaced by a new order uncorrupted by sin and suffering.

When we cried out against God that he did not understand how it feels to be a victim of suffering, God introduced himself to us as the *Son*—one who has experienced the agonies of life personally, and so understands what we go through.

When we cried out against God because all we could do when confronted by suffering was look on helplessly, God introduced himself to us as the *Holy Spirit*—his very own empowering presence. The Holy Spirit who comes to live within us compels us to address suffering practically wherever we come across it. So, while bad things happen to good people, God sees to it that good people happen to bad things.

God's promises

God promises in his word that while it may not be possible to remove suffering now, he will always be present with us to help us through it. Not only that; he will never allow his authority in any situation to be entirely absent.

The Christian conviction is that even if God has not yet chosen to bring about complete victory over our suffering now, there will come a time when he will establish his new kingdom... and our victory over suffering will be complete. The final book of the Bible says that God will “*wipe away every tear from their eyes. There will be no more death or mourning or crying or pain, for the old order of things has passed away*” (Revelation 21:4). If we view suffering from the perspective of God's eternal kingdom, its ability to have the final word is destroyed.

And so we arrive at this conclusion: The only truly satisfying answer to the obscenity of suffering is eternity with God. Anything else is unsatisfactory as it allows injustice to win.

Understand all the facets of suffering

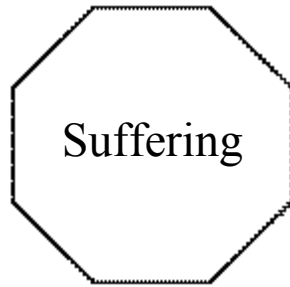
To fully appreciate a beautiful diamond, it is necessary to understand all of its facets. The same is true of suffering. If we are to have a comprehensive and balanced understanding of what the Bible teaches about suffering, we must appreciate all of its facets. Here's a summary of the main ones:

Some suffering is caused by:
1. bad moral choices
2. unwise choices.

Suffering caused by natural causes is a result of God's creation being corrupted by sin.

Staying faithful while suffering puts Satan in his place and honours God.
It will be rewarded.

Satan seeks to kill, hurt and destroy those things God loves.
Christians in particular are in a spiritual battle.
They will be persecuted.



God understands our suffering and has experienced it as Jesus.

He also promises to be with us in our suffering.

God's Holy Spirit constrains us and empowers us to address suffering whenever we see it.

God will ultimately defeat suffering. Every tear will be wiped dry.

Suffering can be allowed to grow maturity, good character, and reliance on God.

How did God do?

God must always be more than we can conceive. As such, there will always be some mystery concerning him and his actions, particularly in regard to suffering. This should keep us humble and serve as a reminder to be careful with the claims we make.

Having said this, the fact remains that God has allowed us to understand a great deal. The teaching given in the Bible is extraordinarily balanced and comprehensive, giving real insight into all aspects of suffering. No part of it is silly or simplistic. In fact, it engenders a level of hope that is extraordinary.

The question is: Have you found God in this teaching? Has it surprised you and impressed you?

No other philosophy or religion that I have encountered offers such a satisfactory and comprehensive answer to the vexing subject of suffering.

The man in the pit

Do you remember the man who had fallen into the pit? Let me tell you the ending of the story:

After the last of the others had left, Jesus came to the edge of the pit. He saw the man at the bottom, climbed down into the pit, and lifted the man out.

He will do the same for you.

CHAPTER 4

The Evidence of God in Mathematics

May I say quickly: this chapter is not a horrendous treatise on mathematics. I've written it simply to invite you to say "Wow!"

I'm actually not very good at maths. My fragile self-esteem in childhood meant that, I'd go into a blue funk when taking a maths exam and become tormented by anxiety and humiliation. And yet, even in my school days, I thought mathematics was clever, almost magical, in what it could do.

Nothing has caused me to change that view since. By dint of a twelve-year career in biological research, I learned to bumble my way around statistics and was grateful for the rewards it gave me. The things that maths was able to reveal were remarkable.

Something wonderful seems to happen when the order of creation meets the intellect of human beings. Both are extraordinary... but together, they can do truly amazing things. We find ourselves able to describe the workings of the universe with mathematical equations that are beautiful. It seems that cosmic order sits there waiting for us to discover it and describe it.

Mathematics not only provides us with a language that we can use to quantify what we see, but it also provides us with a path down which we can go and experience surprises along the way. It can reveal order and patterns in places we never expected to find them—as we shall discover later.

First, however, we needed to develop a mathematical language that was able to describe the order around us. This developed gradually over time as the need for more sophisticated mathematical expressions, such as "Sigma notation", arose. To use the analogy of music: it was as if we could hear the symphony, but it took time to devise a system that enabled us to write down the music we heard. The intriguing thing was, as we learned to codify the music, we discovered we could hear even more of it.

This leads to a question: Where does the music of mathematical patterns come from? Is it simply a product of human ordering, or is it something that exists independently of humankind?

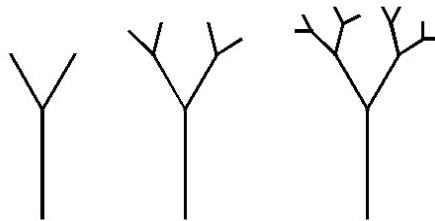
People who ponder these sorts of things reside in the faculty of mathematical philosophy. You'd be amazed at how many of the world's most prestigious universities devote serious resources to the subject. It is a discipline with an inordinate love of "isms": Platonism, Empiricism, Logicism, Formalism, Conventionalism, Psychologism, Intuitionism, Structuralism, Fictionalism, Nominalism—to name but a few.

One of the extraordinary qualities of maths is that it is not only a handy language for making sense of what exists; it also enables us to conceptualize things that haven't yet been found. The Higgs boson is one such example—now happily confirmed as existing thanks to the Large Hadron Collider at CERN, near Geneva. Another example is the discovery of Promethium in the Sun's atmosphere. It was found, despite never having been discovered on Earth. People looked for it because its existence fitted the mathematical pattern that the Russian chemist, Dmitri Mendeleev, observed in the periodic table.

Mathematics not only allows us to predict discoveries; it allows us to uncover things that we didn't even suspect were there. The Mandelbrot set is one such example. Let me tell you about it.

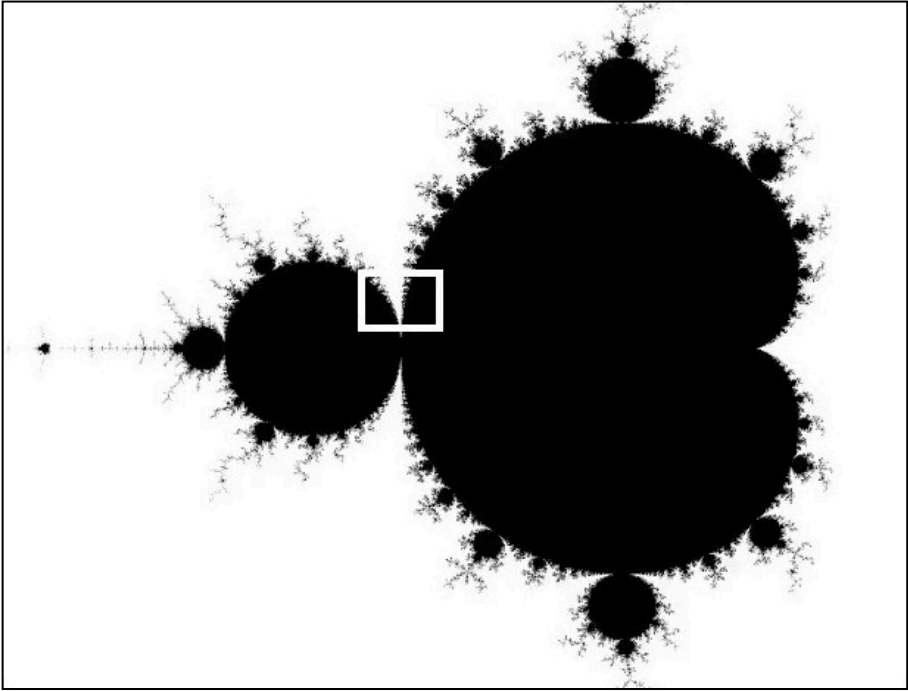
The Mathematical Surprises of the Mandelbrot Set

Mathematicians have been staggered by the fact that equations that might reasonably be expected to draw chaotic pictures can actually produce beautiful, symmetrical, organic-looking patterns which have the additional property of being infinitely magnifiable. In other words, these pictures behave as fractals. (A fractal is an entity that is the same regardless of scale—for example: tree trunks divide into limbs, which divide into branches, which divide into twigs.)

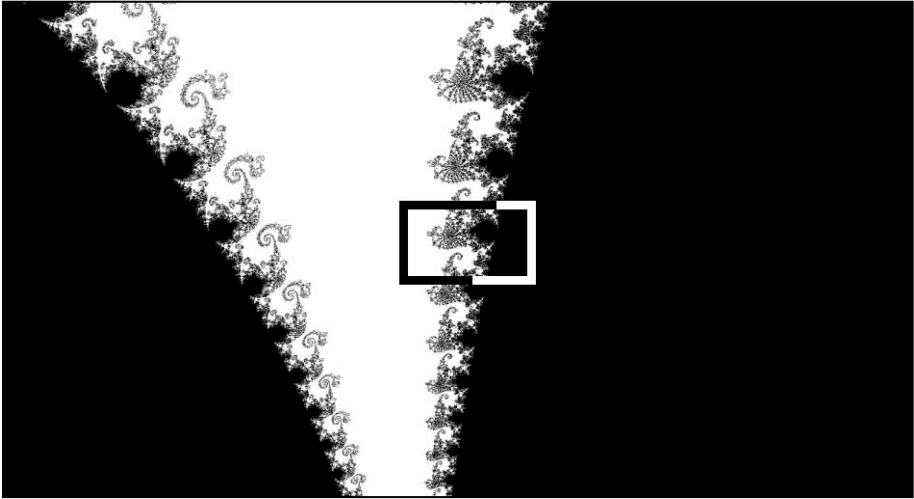


The Mandelbrot set is a fractal. It was named after the person who discovered it: the Polish-American mathematician, Benoit Mandelbrot. The Mandelbrot set defines the boundary of a simple mathematical procedure derived from an innocuous looking equation. However, it turns out that the boundary of this set is infinitely complicated. Let me explain.

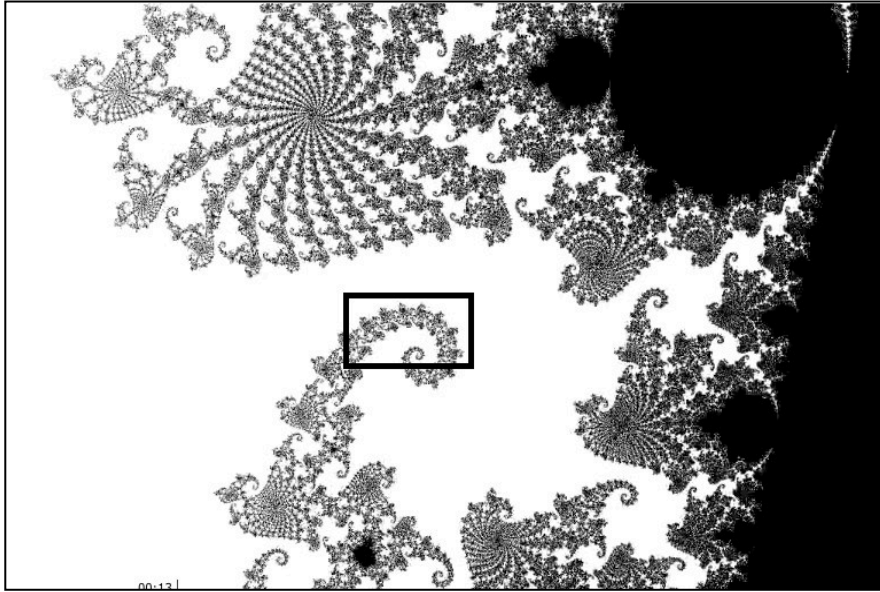
The Mandelbrot Set



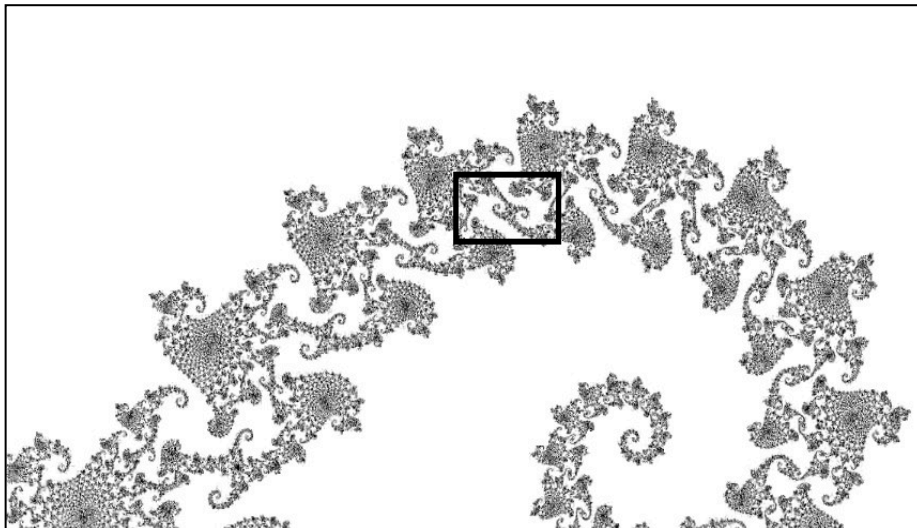
The Mandelbrot Set acts as a fractal. It is infinitely magnifiable, being limited only by the power of the computer generating the set. If we zoom in to the section within the white-edged box in the middle, this is what we see:



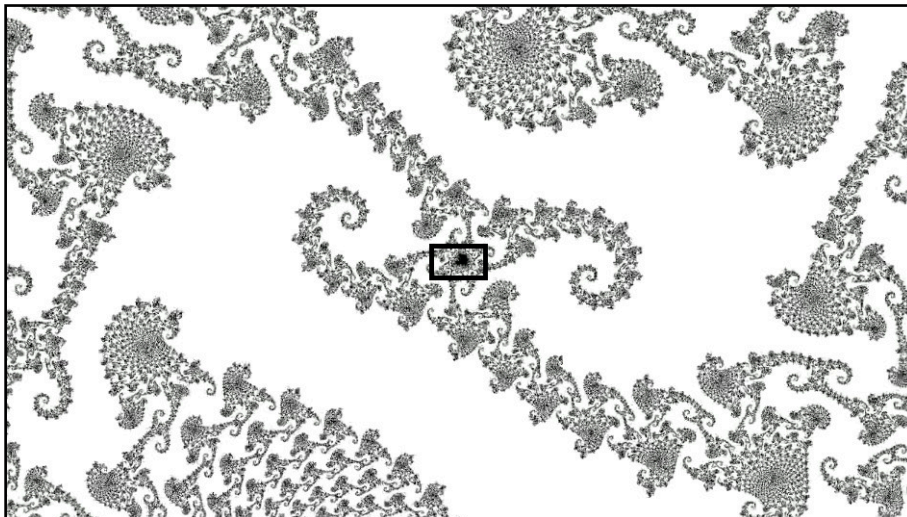
If we zoom into the section within the box again, this is what we see:



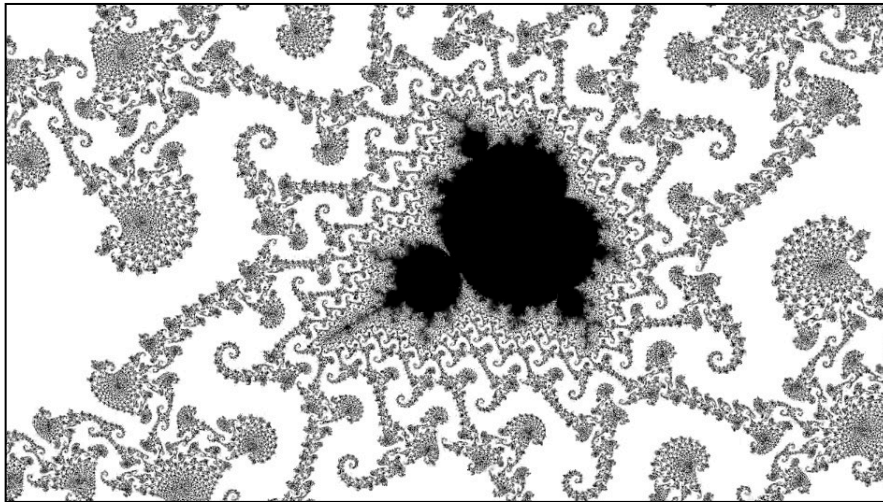
If we zoom into the section within the box again, this is what we see:



If we zoom into the section within the box again, this is what we see:



If we zoom into the section within the box again, this is what we see:



Did you notice the recurring theme of the original shape of the Mandelbrot?

Mathematics is a wonderful conceptual framework that is capable of surprising us with patterns in unexpected places.

Order is the scandal of the universe

There is an inherent purity to mathematics. It isn't messy like biology;¹ it is able to point clearly and unambiguously to the order that exists in the universe. Quite simply, *order* is the big surprise of the universe.

The question is: Where did this order come from?

Could it have come from God?

God likes maths

God likes mathematics. That, at least, would be a fair verdict to arrive at if you looked at human history. It is significant that almost all philosophers up until Nietzsche were theists; certainly, the classical ones were.² Philosophy and mathematics have often walked hand in hand. Pythagoras, Plato, Galileo, Descartes, Pascal, Spinoza, Newton, Leibniz and Laplace were all philosopher-mathematicians. It is alleged that Plato had "*Let no one ignorant of geometry enter*" engraved above the door of the Academy he founded in Athens.

So, the shadow of God has fallen over mathematics for a goodly part of human history. The one discipline seems to have invited comment from the other. This has resulted in a zillion theories about what mathematics actually is.

Philosophers wonder whether maths is simply a language we have formulated to

describe the order around us?

Partly, it is, but not entirely. As we have seen, maths can lead us to discoveries we didn't expect to make—for example, the Mandelbrot set.

Does maths therefore exist independently of humanity? Does it sit there waiting for humanity to discover it like some hitherto unexplored land?

Partly, but not entirely. Maths doesn't really exist until we give it a voice (learn to notate it) ... and so the debate continues on even today, resulting in many of the mathematical philosophy “isms” already alluded to. Tweaking these “isms” here and there has been particularly fertile ground for students seeking a PhD.

Most mathematical philosophers are realists. “Mathematical realism” holds that mathematical entities exist independently of the human mind. Humans don't invent mathematics; rather, they discover it. Triangles, for example, are real entities, not just creations of the human mind. However, they are perceived by the mind. The twentieth century Austrian born mathematician, Kurt Gödel, believed that objective mathematical reality could be perceived in a manner analogous to sense perception.

However, there is a problem with mathematical realism. It is this: Where and how do the mathematical entities exist, and how do we know about them? Is there a world, completely separate from our physical one that is occupied by mathematical entities? On the one hand, mathematical truths seem to have a compelling inevitability, but on the other hand, the source of their truthfulness remains elusive.

How do we unify these different aspects of mathematics? How do we allow for the order of mathematics, its surprises, its mysteries, its comprehensibility, and its capacity to be codified into a language that can be beautiful?

We have arrived at the situation of a king who watches five blind men describe an elephant. One grabs the elephant's trunk and says the elephant is like a snake. Another grabs a tusk and says the elephant is like a horn. Yet another grabs a leg and says the elephant is like a tree trunk... and so on. Is there something that will enable us to make sense of the *whole* of mathematics—that will enable us to see all of the elephant, like the king?

Help from a surprising quarter: quantum physics

I believe a breakthrough in understanding the essence of what mathematics is (and does) can come from quantum physics.

Quantum physics examines the world of tiny, subatomic particles (smaller than an atom). It explores how these particles behave and what their relationship is to energy. In the

quantum world, a particle can act as a wave or as a particle—sometimes both at the same time! The quantum world is really quite bizarre. It is a world in which particles can appear and disappear, or change their form depending on whether or not they are observed. The discovery of these phenomena in the last century caused a seismic shift in how we think about physics. It required scientists to move beyond having a purely mechanistic view of the material world and to consider matter in a completely different way. As a result, scientists no longer talk about electrons orbiting the nucleus of an atom. They talk about a “probability wave,” which denotes where an electron *probably* is at any one time. Elementary particles are no longer *things*. Elementary particles define worlds of probabilities—not actualities. (This, incidentally, has given rise to speculation that subatomic particles could potentially inhabit different worlds!)

One of the scientists who pioneered the work of quantum physics was Werner Heisenberg. He became well known for the “uncertainty principle” which he developed in 1925. The Heisenberg uncertainty principle states that you can either know the velocity of an electron, or you can know its position, but you can’t know both. This is just one of many paradoxes in the quantum world that physicists have learned to live with.

Heisenberg’s work was developed further by the English physicist, Paul Dirac, and the German physicist, Erwin Schrödinger. As a result of their research, physicists have discovered that subatomic particles only appear when we actually observe them. It is the process of observation that results in them collapsing into physical reality. Professor Keith Ward likens this to how we see colour—for example, the colour of a yellow flower.³ The colour doesn’t exist of itself. It only exists when the reflected electromagnetic waves from the flower enter the rods and cones in the retina of our eyes... which results in electrical impulses travelling along nerves to our brain... which interprets the impulses as yellow.

It would seem that we live in a world of appearances. Things only exist when we observe them. Let me stress: this is not a lunatic, crackpot idea. This is serious science. Keith Ward reports the following comments by Nobel prize-winning physicists:⁴

- The American physicist, John Wheeler, says: “No elementary phenomenon is real unless it is observed.”
- The French physicist, Bernard d’Espangat, says: “Physical reality is unknowable.”
- The Hungarian-American physicist, Eugene Wigner, says: “Study of the external world leads to the conclusion that contents of consciousness are the ultimate reality.”

The Hungarian-American Nobel Mathematical Physicist, John von Neumann, says: “*All real things are contents of consciousness.*”

Not all quantum physicists agree with these scientists, but many (with and without faith) do. They believe quantum physics indicates that consciousness lies behind the existence of all physical things.

You may well be wondering what the relevance of this is to mathematics. I was pondering this question (while cleaning my teeth prior to bed, actually), when I suddenly realized that the principles of quantum physics might solve the philosophical puzzle of what mathematics is.

Here’s my thesis: Just as subatomic particles in the quantum world exist only when they are observed, so mathematics exists only when *it* is observed. And... just as consciousness is being discovered to be foundational to quantum physics, so consciousness is foundational to mathematics.

So, there it is, pure and simple.

Don’t underestimate your toothbrush!

Let me reiterate: If consciousness lies behind the existence of all real things, and if mathematics is real and not just a concept, then it follows that mathematics must also be a “content of consciousness.” It too must only exist because of consciousness.

This could solve the wrangle over what mathematics actually is. If we allowed our understanding of mathematics to be informed by quantum physics, we would see that it is quite possible that mathematics presents itself because of consciousness. Quantum physics would also allow mathematics to spring surprises... and yet be constrained within a rational discipline.

Could it be, then, that quantum physics allows us to view the whole elephant in company with the king?

The intriguing thing is this: the idea of underlying consciousness (or rationality) is entirely consistent with the idea of God.

A requiem for materialistic reductionism

The idea that everything can be explained from the bottom up by our atoms, chemical composition and neural pathways has been blown out of the water by quantum physics. This may not have percolated through to the biological world of Richard Dawkins, but it will.

Not only is quantum physics a problem for Dawkins’ materialistic reductionism but mathematical philosophy is as well. This is because the truths of mathematics are absolutely

necessary—the human mind can establish why they must be so. The thing is, as the Australian mathematician, James Franklin, says, it is “very difficult to explain how a purely physical brain could do that.”⁵

So what does all this mean?

It means that the old deterministic way of thinking about reality—that we are all just the product of a lot of tiny billiard balls that bump into each other to create sentient beings—now has very little credence.

I hope that delights you. It certainly should add significance to your sense of being.

Science has journeyed a long way from Isaac Newton’s mechanistic view of physics. Einstein was probably to blame for heralding this new wave of thinking. His famous equation, $E=mc^2$, showed that matter was simply a state of energy. If that were not strange enough, quantum physics suggests that matter may be even stranger—a “content of consciousness”. The Danish physicist, Niels Bohr, says that those who are not shocked when they first come across quantum physics cannot possibly have understood it.⁶ The American physicist, Richard Feynman, agrees. He says, “I think I can safely say that nobody understands quantum mechanics.”⁷

Having said that, it should be stressed that quantum physics is not just a speculative philosophy; it is a highly predictive discipline. Physicists may not understand it, but they have found that maths works in concrete ways to give very useful, practical outcomes.

So, what can we conclude?

In the strange world of quantum physics, electrons can behave as either waves or particles—depending on whether or not they are observed. This means that scientists have to live with paradox, or as they call it, “complementarity.” Quantum physics teaches us that electrons should, as we have said, more rightly be considered as “probability waves.” Only at the point of experimental observation does a probability wave actually collapse into something. To put it another way, a “content of consciousness” is required to collapse a probability wave into something.

Other theories have been put forward to explain this phenomenon and more work is required. Nonetheless, there are good reasons to believe that physics is about consciousness. If so, the old, deterministic idea that matter gives rise to mind has been turned on its head. It may now be that mind gives rise to matter!

By equating matter to energy, Einstein began to dethrone matter as a fundamental reality. Quantum physics has completed the job. The intriguing thing is: this has always been known by theologians. They have understood for a very long time that we exist only because

of the mind of God.

Enjoy this

You've earned a break from philosophy and quantum physics. Sit back and enjoy what follows. I've included it simply to show that mathematics can be beautiful. This, of course, doesn't prove God; it is just another window into the order that we see in reality. The patterns in mathematics are just one of the many ways in which the universe shows evidence of mind.

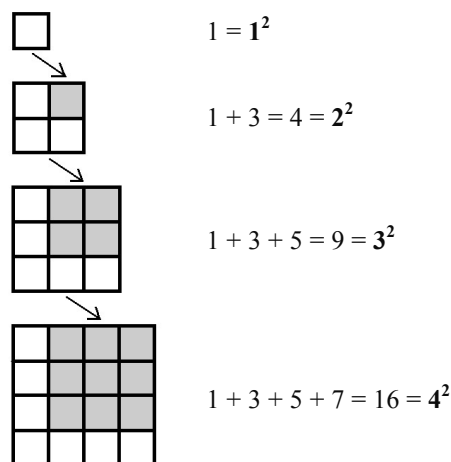
$$\begin{aligned}1 \times 8 + 1 &= 9 \\12 \times 8 + 2 &= 98 \\123 \times 8 + 3 &= 987 \\1234 \times 8 + 4 &= 9876 \\12345 \times 8 + 5 &= 98765 \\123456 \times 8 + 6 &= 987654 \\1234567 \times 8 + 7 &= 9876543 \\12345678 \times 8 + 8 &= 98765432 \\123456789 \times 8 + 9 &= 987654321\end{aligned}$$

$$\begin{aligned}1 \times 9 + 2 &= 11 \\12 \times 9 + 3 &= 111 \\123 \times 9 + 4 &= 1111 \\1234 \times 9 + 5 &= 11111 \\12345 \times 9 + 6 &= 111111 \\123456 \times 9 + 7 &= 1111111 \\1234567 \times 9 + 8 &= 11111111 \\12345678 \times 9 + 9 &= 111111111 \\123456789 \times 9 + 10 &= 1111111111\end{aligned}$$

$$\begin{aligned}9 \times 9 + 7 &= 88 \\98 \times 9 + 6 &= 888 \\987 \times 9 + 5 &= 8888 \\9876 \times 9 + 4 &= 88888 \\98765 \times 9 + 3 &= 888888 \\987654 \times 9 + 2 &= 8888888 \\9876543 \times 9 + 1 &= 88888888 \\98765432 \times 9 + 0 &= 888888888\end{aligned}$$

$$\begin{aligned}
1 \times 1 &= 1 \\
11 \times 11 &= 121 \\
111 \times 111 &= 12321 \\
1111 \times 1111 &= 1234321 \\
11111 \times 11111 &= 123454321 \\
111111 \times 111111 &= 12345654321 \\
1111111 \times 1111111 &= 1234567654321 \\
11111111 \times 11111111 &= 123456787654321 \\
111111111 \times 111111111 &= 12345678987654321
\end{aligned}$$

These beautiful patterns exist with the ‘base 10’ number system that we are used to. Of course, the convention of using ten numbers in maths (0-9) is, in a sense, arbitrary. (The Australian Aborigines, for example, use a base 5 numbering system.) Beautiful patterns that are more significant to mathematicians include this one: if you add consecutive odd numbers together, they make a perfect square.



... and on and on, so that you get 5^2 , 6^2 , 7^2 , 8^2 , etc. all by adding consecutive odd numbers together.

Mathematicians get excited about this, honest!

Finally, here’s another one they enjoy:

$$(1 + 2 + 3 + 4 + 5 + 6 + 7 + 8 + 9 + 10)^2 \text{ adds up to the same value as } 1^3 + 2^3 + 3^3 + 4^3 + 5^3 + 6^3 + 7^3 + 8^3 + 9^3 + 10^3$$

Everything is connected

Playing with mathematics has helped us to discover and define what we now call ‘chaos theory.’

It all began when quantum physicists showed up some very ‘spooky’ things. As we said

earlier, scientists were discovering that sub-atomic particles could appear, disappear... and be in many places at the same time. Albert Einstein didn't like it. In 1935 he and his two colleagues, Boris Podolsky and Nathan Rosen developed a 'thought experiment' to demonstrate the inadequacy of quantum mechanics. (It was named the EPR experiment after the initials of each of their surnames.) The experiment showed that once two electrons interact with each other, they possess the power to influence each other no matter how far they separate. Even if one of the electrons flies off beyond the Moon, they have an intrinsic interconnectedness that cannot be broken. They are 'entangled'.⁸ What you do to one particle is instantly mirrored in the other.

Einstein didn't like the idea as it suggested that information from one particle could travel faster than the speed of light to the other—which was theoretically impossible. He referred to it as 'spooky action at a distance'.

Subsequent experiments, however, indicated that the spooky actions of EPR did actually occur. No one knows how or why.

The level of interconnectedness that exists in the universe frees it from slavishly following a predictable mechanistic path to an inevitable end. It allows genuine novelty. This is because the systems which exist in the universe are so exquisitely sensitive to circumstances that the slightest disturbance will make them behave in a totally different way.⁹ The tiniest change in an initial condition of a system can result in a completely different outcome.

Take, for example, an air molecule that typically bumps into other such molecules fifty times in one ten thousandth of a second. It would be impossible to predict the direction of the final bounce if we did not take into account the gravitational attraction of a single electron on the other side of the observable universe. This is what one means by exquisite sensitivity.¹⁰ This phenomenon has come to be known as "chaos theory."¹¹

Chaos theory says that in some systems, small changes in initial conditions can lead to predictions so different that prediction itself becomes useless. The origins of the theory were developed in 1896 when the French mathematician, Jacques Hadamard (1865–1963), proved that unless the initial conditions were perfectly defined, it was impossible to predict what three billiard balls would do when they careened off each other.

This inability to predict outcomes unless initial states were perfectly defined had been highlighted in 1887 when Oscar II, King of Sweden and Norway, offered a prize for the solution to the problem of whether or not the solar system was stable. The French mathematician, Henri Poincaré (1854–1912), submitted his solution and won the prize, but a

colleague discovered an error in his calculations. Poincaré was given six months to correct his proof in order to keep his prize, but he found that there was no solution. Predictions about the Earth, Moon and Sun were impossible because small differences in the initial conditions produced greatly differing results. As such, the situation defied prediction.

In proving this, Poincaré effectively challenged the concept of a purely deterministic and predictable universe—an understanding that had been accepted since Sir Isaac Newton's law of universal gravitation led to the idea of a “clockwork universe.”¹² This philosophy was developed by the eighteenth-century French mathematician, Laplace, who said that God made the universe like a giant clock that had to work as it did.

In 1963, Edward Lorenz used Poincaré's mathematics to describe a simple mathematical model of a weather system.¹³ The results were surprising in that his supposedly simple equations showed complex behaviour. He also discovered that the predicted behaviour of a system being modelled was highly sensitive to the initial conditions. This meant that without a very good understanding of the initial state of the system, it was impossible to predict the system's future. Lorenz said that such systems exhibited a “butterfly effect.” This name came from his proposition that a butterfly stirring its wings over Hong Kong can initiate a chain of events that affect the course of a tornado in Texas.¹⁴

It seems that even with a very good understanding of the initial state, some chaotic states are not predictable. They require us to factor in the tiniest of forces—which is often impossible. Everything in the cosmos appears to be extraordinarily connected.

Order is everywhere

Life for those studying chaos theory is made even more mystifying by the fact that some chaotic systems can behave in non-chaotic ways. If you plot the successive events of a chaotic system on a three-dimensional graph, you would expect to end up with a chaotic mess. Often, you do. However, you sometimes end up with a beautiful pattern in which the sequence of events seems to circle around one particular point for a very long time. These favoured possibilities have been dubbed “strange attractors.” In other words, there appears to be orderly disorder in some chaotic systems.¹⁵ It's even possible for chaotic systems to have more than one strange attractor. Others don't seem to have any—or it might simply be that we haven't run the test long enough to find one.

If you want to entertain yourself, do a Google search of visual representations of strange attractors—you will find some wonderful shapes.

The point of all this for us is simply that it's hard to find total chaos anywhere. It may

even be impossible. The label “chaotic” may therefore be misleading.

The point is, Where does this order come from? Could it come from God?

Numbers that draw the universe

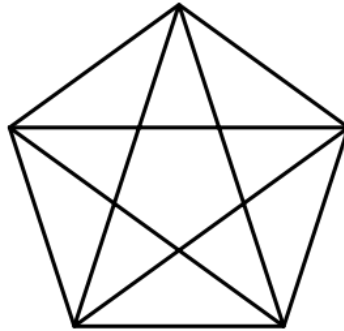
There are some remarkable numbers that seem to be able to draw the universe. One of them is the Fibonacci sequence, discovered by the twelfth century Italian mathematician, Leonardo Fibonacci (1170–1250). Fibonacci brought an idea from India to Europe that transformed Western mathematics. This idea was that the position of a number could determine its value. Take the number 125. The 1 in this number does not have a value of 1 but of 100 because of where it sits in the number.¹⁶

The mathematical sequence for which he is famous starts like this: 0, 1, 1, 2, 3, 5, 8, 13, 21, 34, 55—and so on forever. Each number is the sum of the two numbers that precede it. It’s a simple pattern, but it appears to be a numbering system that is built into the cosmos. The number of petals in a flower, for example, consistently follows the Fibonacci sequence.

The sequence is also seen in the microscopic realm. The DNA molecule is thirty-four angstroms long and twenty-one angstroms wide for each full cycle of its double helix spiral. These numbers, 34 and 21, are numbers in the Fibonacci series, and their ratio is described as the “golden ratio.”

The ratios of successive numbers of the Fibonacci sequence oscillate either side of the “golden ratio”—getting closer to it as the numbers get bigger. This golden ratio is represented by the Greek letter ϕ (phi) and its value is 1.618—or, if you want to be strictly accurate, it is $(1+\sqrt{5})/2$. This ratio crops up everywhere.

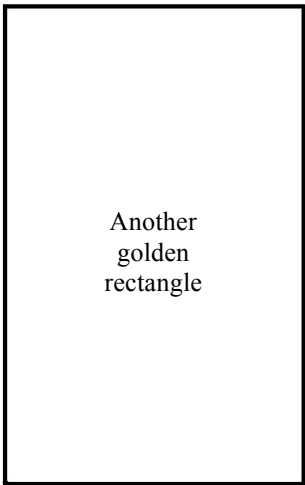
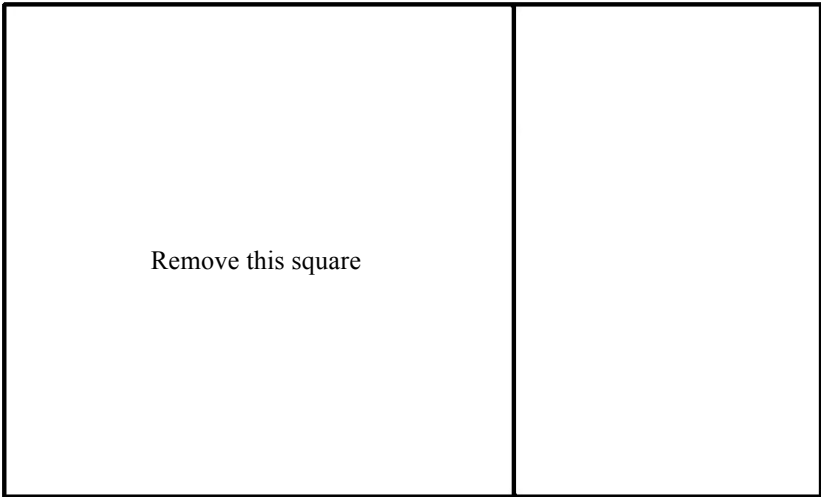
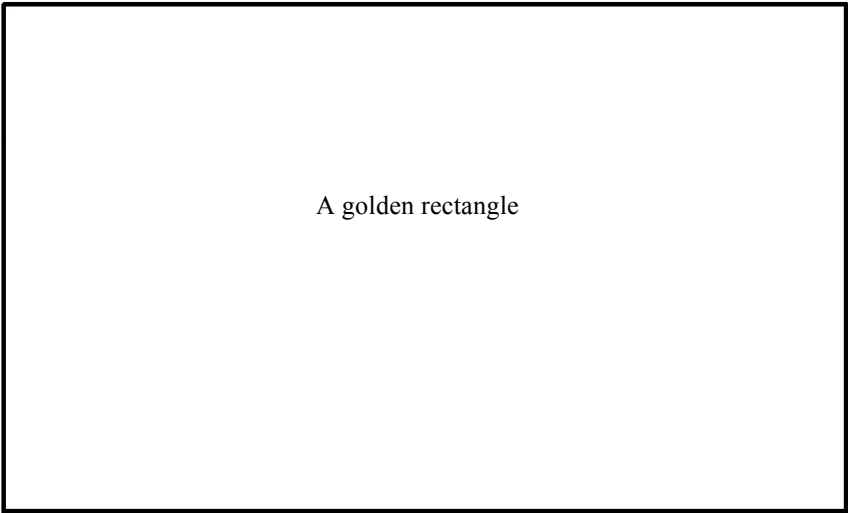
If you draw the diagonals on a pentagon, a golden ratio can be found wherever two lines of different length meet. For example, one golden ratio is that of a side to a diagonal.



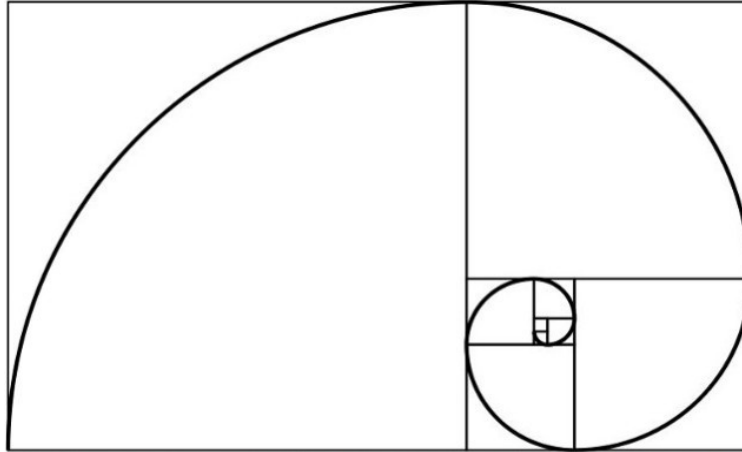
How many different pairs of lines forming golden ratios can you find? Can you find ten? twenty? thirty?

The golden ratio describes the two sides of a “golden rectangle,” a shape that has been found to be particularly pleasing aesthetically. It crops up everywhere in art and architecture—for example, in the dimensions of the end face of the Parthenon in Athens. Leonardo Da Vinci called this ratio the “divine proportion” and featured it in many of his paintings, including the Mona Lisa. If a rectangle is drawn that contains Mona Lisa’s face, it will be found to be a golden rectangle. The rectangle can be divided again using her eyes as a horizontal divider.

The aesthetics of the golden rectangle have been exploited by the commercial world. You will even find it in some breakfast cereal boxes!



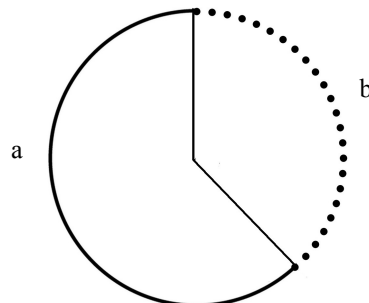
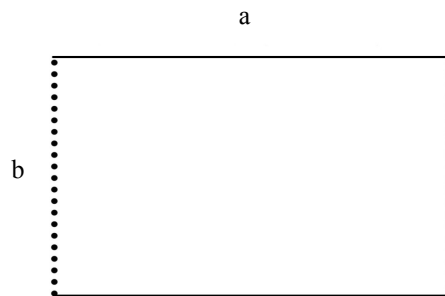
We can keep removing squares to form an infinite number of golden rectangles. If we join the corresponding corners of the squares with a curved line, it will draw a “golden spiral.”



This golden spiral is a shape seen in seashells, spiral galaxies and hurricanes.
Let's play some more.

Take two adjacent sides of a golden rectangle (a and b) ...

... and draw a circle with them.



The angle subtended by the smaller arc is known as “the golden angle.” It measures 137.5°.

It just so happens that there is a quantity in the theory of quantum electrodynamics called “the fine-structure constant.” It’s a fundamental constant of nature... and it has a value of about 1 over 137.

Nobody knows why this constant has this value. All that scientists are sure of is that it is a very important value. If the fine-structure constant were to change by just 4 percent, stellar fusion inside stars would not produce carbon, and carbon-based life (which includes you and me) would not exist. Similarly, if it was greater by 0.1 percent, then stellar fusion would be impossible and no place in the universe would be warm enough for life to exist as we know it.¹⁷

It would seem that there are some very special numbers that help to define and draw the universe. Again, this is entirely consistent with the notion that there is a mind behind the universe—a mind that wanted stars to burn long enough to form the elements, which in turn allowed life to develop.

The mystery of why mathematics is so amazingly effective

On the border between France and Switzerland, there is a twenty-seven kilometre circular tunnel that houses the Massive Hadron Collider. It was built at a cost of US 4.4 billion dollars, and was designed primarily to find a sub-nuclear particle that was reasoned to exist on the basis of mathematics alone.

Now, I have to say, that’s a big bet to make on a sum being right!

Fortunately, the sub-nuclear particle (dubbed by journalists “the God particle”) was found. It was confirmed as existing on 14 March 2013, forty-nine years after Higgs and a bunch of other scientists reasoned from mathematics that it had to exist. The particle, the Higgs boson, was named in his honour.

All this points to the fact that mathematics is amazingly effective at describing and uncovering the fabric of the universe. The Hungarian-American physicist, Eugene Wigner, understood this and spoke of “the unreasonable effectiveness of mathematics in the natural sciences.”¹⁸

It’s worth asking why this is so.

Here’s another story:

Quantum physics seeks to understand the world of sub-atomic particles such as an electron. Einstein’s “Special relativity”, on the other hand, looks at very fast objects. The Cambridge physicist, Paul Dirac, was intrigued about what would happen when these two branches of physics were brought together and an electron was accelerated so that it went

very fast. He worked out from mathematics that the only way the requirements of these two branches of physics could be resolved is if a totally new object existed, a positively charged mirror image of the electron. He called this theoretical particle a ‘positron’.

The positron was the ‘anti-matter’ of an electron.

Four years later, the American Physicist, Carl Anderson, discovered the positron by using a “cloud chamber”.

The significant thing about all this was that a particle was discovered by mathematics before it was discovered in reality.

Paul Dirac later reflected on the power of mathematics and why it is that nature is constructed on such beautiful mathematical lines. He said: “God is a mathematician of a very high order, and he used very advanced mathematics in constructing the universe.”¹⁹

Why do we see such beauty in the complex mathematics of the universe? Why is mathematics so ‘unreasonably effective’? What does this indicate?

The philosopher and theologian, Vern Poythress, has explored the metaphysical nature of mathematics. He reminds us that the very notion that $2 + 2 = 4$ is not something everyone agrees with. Vedantic Hinduism, for example, understands plurality to be an illusion. This highlights the fact that mathematics can only exist in a world that acknowledges plurality. Moreover, it can only exist in a universe that is ordered and constant. Two apples must remain two apples while they are being counted... and they must continue to be two apples tomorrow when they are counted again. The very dependability of mathematics reflects a world that is rational and comprehensible—a world that allows us to do science.²⁰

Poythress describes mathematics as “the rhyme of the universe.” By this he means that, just as rhyme is one part of a poem, so mathematics is one aspect of an ordered universe. And, like the rules of rhyme, mathematics is foundational of the whole. He goes on to say that mathematics embodies victory over chaos. It reflects an order that theism explains well.²¹ Its very dependability reflects the faithful, unchanging nature of God.

He makes a good point.

Why can we understand the universe?

It may be a little unsettling, but the fact remains; a chimpanzee and a human being have 98.8 percent of their DNA in common. We are very close cousins, biologically speaking—but we are vastly different. Only humans have the ability to reach for the stars and comprehend the cosmos. Through the agency of mathematics, with its beautiful equations, we have unlocked many of the secrets of the universe and discovered how it works—even to its furthest ends. It

seems that we have been given the ability to do so, and perhaps even the invitation to do so.

Goldilocks and the magical hat called “infinity”

All science proceeds on the assumption that the universe is rational and intelligible—and mathematics codifies this rationality. As such, all scientists have faith. The mathematical physicist and cosmologist, Paul Davies, says scientists have to have faith “that the universe is governed by dependable, immutable, absolute, universal, mathematical laws of an unspecified origin ... (To) think that such laws exist without reason is anti-rational.”²²

The conundrum of where these laws come from cannot be swept under the carpet by postulating that our universe is just one of an infinite number of universes, each with its own unique set of physical laws. According to proponents of this theory, it was inevitable that one universe should eventually be the ‘Goldilocks Universe’—the one that was “just right” to allow sentient life to develop. But this, as Paul Davies points out, simply dodges the issue: “There has to be a physical mechanism to make all those universes and bestow (scientific) bylaws on them. This process will require its own laws, or meta-laws. Where do they come from?” He concludes that both religion and science are founded on faith—namely, on belief in the existence of something outside the universe.²³

That’s not a bad statement from a distinguished scientist with no conventional faith!

Let’s talk about infinity.

As we have said, one of the ways some people have sought to explain the existence of a universe so finely tuned to allow life, is to suggest that it would have to exist if there were an infinite number of universes. The theory is that our universe is just one in a giant multiverse complex. An infinite number of universes exist either concurrently or occur because one universe seeds another successively. It is suggested that physical laws governing the running of a universe come into being at the genesis of each universe. As such, physical laws are not trans-universal. They are, if you like, local bylaws specific for a particular universe. The argument goes on to suggest that because a multiverse of infinite size presents infinite possibilities, a universe such as ours would have to eventually fluke itself into existence and generate sentient life able to observe the universe around it.

There are, however, many difficulties with this thinking.

In essence, it simply transcribes Fred Hoyle’s discredited steady state universe (see Chapter 1) into a steady state multiverse. It does not solve the problem of where the initial conditions for a universe came from. It simply says they exist because they exist... which is

lazy thinking.

The way some atheists appeal to infinity in order to explain everything should cause concern. There is a logical absurdity about them scorning Christians for putting their faith in “mindless superstition” to explain the universe—when they put their faith in infinity to do the same thing.

On the basis of cause and effect, belief that the universe exists because of a higher mind makes a lot more sense than dipping a hand into a magical hat called “infinity,” believing that it can produce everything. While there is good reason to believe that a mind is behind the order of the universe, there is no scientific basis for believing that infinity has the ability to produce anything. Infinity can never be a prime cause. It can only provide the chance for something to change—nothing more. It has no ability to initiate any creative act.

If atheists insist that cosmic infinity exists within the dimension of time, then they have failed to tell us where time began. This is a bit of an embarrassment, given that time only began when matter was created. Einstein discovered this, and in doing so, verified the same statement made by St Augustine of Hippo fourteen centuries earlier. (It must have been nice for theologians to see science catch up!)

Certainly, it is difficult to conceive how an infinity that allows a sequence of universes to come into being could exist outside of time. While clock-type time may not exist in a system that allows multiverses, sequential time (in which one act follows another) would have to exist if one universe has the ability to seed another.

If, however, atheists insist that cosmic infinity exists outside of time, then creative, eternal infinity has moved from being a mathematical concept to something that looks a lot like God.

Ouch!

Let me say it again: For atheists to accuse Christians of dipping their hand into the magical hat of theism in order to explain things... when they are dipping their hand into the even more unlikely hat of infinity, is to fracture common sense.

Why do we have the ability to unlock the secrets of the universe?

Many scientists are asking why humankind has the marvellous power to understand things. We alone have the ability to unlock the secrets of the universe. The particle physicist and theologian, John Polkinghorne, marvels that the universe is so astonishingly open to us and is rationally transparent to our enquiry. In his view, the fact that we understand the subatomic world of quantum theory and the cosmic implications of general relativity goes far beyond

anything that could conceivably be of relevance to survival fitness.²⁴

Our universe is extraordinarily intelligible to us, and it allows mathematics to unlock its secrets. This remarkable feature requires an explanation. Polkinghorne suggests that theism provides just such an explanation. “If the universe is the creation of a rational God, and we are creatures made in the divine image, then it is entirely logical that there is order in the universe and that it is accessible to our minds.”²⁵

Some scientists have not only wondered why the universe is intelligible, but why the mathematical equations that explain the laws of physics are themselves beautiful. Paul Dirac (1902–1984), a physicist at Cambridge University, says that it is more important that there be beauty in scientific equations than that they should be right because if they were ugly, there is no chance that they could be right.²⁶

The philosopher and mathematician, Bertrand Russell, voices a similar sentiment regarding pure mathematics:

*Mathematics, rightly viewed, possesses not only truth, but supreme beauty ... sublimely pure, and capable of a stern perfection such as only the greatest art can show. The true spirit of delight, the exaltation, the sense of being more than Man, which is the touchstone of the highest excellence, is to be found in mathematics as surely as poetry.*²⁷

It seems that there is something in the language of mathematics that reflects the qualities of God and helps us uncover the mind of God. It is not a knockout blow, a proof of God—for it is not the nature of God to employ any *tour de force* to compel faith. Rather, it is a simple invitation, written with truth and reason... that invites faith.

CHAPTER 5

The Evidence of God in Society

Stephen ruffled the hair of my eleven-year-old son, Michael, and said he would kill him if he let in a goal. Michael was goalkeeper in a soccer match that was being played on asphalt near the docklands of Kowloon, opposite Hong Kong. The fact that this soccer match was occurring at the same time as a basketball match was being played across its width did not seem to bother anyone. Space was at a premium.

I smiled, knowing that Michael was about as safe from murder as he would ever be in his life. This was perhaps surprising, given that Stephen had been a member of a particularly violent Triad society from China. If that were not bad enough, many members of his soccer team had once been members of the 14K triad society that ruled the less salubrious areas of Kowloon and Hong Kong with its own particular brand of viciousness.

The one thing that made the difference was that these young men—who had once lived lives steeped in unimaginable violence and depravity—had become Christians. This had come about through the ministry of the Society of Stephen, an organization founded by Jackie Pullinger, a missionary who works among gang members, drug addicts, prostitutes and street sleepers in the no-go areas of Hong Kong. Her love for God and sacrificial love for others is inspirational—and she is a dear friend.

There are millions of stories like this. One of the best known is that of John Newton (1725–1807).

John Newton was a difficult young man who had been hardened by a life at sea and brutalized by a public flogging. He had seriously contemplated murdering the ship's captain who ordered his flogging and came to have little compunction about abusing others. Perhaps not surprisingly, he became a slaver. Ironically, he was later forced to become a slave himself to the African wife of a slave master in West Africa. He was eventually rescued, and encountered God during a storm at sea as he returned to England.

After his conversion, Newton trained to become an Anglican priest. He worked in London as an evangelical minister and became an ally and friend of William Wilberforce, helping him to bring about the abolition of slavery in Britain. The fact that God could forgive Newton after all that he had done moved him to pen the words of the great hymn, *Amazing Grace*.

No religion in the world has transformed so many people as profoundly as authentic Christianity. This claim has been put well by the Eastern Orthodox theologian, David Bentley

Hart in a big juicy statement. He says:

Among all the many great transitions that have marked the evolution of Western civilization ... there has been only one—the triumph of Christianity—that can be called in the fullest sense a "revolution": a truly massive and epochal revision of humanity's prevailing vision of reality, so pervasive in its influence and so vast in its consequences as to actually have created a new conception of the world, of history, of human nature, of time, and of the moral good.¹

It seems that God causes people to be good—and this has enormous implications for society.

The fact that God is good for society doesn't prove his existence, of course. But if Christianity is true, and Jesus shows us what God's character is like, then Christianity *has* to be good for society. So, let's ask whether this is the case? Is there any evidence of God to be found in society?

Here's a few stories to begin our thinking:

Some stories of revival

The Welsh revival of 1904–1905 resulted in 150,000 people committing their lives to Christ. It was an extraordinary phenomenon. Several leaders played key roles in the revival, but one in particular was at its heart. His name was Evan Roberts. Evan came from the small town of Loughor near Swansea. He left school at the age of eleven to work with his father down in the coal mines. Evan used to take his Bible with him into the mine and read it during the rest periods. He left the mines in his mid-twenties to become an apprentice blacksmith to his uncle in nearby Pontarddulais. Evan had little education; he simply had a hunger for God and a willingness to obey him regardless of the cost. He prayed every day for thirteen years for revival to come to his native land.

Then it came.

As Evan spoke at meetings, inviting people to confess their sins and commit their lives to Jesus, people fell in love with God and their lives were transformed. Men stopped impoverishing their families by spending their money on drink; instead, they began feeding and clothing them properly. Fractured family relationships were restored. The crime rate dropped to such an extent that the work of the police reduced markedly and the magistrates had little to do. Miners sang hymns down in the mines. The pit ponies hauling the coal carts had to learn to be cajoled into action by language that didn't include curses. Productivity and prosperity increased, particularly in the industrial towns of South Wales.

An extraordinary aspect of this revival was that it spread through Welsh communities throughout the world. For two years, it burned like a fire... and then, sadly, it began to fade. The fact that the revival was not a lasting phenomenon broke Evan Roberts' heart.

The symptoms of revival and its consequences for society have been consistent throughout history. They have certainly been seen in the recent revivals chronicled by George Otis Jr. in his *Transformation* video series. Some of these have occurred in Cali, Columbia; Kiambu, Kenya; Hemet, California; and Almongonga, Guatemala. Although revivals can be short-lived, their effects linger on in the culture of communities and families for a long time.

While revivals seem to be a sovereign act of God, history indicates that God often brings them about in response to heartfelt prayers and tears. These tears are not something conjured up to attract the attention of an indifferent God; they are an expression of empathy with God at his grief over evil and injustice. People cry because evil is anti-God and unlike God. People cry because evil is wrong and so terribly destructive, particularly of the poor and vulnerable. People cry because God is holy and the hearts of those who are good ache for good.

America has experienced societal transformation as a result of revival on a number of occasions. The three or four waves of religious enthusiasm that occurred between the early eighteenth century and the late nineteenth century are known collectively as the "The Great Awakening."

The first wave, in 1730–1743, came in the form of frontier revivals led by Jonathan Edwards and George Whitefield. The wave after that was headed by abolitionists and the temperance unions. Dwight L. Moody and his compatriots led yet another wave that resulted in magnificent work among the poor.

More recently, there was the charismatic renewal of the 1960s and 70s.

It is interesting to note that revivals generally happen outside the orbit of mainline Christian denominations. Perhaps the level of centralized power and control in these institutions stifles renewal. Certainly, the ministry of John Wesley was scorned by the Church of England. They did not approve of him crossing parish boundaries into areas for which local clerics felt they had exclusive responsibility. As a result, he was often forbidden to preach in churches and compelled to operate out in the open. Given the size of the crowds that came to listen to him, this was perhaps propitious.

The leadership of the Church of England was suspicious both of Wesley's enthusiasm for God and of his habit of organizing local Christians into small groups (classes) to study God's word. They felt he was devolving the authority of Anglican clerics and putting it in the

hands of lay preachers. When Wesley learned that most Church of England ministers had been recalled to England after America's war of independence, he tried to persuade the Bishop of London to send ministers back to America. When this did not happen, Wesley ordained three of his preachers and sent them to America. This helped seal the rift between himself and the Church of England.

In my own country of Australia, revival came in 1979 to Galiwin'ku (Elcho Island) off the north coast. The minister of the Island was Djiniyini Gondarra, an Aborigine from Arnhem Land who had been trained in the Methodist tradition. His work on Galiwin'ku hadn't borne much fruit and he was experiencing significant opposition from many in the local community. After returning from a two-month holiday, he met with some local people in his manse for prayer. While they prayed that night, the Holy Spirit fell on them in much the same way it fell on Jesus' disciples at Pentecost. The meeting lasted all night. Many spoke of being healed and of being filled with God's Spirit.

The evangelist, Dan Armstrong, arrived six weeks later on what he called "the crest of the wave" to bring encouragement and add momentum to the renewal movement. People met and engaged in free-flowing, spontaneous worship for hours. They were hungry to learn about God.² Local church attendance increased more than tenfold in a few months.

The movement spread from Elcho to Aboriginal communities in the north, centre and west of Australia. Wherever it went, it transformed people's health, education and work ethic. In particular, it brought reconciliation to families, clans and tribes that had been fighting each other for generations.

The Australian Aboriginal community has a good understanding of the transforming power of the Christian gospel. Yirara College was established in 1973 as a government residential college for Aboriginal students who came from isolated communities in central Australia. Its purpose was to expose Aboriginal youth to social development through educational programs designed to help them adjust to Western society.

It did not work. The students and the college became severely dysfunctional. Government bureaucrats responded by consulting the Aboriginal people living in the isolated feeder communities of central Australia. The elders from these communities said they wanted Yirara to be a Christian school run by the Lutherans of Fink River Mission. When the Lutherans took over, the college was transformed. It brought spiritual and social reform that provided stability and hope.

It seems that wherever Christianity has been imposed in a way that is not Christ-like, that is to say, without love and understanding, the results have been disastrous. However,

when Christianity has been applied in a Christ-like way, it has invariably been transformative, emancipatory and hope-giving.

The real deal

In looking for the evidence of God in society, it is important to draw a distinction between authentic Christianity, involving faithful adherence to Jesus' teachings, actions and lifestyle... and what is sometimes practised by religious institutions that are not always Christ-like. It is very difficult for institutions to escape being corrupted by a very unchristian addiction to power and status. Jesus' notions of sacrificial love, even for one's enemies... and of putting a priority on the wellbeing of others, are not characteristics typically associated with powerful political institutions. As such, it would be unfair to consider anything other than the "real deal" in Christianity when searching for evidence of God in society.

Christianity is good for communism!

Communist China is not known for being kind to Christianity. Pastors of churches not belonging to the tightly controlled "Three-Self Patriotic Movement" often spend lengthy periods in prison. It was therefore something of a surprise to read that the owner of the Boteli Valve Group in Wenzhou, China, wanted to see all his staff convert to Christianity.³ This factory is one of a number of businesses whose success is being studied by the Chinese government.

The Boteli Valve Group makes five million dollars' worth of valves every month, 40 percent of which are exported. The factory's general manager, Weng-Jen Wau, says he wants all his workers to become Christians. Why? "Because Christians make better workers." As such, a Christian culture is encouraged in the factory. Every Monday morning, the senior managers gather together and pray for the business.

Weng-Jen Wau says, "If you're a Christian you're more honest, with a better heart." He also says that Christians are more responsible. "When they do things wrong, they feel guilty—that's the difference."

Professor Zhuo Xinping, Director of the Chinese Institute of World Religions, says, "I think if all enterprises absorb this Christian culture, we will have a much more harmonious society." The Professor goes on to say that Chinese researchers are considering whether there is a link between economic prosperity and Protestant Christianity—and they are questioning what this might mean for today's China.

That's not a bad endorsement of Christianity's ability to transform industry in society!

Interestingly, this idea was picked up by George Washington, who said:

*We are persuaded that good Christians will always be good citizens, and that where righteousness prevails among individuals the Nation will be great and happy. Thus, while just government protects all in their religious rights, true religion affords to government its surest support.*⁴

This is entirely consistent with the Apostle Paul's teaching in Romans 13:1-7 where he speaks of the need for Christians to be good citizens.

God is good for the land

Societies develop in the context of the land around them. As such, the prosperity of society is usually reflected in the prosperity of the land. It is therefore worth asking whether God is good for the land.

A search of the Scriptures is enlightening, for it shows that true godliness causes the land to prosper. Let me explain.

The Israelites have always thought of God as being active in history, particularly in their history. Their national identity was, and is, defined by their faith and the land God gave them to live in. Military activity in defence of their land was seen to be a defence of their faith.

Good productivity of the land and military success in defending it were seen as God's reward for faithfulness. Desolation and defeat were seen to be the result of unfaithfulness.

Care of the land and the wellbeing of the land were reflections of faithfulness to God. This was consistent with the teaching of Genesis, which teaches that God is responsible for the existence of everything. The environment and all that God made is described using the Hebrew word *towb*, meaning "good/pleasant/precious" (Genesis 1:4,10,12,18,21,25, 31). In other words, the environment, and everything God has made, has inherent worth. God chose to make it and considered it all "good."

However, in giving us freewill to choose between good and evil, evil was allowed the chance to hijack God's best plan for creation. As a consequence, pain, greed and godlessness made their appearance. The rest of the story of the Bible is the unfolding of God's plan to rescue it all back.

Some people seem to think that because creation has gone to the dogs and will be replaced at some future date with God's eternal kingdom, it can be scorned, abused and pillaged. The teaching of Romans 8:20-22, however, makes it clear that God's creation is waiting for the full realization of redemption, just like us. As such, we cannot abuse it any more than we can abuse each other. Far from it; we should prefigure the values of God's

kingdom now—and value everything that God has made.

The Genesis story teaches that humankind is to subdue the environment and make it fruitful (Genesis 1: 28). We are to subdue it and make it fruitful in much the same way a gardener would subdue an unruly garden. The Hebrew word *kbs*, meaning “subdue,” can also mean “violate,” but that is not its meaning in this context. We are stewards of God’s property and so we are not to waste or despoil it. God commanded Adam and Eve to work the land and “take care of it” so that it was fruitful (Genesis 2:15).

I have seen an Australian Aborigine replace half of a clump of yam bulbs so that they could provide food in future seasons. I have also watched TV programs that show the desert being irrigated and farmed. I’m sure that God smiles at both. God did not create the land to be empty. Leviticus 19:23-25 speaks of God commanding his people to plant fruit trees (and to maximize the harvest by not picking the fruit prematurely). The Old Testament Israelites believed that the bounty produced from the land was a gift from God (Deuteronomy 7:13).

It is interesting to note, in passing, that Genesis not only mentions the practical qualities of trees and plants but also their aesthetic qualities. “The LORD God made all kinds of trees grow out of the ground—trees that were pleasing to the eye and good for food” (Genesis 2:9). From the very start, it was God’s intention that trees should adorn the world and make it beautiful. This is a lovely value to uphold, and one that has implications for the quality of life in human society.

Sadly, a lack of understanding, short-term expediency and greed have led us to desecrate this gift from God. Our high technology, high finance and high-rises can too easily create the illusion that we are masters of our own destiny. Self-obsession that feels no obligation to God is called sin.

The Adam and Eve story teaches us that humankind’s rebellion against God resulted in the land being cursed so that growing food would be a struggle (Genesis 3:17-19). It is important to note that our rebellion and our resultant battle with the land is not God’s best will for us. It is a consequence of sin.

This set a consistent pattern in the history of Israel. The authors of the Old Testament wrote that whenever people sinned against God, it resulted in their land being unproductive. Sin defiled the land.

1. *The earth dries up and withers, the world languishes and withers, the heavens languish with the earth. The earth is defiled by its people; they have disobeyed the laws, violated the statutes and broken the everlasting covenant. Therefore, a curse consumes the earth; its people must bear their guilt.* (Isaiah 24:4-6)

2. *I brought you into a fertile land to eat its fruit and rich produce. But you came and defiled my land and made my inheritance detestable. (Jeremiah 2:7)*

When the Old Testament spoke of sin “defiling the land,” it was commenting on more than the people’s morality. Rebellion against God really did, in the most literal sense, result in good land being laid waste:

1. *He (God) turned rivers into a desert, flowing springs into thirsty ground, and fruitful land into a salt waste, because of the wickedness of those who lived there. (Psalm 107:33-34)*
2. *Why has the land been ruined and laid waste like a desert that no one can cross? The LORD said, “It is because they have forsaken my law ...” (Jeremiah 9:12-13)*
3. *Hear the word of the LORD, you Israelites, because the LORD has a charge to bring against you who live in the land: “There is no faithfulness, no love, no acknowledgment of God in the land. There is only cursing, lying and murder, stealing and adultery; they break all bounds, and bloodshed follows bloodshed. Because of this the land dries up, and all who live in it waste away; the beasts of the field, the birds in the sky and the fish in the sea are swept away.” (Hosea 4:1-3)*

This is never truer than today, when rebellion against God’s principles still results in good land being laid waste. We see it clearly in nations where peace and civility have broken down.

The ancient Israelites thought that God was the agent of destruction. We might rather say today that God has organized things so that we suffer the consequences of our own ungodly actions in the desolation of the land that we despoil. In the final analysis, it is much the same.

Being careless of the land seems to go hand in hand with being careless of God: “... They will turn my pleasant field into a desolate wasteland. It will be made a wasteland, parched and desolate before me; the whole land will be laid waste because there is no one who cares” (Jeremiah 12:10-13).

It is when we imagine that we will not answer to God for our ruinous selfish activities that environmental exploitation continues without restraint.

God, therefore, is good for the land... and that’s good for society.

The confessions of an atheist

My church community is small. We worship in a primary school hall and we own next to nothing. It is, however, an extraordinary community. Although only about eighty people attend on any Sunday morning, we have ten groups meeting in people's homes. It is an intensely relational church. A small team works in the local housing estate of nearly one hundred flats. Many of those housed there are among the most disadvantaged people in Adelaide. Since the team started working there, the number of police call-outs to the estate has halved.

This statistic is not reported by the media.

Our church operates its overseas mission arm through an organization called *Empart*, which trains local church planters in Asia. Many of these pastors' homes become the local orphanage. *Empart* also teaches poor women the skill of sewing and gives them a sewing machine so they can earn a living. Our church gives sacrificially to this work and occasionally sends teams to India to help.

One of these teams went to the Indian state of Orissa just after a local uprising had occurred against Christians. Many local Christians had been killed by Hindu extremists. During the team's entire time in Orissa, they did not see one atheist worker seeking to help any of the thirty-five thousand displaced Christians hiding in the jungles of Orissa. But the Christians were there.

This was not reported by the media.

Christianity's ability to transform culture and give hope has been noted in Africa, even by atheists.

Matthew Parris, a writer for *The Times* and former Member of Parliament in the UK, is not your typical atheist. He wrote an article on 27 December 2008, saying, "As an atheist, I truly believe Africa needs God. Missionaries, not aid money, are the solution to Africa's biggest problem—the crushing passivity of the people's mindset."

After researching a story on aid organizations in Africa, Parris wrote:

Travelling in Malawi refreshed a belief I've been trying to banish all my life, but an observation I've been unable to avoid since my childhood. It confounds my ideological beliefs, refuses to fit my worldview and has embarrassed my growing belief that there is no God.

He goes on to say:

I've become convinced of the enormous contribution that Christianity makes in Africa: sharply distinct from the work of secular and government

organisations and international aid efforts. These alone will not do.

Education and training alone will not do. Christianity changes people's hearts. It brings spiritual transformation.

So, even atheists are discovering that no one is doing very well without Christianity. Without Jesus, Africa reverts to tribal warfare, abusive overlords, urban gangsterism, and militant Islam. Parris says that removing Christianity from Africa risks “leaving the continent at the mercy of a malignant fusion of Nike, the witch doctor ... and the machete.”

It is worth quoting from Mark Steyn, a columnist for the Canadian paper *Western Standard*. He wrote in his book, *America Alone*, “There are no examples of sustained atheist civilizations. Atheistic humanism became inhumanism in the hands of the Fascists and Communists.”⁵

Nietzsche, nature and Jonathan

The English rabbi and scholar, Jonathan Sacks, has written an explosive article entitled *Atheism has failed. Only religion can defeat the new barbarians*. In it, he says, “You cannot expect the foundations of western civilisation to crumble and leave the rest of the building intact.” He goes on to speak of the German atheist philosopher, Friedrich Nietzsche. In Nietzsche’s later writings, he warns that losing the Christian faith will mean abandoning Christian morality. This, as Sacks explains, leaves us in some very chilly waters: “No more ‘Love your neighbour as yourself’; instead, the ‘will to power’. No more ‘Thou shalt not’; instead, people would live by the law of nature, the strong dominating or eliminating the weak.”⁶

Sacks makes the point that the new atheists are both presumptuous and careless when talking about secular morality: “If asked where we get our morality from, if not from science or religion, the new atheists start to stammer. They tend to argue that ethics is obvious, which it isn’t ...”⁷

He’s right. The American Declaration of Independence proclaims that people have equal worth and an equal right to life, liberty and happiness. It says: “We hold these truths to be self-evident.” The fact is, however, that for those parts of the world which lack a Judeo-Christian heritage, such as Africa and Asia, these truths are not at all evident; they are actually quite foreign.⁸ The idea that a prince and a pauper should both suffer the same consequence for the same felony is not self-evident for much of humanity. Notions of equality of worth, equality in law, and equality of opportunity are primarily evident in nations founded on Judeo-Christian principles. These biblical principles have undergirded the Western world’s

legal system, hospital system, education system, and democratic system of governance.

To build society on the platform of secular “common sense” is to build on a continually morphing, unstable platform. The reality is, what is common sense to one generation is not necessarily common sense to the next generation. Each generation defines its own common sense. The moral drift we allow in our generation will be handed down to the next generation, who will view it as normative. They, in turn, will add their own moral drift and hand it on to the next generation. Each ensuing generation will view common sense from the perspective of a position arrived at by moral drift. Common sense is created by culture, so it cannot be asked to be the guardian of culture.

The eighteenth-century Prussian philosopher, Immanuel Kant, said that reason is the source of morality. He’s right. The problem is, without God as a foundation, our reasoning (and therefore our morality) continually changes. The American philosopher and historian, Will Durant, wrote an eleven-volume work with his wife, Ariel, called *The Story of Civilization*. As a result of his research, he concluded: “There is no significant example in history, before our time, of a society successfully maintaining moral life without the aid of religion.” This is a hugely significant statement. The strident atheists, humanists and secularists of our time are asking us to create a society in which there is no God—when no such society has ever been shown to work well.

Jonathan Sacks voices a similar concern to Durant:

I have not yet found a secular ethic capable of sustaining in the long run a society of strong communities and families on the one hand, altruism, virtue, self-restraint, honour, obligation and trust on the other. A century after a civilisation loses its soul, it loses its freedom also.

This is a vital point to make.

Yet Christianity should not be adopted simply for the sake of pragmatism, that is, because it results in a “nicer” society. Christianity only deserves to be embraced if it is true. (Evidence of God in truth will be explored in the next chapter.)

India

Vishal Mangalwadi is a Christian philosopher and social activist. He was born and brought up in Allahabad in northern India. His interest in Christianity was aroused when he noted that the only place of worship at the university he attended in Allahabad was a Christian church. He wondered why this should be, given that Allahabad was a particularly sacred city for both the Muslims and the Hindus. The city was the birthplace of many of Hinduism’s holy Scriptures

(the Vedas and some of Hindu's grand epics), and it hosted the largest religious festival in the world, the Maha Kumbh Mela, typically attended by a hundred million Hindus.

And yet the city's university had only a Christian church.

It occurred to Vishal that Christianity, unlike the local religions, puts a priority on truth and seeks to enrich society. It builds universities. This was enough to prompt him to explore the claims of Jesus Christ.

During my first visit to India, I visited the Christian Medical College and Hospital in Vellore, southern India—one of the most internationally renowned hospitals in Asia. It was founded by Dr Ida Scudder, an American missionary who wanted to build a hospital in which Indian women could be treated by female doctors. Many Indian women were dying, particularly in childbirth, because their husbands would not allow them to be attended by a male doctor. I visited some of the wards in the hospital and frequently heard patients say, "These people really care. They don't mind how poor I am. They do the right thing, not just the thing that earns them the most money." It was sobering to be reminded what a rare and precious thing a Christ-like culture is in the world.

My ruminations continued when I saw a beggar in the streets outside. The Hindu culture is not kind to beggars. If a Hindu priest sees a beggar in the street, he may offer alms, as this is a spiritually meritorious thing for him to do. He might also say three things to the beggar:

1. "Your pain is an illusion."
2. "Your low status is your own fault, the product of poor behaviour in a past life."
3. "You must live out your status faithfully and not try to change it."

If a Christian sees the same beggar, he/she might also say three things—three very different things:

1. "Your pain is real."
2. "Your situation is caused in large part by humanity's brokenness, for which we are all responsible."
3. "The Holy Spirit of God in me gives me compassion for you and compels me to help you improve your situation."

All religions are not the same.

Hope and truth

There doesn't seem to be a lot of hope without God. Nobody is doing very well without him. Again, while this doesn't prove God, it should probably encourage us to at least investigate

God. Friedrich Nietzsche popularized the idea that “God is dead” and attacked all such notions as meekness and charity, claiming that they were drains on our “will to power.” However, his philosophy did not offer much hope. He said, “In reality, hope is the worst of all evils, because it prolongs man’s torments.”⁹

Oh dear!

Hope is a precious thing, but hope without truth is simply delusion. Truth is important. It is not the case that every religion or religious practice should be considered valid or good. There are some things done in the name of religion that are just plain wrong... and the fact that we can say this is significant. It means that we are appealing to an authority of rightness that goes beyond many of the religious activities of humanity.

This raises the issue of what should be tolerated and what should not. There is, of course, a big difference between tolerance and believing that all religions are right. An example is Ayaan Hirsi Ali, the Somali-Dutch activist, atheist, writer and politician, who feels able to say that female genital mutilation is morally wrong even though it is insisted on by a religion. She has no compunction in ignoring political correctness in order to make a moral judgement about a religious practice.

This hints at the possibility of fundamental truth. Christianity claims that God has revealed this truth through an historically well-attested man called Jesus Christ. He was a wonder-worker with flawless wisdom and morality, and his teaching is available to us in Scripture today. This man died on a cross and rose from the dead—in fulfilment of prophecy written hundreds of years earlier in Scripture. These are concrete claims. They are not myth or saga. They are real... and only real things give hope.

If you add to this the testimony of the transformation that happens to individuals, families, cities and nations when authentic Christianity is embraced, the truth of Christianity is commended even further.

Adrian Wooldridge, a self-confessed atheist, said that his respect for Christianity has grown as a result of his research into the activity of religious organizations. He said, “This was partly because of the people I came across who were doing such amazing work to help the poor.” He goes on to ask, “Where are the atheists doing anything like that?”¹⁰

It’s a good question.

The American Catholic philosopher, Michael Novak, believes that secular historians have cut off one of the two wings by which the American eagle flies. The wing that has been clipped is the nation’s foundation on God. He says that the generation that founded America, “relied upon this belief.” Faith was an indispensable part of the American story.¹¹ When

American historians assembled fifteen thousand writings from the period of their nation's foundation, they discovered that they included 3,154 citations from the Bible. This was nearly four times as many as the next most popularly quoted authority.

It would seem that the Bible is the soul of Western civilization. Without it, we are left to the heartless, chilly winds of Nietzsche's "will to power," the motivation that drives human ambition and the quest to reach the highest possible position of power in life. Fyodor Dostoevsky reminds us that, "If there is no God, everything is permissible."¹²

Nature is pragmatic

Organisms in the plant and animal world will generally seek to kill off anything that threatens their ability to thrive. This includes eating other organisms in order to live. In this dangerous world, everything comes under the all-consuming instinct to dominate and thrive.

When human societies discard Christianity, they invariably default to the behaviour of the plant and animal world.

Vishal Mangalwadi was imprisoned a number of times in India because he promoted the education and social wellbeing of the poor. Some high caste Indians in authority felt that their exclusive claim on status and power was being threatened by him, so they locked him up. One police chief even promised to kill him if he continued to help a poor community repair roofs that had been shattered by a hailstorm.¹³

When Christian principles are absent, you get the killing fields. When Christian principles are absent because the church has been corrupted or muzzled, Auschwitz happens. When Christian principles are absent, it becomes expedient to kill thirty million people through starvation in order to institute a collective farming ideology in China. Without the morality, hope and principles of Christianity, humanity falls back into the harsh pragmatism of the animal and plant kingdom.

This Machiavellian pragmatism allows you to do anything that is necessary to stay in power. It allowed a French queen and a Pope [for goodness' sake!] to conspire together to murder tens of thousands of Huguenots on St Bartholomew's Day in 1572. It allowed laws to be passed that resulted in the murder of six million Jews. It allowed thirty thousand people perceived as a political threat to "go missing" in Argentina between 1976 and 1983.

If society is not guarded by a respect for God, then whoever has power wins. If society is not guarded by Godly principles, Hitler's National Socialism is a logical outcome. If society is not guarded by a respect for God, it makes perfect sense for your values to be those of the animal kingdom. There is no right to life in this pragmatic world, only the 'law of the

jungle'. If your life gets in the way of my ambitions, I will kill you or enslave you. This is what happens in human societies without an authentic Christian foundation. The truth is, when people stop ruling "under God," they will seek to be like God.

Christianity understands that God is the ultimate authority. The American Pledge of Allegiance describes America as "one nation under God," not "one nation under a president or king." President Nixon discovered that he was not above the law regarding the Watergate affair. The law of the people, under God, stood over him.

The significance of this is: If you reject God, you condemn yourself to be ruled by those who are driven by selfish ambitions and a lust for power. This inevitably causes a lot of people to be oppressed. It is significant that people generally move (as refugees or migrants) away from a nation without the values of a Christian heritage to one that has these values. They seek that nation's safety, civility, justice and prosperity. My own country of Australia has had to institute tough, and I might say contentious, immigration policies in order to stem the flow of immigrants from Sri Lanka, the Middle East and Asia.

However, many Western nations with a Christian heritage are now losing that heritage. Its people are turning away from Christianity to atheism, or to one of the non-demanding, pluralistic, self-designed religions.

I'm not sure that this bodes well for a nation's ability to continue to be a refuge for those seeking its justice, order and hope.

Losing our spiritual heritage

Our age is one in which people are shedding traditional values and giving up on the idea that anything is fundamentally true. Today's generation is letting its spiritual heritage slip through its fingers. This is no small thing. Our ancestors fought and died for the values that dragged ~~our civilization~~ us from an ~~the~~ anarchic, fear-laden, truth-eschewing, culturally desolate, justice-avoiding, meaning-ignorant culture... into a civilization based on the Christian ethic of truth, justice, hope and meaning.

It would be nice to think that our current civilization might be the first that did not commit cultural suicide by self-destructing from within. Historians tell us that all cultures do this when they turn away from the optimism, values and certainties that caused them to grow.

The symptoms of the postmodern age that now pervade the West give little confidence that we are doing anything other than self-destructing. Patricia Waugh, Professor of English at Durham University, wrote about this phenomenon, saying:

The postmodern age (is) ... one dominated by anxiety, irrationalism and

*helplessness. In such a world, consciousness is adrift, unable to anchor itself to any universal ground of justice, truth or reason.*¹⁴

The twentieth century Methodist theologian, Eli Stanley Jones, summarizes this state, saying:

*The modern man sighs and says: 'There are no absolutes; they have all been dissolved in the acids of modern thinking ... there are not supposed to be any absolutes—we are born into the relative, live in the relative, and die in the relative. It is all a vast question mark.'*¹⁵

A question mark is a poor substitute for meaning and identity. No wonder our children are reaching for society's analgesics—and society is happy enough to provide them. It feeds our kids on the empty calories of TV, video fantasy, media banality, cultural crassness, Facebook and Twitter. Our children have become mesmerized by today's cultural gatekeepers: commercialism and the media. As a result, talent has given way to notoriety, the guilty claim to be victims, sentimentality has replaced spirituality, sensationalism has driven out substance, expedience has replaced principle, and commentary is lauded over initiative. There is now massive confusion about what family is, what sexuality is, what gender is, what truth is, and where hope is to be found. Optimism, confidence and truth have trickled through people's fingers and left them with nothing bigger than themselves to believe in.

The Roman Empire committed cultural suicide by cutting itself adrift morally—particularly in regards to women and children. As a result, it lost certainty and hope, and began to embrace things dark and negative. Some people are suggesting that we are seeing a similar Nihilism emerging today in the West's penchant for body piercing, tattoos, and the emaciated, drugged up look adopted by some of today's fashion models.

Some may disagree and insist that the future looks wonderful, and "Isn't the younger generation so much better than us?" It is trendy, popularist stuff that may gain a ripple of applause for its political correctness, hubris and positivity... but it is a lie. In Australia, suicide is the leading cause of death for people aged between fifteen and forty-four. Its culture is dominated by anxiety and hedonism.

Western atheists have much in common with rebellious teenagers. Having been safely nurtured by the Christian culture of their parents, they now rebel, seeking their own way. Their parents can only look on and be afraid for a generation that is turning its back on ultimate meaning, truth, goodness and hope.

And speaking of teenagers... let's talk about sex.

Sex, society and God

Is God good for sex?

For many years, I was a research biologist. My studies in this area indicated that there are two extreme strategies for sex in the animal kingdom—with variations on the theme in between.

One extreme is the philosophy of the rutting wildebeest. This is a “winner-takes-all” philosophy where the strongest male gets to service the females in the herd. The advantage of this strategy is that the genes for strength are the ones that get passed on to the next generation. It is, however, not an equitable arrangement. There are a lot of very frustrated male wildebeests! It is also relationally sterile—there’s not much love. The objective is mechanical coupling rather than the fostering of caring relationships.

Whenever anything like this philosophy is adopted in human civilization, it fosters competition and inequality. The rich and wealthy have many wives, and the poor have none. Where polygamy is practised, there is also competition over who will be the favoured “number one wife,” and there is anxiety from the wives over the status of their children. Love (certainly equal love for all wives) is not given a high priority. Polygamy is an arrangement primarily orientated towards the power and status of men.

The other sexual philosophy in the animal kingdom is demonstrated by one of the most comical and raucous of Australian birds, the galah. It mates for life. One of the saddest sights you see on the side of Australian roads is a galah standing beside the carcass of its dead mate which has been killed by a car. And one of the most endearing sights is watching two of them groom each other’s necks in a bonding ritual.

The strength of this approach to sex is that it allows a rapid build-up of numbers. It does so because almost every adult is engaged in sexual activity. This is advantageous when numbers need to increase quickly to take advantage of favourable conditions.

Where this approach to sexuality has been adopted by human civilization, it has fostered a quality of love that results in lifelong commitment, greater joy for more individuals, and greater sexual activity in a community.

There is a rightness about this arrangement that resonates with our very being. There may be biological reasons for this feeling, but what can definitely be said is that it is entirely consistent with Christianity, which emphasizes the primacy of relationships. Christianity teaches that God created the universe so that he could include more within the orbit of his love and include us in his community. It was because he wanted to rescue humanity back into relationship with himself that Jesus came to die on a cross. Relationships are therefore the

most important thing in the universe. As such, it is not hard to guess which sexual philosophy—that of the wildebeest or the galah—is considered to be good and godly.

Human beings certainly seem happier when they have one partner for life. It is perhaps significant that refugees are generally leaving societies in which the wildebeest philosophy is practised, to embrace the civility of those nations in which the galah philosophy is practised.

Hurrah for the galah!

Kiroth's Bible

The partly burned, soot-stained page of a Bible is framed and hanging on the wall above my desk. It once belonged to a man named Kiroth. In December 2007, he was part of a group of Christians who ran from their village of Bakingia in the Indian state of Orissa because they and their fellow believers were being attacked, and their houses burnt, by Hindu extremists. Kiroth and his brother decided to turn back in order to retrieve their beloved Bibles. Kiroth managed to recover his badly burnt Bible and re-join the other displaced Christians hiding in the jungle. Tragically, though, his brother was caught by the Hindus and hacked into pieces.

I look at the page from Kiroth's Bible whenever I am tempted to be careless about my Christian heritage.

Conclusion

The idea that humanism can come up with a robust morality that is able to replace Christian values is a theory that has not yet proved true in history. Such claims should therefore be treated with extreme caution. To trade something that has proved its worth for something that has no history of ever working would seem to be a distinctly odd form of madness.

If religion is discarded, there remains no mechanism to define what is good and just. All that is left is pragmatism. As the sinful bent of humanity will never allow complete equality and justice for everyone, the law of the jungle must inevitably become the default behaviour. The Christian cultural commentator, Charles Colson, said:

*If there is no truth—no objective standards of what is good or just and, therefore, no standard of what is unjust—then ... tyranny, either from the unrestrained passions of the majority or from the ruthless dictator, invariably follows.*¹⁶

There is simply no basis to believe the modernist dictum that we are reinventing ourselves to be ever more moral beings who are less dependent on God. Such facile, modernist thinking should have bled to death on our bloody battle fields and in our torture

chambers. Only the intellectually lazy and those who are naive can believe such fiction.

In reality, humanists and secularists who want to banish God from society are parasitic on their Christian heritage. They lay claim to its principles (for example, the “golden rule”) without understanding that it was a Christian culture that gave rise to it.

Godly principles are a gift from God to us. We follow them imperfectly, but we are nonetheless glad that they are there. Biblical principles have proven to be the most reliable and effective guardian of humanity. They have caused nations to thrive socially, morally, educationally, and scientifically.

Proverbs 14:34 says, “*Righteousness exalts a nation.*” This is a profound comment. There is much evidence of God to be seen in what works best in society.

CHAPTER 6

The Evidence of God in Truth

Authentic Christians are passionate about truth. They have to be, because Christians believe that God requires it, embodies it, defines it... and *is* it. Christianity, more than any other religion, is preoccupied with truth. Certainly, Jesus was. He said “*I tell you the truth*” about eighty times in the gospels, which is a pretty fair indication of the importance that he placed on it.

The primacy of truth is not easily found in other religions. Hinduism is essentially based on mythology, Buddhism on mysticism, and Islam on a private revelation that others can’t verify. Islam is a religion that must be forced on others by the threat of the sword. At the very least, the obligation of *dhimmi* requires Islam to dominate other faiths.

The new, syncretistic religions of today, such as New Age, are equally careless about truth. Postmodernism goes even further and has given up on the idea of truth altogether.

In contrast to this, Christianity is vitally concerned with truth.

Christianity, you see, is not just a faith, just one among many; it is faith based on truth. In other words, Christianity is evidence-based. If it can be shown that any of the essential truths about Jesus are false, Christianity is completely invalid. Notwithstanding the cancerous invasions of deism into Christian institutions in the guise of liberal theology, Christianity is founded on the life, death and resurrection of Jesus in history. Wherever the institutional church has forgotten this, it has emptied its churches, lost its passion for mission, and found itself unable to offer anything in the way of hope. It has simply preached moralism.

Christianity, is palpably not just a philosophy.

This is not readily understood by those viewing Christianity from other cultures where they are used to thinking of faith as a philosophy, or as something even more esoteric—a badge that defines their cultural identity. I remember a Chinese student speaking to me with bewilderment and amazement after a lecture I’d given on science and faith. He wanted to insist that Christianity “is just a Western philosophy... and who is to say that it is any better than the philosophy of another culture?” It took a while for him to understand that Christianity is neither Western, nor is it a philosophy. Fundamentally, it is about truth.

At the heart of Christianity are these truth claims: While all major religions have prophets who will help you find God; Christianity is about God finding us. While all major religions tell you what you must do in order to reach God, Christianity is about accepting what God has done to reach you. While most religions have prophets who claim to point to

God, Jesus Christ made it clear that he was God. Everything centres on these truth claims.

Dealing with the different understandings of truth in different Christian traditions

It is worth introducing some historical contextualization and nuance here, particularly as it pertains to the different understandings of truth in different Christian traditions. History and culture have shaped people's understanding of Christian truth through the ages, and this should be noted. In general terms, conservative Christianity, as seen in evangelical, Pentecostal and Roman Catholic traditions sees biblical truth as more literal. As such, they have no difficulty believing in miracles, or Jesus' bodily resurrection, or traditional biblical sexual ethics.

Liberal Christians, however, have been particularly prominent in the last 150 years in Western Protestant denominations. The United Church of Canada, followed by the Uniting Church in Australia, have been seen to be particularly 'progressive' – particularly as regards sexual ethics. Sizeable cadres in both denominations have been devotees of the progressive theology of the late John Spong, who was once the bishop of Newark in New Jersey. It was the liberals in the Uniting Church in Australia who agitated for, and funded, the visit of John Spong to Australia in 2007.

These progressives (or liberals) see the consistent principles of the Bible as being revisable. They view biblical truth claims through the filter of rational empiricism, and modern social mores. For example, liberals follow the moral lead of wider society when determining sexual ethics.

The above factors, understandably enough, impact on what is understood by Christian truth. It must also be said that a knowledge of, and an understanding of, the subtleties of types of Christianity will be quite beyond most enquiring agnostics, to whom apologetics is addressed. So, from what perspective is Christian truth viewed from in this thesis?

First; it must be noted that the majority of what is said in this thesis is relevant to all flavours of Christianity. Secondly; where different nuances and beliefs exist, this thesis seeks to speak from a Biblical perspective, i.e. one where the truths espoused would find an 'amen' from the consistent principles espoused by the apostles John, Peter and Paul. This biblical position has been the "safe place" for Christians throughout history, and it is the place the Holy Spirit has never failed to return the church to whenever a God-breathed revival breaks out in a nation. The consistent principles of Scripture have stood as a bulwark against the excesses of centralised power and institutionalism, and against the excesses of populist

licence. If one had to give a title to this stance, it can be called the ‘Reformed position,’ and it is from this position, that this thesis looks at the subject of truth.

Dealing with a red herring

Before we go any further, let’s deal with a red herring. It is one that usually pops up in a debate about Christian truth. Some raise the very reasonable objection that there are people who call themselves Christians, who are evil. Most of us, sadly, will have come across those who claim to be Christians but have not lived up to it. The fact is, all Christians are a “work in progress” and all of us need God’s continual forgiveness. Having said that, I also want to suggest that not everyone who calls himself or herself a Christian may necessarily be one. Being a Christian actually requires obedience to Christ. It is therefore important to be discerning. After all, a mouse living in a cookie jar does not make it a cookie!

In our discussion of truth, what needs to be discussed is not primarily the good or bad behaviour of alleged Christians, but whether the life, death and resurrection of Jesus (as witnessed to in the Bible) is true.

What is truth?

It’s worth asking, at this point, what truth actually is. Truth is a concept that has been found to be useful. It has enabled us to trade, find a mate, and live in community without being killed. But is truth simply a useful concept that allows communities of *Homo sapiens* to get along? Is truth good only because it is useful—or is it something that is inherently good? Pushing this question even further... Is truth good because it is godly? Do we find evidence of God in the notion of truth?

Let’s begin by talking about where truth comes from.

We discover the truth about how things are made and how things work by being curious about our environment. This curiosity leads us to understand our environment better and reap the benefits from doing so. It’s worth noting that the drive to do this is not exclusively a human phenomenon. Many animals exhibit curiosity and a desire to know the true status of things in their environment. However, what about moral and spiritual truth, the truth that moves beyond the “how” and “when” to the “who” and “why”? Where does that come from? Is this a truth that we are invited to uncover? Is it something that is divinely encouraged, or is it simply a human construct invented to help us cope with the meaninglessness of our existence?

It is fair to say that some claims about gods and the divine status of things have been

entirely human concoctions. Fortunately, our intellect is such that we are usually able to expose such follies and distortions of truth... given enough time and information.

What is indisputable is that there does seem to be a gravitational pull within humanity that causes us to seek a truth, a significance and a reason for being that is bigger than we are. We suspect there is a sense of rightness in truth that is bigger than social pragmatism. It is significant that only humans can defy their genes and make moral choices about truth... to the point that some are even prepared to die for it.

The relevance of this is that if you are going to stake your life on truth, you had better be very sure you have the right truth! Humanity, sadly, can get this dreadfully wrong—as the existence of suicide bombers attests.

Right belief

It is amazing how often you meet people who say they don't believe in the existence of a historical Jesus... but who are firmly convinced about the existence of intelligent life on other planets. When I think about all the historical evidence for Jesus' existence, some even from non-Christian historians of the time (such as Josephus and Tacitus), I am amazed. It brings to mind the celebrated comment attributed to G. K. Chesterton: "It used to be believed that if you stopped believing in God, you stopped believing in anything. Alas, the truth is much worse. When you stop believing in God, you start to believe everything."¹

Right belief is important.

Having a right belief about God and having an opinion about God are not the same. To have an opinion about God does not make you an expert. Being an expert requires having the courage to seriously seek out truth. Similarly, to have an opinion about God does not make you right. Being right requires you to explore the facts. Only when you do this can you learn the truth about God and who you are. Australian Aborigines have a belief that a person remains a child (regardless of their age) until they know their story. I invite you to know your story.

Pontius Pilate once famously asked Jesus, "What is truth?" (John 18:38). This self-serving, political pragmatist thought truth was impossible to find, and he was bemused that Jesus of Nazareth, who was on trial before him, should claim to embody it.

Many feel like Pilate regarding the issue of whether spiritual truth exists. With there being some 4,800 religions in the world today, this is perhaps understandable. It helps explain why the postmodernists of today have largely given up on the idea of truth, preferring instead whatever works for them in their context. They don't believe there is any ultimate spiritual

truth. Fundamentally, we are biological machines dancing to the tune of our genes, which, in turn, are simply a chance conglomeration of atoms.

I was once asked, when recording a radio series in Sydney, why I thought Christianity was true. It's an interesting question to ponder when tens of thousands of people are waiting for your answer. From memory, I said:

Christianity has credibility because it is historically true, morally true, sociologically true, experientially true, and scientifically true. If it should fail on any aspect of truth, Christianity is a lie. Whilst other religions can be challenged on some of these areas, there is good, objective evidence that authentic Christianity has retained its integrity in all of them.

It is significant that Christianity has at its heart a person who said, "I am ... the truth" (John 14:6). As such, Christianity is not simply a philosophical crutch that people hold on to because they are frightened of the alternative. It is something, or more correctly, someone, in whom we believe because there is good evidence to suggest that we should.

The extraordinary order of our universe gives us a gentle invitation to look for truth... and the coming of God to us as Jesus makes this invitation a deeply personal one.

My genes made me do it

The idea that humankind is in any way special is being challenged in our time. In his book, *The Selfish Gene*, the Oxford biologist, Richard Dawkins, says we are not significant. We are nothing more than slaves to our genes which craft living bodies around them in order to perpetuate themselves. We are helplessly controlled by our genes which confer on us the animal instincts that we have. This sort of thinking has given rise to the increasingly common excuse, "Don't blame me; my genes made me do it."

Abdication of moral responsibility in favour of basal animal instincts is very much the vogue at present. The convicted murderer, Tony Mobley, had a long history of violent behaviour. During his trial in 1994 his attorney argued that he was not responsible for his behaviour because it was possibly due to a serotonin deficiency caused by his genetic make-up.

The judge was not persuaded.²

Fundamentally, humans have the capacity to embrace what is good and true because they have a real choice... not just because they have the right chemical composition floating about their system. It seems that our genes can result in a tendency, but not a tyranny.

A dangerous proposition

Let's put forward a dangerous proposition: If God is true (and I admit, that is a big "if"), then the only way for anyone to dismiss him is to embrace untruth. The pertinent question is: Do we find atheists embracing untruth to attack the idea of God? If there is a general climate of demonstrable untruth in atheistic attacks on God, then that, in itself, would be a pointer to the probability of God.

Personally, I think that pointer exists.

As a pastor and theologian who is sometimes called to debate with atheists, I have been appalled at the historical fiction some of them believe—even atheists who are very eminent in their field. Quite why they feel it is acceptable to be careless with truth when attacking Christianity puzzles me. They trot out apocryphal tales to prop up their atheistic convictions that are, at best, exaggerations, and at worst, lies.

In no particular order, here are a few:

1. *Church clerics refused to look through Galileo's telescopes to see evidence of scientific truth in the night sky.*

No, as we saw in Chapter 2, it was the Aristotelians who refused to look. The clerics quite enjoyed looking through Galileo's telescopes. Some of them even used telescopes for their own research.

2. *The fathers of modern science were not churchmen.*

Actually, most of them were, including Copernicus; Galileo; Francis Bacon; Robert Boyle; and Isaac Newton.

3. *Some atheists insist that Newton was more of a Deist than a Christian. (A Deist believes that God is simply an impersonal being who created the universe and then left it to its own devices.)*

To say this, risks trivializing Newton's deep, abiding and passionate belief in God. Although he struggled with the conventional Christian understanding of the trinity, Newton was a serious student of the Bible and published several theological works. Even in his magisterial work, *Principia Mathematica*, he exhibited his devotion to God. He wrote:

This most beautiful system of the sun, planets, and comets, could only proceed from the counsel and dominion of an intelligent and powerful Being ... This Being governs all things, not as the soul of the world, but as Lord over all."³

Newton believed that God was everywhere fully present. He wrote, "God is

the same God, always and everywhere. He is omnipresent not virtually only, but also substantially.”⁴ Newton was scathing of any idea that God could not be responsible for the diversity of life that existed. He wrote, “All that diversity of natural things which we find suited to different times and places could arise from nothing but the ideas and will of a Being.”⁵ It was actually the French mathematician and astronomer, Pierre-Simon Laplace, who was responsible for developing Newton’s theories into a Deist philosophy... which brings us to another atheist claim.

4. *Napoleon once asked Laplace where God fitted into his mathematical work, and Laplace replied, famously, “Sir, I have no need of that hypothesis.”* Atheists have seized on this comment to support their ideology. Their folly in doing so is well answered by the Oxford mathematician and philosopher, John Lennox, who wrote:

*Of course God did not appear in Laplace’s mathematical description of how things work, just as Mr. Ford would not appear in a scientific description of the laws of internal combustion. But what does that prove? That Henry Ford did not exist? Clearly not. Neither does such an argument prove that God does not exist.*⁶

5. *The humiliation of Samuel Wilberforce, Bishop of Oxford, by Thomas Huxley and Joseph Hooker at a meeting of the British Association at Oxford on 30 June 1860 was a key victory for atheists.*

In fact, the protagonists in the debate were not even the main billing for that night. The main speaker was Professor John Draper from New York University, who gave a boring speech in which he expounded on aspects of Darwin’s theory. Wilberforce had tried to lighten the proceedings by turning to Huxley and asking whether it was on his grandfather’s or his grandmother’s side that he was descended from an ape—a statement which Huxley savaged.⁷

Huxley’s supporters later inflated this exchange to the point of legend, even though its impact was so minimal at the time that no mention was made of it in any publication for twenty years. It was only after that time that triumphalist accounts of the debate began to appear, including a very uncomplimentary one about Wilberforce from Mrs Isabella Sidgewick

published in *Macmillan's Magazine*. Her view belied the fact that Wilberforce had always thought Darwin to be a “capital fellow” (despite his dismay at Darwin’s evolutionary ideas) and that he had written an extensive review of *Origin of Species*, which Darwin thought was significant enough to cause him to modify his discussion at several points.⁸

6. *Charles Darwin was an atheist.*

The man atheists like to champion as one of their own, perhaps more than anyone else, is Charles Darwin. So, let me quote again from a letter he wrote in 1879: “I have never been an atheist in the sense of denying the existence of God.”⁹ Rather embarrassingly, Richard Dawkins didn’t know this until Cardinal George Pell apprised him of the fact on prime-time Australian television on 9 April, 2012.

If God exists, truth should point people to him... and lies should point people away from him. It is therefore good to avoid distortions of truth and be well informed. This brings to mind a rueful comment from C. S. Lewis when he reflected on the devastating impact informed Christian literature had on his atheism. He wrote: “In reading Chesterton, as in reading MacDonald, I did not know what I was letting myself in for. A young man who wishes to remain a sound Atheist cannot be too careful of his reading.”¹⁰

How truthful is someone who is arguably the world’s leading atheist?

It’s worth looking at the truth claims of the Oxford biologist, Richard Dawkins, as he has been one of the frontrunners for atheism in recent decades. (Others have included the late British-American Marxist, Christopher Hitchens; the polemicist and journalist, Sam Harris; and the American philosopher and neuroscientist, Daniel Dennett.)

Richard Dawkins is particularly well known for his book, *The God Delusion*. It is an ungracious and unscholarly diatribe against faith that does not deserve to be taken seriously, despite the fact that it begins with pages of people who have endorsed it. For reasons that will soon become apparent, these people should each hang their head in shame.

Dawkins makes two central claims. The first is that atheists are better moral guardians of planet Earth than people with faith. His second is that faith in God is not scientifically reasonable.

Is this true?

Is religion bad for planet Earth?

Dawkins begins his book by asking us, in the words of John Lennon, to “imagine” a utopian world in which there is no religion.¹¹ Implicit in this invitation is the claim that religion has been the cause of most wars in history.

A cursory look at history shows this to be untrue. In the last century, 180 million people died as a result of conflict. Sixty-five million of them were killed in two world wars, and a staggering seventy-four million were killed by the very unchristian Communism of Lenin, Stalin and Mao.¹² The reality is that the most humane, just and successful nations in history have been those which faithfully reflect the Judeo-Christian ethic.

False representation

Dawkins is intellectually dishonest when he compiles a catalogue of fundamentalists and fanatics, and tries to pass these off as typical Christians. Driven by his ideological convictions, he represents Christians in an extreme, caricatured form that in no way represents normality. In his determination to believe that religion is bad for the world, Dawkins lumps the morally repugnant, truth-denying practices of some religions with Christianity. By so doing, he makes a totally inadequate distinction between a hate-crazed suicide bomber and Mother Teresa. This brings to mind a comment by the American psychologist, David Myers, who said: “To judge religious faith by vulgar caricatures that would make a first-year theology student wince is like judging science by eugenics, nuclear warheads and chemical pollutants.”¹³

While repudiating the toxic caricature of Christians by Dawkins, it must be acknowledged that Christian institutions have always been deeply flawed organizations which have often lived in contradiction to the teachings of Jesus Christ. It is perhaps significant that Jesus’ most vehement opponents were religious leaders. However, Dawkins seems unable to concede the obvious truth that if Christians act in a way that is contrary to their founder’s teachings, then the problem is their unfaithfulness, not his teaching. Only if they are acting in a way taught by Christ can Christianity be blamed. To blame Christianity for unchristian behaviour makes as much sense as blaming science for fraudulent scientists.

Do scientists have faith?

Dawkins tries to say that very few credible scientists are Christians. His source of authority is the personal opinion of fellow atheists such as James Watson (of DNA fame). This is ridiculous. He has ignored authentic research such as that done by Larson and Witham, who

discovered that 40 percent of scientists in America believe in a God to whom they can pray with the expectation of receiving an answer.¹⁴

Dawkins chooses not to give much credit to the many eminent academics (including scientists) in his own university who are convinced that God exists, including Alister McGrath (chemistry and theology), John Lennox (mathematics) and Keith Ward (philosophy and theology). Nor has he seen fit to report on the extraordinary increase in the number of shared chairs of theology and science in the world's academic institutions in the last thirty years.¹⁵

In his zeal to discredit Christianity, Dawkins is often just plain wrong. He repeatedly says, "Jesus (if he existed)," without acknowledging that no serious scholars question the existence of Jesus. Two almost contemporary (and, I might say, non-Christian) historians, Josephus and Tacitus wrote about Jesus.

Dawkins also claims that the commandment to love your neighbour "really meant to just love other Jews." However, Jesus' parable about the Good Samaritan in Luke 10:25-37 teaches exactly the opposite.

Unbelievably, Dawkins quotes a speech by Hitler in which the despot claims to be a Christian.¹⁶ Given the hundreds of thousands of Christians Hitler exterminated on account of their faith, this is obscene. The true conviction of the Nazi party regarding Christianity, detailed in reports by General William Donovan from the Nuremberg war crimes, showed that they planned to eliminate authentic (biblical) Christians.¹⁷

Dawkins' bigotry and lack of objective balance is deeply disturbing. He speaks of Christianity's "loathing of women."¹⁸ He does this despite the fact that:

1. Jesus honoured women.
2. The Apostle Paul honoured over twelve influential women in the church and taught that men and women were equal before God.¹⁹
3. Christians played a key role in winning the vote for women in the West.²⁰ The Women's Christian Temperance Union, for example, were influential in winning women the vote in the late nineteenth century in America, New Zealand and Australia.

Dawkins can't resist attacking Christianity by claiming that it fostered and encouraged slavery. This claim is so absurd, unbalanced and unjust that it has provoked a stinging attack from Melvyn Bragg, a well-known English broadcaster and author who claims no religious faith at all. Bragg points out that it was Christians such as William Wilberforce and John Newton who spearheaded the emancipation of slaves, not atheists. Not only that but

Christianity played a key role in helping slaves understand their right to freedom, and gave them hope that someday that right might be realized.²¹

Let me pause here and say that these are serious untruths. We are not talking about differences of opinion here; we are talking about genuine untruth.

Alarming, some of Dawkins' convictions are based on no evidence at all. For example, he tries to dismiss the mystery of the universe by claiming that evolutionary processes applicable to non-biological objects such as molecules and galaxies will eventually be found. In a most unscientific way, he asks us to believe this even though no such mechanisms have been discovered.

By any stretch of the imagination, this is not science. It is ideology run amok. Dawkins asks us to accept the miracle of existence simply by shrugging our shoulders and saying it was an improbable event which must have happened because we are here.²²

Failing at theology

Dawkins is on sound ground when he does authentic biology. However, he makes a terrible theologian. He ridicules the God of the Old Testament and thinks that by so doing, he is discrediting Christianity. This makes as much sense as a theologian ridiculing science because of the teaching of medieval scientists. Dawkins fails to understand that Scriptural truth, like scientific truth, is progressive. It builds up with time as God reveals more truth. Scriptural truths only reach their fullness in Christ Jesus.²³ Christ is therefore the lens through which we must interpret all of Scripture. Perhaps because Dawkins is unable to cope with Jesus' radical life of love, he barely mentions him other than to make a few disparaging remarks.

Not surprisingly, Dawkins finds the concept of the Trinity impossible to grasp. He doesn't seem to realize that while God has chosen to reveal quite a lot about himself, God has to be more than our minds *can* conceive—if he is to be more than our minds *have* conceived. Logically, there has to be some mystery to God.

Teapots and other silly things

Sadly, Dawkins is just one of a long line of atheists saying silly things about Christianity.

The atheist, Bertrand Russell, scorned the idea of Christianity, saying that there was no proof it was true. He used a spectacularly unfair analogy to ridicule the idea of God's existence: Since we can't prove that there isn't a tiny teapot circling the Sun like a planet (a teapot too small to see), we have to allow that such a teapot could be circling the Sun. Russell says that this is the sort of reasoning Christians display, as they insist we have to allow for the

possibility of God because he can't be disproved.²⁴

This sort of argument is crass and intellectually dishonest.

To state the banally obvious, a teapot is a man-made object built for brewing and pouring tea. By its definition, by its origin and by its function, it is not a planet.

A universe that compels many people to take the existence of God seriously is quite a different matter. It is riddled with codes, order and mind-bogglingly unlikely occurrences that have resulted in the existence of intelligent life. If we look to find a reasonable cause for all this, we can only use the pattern that we have already found to work—the law of cause and effect. This suggests that the universe is shot through with signs of a mind. Nothing else explains it. What we observe is entirely consistent with there being a rational mind behind it all. So much so, that any other theory—such as one that allows for everything coming from nothing as a result of nothing—can be considered unlikely, if not impossible.

The universe is not a blank page with nothing on it to give us a clue as to its origin. The evidence of what does exist means we are not free to believe any crass thing—as Bertrand Russell would have us believe. The fact that the universe appears designed to allow for an outcome suggests that there is a divine mind behind it.

Christianity is reasonable. Tiny teapots flying round the Sun are not. If atheism requires the intellectual absurdity and dishonesty shown by Bertrand Russell's analogy, it deserves to be ignored.

Atheists require that certain features of the universe (the fact that it exists and the nature of its existence) be accorded no significance in order to allow them to believe that God doesn't exist. This, I submit, is worse than holding to a belief on the basis that there is no possible way to disprove it. Atheists are holding to a belief despite there being indicators to the contrary.

The very nature of the universe should at least prompt some humility from atheists. If I were asking you to believe that there is a tiny teapot flying around the Sun as a miniature planet, you would be justified in asking, "Where's the evidence?" But if I say there is good, scientific, logical evidence of a mind behind the universe, that is another thing all together. If I back that up further with the historical record of Jesus... and if I add in the claims Jesus made about himself, the morality of Jesus, and the transformative power of authentic Christianity... then I can know quite a lot. To forbid me to claim this knowledge as truth is ideological bullying. It is censorship of a reasonable position. You may choose not to understand it; you may choose not to investigate it; you may choose not to embrace it... but if you forbid it, you are a tyrant.

Abusing Scripture

There is no integrity in atheists reading Scripture selectively putting the worst possible spin on it so that meanings are imposed on the text that it was never written to teach. I have seen this done by atheists wanting to denigrate the teachings of Scripture. This sort of behaviour has more in common with lascivious schoolboys reading a piece of literature, imposing emphases and double entendres on it so that they turn it into pornography.

There can only be two reasons why atheists do this: perversity or ignorance. There is little that can be done with wilful perversity, but we are able to address ignorance. Can I respectfully remind atheists who have formal scientific training that a PhD in physics or biology does not qualify you to speak authoritatively on theology? You would be justly miffed if theologians dared to speak on science with the same abandon. While the essence of God's truth can be understood by a small child, infinitely greater skill and training is required to understand the full theological significance of Scriptural teaching, particularly on difficult subjects.

Having said this, let me acknowledge two things: The first is that there are a few theologians of the biblical literalist persuasion who do try to meddle with objective scientific truth. All I can say about this is: I'm sorry. They are wrong.

The second is the sad reality that too many theologians have not served Christianity very well.

Having said that, it remains reasonable to ask people not to distort Scripture for their own purposes... and not to speak about things of which they are ignorant.

If anyone claims that truth is important, they need to be truthful.

Is faith scientifically credible?

A key claim by Dawkins is that belief in God is not scientifically credible. He is quite wrong. Many Christians celebrate science but believe that faith puts science in a wider context of meaning. Science alone fails to explain why the universe exists, why it is so ordered, and why we have the necessary skills to understand it.

Christians understand that science and theology answer different questions. This means that the two disciplines do not compete. However, they also acknowledge that all truth, including scientific truth, has its origin in God. As such, theology and science cannot be in opposition, but must be mutually supportive.

Evolution is a remarkably good and well-attested theory that explains much of what we

see. Evolutionary science is therefore okay. However, the philosophic ideology that Dawkins brings to evolution, coloured by his atheism and lack of academic integrity, is not. It is somewhat galling when atheists fracture truth historically, philosophically and theologically, and then claim to be children of the Enlightenment who stand exalted on the pillar of empirical truth, high above the “fictions” of superstition and religion.

I am the first to acknowledge that there are people of integrity who have intellectual difficulties with Christianity. That said, the sheer volume of carelessness with truth that is shown by many leading atheists brings to mind Jesus’ comment, “*Everyone on the side of truth listens to me*” (John 18:37). I can’t help but notice that an awful lot of people who don’t love truth are not listening to Jesus.

We have said that if God exists, those who want to dismiss him will have to embrace untruth in order to do so. Could it be that the poor behaviour of many of the world’s leading atheists points to the possibility of God?

The bleakness of being nothing more than a machine

Dan Dennett, Richard Dawkins, Sam Harris and Christopher Hitchens suggest that science is totally concerned with the material—that we operate and exist only because of the material, and that anything supernatural should be derided and scorned as you would the idea that there are fairies at the bottom of your garden. Anything that exists does so because it is a machine that has built itself up from primordial particles through evolutionary processes—most of which have yet to be discovered.

Their claim that everything can be reduced to a machine makes for a very bleak world.

Darwin didn’t much like the idea that his theory of evolution helped promote a reductionist model of human existence. He spoke of being deeply disturbed at the idea that all that was noble and good about humanity was, in reality, just something that derived from primitive animals. Humankind’s best endeavours therefore had no significance at all. He wrote to William Graham on 3 July 1881, saying:

*With me, the horrid doubt always arises whether the convictions of man’s mind, which has been developed from the mind of the lower animals, are of any value or at all trustworthy. Would anyone trust in the convictions of a monkey’s mind, if there are any convictions in such a mind?*²⁵

There is nothing very ennobling about reducing the best of human endeavours to tiny subatomic billiard balls bumping into each other. Something in us instinctively knows this to be wrong. Certainly, there is not much joy in considering the paintings of John Constable as

mere daubs of pigment that are coloured differently because of their selective adsorption of various wavelengths of light.

The English Romantic poet, John Keats, wrote a poem called *Lamia* in 1819 in which he complains that science has removed all mystery and meaning from the world. Because Isaac Newton has provided a scientific explanation of the colour spectrum, the rainbow has been “unweaved.” Keats writes:

*Do not all charms fly
At the mere touch of cold philosophy?
There was an awful rainbow once in heaven:
We know her woof, her texture; she is given
In the dull catalogue of common things.
Philosophy will clip an Angel's wings,
Conquer all mysteries by rule and line,
Empty the haunted air, and gnomed mine—
Unweave a rainbow, as it erewhile made
The tender-person'd Lamia melt into a shade.*

Quantum physics to the rescue!

Happily, we need not despair. The old Newtonian idea of physics, which biologists such as Richard Dawkins largely inhabit, has been superseded by the findings of physicists exploring the quantum world.

As we discussed in Chapter 4, science has moved on from a purely mechanistic view of a material world into something very different. Electrons are no longer considered to be particles that fly around the nucleus of an atom, rather, they inhabit a “probability wave”. They exist in a superposition of many states and only collapse into one particular reality when they are observed.

The big question is, of course: When does this happen? When does a quantum system stop existing as a superposition of many possible states and become one thing or the other? Erwin Schrödinger encapsulated the conundrum in a thought experiment known popularly as *Schrödinger's cat*. (More of this will be spoken of later.)

Whatever the answer, what is not in doubt is that quantum physics has killed off any notion that the universe is simply made up of tiny bricks of matter. It now seems that consciousness may be the ultimate reality.

This has relevance for you and me. Regardless of quantum weirdness, at some point or

other we have to be us. So, who is observing us to make us collapse into our current reality? Are there multiverses with different options... or could it be that God is observing us?

Quantum physics, it would seem, is entirely consistent with the Christian notion of God. The Oxford philosopher and theologian, Keith Ward, makes the point that the start of John's gospel describes Jesus as the *Logos*, which roughly translated means, "the reason and consciousness of God—the one who calls all things into being".²⁶

Explaining away explanations

In a review of Richard Dawkins' *The God Delusion*, Notre Dame philosopher, Alvin Plantinga, argues that naturalism is self-defeating and cannot be believed rationally. If, as naturalists claim, there is no God guiding the evolutionary process, then there is no reason to think that our cognitive faculties are reliable in giving us true beliefs about the world. As such, any conclusion we reach about what is true, including the claim that evolution is unguided, is untrustworthy. Naturalism, whether it concerns evolution or anything else, is self-defeating and must be given up.²⁷

C. S. Lewis makes a similar point:

*The kind of explanation which explains things away may give us something, though at a heavy cost. But you cannot go on "explaining away" for ever: you will find that you have explained explanation itself away. You cannot go on "seeing through" things for ever ... To "see through" all things is the same as not to see.*²⁸

Two difficulties for atheists

Atheists have two objections to the Christian claim that humankind and planet Earth are significant. It's worth having a look at them because they illustrate the importance of being theologically literate.

Both objections arise because atheists have reduced God to what they would imagine him to be if he were simply a human construct. The truth, however, is that if God exists, he cannot be contained by the ability of the human mind to imagine him. He has to be more than our minds *can* imagine if he is more than our minds *have* imagined.

The first of the two objections is that the universe is 13.79 billion years old. The fact that it is so old must surely mean it is stupid to think that humankind, which has existed for a mere blink of an eye (some 100,000 years), has any special significance at all.

A theologian would answer this by pointing out that while time is significant for us (in

that we are creatures locked within time), it is completely irrelevant to God who stands outside of time. So, while the things that happen in time matter to God, time itself is invisible to him.

The second problem atheists have is similar. It is that the universe is unimaginably big. The observable universe is currently thought to be about ninety-two billion light years in diameter—and expanding. In fact, it may be infinitely large. As such, it is ridiculous to think that any biological activity on one planet circling a middle-aged star has any significance. The very size of the universe suggests that the Christian claim that humankind is special to a god is preposterous.

Again, it needs to be pointed out that Christians understand that God is omnipresent; he is everywhere fully present. So, while size is a significant and limiting factor for us, it is irrelevant to God.

It should be gently pointed out that if atheists are going to attack the idea of God, they will need to attack the right God, not some time-bound, space-bound human construct. The need to do this is, as Sherlock Holmes would say, “elementary.”

A very sensible question to ask is why God has chosen to surround humankind on planet Earth with a universe that is so old in time and large in size.

The biblical answer is that God is showing off. By making things as grand as they are, God is hanging his business card in the heavens for us to read. He has written it in a language that is compelling to stone-age man and to today’s astrophysicists.

This is entirely consistent with the three passages in Scripture that invite us to take God seriously as a result of what we see in creation. Psalm 19:1-2 speaks of the splendour of the universe showing the majesty of God; Acts 17:27 teaches that humankind’s place in an ordered creation is an invitation to reach out to God; and Romans 1:20 points out that the qualities of creation should prompt us to explore the possibility that it has a divine origin.

Let me tell you about my dog

The human concept of truth is very different to that found in the animal kingdom. It’s important to say this, given that some militant atheists are suggesting that we are socially sophisticated animals that have evolved a sense of truth to suit our particular context.

The concept that truth has moral value is uniquely human.

Issues of truth and lies do not, of course, only involve humans. As a biologist, I can tell you that animals are capable of untruth (as it is defined from a human perspective). Insects mimic others in order to predate or escape predation. Dogs under threat will roll over and

show their sexual organs to distract an aggressor. They will do this even though sexual desire is the last thing on their mind. Some males of the Australian giant cuttlefish mimic females so that they can get close enough to mate with a female who is being guarded by another male. Animals can display falsehood. Whenever my dog, JJ, is uncertain about how she should respond to me, she will yawn and stretch down on her front paws. It's lies, all lies. Her action is designed to show unconcerned companionship, when in reality she has some concern as to the status of our relationship.

Similarly, JJ can express guilt and fear when she knows that she has done something wrong. She adopts a carping, winsome demeanour designed to help her avoid the consequences, or at least to minimize them.

These are instinctive behaviours designed to help her survive. But metaphysical truth—that which we celebrate and are prepared to die for—is something else entirely.

Why does truth exist? Is our concept of truth simply an evolutionary by-product that is not really worthy of the epithet “good”?

It can get pretty lonely in university campuses in the West for those who think truth is anything other than relative—a handy conviction you adopt on a Monday but which you can change on a Tuesday depending on what you feel works for you at the time.

The postmodern wild-child

It is worth asking, Can anything be true at all? Today's apologists need to understand that any dialogue between science and faith will take place within a postmodern social culture. Some aspects of this are positive. Today's postmodern culture puts a high priority on relationships, cultural relevance and congruency, but it also has a darker side. Postmodernism scorns the idea that absolute truth exists. All truth is relative. People construct truth to make sense of their experiences. Experience is everything. If a truth is not compatible with an experience someone wants to have, simply change the truth.

This sort of thinking brings to mind the wrathful comment of the Old Testament prophet Isaiah, who railed against those calling “evil good and good evil, who put darkness for light and light for darkness ...” (Isaiah 5:20-22).

Postmodern thinking is intensely suspicious of “meta-narratives” like the Bible. It considers them to be tools which have been developed to control people. As such, meta-narratives should be interrogated to uncover the repressive views that have given rise to them, particularly those which prejudice minority groups.

In truth, very few people consciously adopt hard-edged postmodern thinking. They just

allow its influence to waft over them and encourage them into an increasingly secular, morally vacuous lifestyle. Postmodern thinking is a symptom of the angst of a secularizing world that did not get the utopia it had hoped for from modernism. It is a disturbing phenomenon because, in the view of historians such as Arnold Toynbee, it is indicative of a civilization that is in terminal decline. Evidently, these symptoms are found in civilizations committing cultural suicide—which have lost faith in the old certainties that held society together.²⁹

Wouldn't it be nice if we could avoid it?

Tolerance: the postmodern mantra

One of the key pillars of postmodern thinking is tolerance. All religions and philosophies must be tolerated, except the morally repugnant ones... which raises the interesting question of who decides what is, and what is not, morally repugnant.

The philosophy of tolerance was articulated by the English poet and polemical author, John Milton, at the height of the English Civil war in 1644. He wrote a tract entitled *Areopagitica*, an impassioned philosophical argument in support of free speech. It was prompted by civil antagonism towards him when he was arguing the case for divorce. He did this, rather sadly, following the experience of his own young wife deserting him. In his tract, Milton argues that truth and untruth should be allowed to slug it out in public debate. This would allow truth to be discovered and defined.

Tolerance has changed since then. For Milton, tolerance was a tool that helped uncover truth. Today, tolerance is advocated because of the conviction that there is no absolute truth. Spiritual truth and matters of ultimate meaning are not now taught at our universities. They simply impart information, equipping people to earn a salary but not equipping them for life... or, indeed, for death.

Where comparative religions and philosophies are studied, this is conducted largely as an intellectual exercise, one that looks at different religions almost as if they were sideshow oddities. Institutional political correctness now requires them to consider all religions as being equally valid—a position that condemns all religions, including Christianity, to being delusional follies. For, if everything is true, then nothing is true. To put it in philosophic terms: if A can also be non-A, there can be no such thing as truth. Religion is therefore nonsense.

There is, therefore, an embargo on seeking truth about the big questions of life in most Western universities. Most are not training people to think about such vital issues as who they

are, what is true, or what is good. This is tragic. The British theologian and minister, Leslie Newbigin, rues this fact. He believes that relativism, that is not willing to speak about truth but only about “what is true for me,” is an evasion of the serious business of living. It is the mark of a loss of nerve in our contemporary culture.³⁰

Elephants, humility and truth

Despite the postmodern climate in which we live, an ache for significance and meaning remains in most of us. But what can we believe? After all, there is a plethora of people claiming this or that to be true. The cries of those peddling crystals, magic, Eastern mysticism, cults and bizarre alternative spiritual practices, seem to mock our search for truth.

Not surprisingly, this has led some to give up searching for spiritual truth. Instead, they seek to dilute the significance of our existence by saying that there must be an infinite number of worlds and intelligences “out there.” Our universe just happened to fluke the necessary factors that allowed life to develop.

It needs to be said, however, that this argument doesn’t actually explain *why* we exist. As we said in Chapter 1, you can’t explain a universe by pointing to a multitude of universes any more than you can explain a book by pointing to a library of books. That is simply to avoid the question.

It is also worth noting, in passing, that despite different theories about an infinite number of universes, many scientists believe that this life is all there is—and all scientists agree that there is, as yet, no evidence of intelligent life elsewhere in the universe. The question of why anything exists at all, and why we exist as we do on this planet, remains.

Others simply shrug their shoulders and say that all religions show aspects of truth. The claim that one religion has a monopoly on truth is, in their view, arrogant. Leslie Newbigin challenges this thinking, saying:

There is an admirable air of humility about the statement that the truth is much greater than any one person or religious tradition can grasp. The statement is no doubt true, but it can be used against the truth when it is used to neutralize any affirmation of truth.”³¹

When such a statement “is used to invalidate all claims to discern the truth, it is in fact an arrogant claim.”³²

He goes on to borrow the analogy we encountered in Chapter 4—that of a king who watches five blind men examine an elephant. Each man grabs a different part of the elephant and imagines that the whole is similar to whatever object he thinks he is holding. This

analogy is often used to point to the need for any one faith to have humility regarding exclusive truth claims. Newbigin points out that to come to this conclusion is to miss the point. It ignores the fact that the king can see the whole elephant—and the five blind men. The king understands the full story perfectly... and has no need to be modest about his claim to understand.

The fact is, Christianity is different from other religions.

On the face of it, it would be outrageous and arrogant to believe that Jesus is the only way to God... except for one rather obvious proviso: unless it were true.

So, is it true?

The statements that Jesus made about himself certainly make it clear that he was not claiming to be merely a prophet.

1. He claimed to be able to forgive sins (Mark 2:5).
2. He claimed that he would one day judge the world (Matthew 25:31-32).
3. He claimed that he would one day raise people up to everlasting life with God (John 5:28-39; 6:39-40,44,54; 10:28; 11:25).
4. He claimed authority to confer a heavenly kingdom on people (Luke 22:29-30).
5. He claimed that to have seen him was to have seen God (John 14:8-9).
6. He claimed that whoever receives him receives God (Matthew 10:40).
7. He claimed to be worthy of our absolute devotion (Matthew 10:37-39).
8. He claimed to have always existed (John 8:58).
9. He claimed to be the Christ (Greek), or Messiah (Aramaic), meaning “anointed one” (Mark 14:61-62; John 4:24-26).

Certainly, Jesus’ enemies recognized that he was claiming to be God (John 5:18; 10:31-33).

Jesus disturbs us with claims that have to be either rejected or accepted. What he cannot be is one option among many. He has to be reviled or worshipped.

Six days of creation: Adam and Eve... and all that

Christians have been particularly scorned for believing things that are patently untrue regarding the first three chapters of Genesis, which speak about God creating the world.

I have to say, we’ve deserved it. Too many Christians in this debate have been ungracious to other Christians who hold a different view about how literally the Genesis creation accounts should be understood. Some have also been ungracious to atheists who

question how anyone can take these accounts seriously at all.

I am very sorry about this.

It is my hope that what I say next may be of some help if you have been perplexed about the issue.

The first three chapters of Genesis are not primarily concerned with science's "how" and "when," as we have already said, but theology's "who" and "why." The great fathers of the Christian faith understood this to be so. In AD 415, St Augustine wrote a commentary on Genesis in which he said that some sections of the book should be understood metaphorically.³³ His approach was to adopt a literal understanding of a Scriptural passage unless it could be established that a metaphorical reading was necessary.

The great Swiss reformer, John Calvin (a stickler for God's word if ever there was one!) said that the language used by God in talking about six days of creation was language that he had *accommodated* so that it could be understood by humanity.³⁴ Therefore, not all of Genesis is literal. As we saw in Chapter 2, he said that the Bible was not a scientific textbook, and wrote, "He who would learn astronomy and other recondite arts, let him go elsewhere."³⁵

All good advice.

So, what incontrovertible truths do the first three chapters of Genesis teach that all Christians can rejoice in and say "Amen" to together?

These chapters declare in peerless prose that:

1. In an age of many gods, there is only one God.
2. In an age when people were worshipping objects in nature, all of nature was created by God.
3. In an age when the gods were believed not to care, God thought his creation was fantastic.
4. In an age that fails to explain the reality of evil, evil is rebellion against God.
1. In an age that cannot make sense of suffering, suffering is the result of humankind's choice to go down a path that God never intended.
2. In an age which despairs of finding justice and which tolerates evil, God declares that he has zero tolerance for evil and will ensure that justice ultimately prevails.

This profound teaching at the start of the Bible is the foundation of all that follows. It is the foundation of the love story in which God reveals himself to humankind and rescues us back to himself through Jesus. This is the place where all Christians can unite with joy and say, "That is true."

According to a South Australian survey in 2001, 80 percent of tertiary-trained people who do not attend church believe that Christianity is not scientifically credible.³⁶ In other words, they believe that you have to commit intellectual suicide to be a Christian.

This is deeply concerning.

Christians have no right to obstruct others from coming to faith by requiring them to believe impossible things before they can become a Christian. Some Christian organizations have publicized exaggerated claims aimed at discrediting the evolutionary theory. Many of these claims have not represented the full facts and a few are plain untrue. This aggressive defence of a literal understanding of Genesis has helped grow a self-authenticating subculture among Christians that is trumpeting the death of evolution as a credible theory. It is not a view that is shared by most scientists.

Some atheistic scientists have been equally careless with truth. They have pointed to the mounting evidence for evolution and thought that by doing so, they were discrediting the existence of God. It needs to be pointed out that while evolution is a plausible mechanism that explains the development of biological diversity, it cannot explain why such a mechanism exists, how the universe began, why it is so amazingly ordered, or why we can understand it.

Some scientists have questioned the ability of the evolutionary theory to explain all the biological complexity that we see in life—and have done so for legitimate scientific reasons. These views should be respected, even though they are not shared by a majority of scientists. No scientific theory should be dismissed on ideological grounds, whether religious or atheistic. All theories need to be held up to rigorous scientific scrutiny so that they can be explored and tested.

Other people have sought to discredit evolutionary theory because they believe that by doing so, they are protecting the status of the Bible as the infallible Word of God. This is regrettable as the opening chapters of Genesis are not primarily concerned with science. As such, those attacking evolutionary theory can end up being guilty of imposing on Scripture a dogma that the original authors (and God) never intended.

The fact is: *All* truth, whether scientific or theological, has its origin in God. Therefore, we must not set scientific truth against theological truth. Both are valid. Science helps us understand “how”, and theology helps us understand the broader context science operates in by addressing the issue of “why.”

The militant anti-scientific creationism that has resurfaced in the last hundred years is really a cuckoo living in the church’s nest. It shouldn’t be there. Let me say quickly that many “young Earth” creationists are wonderful, sincere people with integrity. Sadly, however, there

is much that lacks integrity coming from people promoting the young Earth position. To name just a few examples:

1. Some claim that dinosaur footprints were found next to human footprints in petrified mud.
No, that's been shown to be a mistake.
2. Some claim to have found Noah's ark.
This claim has actually been made about forty times! All such claims have been shown to be mistakes or frauds. One "discovery" claimed to have found the ark, together with metal nails and the remains of animal pens. It was shown to be completely false on prime-time TV. Ouch!
3. Some claim huge gaps in the fossil record.
That's a gross oversimplification.
4. Some claim that the speed of light has changed.
It has since been shown that there is no evidence for this.
5. Some claim to have found the wagon wheels of Egyptian chariots that were overwhelmed with water while chasing the Hebrew people across the Red Sea. One of the wheels was said to have been given to an esteemed Egyptian archaeologist for verification.
No evidence of this has yet come to light.

And so it goes on and on.

These errors appear on church websites, in church magazines and on Christian bookstalls. Some pastors even allow this misinformation to be preached in their pulpits. What makes these abuses of scientific truth worse is that they are being perpetrated in the name of preserving biblical integrity. If we Christians have any ambition to reach out to educated people with the gospel, we must not block their path to faith by requiring them to believe things that are demonstrably untrue. God is a God of truth, and Christians should reflect it.

Even so, finding truth among the mess of it all can be difficult. I have real sympathy for pastors and ministers who don't have much scientific knowledge. However, there is now information available that can help.³⁷

Being truthful about evidence of God

Too often, people give academic reasons for not taking God seriously when, in reality, they are wanting the freedom to pursue their self-interests. This results in them not investigating God very closely. They simply conform lazily to the atheistic culture around them... and form

an opinion about God from what they have gleaned from a few TV programs.

I don't know about you, but if I were God and had built a universe of unimaginable vastness and splendour to get your attention, I'd be pretty grumpy about being dismissed in such a cavalier way.

The motive for not seeking the truth about God varies. For some, it is simply laziness. For others, they dare not entertain the possibility of God—for more selfish reasons. Now, don't get me wrong. I have every respect and empathy for those who have legitimate intellectual difficulties with the idea of God—but if you are legitimate about finding God, you will at least research the possibility with an open mind. Given the extraordinarily complex nature of the universe around us, surely we owe it to ourselves to investigate its cause with at least some degree of diligence.

... All of which brings us to a beautiful promise: God says in Scripture that “You will ... find me (God) when you seek me with all your heart” (Jeremiah 29:13).

The question is: Where do we go looking in order to find God?

A very obvious place to begin is creation... the universe around us.

The Bible makes it plain that God expects us to look at creation and draw some conclusions from it regarding his existence. Here are some of the Bible verses that teach this:

- 1. The heavens declare the glory of God;
the skies proclaim the work of his hands.
Day after day they pour forth speech;
night after night they reveal knowledge.
They have no speech, they use no words;
no sound is heard from them.
Yet their voice goes out into all the earth,
their words to the ends of the world.
In the heavens God has pitched a tent for the sun. (Psalm 19:1-4)*
- 2. Yet he has not left himself without testimony: He has shown kindness by giving you rain from heaven and crops in their seasons; he provides you with plenty of food and fills your hearts with joy. (Acts 14:17)*
- 3. From one man he made all the nations, that they should inhabit the whole earth; and he marked out their appointed times in history and the boundaries of their lands. God did this so that they would seek him and perhaps reach out for him and find him ... (Acts 17:26-27)*
- 4. For since the creation of the world God's invisible qualities—his eternal*

power and divine nature—have been clearly seen, being understood from what has been made, so that people are without excuse. For although they knew God, they neither glorified him as God nor gave thanks to him, but their thinking became futile and their foolish hearts were darkened. Although they claimed to be wise, they became fools ... (Romans 1:20-22)

These verses are essentially saying the same thing: How seriously have you investigated God, based on the evidence of what's around you?

Paul's comment in Romans 1:20-22 that people are without excuse if they don't acknowledge God in the evidence of creation has been dismissed as "poor reasoning"—the sort of "primitive" thinking that existed in Paul's time. We don't make judgemental statements like that any more, now that we are "enlightened."

Some care should be taken before we dismiss Paul's thinking and consign it to the waste bin of historical anachronisms. It is indeed true that Paul speaks from the perspective of the worldview of the time—but, as is typical of Scripture, things of eternal significance are being said here that are true for all cultures and all times.

The eternal principle it teaches is this: It is our responsibility to notice the world around us... and allow what we see to prompt questions about why it exists and what our part in it might be. We dare not:

1. Lazily shrug our shoulders, switch off our brain and reach for another Chardonnay
2. Protect ourselves from the uncomfortable possibility of God by grasping at poorly thought out philosophies and arguments
3. Repress what we instinctively know to be true about God so that we kill off all knowledge of him
4. Scorn the possibility of God so that we can pursue our chosen lifestyle.

These are responses for which God might reasonably hold us culpable. We may feel that his existence is an uncomfortable and inconvenient truth, but that of itself doesn't make it less true.

If God exists—and if he is who he has revealed himself to be in Scripture—then truth really does exist. Truth is not just a relative thing, something that "works for you" in the moment. If God exists, truth is what God defines it to be and guarantees it to be. The very quality of truth has to spring from the essence of who God is. The Bible reports that God is truthful (Psalm 119:160) and that his word can be trusted (Psalm 33:4).

However, while truth may exist, we always have the choice of whether or not to

embrace it.

History teaches that strife inevitably occurs when God's truth is ignored. Despite strident objections from militant atheists, it really does seem to be the case that faithfulness to God, truth and morality are linked (Isaiah 59:12-15; Jeremiah 7:28; 9:4-6). The converse is also true. Godlessness and the suppression of truth are often linked... and when this occurs, it can have devastating consequences for society.

The fact is, God places the highest priority on truth and expects us to be diligent and honest in seeking it out. His word in Scripture tells us to be "dressed" in truth (Eph 6:13-14) and that those who exhibit God's quality of love will "rejoice" in the truth (1 Cor 13:6).

God, of course, has given us complete freedom to seek out truth or not. Needless to say, his hope is that we will choose to reach for truth... and find him.

Dare to find meaning

Postmodernists say that moral and spiritual truth doesn't exist. They may allow that empirically defined truth exists in the realm of science but truth does not exist when it comes to spiritual things. Spiritual truth has no more significance than the truth of you liking one particular flavour of ice cream more than another. Take your pick. Choose whatever works best for you in your current situation... and feel free to change your flavour next week.

I can't help feeling that this is a capitulation to laziness, meaninglessness and despair. The particular flavour of ice cream that is God has done a fair bit to commend the truth of his existence. He comes wrapped in a universe of unimaginable wonder; he has given us "tasters" in coming to us personally as Jesus; he has even paid for the ice cream so you can experience it! These are non-trivial things that deserve our investigation.

I certainly don't want anyone to put their faith in anything that is not credible or deserving of them, which prompts the question: What good reasons are there that might make a person want to explore the veracity of faith?

I can think of ten. Here they are:

1. Faith has to be more than a philosophy. There need to be historical records of God invading human history in acts of self-revelation if it is claimed that God wants to interact with humans (Hebrews 1:1-2; 1 John 1:1).
2. Faith needs to be morally credible. God, by definition, cannot have a morality that is inferior to our own (Numbers 23:19; 1 Peter 1:15-16).
3. Faith has to be able to be understood by everyone, not just the academic or theological elite (Mark 10:15). Otherwise, it will just be another form of man-

made, elitist Gnosticism. (Gnostics believe that God is known by secret knowledge known only to a few.)

4. Faith must have withstood the test of time, time in which a corpus of truth has steadily built up and never contradicted itself (Matthew 5:17-18; 1 John 2:7).
5. Faith needs to be compatible with the truth seen in other disciplines, specifically science.³⁸ Different truths cannot war against each other if they all have the same divine origin.
6. Authentic faith needs the consistent testimony of people being changed by their belief so that they are more God-like. If the Christian God is true, this means being more:
 - joyful (even in affliction)
 - indiscriminate in love
 - truthful.

In other words, it needs the testimony of being able to transform character (Romans 12:2; 2 Corinthians 3:18). Allied to this, authentic faith can be expected to show evidence of divine power.

7. The essential tenets of faith must be trans-cultural. The consistent principles of Scripture cannot be culturally imprisoned but must apply equally to all cultures and all periods of history (Galatians 3:28).
8. Faith needs to have a consistent anchor (or guardian) of its doctrine so that it is not distorted by the ungrounded speculation or false claims of successive generations. In other words, it needs Scripture (Matthew 22:29; John 10:35; 2 Timothy 3:16).
9. Faith has to be relevant. It must have a reason for being, otherwise it is just a meaningless (or at best, temporary) exercise with no lasting goal or significance. In other words, it needs the goal of God's coming, eternal kingdom (Revelation 21:1-2).
10. Faith must make the most complete sense possible of the greatest conundrums regarding the human condition, namely sin and suffering (Luke 6:21; James 1:2-4; Revelation 21:4).

Christianity answers these requirements better than any other faith or philosophy I know.

Truth matters

Truth matters. Instinctively, we know this to be true. There is something good about truth. Truth seems to be something outside of us, beyond us—something that measures us and invites us to climb up to it. Most of us are glad that truth is there, even if we can't always reach it.

To act in a way that is true and right is to live out a concept of truth that is unique to humans. Simply to act in a way that is merely expedient or programmed by evolution is to be sub-human—to be less than we have been called to be. It is to collapse back into nature “red in tooth and claw” where it makes perfect sense to enslave, kill and exploit others to ensure that we thrive.

Please don't be sub-human. There is good evidence that truth is very important.

Ask, seek and knock

Jesus has given us an intriguing invitation. This invitation was given at a time when a great number of religions and philosophies were vying for people's allegiance. There were the Greco-Roman pantheon of gods from the north; the gods of Egypt (including Isis and Osiris) from the south; as well as the mystery religions from Asia in the east. The religious scene then was every bit as confusing as it is today. Jesus' invitation therefore has a huge relevance to all those who are seeking truth. Here is his invitation:

“Ask and it will be given you, seek and you will find; knock and the door will be opened to you. For everyone who asks receives; the one who seeks finds: and to the one who knocks, the door will be opened” (Matthew 7:7-8).

In essence, this is an invitation for us to do some work, work that will result in us knowing and experiencing things we have never known before. Those who ask God for understanding; those who seek truth; and those who knock on his door—will find what they are looking for. God invites us to ‘do’ what is necessary to know him and engage with him.

So, here's the question: How forcefully will you and I pursue knowing the truth about God?

There have been some notable atheists who have dared to do so. They have had the courage to venture out from their ideological comfort zones and do some serious research into the life, death and resurrection of Jesus. One of them was Josh McDowell, who went on to become a celebrated American apologist for the Christian gospel. Another was Albert Ross, author of the 1930 bestseller, *Who Moved the Stone?*³⁹

The twentieth century British philosopher, Anthony Flew, was a strong advocate of

atheism. Nonetheless, he was committed to following the path of evidence wherever it led when analysing religion. Doing so finally caused him to confess his belief in God. When explaining why he changed his mind, he said that his decision was in keeping with his lifelong Socratic commitment to go where the evidence leads.⁴⁰

The evidence is there... if we want to find it.

Truth

If God exists, truth exists. And if truth exists, it calls for more than a mild nod of the head. The consequences of the existence of a God of truth are huge. C. S. Lewis put this well when he wrote:

*One of the greatest difficulties is to keep before the audience's mind the question of Truth. They always think you are recommending Christianity not because it is true, but because it is good. And in the discussion, they will at every moment try to escape from the issue 'True or False' into stuff about a good society, or morals, or incomes of Bishops, or the Spanish inquisition ... or anything whatever. You have to keep forcing them back, and again back, to the real point. Only thus you will be able to undermine their belief that a certain amount of "religion" is desirable but one mustn't carry it too far. One must keep on pointing out that Christianity is a statement which, if false, is of no importance, and if true, is of infinite importance. The one thing it cannot be is moderately important.*⁴¹

When exploring issues of truth, atheism does not do well. It is unable to give a credible explanation of an ordered universe or take adequate account of the historical Jesus. Not only that, but the lack of care shown with truth by many of atheism's leading exponents does little to commend it.

The one true God—who has revealed himself as Jesus Christ—loves truth, embodies truth, and *is* truth. That's why there is good reason to believe that if you search for truth, you will hear the whisper of God.

CHAPTER 7

The Evidence of God in Death

There is something awfully final about death. After the miracle of birth, death seems a bit of an anticlimax. There is no fanfare, just the slow turning off of the switch for many of us. It's hardly the curtain call sought by most actors who "strut and fret their hour upon the stage."¹

Any spiritual claim concerning humanity needs to make sense of both our beginning (why we exist) and our ending (why death exists). These two events peg out the limit of our existence and remind us that life is linear—it has a beginning and an end that is defined by time.

Death is certainly a mystery that has baffled humanity throughout history. Some of us dread it, a few of us welcome it... and all of us have to face it.

Here's my thesis: If God exists, then it's likely that evidence for his existence will be seen on this extraordinarily significant event. But if it does exist, what does it look like?

Let's explore.

Does it make sense logically and practically?

When Jesus was on planet Earth, he impacted people with two things. The first was his words, and the second was his actions. They went hand in hand—always. This gives us a model for exploring the evidence of God in death. First, let's look at the Bible's teaching on death to see whether it makes sense. Is it logically, morally and experientially true (as far as we can judge)? If not, we need not concern ourselves with God any longer.

Second, let's look for evidence of God in the actions and events that occur at the point of death. Do people experience something significant at the moment of their transition between life and whatever comes next? If these experiences exist, what do they teach us? Do they suggest that death is a door or a wall? Is it an ending or an opportunity?

Death is an angst-ridden thing

The mystery of death has fuelled religions, rites and superstitions throughout history. Human societies are either morbidly obsessed with it... or they hide from it and don't let their children see it; they speak of it in hushed tones and invent euphemisms such as "passed away" so that they won't have to say the 'D' word.

Huge industries exist dedicated to delaying the symptoms of aging—signs that we are getting nearer to death. This betrays an unvoiced conviction within most human beings that our sense of worth is determined by our apparent fitness to mate. Death represents ultimate

‘unfitness’ and is therefore to be postponed for as long as possible. If you can’t stay young, at least look young.

Some industries hold out the hope that you might be able to cheat death altogether. They offer to cryogenically freeze your body at the point of death in the hope that future medical breakthroughs might mean your body can be thawed, resuscitated and healed of sickness and aging. Others are less scrupulous. For a while, emails were buzzing about inviting us to send two hundred dollars and a lock of our hair so that our DNA could be stored in the hope that we could be reconstituted at some future point in history.

Whatever else people choose to believe about death... it’s regarded as a big deal, something to be avoided. The urge to stay alive is driven by the basic instinct to propagate and thrive. Added to this, is the reluctance we feel at losing the strong relationships we have developed—a sentiment well-voiced by the Welsh poet, Dylan Thomas, who exhorted his dying father to “not go gentle into that good night,” but to, “rage, rage, against the dying of the light.”²

The ancient Egyptians went to great lengths to ensure the survival of their souls after death. They provided tombs, grave goods and offerings to preserve the bodies and spirits of the deceased so that they could journey safely and well to the afterlife.

In India, Mahatma Ghandi founded the Swaraj movement, a social and political movement which advocated self-rule and freedom from political overlords. Significantly, he did this not just to improve society, but to introduce a godly lifestyle that would give people the hope of reincarnation into a better life. His objective was to help people overcome their fear of death.³

We don’t like death. Many people, such as the poet, William Cary, have a fear of it. When he saw a canary singing happily in a cage, he thought gloomily that it could only do so because it didn’t know it was going to die.

We have an innate instinct to survive for as long as possible. Interestingly enough, this instinct, does not switch off once we have done our biological duty and our children have become adults. We do not then meekly surrender to death, calm in the knowledge that we have done our job. Instead, we become social burdens. In our aged state, we use up resources, clog up supermarket queues, and require more than our fair share of medical resources. Surely evolution should have taught us to get out of the way with the minimum of fuss as soon as our biological job was done! But it hasn’t. We hang on to life as tenaciously as possible. We hate death because of its uncertainty and because it ruptures the bonds of love we have formed.

The big question is: Have we invented God simply to give us the illusion that there is meaning and hope after death—making the prospect of death more palatable?⁴

Fear of death certainly helps to focus people's attention on religion.⁵ This is understandable. Research indicates that a person's commitment to religion generally lowers their fear of death.⁶

Clearly, if religion has no basis in truth, then an awful lot of people are mistaken. Could it be that they are all experiencing delusions of the mind as a result of puffing on Karl Marx's opium pipe? Or is it that they have caught a whiff of something true?

Has God left a clue about himself in the whole issue of death?

Take a look at the book

Pastors are familiar with funerals. They are bittersweet occasions that show up the whole muddle of the human condition. There are tears, fond memories and lots of stories. Significantly, there is also a great deal of untruth and theological confusion. Funerals are times when people reach for the emotional analgesic of sentimentalism—which they mistake for spirituality. Clichés and platitudes are spoken to help people get through the funeral day, if not through life. Poems are read that say things like, “I'm not really dead; I am in the raindrop and the breeze”—an idea that has more in common with Buddhism than with Christianity. Or, “My beloved is now an angel in heaven.” It's sweet, but utterly untrue.

Christianity, as defined by the New Testament, is unambiguous in insisting on the reality of the resurrection. The concept, which was fairly vague in Judaism, became clearly defined in Christianity. The Christian church holds resurrection to be of central importance. The Anglican theologian, Tom Wright, writes:

*Take away the stories of Jesus' birth, and all you lose is two chapters in Matthew and two in Luke. Take away the resurrection and you lose the entire New Testament and most of the second-century fathers as well.*⁷

So, what does the Bible say?

Jesus spoke about the resurrection in Matthew 22:23-32. He made it clear that resurrected people will be *like* the angels but will not *be* angels; relationships will be taken to a whole new level in eternity, superseding even that of marriage. This passage also teaches that the resurrection is a future event, not something that happens in the instant a person dies.

The Apostle Paul stresses the central importance of the resurrection in 1 Corinthians 15, his most comprehensive teaching on the subject. He teaches that if Jesus had not been resurrected, but had simply disappeared into some sort of spiritual state, death would not have been defeated and we would have no hope of resurrection ourselves.⁸

In the same passage, Paul contrasts our current physical body with our resurrected spiritual body. When he says that our future body will be spiritual, he does not mean that it

will be non-material. He means that it will be a body animated by a spiritually transformed soul; one that is no longer corrupted by sin. In other words, our resurrected body will not be a disembodied spiritual phantom; it will have a transformed physicality. Paul teaches in Philippians 3:20-21 that our resurrected body will be like Jesus' resurrected body. That is to say: it will be real but transformed so that it is different.

What, then, does Jesus' resurrection teach us about the central claims of Christianity?

While there are variations in the resurrection accounts of Jesus (as you would expect from different eye witnesses to any incident), the following features are consistent:

1. The body of Jesus was missing from the tomb.
2. Women made the discovery that Jesus' body was missing. In the time of Jesus, women were considered to be unreliable witnesses, indicating that it is unlikely that this story was fabricated.
3. An angel told the disciples that Jesus had risen from the dead. What is clear in the resurrection accounts is that the disciples were not expecting Jesus to be resurrected. Nothing in Jewish tradition had prepared them for such an event, so they were every bit as sceptical about a resurrection claim as people would be today. Thomas, one of the disciples, illustrated this. It was not until he saw Jesus himself and felt the physical reality of his body that he believed (John 20:24-28). Jesus' resurrection compelled the disciples to face the fact that God was inaugurating a whole new creation from the seeds of the old creation.

A key teaching of the New Testament is that Jesus was the first one to be resurrected (the "first fruit") and that those who put their trust in him will, at some future date, be similarly resurrected. Jesus' rising from the dead meant that the resurrection process had begun... and that it will include everyone else when Jesus returns on the last day.

The festival of Passover commemorated God's saving grace in rescuing the Israelites from slavery in Egypt. The Israelites extended the meaning of the Passover, making it a time when they also thanked God for the "first fruits" of the wheat harvest. In his letter to the Corinthians, the Apostle Paul applies this first fruit imagery to Jesus. Jesus, who is God's saving grace towards us, is the "firstfruit" to rise from the dead (1 Corinthians 15:20). We will follow on later when Jesus comes again to wrap up this old, imperfect universe and inaugurate the kingdom of God.

So, what will this resurrected existence look like?

We get some good clues from three sources.

The first clue comes from Jesus' resurrected body. Fairly obviously, it is the model for

the resurrected body for all of us. The Apostle John makes this clear when he says, “We shall be like him” (1 John 3:2).

The Bible tells us that Jesus’ resurrected body was a physical body but it was different. It was not subject to all our current physical limitations (it could pass through doors), yet it could be touched and was able to eat food (Luke 24:36-43; John 20:19-20). As such, the resurrected body is not a ghost.

In Romans 8:23, Paul speaks of the “redemption of our bodies.” This tells us that God’s people are promised a new type of bodily existence. For some of us, that will be good news indeed!

The second clue about what the resurrection life will be like comes from the parable Jesus told about a rich man, and Lazarus (a beggar) who sat at his gate (Luke 16:19-31). In this story, we see that the things which frustrate the purposes of God from being fully realized in us will be transformed. After Lazarus died, he was restored and comforted in the care of Abraham. This suggests that all those who are resurrected will be free of the crippling circumstances of life and will realize their full potential in God’s kingdom.

The Apostle Paul also taught this idea. He said that our physical body is like a seed which, unless it dies, cannot grow to realize its full spiritual potential (1 Corinthians 15:37-38,42-44). This, incidentally, may have implications for those who die young, perhaps even those who die before birth.

A pause for breath

It’s worth pausing here and asking: Does this teaching make any sense? Does it contain any obvious signs of stupidity or folly? Bear in mind, this is not mysticism, this is concrete teaching from historical human beings. Much of it comes from the mouth of Jesus. The question is: Does it stand up?

It certainly teaches that we are not free to treat God’s creation with disdain; we are called to care for it because it will be used to seed the coming kingdom of God. This at least warrants a moral tick.

The biblical accounts of the resurrection of Jesus show the sort of miraculous hand that you could only expect if God existed. But, crucially, they also contain the earthy, historical details of a group of people who clearly didn’t expect Jesus to be resurrected. In other words, it has the ring of historical authenticity.

Jesus’ resurrection is not an easy thing to explain away. The resurrected Jesus wasn’t a ghost; people touched him and ate with him.

He wasn’t a fiction invented by the early disciples; they didn’t expect him to be

resurrected. When they encountered the resurrected Jesus, it transformed their ministry. It galvanized an evangelistic zeal and gave them a conviction for which they were prepared to die.

Jesus couldn't have simply fainted on the cross and then been resuscitated. He was crucified by Roman soldiers who also speared his chest, rupturing the pericardium around his heart. By any stretch of the imagination, he was dead!

Neither is it likely that the Roman authorities stole the body of Jesus. All they had to do to stop the infant Christian church from developing was produce Jesus' body—but they couldn't do so.

The resurrection accounts of Jesus are both historically reasonable and supernatural, as they would have to be if the biblical story of Christ were true.

It seems that God's fingerprints are all over the Bible's teaching about death. It is a teaching that gives us hope.

Heaven: what's it all about?

Is Jesus' teaching about heaven believable?

The Bible teaches that Christians who die go to a place where they wait until Christ comes again, at which point they will be resurrected. That "waiting place" is called heaven (or "paradise"). Jesus said:

My Father's house has many rooms; if that were not so, would I have told you that I am going there to prepare a place for you? And if I go and prepare a place for you, I will come back and take you to be with me that you also may be where I am. (John 14:2-3)

This passage does not mean that we will die and immediately go to our allotted "room," which Jesus has prepared for us in heaven. It means that Jesus is getting our place ready in his kingdom and he will, *at some future date*, come back to take us into it.

This understanding is supported by the conversation Jesus had with the repentant thief who was being crucified next to him (Luke 23:39-43). In this conversation, the thief asks Jesus to remember him when Jesus comes to his kingdom. Jesus says to him, "Today you will be with me in paradise." In other words, the thief would be with Jesus in paradise before Jesus was even resurrected. As Jesus is the first to be resurrected, it follows that the thief could not be resurrected before Jesus. He would have to wait in "paradise," sometimes called "heaven" until Jesus was resurrected and came again to inaugurate God's new kingdom.

Our resurrected, kingdom state is something that is kept in heaven until it is ready for us to inherit. Peter writes:

Praise be to the God and Father of our Lord Jesus Christ! In his great mercy he has given us new birth into a living hope through the resurrection of Jesus Christ from the dead, and into an inheritance that can never perish, spoil or fade. This inheritance is kept in heaven for you ... (1 Peter 1:3-4)

So, even the dead who have been faithful to God have to wait. John writes in Revelation 6:10-11 of God's faithful people in heaven expressing their longing and asking Jesus how long it will be before he brings about his final judgement. Jesus gives them a white robe (symbolizing purity) and tells them to wait until the full number of those who will suffer for Christ is realized. In other words, those who are already dead are in heaven waiting for Jesus' second coming, at which point they will be resurrected, judged and allocated their eternal inheritance.

The Greek word *parousia* (used to describe Jesus' second coming in 1 Thessalonians 4:15 and 1 Corinthians 15:23) is usually translated "coming," but it literally means "presence." It alludes to the idea that the absent but ruling Lord will one day appear and rule his kingdom in person.⁹

Judgement: not a nice idea!

The picture of Jesus coming as judge is a key aspect of his second coming (Romans 14:9-10; 2 Corinthians 5:10) but it's not an idea that always sits well with us. Judgement carries negative connotations. Jesus' judgement, however, will be positive in that injustice, suffering and evil will finally be corrected. Without judgement, these things would remain wrong and unchallenged forever.

The Bible teaches that it is not just godly people who will be resurrected. Jesus spoke about both the righteous *and* the unrighteous being raised from the dead (John 5:28-29).

Similarly, it is not just unfaithful people who will be judged. Everyone will be judged, whether they are living or dead (John 5:28-29; Acts 10:42; Hebrews 9:27). Those who have not chosen to accept God's love will have their decision honoured and will not have any future with God. For them, only the second death awaits (Revelation 20:6). Those who *have* accepted God's love will also be judged in order to determine the level of their reward for their faithfulness on Earth (Mark 9:41; Matthew 16:27; 25:34-36; Ephesians 6:8; Hebrews 11:26). Then they will be invited to live eternally in God's new kingdom.

There is beautiful justice in this.

Hell: a culturally irrelevant idea... isn't it?

Let's admit it—it is not popular to talk about hell. Some dismiss the idea as an archaic theological concept drawn from ancient, culturally imprisoned writings.

There is some truth in this. The Bible does reflect the culture of the time in which it was written. However, we are required by God to see through the Bible's cultural context to the consistent principles that God has placed in Scripture for the benefit of all people in all ages. The question is this: Is the concept of hell just a cultural gloss, or is it core Christian teaching? Does hell exist?

Let's explore.

Christian teaching makes two things clear. The first is that God is loving. In fact, God is the most perfect definition of love. The second is that God is just. He is the most perfect definition of justice. It is important to understand that these two defining characteristics of God are not in tension. They don't cancel each other out in order to make room for each other in God's essential nature. Both exist fully and perfectly in God.

God's holiness and justice mean that he has zero tolerance for evil. Evil is not something that God can overlook or accommodate because it directly challenges his holiness. Therefore, God will (and must) destroy evil utterly and completely. God does this by killing it off. The story of Adam and Eve teaches us that death was the consequence of Adam and Eve's rebellion against God. Death means that human sinfulness cannot live forever. It is God's judgement on sin. Those with any trace of sin in them are condemned by God's judgement to face death (Romans 6:23).

The good news, however, is that God has chosen to rescue people back into his kingdom by sending Jesus to die for our sins, so that we can be eligible for eternal life with God. His motive for doing this was love. All we have to do is receive God's love, accept Jesus' death on our behalf, and let God be Lord of our lives.

The gospel (which literally means 'good news') is all about triumphing over death (Revelation 2:11). Jesus said: "Whoever hears my word and believes him who sent me has eternal life and will not be judged but has crossed over from death to life" (John 5:24).

Some have claimed that since God created everything, he must be responsible for the existence of sin and death... so it's all his fault. This is not so. Sin and death are not things that God caused to exist. They are caused by the absence of God in the same way that cold is caused by the absence of heat. Where God is, sin and death cannot exist.

What happens to those who die?

When those who are faithful to God die, their final judgement is anticipated by the fact that

they go to heaven (or paradise). This is a glorious place where they wait for Jesus to join a new heaven with a totally transformed Earth and begin his eternal kingdom. When Jesus comes again to do this, both the living and the dead will be resurrected. Then they will be judged, rewarded and invited to take their place in God's kingdom.

Those who have chosen to reject God's lordship follow a similar pathway, albeit one with a very different outcome. Their eternal status after death is anticipated by the fact that they are being sent to a place of punishment (2 Peter 2:9), sometimes called "Hades" (Revelation 20:13). When Jesus comes again, they will be resurrected, judged, and required to face the final consequence. This event is referred to in the Bible as the "second death" (Revelation 20:6).

Christians are divided as to what the "second death" actually is. Some think the ungodly are finally annihilated, while others think there is some form of eternal punishment. Whatever it is, it must be consistent with the just and compassionate nature of God.

The idea that the ungodly are annihilated is consistent with the notion of there being a "second death." It is also consistent with the Scriptures, which teach that evil will be completely destroyed (2 Peter 3:7; Matthew 10:28). However, believing that the ungodly will be annihilated requires you to treat the language of eternal torment in Scripture as metaphorical (Matthew 25:46; Luke 16:22-23; Revelation 14:11; 20:10-15). It means understanding eternal absence from God (because of annihilation) as eternal torment. Certainly, it is eternally significant!

When talking about God's judgement, it is important to remember that God's agenda is for us to be saved, not sent to hell. God did not intend anyone to go to hell (1 Thessalonians 5:9). The very reason Jesus came was to stop that happening. Hell was designed primarily for the Devil and his evil spirits, who are the antithesis of God (Matthew 25:41). For people to go to hell, they will need to have rejected God's will for them (2 Peter 3:9). We must understand that God will respect anyone's decision to have nothing to do with him—both now and in eternity. C. S. Lewis has suggested that "the gates of hell are locked from the inside."¹⁰ This may be going too far, but it does suggest that hell is a chosen state—one that we choose while living on Earth.

Reviewing God's report card

Well, how is God doing? Is God a god of compromise; one who allows those who are 49 percent sinful into heaven? Does he simply require our good deeds to outweigh our bad deeds?

No. God has zero tolerance for evil: he has to if he is to remain holy.

However, does this mean that God will judge and destroy all of humanity because none of us are perfect?

No, it doesn't. He came to us as Jesus Christ to pay the price for our sins and rescue us back to himself.

This beautiful interplay of love and holiness gets a huge moral tick from us. Something deep within us sighs and says, "That feels right."

But that doesn't let God off the hook. Two other issues surrounding death need to be explored. The first concerns the status of those who have never heard about Jesus. Is the Christian teaching about this fair? The second is closely related: Has God predestined some to go to heaven and others to go to hell? For if God has predestined some to go to hell, then that is unfair. As the morality of such a God is inferior to *our* morality, God can be dismissed as a rather bad human invention.

What about other faiths?

What does God want us to believe about other faiths? How are we to account for the reforming zeal of Mohandas Gandhi, the compassion of Buddha, and the wisdom of Confucius?

The Christian gospel makes it plain that people are not made acceptable to God by their moral leadership, their insight, or their piety. While these things can be commendable and good, they don't earn us God's acceptance. If God is to remain holy, his standard is absolute *perfection*—a standard that none of us can attain. That's why God came to us as Jesus to die on a cross, paying the price for our sins so that we could have free access to God. It was an act of love that God freely chose. We are invited to respond by accepting God's love, putting our faith in what Jesus did on our behalf, and beginning to live for God's purposes.

But this leaves us with a dilemma. By saying that Christ's death on the cross is indispensable for the salvation of the world, we appear to be condemning other faiths as inadequate. Yet if we say that other ways to God are equally valid, the cost of this is to give up Christ as the only person who can rescue humankind back to God. There are three possible positions that we could take:

1) Pluralism: there are many ways to God.

The first position is that of "pluralism." Pluralists find it objectionable to think that only those who acknowledge the "Christian God" will be saved. Accordingly, they teach that all religions lead to God.

There are two main types of pluralism. The first of these is "ethical pluralism." This

says that only those religions which are good, that care for the poor and insist on justice, are valid. (This, of course, raises the interesting question of who decides what “good” is.)

Some feminists support this position because, in their view, insisting that only one religion is right has clear parallels to sexism (it’s like saying that one gender is superior). They say that “justice” is the fundamental value of religion and should be religion’s central focus.

Another form of pluralism suggests that all religious experiences are encounters with the same God. The various religions are culturally and historically conditioned human responses to a sense of the divine that is beyond us.

The problem with pluralism, however, is that it is very obviously a human construct—something that human beings have invented. God has not contributed anything to it at all.

It is significant that this idea of God is popular with Deists, who deny that God has any personal involvement with humanity. Deism is simply moralism dressed up in religious clothes... and it fails to address some vital issues. Humanity’s inherent sinfulness is not dealt with; nothing is said about life after death; ultimate justice is not guaranteed; and God remains perverse and unknowable, hiding behind the contradictory and changing images of a thousand different religions.

Sadly, there are many Deists within the institutional Christian church, more than a few in senior positions. Some of them are lovely people. They call themselves “liberal Christians.” This means that they have largely dispensed with everything that is diagnostic about Christianity, for example, Christ’s saving action on the cross and his resurrection. Fundamentally, they have reduced Christianity to moralism.

Conventional, biblical Christianity, however, is a completely different religion. It teaches that God has chosen to come to us as Jesus Christ to show us the essence of himself. It teaches that he came to show us how to live sacrificial lives of integrity and love, and above all, that he came to die in order to win us back to God.

Christianity cannot be reduced to a moral philosophy that tells us how we should live. Jesus’ claims are too exclusive. He claimed to be the same as God; he accepted worship; he forgave sins; he said he was the only way to God; he claimed that his death would rescue humanity back to God... and he claimed to have been resurrected from the dead as an indication that all this was true. Jesus’ death and resurrection are therefore not optional garnishes to Christianity; they *define* Christianity.

2) *Exclusivism: There is only one way to God.*

The second position that can be held concerning who makes it to heaven is exclusivism.

Exclusivists believe that those who have not heard the gospel or who belong to other faiths cannot be saved.

However, this contradicts God's expressed will that *everyone* should be saved (1 Thessalonians 5:9; 2 Peter 3:9). It also contradicts the three things we know about God's character: that God is righteous (Psalm 19:9; 145:17); that God is love (1 John 4:7-10,16); and that God is just (Psalm 89:14; Revelation 16:7).

The justice of God is shown in the biblical passages which teach that God will take into account what we know when judging us (Luke 12:47-48; 1 Timothy 1:13). They teach that God will judge us according to two things: how we have responded to Jesus (John 3:36; Hebrews 10:29), and how we have responded to our conscience—the ethical laws we instinctively know to be right (Romans 2:14-16). This is significant because, while not everyone has the opportunity to respond to Jesus, everyone has the opportunity to faithfully live out the values they know to be right.

The Bible teaches us that the incredible wonder and complexity of the universe should point people to the possibility that God exists (Psalm 19:1-4; Romans 1:19-20). As such, it is reasonable for people to seek God and live life as well as they can in the light of God's existence. It is also reasonable to agree with the Bible's judgement that where people persistently rebel against what they know to be good, there is no possibility of a relationship with God. A certain humility of heart is needed if one is to acknowledge God, and not everyone has this. God gives all people the ability to perceive him, but not everyone chooses to use this gift.

So, if both pluralism and exclusivism are not right, what *is* right?

3) *Inclusivism—with a twist.*

A third position that can be adopted is inclusivism. This maintains the central claims of Christianity but adopts a more positive view of other religions. Inclusivists hold Jesus to be unique and essential, but they believe that God is revealing himself and providing salvation through other religious traditions as well.

On the surface, this position sounds reasonable, however it is dangerous. Its danger comes from what is meant by salvation of people *through* other faith positions, for the Bible makes it clear that salvation comes *only* through Jesus. The Apostle Peter said, "Salvation is found in no one else, for there is no other name under heaven given to mankind by which we must be saved" (Acts 4:12).

The inclusivist position therefore needs to be modified slightly so that biblical truth is more faithfully represented.

Modified inclusivism allows that there is undeniable truth and beauty in some other

religions. However, these truths do not add anything new to the essentials of salvation as revealed in the Bible. It is not that people can be saved *through* other religions so much as they, by God's grace, may have access to Christ's saving act *from* their own sincerely held faith position.

We have spoken earlier of the historical context and nuances surrounding the subject of truth in different Christian traditions (see page 133). Nowhere are the differing understandings of truth more evident than when considering the question: What happens to non-Christians after death?

The progressive (or liberal) strand of Christianity, as epitomised by the late John Spong, has a universal, New Age flavour to it. Spong says that there is no 'right' spiritual truth. "Theism, as a way of defining God, is dead."¹¹ Spong has no room for the concept of the sinfulness of humankind.¹² As such, he fails to address the problem of evil. Evil must be met either with tolerance or with re-education. Significantly, he says that God does not engage with us in any way, but we "turn inward to meet God" within us, and in this way, we can have "an expanded transcendent consciousness."¹³ Spong says that God has not entered history or the realm of human experience, and so any notion of God entering our world as Christ Jesus must be dismissed. "The Christology of the ages is bankrupt."¹⁴

Given this philosophy, it is not surprising that progressives tend to be pluralists in their thinking.

Hard-edged Christian fundamentalists tend to be "exclusivists" – only 'born-again' Christians will be saved.

The real skill for Christians today is steering a path between these two extremes and finding a path that is biblical and hope engendering, and perhaps even "true." It is suggested that "inclusivism – modified with a twist" is that path.

To conclude this section, it is worth noting that God's attitude to those from other faith positions is clearly seen in his choice to announce the birth of Jesus to a bunch of New Age-style astrologers, most likely Zoroastrians from Persia. By doing this, God sent a clear signal that Jesus was his gift to people of all faiths and nations... and that all honest seekers will find him.

I submit that this shows the goodness and justice of God.

Has God predestined some people to go to hell?

Has God created some people with the intention that they will end up in hell? The idea that God could do such a thing is not at all nice!

It's worth treading a little carefully here as it is the nature of evil to ascribe evil to God

(in order to tear God down), and, perversely, to elevate evil so that it appears good. So, let's agree not to go there.

The question of whether God has made some people to go to hell is a valid one, as many writings, particularly from the Apostle Paul, suggest that God has already chosen those who will be saved to live eternally with him in his new Kingdom. Here are a few verses which might indicate that this is the case:

For those God foreknew he also predestined to be conformed to the image of his Son, that he might be the firstborn among many brothers and sisters. And those he predestined, he also called... (Romans 8:29-30)

Therefore God has mercy on whom he wants to have mercy, and he hardens whom he wants to harden. (Romans 9:18)

For he chose us in him before the creation of the world to be holy and blameless in his sight. In love he predestined us for adoption to sonship through Jesus Christ... (Ephesians 1:4-5)

Therefore, as God's chosen people, holy and dearly loved... (Colossians 3:12)

For we know, brothers and sisters loved by God, that he has chosen you... (1 Thessalonians 1:4)

But we ought always to thank God for you, brothers and sisters loved by the Lord, because God chose you as firstfruits to be saved through the sanctifying work of the Spirit and through belief in the truth. (2 Thessalonians 2:13)

So, how do we reconcile these verses with those which speak of God wanting everyone to be saved?

The answer is relatively straightforward—but one that is often missed, even by some theologians. It lies in the nature of God. The fact is, as we've often said in this book, God stands outside of time. The past, present and future are equally clear to him. God therefore knows exactly who will respond to his invitation of love, and who will not... even though those who are making the decision have free choice.

It is probable that the Apostle Paul knew this, because he was able to speak of those who are predestined to be saved... and yet also speak of his own sense of urgency in preaching the gospel. Listen to his passion:

How, then, can they call on the one they have not believed in? And how can they believe in the one of whom they have not heard? And how can they hear without someone preaching to them? (Romans 10:14).

In his first letter to the Corinthian church, he says, "*Woe to me if I do not preach the gospel!*"

(1 Corinthians 9:16).

Paul wanted to tell people about Jesus so that they might be able to make a choice. The importance of our having free choice is something God insists on, and for very good reason: all authentic, loving relationships are entered into by choice. Love cannot be compelled or programmed. The primacy of free choice is insisted on consistently in Scripture:

***Whoever** believes and is baptized will be saved, but **whoever** does not believe will be condemned. (Mark 16:16)*

*The Son of Man must be lifted up, that **everyone** who believes may have eternal life in him. For God so loved the world that he gave his one and only Son, that **whoever** believes in him shall not perish but have eternal life. (John 3:14-16)*

*I am the gate; **whoever** enters through me will be saved. (John 10:9)*

*And **everyone** who calls on the name of the Lord will be saved. (Acts 2:21)*

*I am not ashamed of the gospel, because it is the power of God that brings salvation to **everyone** who believes. (Romans 1:16) (emphases mine).*

While only Jesus provides the means for us to have a relationship with God, such a relationship still requires the two agents involved to agree to the relationship. Here's an image which might help you to visualize how both freewill and predestination work:

Picture yourself walking towards the gate by which people enter into heaven. As you approach this gate, you see written above it, "FREEWILL. ENTER ALL WHO CHOOSE TO." You decide to walk through the gate and enter into heaven, but on looking back, you see written above the gate, "PREDESTINED. YOU HAVE NOT CHOSEN ME; I HAVE CHOSEN YOU."

Rising beasts or fallen people?

Having examined the moral justice of God as the one who gives hope after death, let's now look at death itself.

Is death a necessary agent that allows sophisticated beasts to rise from the primordial swamp... or is death the consequence of human sinfulness, as chapter 3 of Genesis suggests? In other words, are we rising beasts or fallen people?¹⁵

There's no doubt about it, death is a handy thing. It allows the evolutionary process to happen. Death clears the stage of old organisms and makes space for new organisms to develop. The death of species less suited to an ecological niche allows better adapted species to thrive. This process of selection drives the engine of biological adaptation and diversity. It has resulted in you.

However, we still find it difficult to pump our fists in the air and yell, "Yay, fantastic!

Isn't death terrific?" There is something in us that laments death and thinks of it as not a good thing. The question is: Does our aversion to death come from a desire, selected by evolution, to stay alive for as long as possible so that we can pass on our genetic information, or does it have a deeper cause?

The fact is, while death may be biologically useful for a species, it also represents the rupturing and ending of something we hold very dear—relationships. That's why we don't like it.

Perhaps this is a clue to understanding something more about the significance of death?

Certainly, the obscenity of death is the fact that it ruptures relationships. This is entirely consistent with Scripture. Death was the agent God used to sever his relationship with sin-corrupted humanity. It was the agent that ensured that sin would be killed off and would not last forever. Death clears the stage of evil, just as it clears the stage of unfit species. Both theology and science speak a similar language at this point.

Could it be that there is room for both a theological and biological understanding of death?

Death is a necessary agent that allows biological diversity, but it is a horrible thing that reflects an imperfect creation, one spoilt by sin and suffering. As such, the sad reality of death points to the hope that God will one day end this corrupted creation and make all things new.

The end of our theological investigation

This is the end of our theological investigation into whether we can see evidence of God in death. I hope you will agree that God's teaching about death makes sense: it is both good and just. Rather wonderfully, biblical teaching not only makes sense of death; it gives us a hope that *transcends* death.

Now, let's ask if we can also see the presence of God in the physical act of dying. Has God left clues there for those who seek them? If such clues do exist, we would expect on the basis of God's character that they would not compel belief but invite belief. God always preserves the need for faith.

So, do any faint clues exist? And do we see them in the "near death experiences" (NDEs) many people have encountered?

Death and near death experiences

Here are a few stories. They are reliable. I say this because, sadly, some ideologically driven people are prone to colouring the truth for their own ends. These stories are ones in which I have been personally involved, or which have been reported to me by honest people of good

character—friends I know well, many of whom have distinguished careers in their academic field. They are not “nuts.”

Neither am I a “nut.” My first two degrees were in science and I have been a research scientist for twelve years. Truth matters to me. I am naturally sceptical until I see evidence. This, of course, doesn’t make me infallible! But it does mean I’m cautious.

Let me tell you about Effie.

Effie was an elderly woman with a beautiful, doll-like face and dancing, blue eyes. Tragically, a stroke had taken away her ability to speak. Another stroke then disfigured her pretty face and put her into hospital. Effie had a doting husband, Stan, who would ride his bike to the hospital each day in the months before she died. When Effie’s end drew near, I sat with the two of them and read aloud Psalm 23, Effie’s favourite. Then, the most extraordinary thing happened: Effie looked past me to the end of her bed and smiled as if recognizing someone. Her face came back to normal, a tear rolled down her face... and then she died, with every appearance of peace.

Here’s another story.

I used to go to the retirement village next to the hospital to visit an old man. He was in his early nineties and had one of the gentlest natures of anyone I’d ever met. As a twelve-year-old boy, he’d been sent into the bush-land west of the town with a flock of sheep for two years to avoid a deadly outbreak of some disease that had overtaken his parents’ farm. (It’s difficult to imagine any twelve-year-old doing the same thing today!) In his old age, the old man’s health deteriorated to the point where he had needed to be moved to the hospital. Sadly, when I visited him some days later, I discovered that he’d died during the night. The nurses who were on duty when he died were still there and they asked to speak with me. They reported that as he was about to die, he had looked past them and said, “Who is that man at the foot of my bed?”

“There’s no one there,” they had replied.

“But there is,” he had insisted. “Can’t you see? Who is he?”

“There’s no one there.”

The nurses said that their patient had been polite but insistent... and not in any way distressed.

What had he seen?

I don’t know.

All I could do was chat with the nursing staff and encourage them not to be surprised by such things. It is best to allow the perceptions of those who are dying rather than deny them.

These are just some of the things that pastors are privileged to experience from time to

time.

My friend, Richard Banham, was a pastor in a small country town in the Australian bush. On the day before he left to go on a holiday, a mother in the community lost her baby boy during childbirth. Richard returned from his holiday to discover that the matron of the hospital had deemed the event to have been a stillbirth, and had organized for the baby to be buried without ceremony beside the golf course. For many months thereafter, the child's parents were unable to move on from the grief and anger they felt over the handling of their stillborn child. Richard organized for a memorial service to be conducted at the burial site. During the service, a song was played that was particularly significant for the parents. As the mother listened to the song, she had a vision of a blonde-haired boy in a blue tracksuit in the arms of Jesus. It was a powerful and distinct image. She wrestled with whether or not to tell her husband, for she thought it was simply the product of her distraught state. That night, however, as they lay in bed together, she decided to share what she'd experienced. She began to recount her vision, and then her husband interrupted her. "I know what you saw," he said. "You saw our son as a young boy with blonde hair, dressed in a blue tracksuit, in the arms of Jesus."

I can't explain this, but I can say it was a great comfort to the parents.

Dr Darryl Cross, a South Australian psychologist, shared with me two stories of clients with whom he was involved as a trauma counsellor (both clients gave permission). The first concerned a TV reporter named David Kellett. He was in a medically induced coma because of injuries sustained as a result of being knocked off his pushbike by a drunk driver. The doctors only gave him a 5 percent chance of living because of the critically high level of pressure on his brain.

Two days after the accident, David's wife left the hospital to spend the night at a friend's home. While she was asleep, she heard David call out to her using the nickname he always reserved for her. She dismissed it, putting the experience down to her grief and distress. However, David was insistent. Eventually, she agreed to engage with the voice. David told her that it was all too hard; he was tired and wanted to go. His wife pleaded with him to remember the love he had for her and the children. The discourse went back and forth until David said he "would try."

Next morning, David's wife went to the hospital and discovered that the pressure on David's brain had dropped suddenly and remarkably. When she asked what time the change had occurred, they were able to tell her it had happened during the night at precisely the time when David had promised he "would try."

The second experience Darryl shared concerned a man who had been severely injured

as a result of a stack of pallets falling on top of him when he was walking beside a warehouse. He was taken to the Royal Adelaide Hospital (in South Australia). The man reported having an out-of-body experience in which he floated above the ambulance and watched it weave through traffic along North Terrace, sometimes driving on the wrong side of the road. He had a similar experience while he was being “worked on” inside a curtained cubicle of Accident and Emergency. He floated above the cubicle and was able to see into the curtained cubicles beside him. One of them contained a little boy.

Some time later, the man visited the Emergency Department while going to the hospital for rehabilitation. He asked the Director of Nursing if the little boy in the third cubicle away from him had survived. The records were checked and he was told that the boy had made a good recovery. However, the Director of Nursing was puzzled as to how he could have known about the boy, since he’d been unconscious all the time. When the man explained what had happened to him and what he had seen, the Director of Nursing was amazed.

What usually happens in a near death experience?

Research into NDEs is notoriously difficult to do. Too often, there is little to go on other than anecdotes and people’s interpreted experiences. This has resulted in this area being bedevilled by exaggerated claims, or interpreted claims, by those with a philosophical barrow to push. So, what can we say?

A near death experience is sometimes reported by an individual who has been clinically dead for a few minutes before being resuscitated. Evidently, about 18 percent of patients experiencing cardiac arrest report having such an experience.

NDEs are not a recent phenomenon. They have been written about ever since the *Myth of Er* was penned to conclude *Plato’s Republic* in the fourth century BC—and they have been reported in most cultures.

While there is a fair diversity in what is experienced in a NDE, there are some features that are regularly reported. What are they?

Typically, there is an awareness of being physically dead, yet having a sense of peace and wellbeing. Quite often, there is an out-of-body experience in which the person observes themselves from a distance, usually from above. Some report seeing things they couldn’t have known unless they had witnessed them from an out-of-body perspective. A year-long study of heart attack survivors in the cardiac unit of Southampton General Hospital was led by one of Britain’s leading neuropsychiatrists, Dr Peter Fenwick. He said during a TV interview, “There is now a wealth of evidence showing that people seem to be able to get information that they couldn’t have got just lying unconscious on the floor.”¹⁶

It is not uncommon for patients to speak of moving along a pathway or tunnel towards an intensely bright, but not harsh, light. There is often some communication with someone at the source of the light. Other ethereal beings are sometimes present. People also speak of meeting loved ones who have died earlier. The experiences are invariably intense and detailed in nature. There is no sense of drowsiness or of being half-conscious.

NDEs do occasionally include distressing scenes. However, they are usually positive experiences. They typically result in the subject being much less frightened of death. In fact, many people who have had a NDE report great reluctance at having to return to life on Earth; they would rather stay in their NDE state.

A lot of research has been done over the years on NDEs. The Dutch cardiologist, Pim van Lommel, studied 344 patients who recovered from cardiac arrest. Sixty-two of these experienced some sort of NDE despite being clinically dead with flat-lined brainstem activity. As a result of his work, Van Lommel was convinced that consciousness could continue despite a lack of neuronal activity in the brain. In a paper submitted to *The Lancet*, he and his fellow researchers said:

*Our results show that medical factors cannot account for occurrence of NDE; although all patients had been clinically dead, most did not have NDE ... If purely physiological factors caused NDE, most of our patients should have had this experience.*¹⁷

This is an extraordinary statement. It is saying that NDEs cannot be explained physiologically... and that leaves us with an intriguing mystery!

The results of an eighteen-month pilot study into NDEs were sufficiently encouraging to trigger a massive research program into the near death experiences of 2060 heart attack patients in fifteen hospitals throughout the United Kingdom, United States and Austria. The study, commenced in 2008 and concluded in 2014, was co-ordinated by Dr Sam Parnia at Southampton University.

Of the 2060 cardiac arrest patients studied, 330 survived, 140 of whom were surveyed. Thirty-nine percent of these said they had experienced some kind of awareness while being resuscitated.

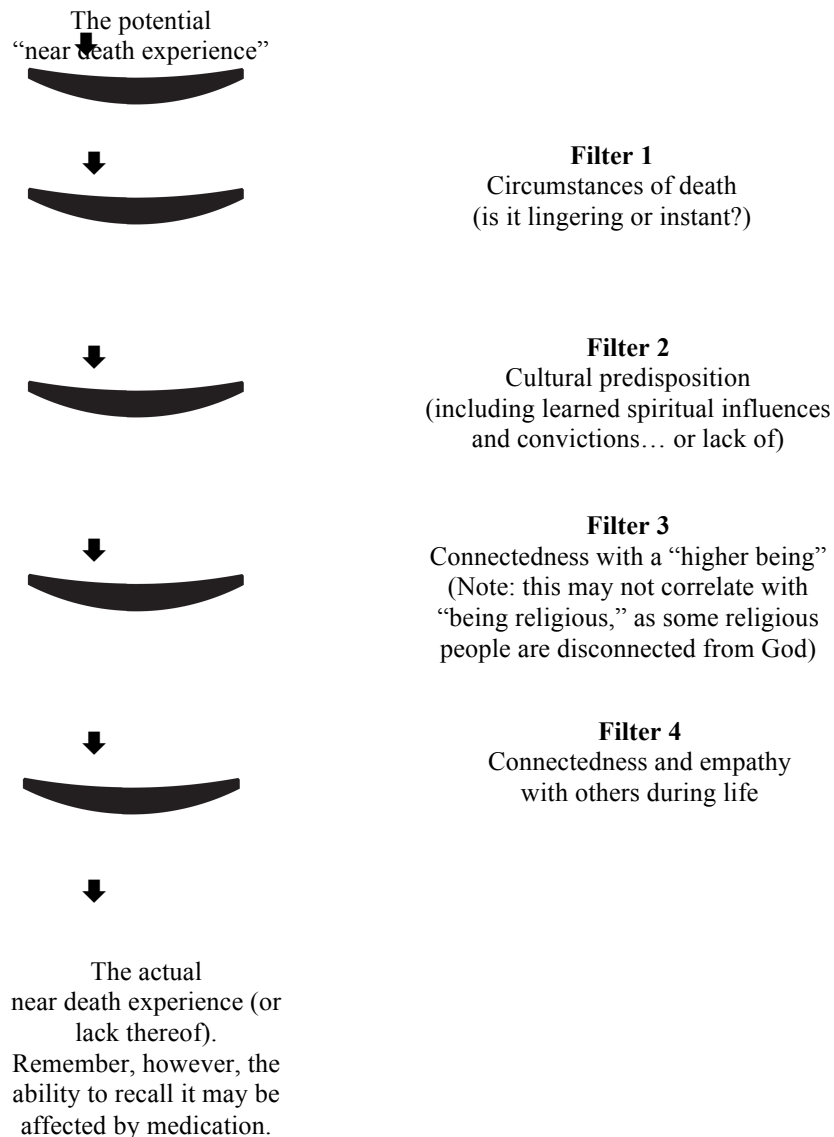
The study concluded that memories of an out-of-body experience corresponded with actual events in 2 percent of those who were aware of something after death. In one case, awareness was known to have occurred during a three-minute period when there was no heartbeat—even though the brain typically ceases to function within thirty seconds of the heart stopping.

The researchers concluded that these findings suggest more research be done as there is

a good deal of imprecision surrounding terms currently used to describe the experience of death.

So, at this stage, we can do little more than guess at the factors that determine the existence and nature of a near death experience. For what it's worth, here's my guess:

The factors that may determine what is experienced in a NDE



What’s the significance of it?

There is no God. Kerry said so.

The Australian media mogul, Kerry Packer, had a heart attack in 1990 and was clinically dead for six minutes. He was reported to have said afterwards at a press conference:

*I’ve been to the other side and let me tell you, son, there’s (expletive)
nothing there ... there’s no one waiting there for you, there’s no one to
judge you so you can do what you bloody well like.*

He died fifteen years later, aged sixty-five.

The fact that only 18 percent of those who briefly die experience an NDE didn’t stop Kerry from making this theological pronouncement on behalf of everyone. His comment does, however, raise an interesting question: Why do some people experience an NDE and not

others?

I don't think anyone knows.

The fact is, however, some people do indisputably have a near death experience. This prompts us to ask: Is this significant? Can we see evidence of God in a NDE?

Great care needs to be taken not to make exaggerated claims. However, the fact that NDEs happen so often and in a similar manner means that two things might reasonably be said:

1. If God exists and has left clues about his nature for us to find, then NDEs are entirely consistent with his existence. NDEs do not compel faith, but they certainly invite it. They are often transformative experiences that inspire those who experience them to live a more godly lifestyle.
2. NDEs point to the possibility that your essential identity is not just defined by a mechanical brain. You can experience things when electrical activity in your brain has flat-lined. It would seem that your brain is not the same as your mind, and neural physics is not the same as personhood. Your soul can exist independently of your body.

Now that's food for thought!

It certainly provokes some very deep questions, such as: If your mind/personhood/soul exists outside your body, who are you? Could you be someone God chooses to love, and with whom he wants to share the adventure of eternity? Could it be that the essential you is someone God has caused to exist so that he can invite you to live with him forever in his kingdom?

Jesus' resurrection certainly gives us that hope. The fact that he overcame death (and was not just resuscitated) is the essential 'show and tell' of Christianity. It is the proof God chose to give humanity to show that hope in the face of death is possible. Christ now invites us to live for him and in him so that we too can share in his resurrection (Romans 6:4-10). This hope caused the Apostle Paul to say triumphantly, "Where, O death, is your sting?" (1 Corinthians 15:55). The power of death has been consummately defeated.

The effect of this conviction on people who were dying was noted by the physician who attended Charles Wesley. The doctor had watched a number of Methodists die over the years and was moved to say, "Most people die for fear of dying; but I never met with people such as yours. They are none of them afraid of death but are calm and patient... and resigned to the last." This led Charles' brother John Wesley to state, "Our people die well."¹⁸

My hope, is that you will be able to do so as well.

May I suggest that it is reasonable to conclude that the presence of God can be seen in death—and that this invites a response?

Now here's the big question: Where do we go from here? What do we do with all the things that have been learned?

If you have heard the whisper of God inviting you into a loving relationship with him, then do respond. Chat with him in prayer. Tell God that you accept Christ's sacrifice on your behalf... and that you want to live for his purposes.

Inherit the eternal future you were created for.

End Notes

Introduction

- 1 Plato was a Greek Philosopher who lived about 400 BC.
- 2 C. G. Jung, *Modern Man in Search of a Soul* (Orlando, FL: 1933).
- 3 H. L. Mencken, *Minority Report*, 1956 (reprinted by Johns Hopkins University Press, 2006).

Chapter 1: The Evidence of God in the Cosmos

- 1 Einstein delivered this quote at a Symposium on Science, Philosophy and Religion in 1941. It was also published in *Nature*, 146 (1941), p. 605.
- 2 S. Hawking, *A Brief History of Time* (London and New York: Bantam, 1988), p. 1.
- 3 P. Davies, "Taking Science on Faith," *New York Times*, 24th November 2007.
- 4 F. Hoyle, "Hoyle on Evolution," *Nature* 294 (12th November 1981), p. 105.
- 5 F. Hoyle, "The Universe: Past and Present Reflections," pp. 1-3 in *Annual Review of Astronomy and Astrophysics*, 20 (1982), p. 16.
- 6 S. Hawking, quoted in: J. Boslough, *Stephen Hawking's Universe* (New York: Simon and Schuster, 1983), p. 30.
- 7 S. J. Gould, *Dinosaur in a Haystack: Reflections in Natural History* (London: Jonathan Cape, 1996). The text is taken from his 'Introduction.'
- 8 P. Davies, *The Mind of God: Science and the Search for Ultimate Meaning* (New York: Simon & Schuster, 1992), p. 232.
- 9 S. Weinberg, *The First Three Minutes* (New York: Basic Books, 1977), p. 154.
- 10 F. Dyson, *Infinite in all Directions* (New York: Harper & Row, 1988), pp. 117-118.
- 11 *Ibid.*, p. 249.
- 12 Terry Pratchett, *Lords and Ladies* (Discworld Novel, 1992).
- 13 L. R. Graham, *Science and Philosophy in the Soviet Union* (New York: Knopf, 1972), p. 173.
- 14 A. Linde, "The Self-Reproducing Inflationary Universe," *Scientific American* (November 1994).
- 15 P. Davies, 'Taking Science on Faith,' *New York Times*, 24th November 2007.
- 16 *Ibid.*

- 17 R. J. Russell, "Intelligent Life in the Universe: Philosophical and Theological issues" (working draft), center for Theology and the Natural Sciences, Berkeley, USA.
www.ictp.trieste.it/~chelaf/lecture.html Robert Russell is director of the center for Theology and Natural Sciences in Berkeley.
- 18 D. Wilkinson, *Christian Eschatology and the Physical Universe* (London: T & T Clark, 2010), p. 21.
- 19 P. Davies, *How to Build a Time Machine* (Penguin, 2002), p. 48.
- 20 B. Russell, *Why I Am Not A Christian and Other Essays on Religion and Related Subjects*, edited by Paul Edwards. (London: George Allen & Unwin.1957), p. 107.
- 21 J. Polkinghorne, *Quarks, Chaos and Christianity* (London: Triangle, 1994), p. 30.
- 22 C. S. Lewis, *Miracles: A Preliminary Study* (London: Geoffrey Bes, 1947), p. 63.
- 23 S. Hawking, *A Brief History of Time: From the Big Bang to Black Holes* (London and New York: Bantam, 1988), p. 291.

Chapter 2: The Evidence of God in Nature

- 1 Bill Bryson, *A Short History of Nearly Everything* (London: Doubleday, 2003), p. 254.
- 2 Augustine, *Confessions*, X, 29.
- 3 Translated from a Latin note written in the margin of Luther's Bible next to Romans 1:20. See: M. Luther, *Werke* (Weimarer Ausgabe: 1927), vol 48, 201. (Volume 48 has not yet been translated into English.)
- 4 J. Calvin, *Confessio Belgica* (1561), cited in A. E. McGrath, *Science and Religion: An Introduction* (Oxford: Blackwell, 1999), p. 11.
- 5 Augustine, *De Genesi ad litteram*, II.9, 1.21, trans. E. McMullin, "How Should Cosmology Relate to Theology?" pp. 17-57 in A. R. Peacocke (ed.), *The Sciences and Theology in the Twentieth Century* (London: Oriel Press, 1981), p. 19.
- 6 J. Calvin, *Commentaries: Genesis*, Vol I, Genesis, chapter 1, verse 6 (Grand Rapids, Michigan: Baker Book House), p. 79.
- 7 F. Bacon, *The Advancement of Learning* (1605), 8 (1.1.3).
- 8 T. Browne, *Religio Medici* (1642), J. Winney (ed.) (Cambridge, 1983), part I, section 16, pp. 18-19.
- 9 R. Boyle, *The Excellency of Theology Compared with Natural Theology* (tract, 1772) in R. Boyle, *The Works of the Honourable Robert Boyle*, ed. T. Birch, second edition, 6 volumes (London: Rivingtons), Vol 4, pp. 1-66.

- 10 I. Newton, "First Letter to Richard Bentley" (1692) in Newton's *Philosophy of Nature: Selections from his Writings*, ed. H. S. Taylor (New York: Hafner, 1953), p. 46.
- 11 Charles Darwin in a letter first published in 1887 by his son Francis Darwin (F. Darwin [ed.], *The Life and Letters of Charles Darwin*, 2 vols [London, 1887, Vol 1], 304).
- 12 F. Darwin, *The Life and Letters of Charles Darwin* (New York: Appleton, 1898, Vol.2), p. 82.
- 13 F. Temple, "The Present Relations of Science to Religion": A sermon preached on 1 July 1860 before the University of Oxford. See: J. Brooke and G. Cantor, *Reconstructing Nature: The Engagement of Science and Religion* (Edinburgh: T & T Clark, 1988), p. 36.
- 14 N. Barlow (ed.), *The Autobiography of Charles Darwin* (London: Collins, 1958), p. 57.
- 15 A. Desmond and J. Moore, *Darwin* (London: Penguin Books, 1991), p. 488.
- 16 J. Monod, *Chance and Necessity*, Trans. A. Wainhouse (London: Collins, 1972), p. 167.
- 17 Francis Collins in an interview with CNN on 3 April 2007. See also his book: *The Language of God: A Scientist Presents Evidence for Belief* (New York, Simon and Schuster, 2007).
- 18 J. Polkinghorne, *Quarks, Chaos and Christianity* (London: Triangle, 1994), pp. 42-49.
- 19 C. De Duve, "Lessons of Life," pp. 3-13 in S. Dick (ed.) *Many Worlds* (Philadelphia and London: Templeton foundation Press, 2000), pp. 10-11.
- 20 S. W. Fox and K. Dose, *Molecular Evolution and the Origin of Life*, J. L. Fox (ed.) (New York: Marcel Dekker, 1977).
- 21 C. De Duve, "Lessons of Life," pp. 6-8.
- 22 S. J. Gould, *Ever Since Darwin* (New York: Norton, 1979), p. 104.
- 23 F. Watts (ed.), *Science Meets Faith: Theology and Science in Conversation* (London: SPCK, 1998), p. 13.
- 24 R. Jastrow, *God and the Astronomers* (New York: W. W. Norton, 1978), p. 116.
- 25 I. Tattersall, *Becoming Human: Evolution and Human Uniqueness* (Orlando, FL: Harcourt Brace, 1998).

Chapter 3: The Evidence of God in Suffering

- 1 N. J. Hawkes, “An Apology for the Scientific Credibility of Faith” (Sydney: Australian College of Theology, doctoral thesis, 2004), pp. 124-125.
- 2 V. E. Frankl, *Man’s search for Meaning* (New York, Washington Square Press, 1963), pp. 178-183.
- 3 See: Job 1:8-12; 2:3-6; Ephesians 3:10 and 6:12.
- 4 A. R. Peacocke, *Intimations of Reality* (South Bend, IN: University of Nôtre Dame Press, 1984), p. 63.
- 5 *Ibid.*, pp. 23-35.
- 6 I. G. Barbour, *Religion in an Age of Science* (London: SCM Press, 1990), pp. 28-29.
- 7 I. G. Barbour, “God’s Power: A Process view,” pp. 1-20 in J. Polkinghorne (ed.) *The Work of Love: Creation as Kenosis* (Grand Rapids, MI: Eerdmans, 2001), pp. 2-5.
- 8 J. C. Polkinghorne, *Quarks, chaos and Christianity* (London: Triangle, 1994), pp. 42-49. See also: J. C. Polkinghorne, *Scientists as Theologians* (London: SPCK 1996), pp. 46-50.
- 9 F. Collins, *Test of Faith* (Exeter, UK: Paternoster, 2009), Film - Time code - 21 min. 03 secs.
- 10 D. Alexander, *Creation or Evolution: Do We Have to Choose?* (Oxford: Monarch Books, 2008), p. 277.
- 11 Clark Pinnock (1937 – 2010) was professor emeritus of theology at McMaster Divinity College, Hamilton, Ontario. John Sanders, at the time of writing, currently serves as Professor of Religious Studies at Conway, Arkansas. Greg Boyd is Senior Pastor of the Woodland Hills Church in St Paul, Minnesota.
- 12 For a more detailed critique on “open theism” and how it pertains to suffering, see: N. J. Hawkes, *Evidence of God: A Scientific Case for God* (Eugene, OR: Wipf and Stock, 2012).
- 13 For more on the coming kingdom of God, see: N. T. Wright, *Surprised by Hope* (New York: HarperCollins, 2008).
- 14 B. M. Rothschild, “Diseases of Dinosaurs,” *Scientific American*, 21 October 1999.

Chapter 4: The Evidence of God in Mathematics

- 1 Saying that mathematics is tidy is not to deny that there are problems in mathematics that are undecidable. Some eventually show themselves to have a resolution. The catch is: you might spend a lifetime working on a problem that is undecidable and never know it!

- 2 Plato, Aristotle, Descartes, Spinoza, Leibniz, Kant and Hegel
- 3 A talk by Keith Ward, “The New Atheist (part 1)” at St Georges Cathedral Perth, Western Australia (September 2009). This can be heard on YouTube (published on 29th August 2012).
Keith Ward is a Christian philosopher, theologian, pastor and scholar. He served as Regius Professor of Divinity at Oxford from 1991 to 2004.
- 4 *Ibid.*
- 5 J. Franklin, “The Mathematical World,” *Aeon Magazine* (posted 7th April 2014).
- 6 Niels Bohr quoted in W. Heisenberg, *Physics and Beyond*. (New York: Harper and Row 1971), p. 206.
- 7 R. Feynman, *The Character of Physical Law* lectures published by the BBC (1965), see: ISBN 0-679-60127-9.
- 8 J. Polkinghorne, *Quarks, Chaos and Christianity* (London: Triangle, SPCK, 1994), pp. 55-56. This phenomenon was further investigated by John Bell in 1964, who discovered that no physical theory can give rise to the predictions of quantum mechanics.
- 9 *Ibid.*, p. 57.
- 10 *Ibid.*, p. 66.
- 11 J. Yorke, an applied mathematician from the University of Maryland was the first to use the name “chaos” for what, it transpired, was not even a chaos situation. Nevertheless, the name caught on (see: T. Y. Li, and J. A. Yorke, “Period Three Implies Chaos,” *American Mathematical Monthly* 82, [1975]: pp. 985-992).
- 12 I. Peterson, *Newton’s Clock: Chaos in the Solar System* (New York: MacMillan, 1993).
- 13 E. N. Lorenz, “Deterministic non-periodic flow”: *Journal of the Atmospheric Sciences*, 20 (1963), pp. 130-141.
- 14 This thinking has led Philosopher John Leslie to muse whether moving an individual animal in the Cambrian seas two feet to its left could have meant that the conquest of land would not have occurred (see: J. Leslie, “Intelligent Life in Our Universe,” pp. 119-132 in Steven Dick [ed.] *Many Worlds* [Philadelphia and London: Templeton Foundation Press, 2000], p. 119).
- 15 J. Polkinghorne, *Reason and Reality: the Relationship Between Science and Theology* (London: SPCK, 1991), p. 36.
See also: J. Polkinghorne, *Belief in God in an Age of Science* (Yale University Press, 1998), p. 52.

- 16 G. Ifrah, *The Universal History of Numbers: From Prehistory to the Invention of the Computer* (New York: John Wiley, 2000).
- 17 J. D. Barrow (2001), "Cosmology, Life, and the Anthropic Principle": *Annals of the New York Academy of Sciences*, 950 (1), pp. 139-153.
- 18 E. Wigner, 1959, "The unreasonable effectiveness of mathematics in the natural sciences," Richard Courant lecture in mathematical sciences delivered at New York University, 11th May 1959.
- 19 P. Dirac, (May 1963). "The Evolution of the Physicist's Picture of Nature, *Scientific American*. Retrieved 4 April 2013.
- 20 V. S. Poythress, "A biblical view of mathematics," in *Foundations of Christian Scholarship: Essays in the Van Til Perspective*, ed. G. North (Vallecito: Ross House Books, 1976), pp. 158-188.
- 21 V. S. Poythress, "Mathematics as rhyme," *Journal of the American Scientific Affiliation* 35/4 (1983), pp. 196-203.
- 22 P. Davies, "Taking Science on Faith," 24th November 2007, *New York Times*.
- 23 *Ibid.*
- 24 J. Polkinghorne, *Science and Theology: An Introduction* (London: SPCK, 1998), p. 72.
- 25 *Ibid.*, p. 73.
- 26 P. Dirac, "The Evolution of the Physicist's Picture of Nature," pp. 45-53 in *Scientific American* 208 (1963): p. 47.
- 27 B. Russell, "The Study of Mathematics" in *Mysticism and Logic: And Other Essays* (London: Longman, 1919), p. 60. In the end, Russell gave up mathematics because of his struggle to accept that some things were uncertain in mathematics. This idea so scandalized him that he became an atheistic philosopher. It serves to remind us that although there is much order, there is also mystery.

Chapter 5: The Evidence of God in Society

- 1 David Bentley Hart, *Atheist Delusions: The Christian Revolution and Its Fashionable Enemies*. (New Haven, CT: Yale University Press, 2009), p.XI.
- 2 J. Blackett, *Fire in the Outback* (Sydney: Albatross, 1997), p. 24.
- 3 See: BBC News, Asia Pacific, 27th August 2010.
- 4 From George Washington to the Synod of the Dutch Reformed Church in North America, October 1789.
- 5 M. Steyn, *America Alone* (Washington, DC: Regnery Publishing), p. 98.

- 6 J. Sacks, "Atheism has failed. Only religion can defeat the new barbarians," *The Spectator* (15th June 2013).
- 7 *Ibid.*
- 8 While humanity may have an instinctive notion about what good is, societal culture will kill it off.
- 9 F. Nietzsche, *Human, All Too Human*, 1878 (republished in 1996 by Cambridge University Press).
- 10 J. Micklethwait and A. Wooldridge, *God is Back: How the Global Revival of Faith is Changing the World* (New York: Penguin Press, 2009).
John Micklethwait is editor of the *Economist*, and Adrian Wooldridge is the magazine's Washington bureau chief.
- 11 M. Novak, *On Two Wings: Humble Faith and Common Sense at the American Founding* (San Francisco: Encounter, 2002), p. 5.
- 12 F. Dostoevsky, *The Brothers Karamazov*, 1879, tr. C. Garnett (Barnes & Noble, Inc., New York, 1995), at the end of the chapter titled "Rebellion."
- 13 Vishal Mangalwadi interviewed by Warwick Marsh, "Truth and Transformation" series: see: <https://www.youtube.com/watch?v=3E5ri2z0ym8>, accessed 15th May 2014.
- 14 P. Waugh, *Postmodernism: A Reader* (London: Edward Arnold, 1992), p. 2.
- 15 E. S. Jones, *The Unshakable Kingdom and the Unchanging Person* (Nashville, TN: Abingdon Press, 1972).
- 16 C. Colson, *The Body: Being Light in Darkness* (Nashville, TN: Thomas Nelson, 1992), p. 163.

Chapter 6: The Evidence of God in Truth

- 1 É. Cammaerts, *The Laughing Prophet: The Seven Virtues and G. K. Chesterton* (London: Methuen & Co. Ltd., 1937).
- 2 M. Curriden, "Guilt by Heredity? His Lawyer Says It's in the Killer's Genes," *The National Law Journal* (7th November 1994), A12.
- 3 I. Newton, "General Scholium," an essay appended to I. Newton, *Principia: The Mathematical Principles of Natural Philosophy*, A. Motte (tr.) (New York: Daniel Adee, 1825), p. 501.
- 4 *Ibid.*, pp. 505-506.
- 5 *Ibid.*, p. 506.
- 6 J. Lennox, *God's Undertaker: Has Science Buried God?* (Oxford: Lion, 2009), p. 44.

- 7 A. Desmond, A. and James Moore, J. *Darwin* (London: Penguin Books, 1991), pp. 492-499.
- 8 *Ibid.*, p. 488.
- 9 F. Darwin (ed.) *The Life and Letters of Charles Darwin*, Vol 1 (London, 1887), p. 304.
- 10 C. S. Lewis, *Surprised by Joy* (Orlando, FL. Harcourt Inc, 1955), p.182.
- 11 J. Lennon, *Imagine*, Apple Records (1971).
- 12 World War I = 15 million deaths
- Russian Civil War = 9 million deaths (Lenin was responsible for 4 million of these)
 - Stalin's purges = 25 million deaths
 - World War II, = 50 million deaths.
 - Mao Zedong (Cultural Revolution in China) = 30-50 million deaths
- 13 D. Myers, *A Friendly Letter to Skeptics and Atheists: Musings on Why God is Good and Faith Isn't Evil* (Dan Francisco, CA: Jossey-Bass, 2008).
- 14 E. Larson and L. Witham (*Nature*, 386, 1997), pp. 435-436.
- 15 N. J. Hawkes, *The Dance Between Science and Faith* (Storm Harvest, 2007), pp. 45-46.
- 16 R. Dawkins, *The God Delusion* (New York: Bantam Books, 2006), p. 275.
- 17 Exact numbers are impossible to obtain, but some estimate that 3 million Christians were exterminated, of which 660,000 were Catholics.
- General William Donovan, a member of the US prosecution team at the Nuremburg war trials, kept records in 150 volumes (now stored at Cornell University) which show that the Nazis knew that Bible believing, evangelical churches would have to be neutralized by infiltration, extermination and indoctrination. Only those church institutions which compromised their Christian values would be spared.
- For more information, see: Richard Bonney (Ed and Tr) *Confronting the Nazi War on Christianity: The Kulturkampf Newsletters, 1939-1939*, (Peter Lang AG, International Academic Publishers, Bern, Switzerland, 2009).
- 18 R. Dawkins, *The God Delusion* (New York: Bantam Books, 2006), p. 37.
- 19 The women the Apostle Paul honoured in his letters include:
- Phoebe (a deacon)
 - Junias (an apostle, probably a female)
 - Pricilla, Mary, Tryphena, Tryphosa, Persists and Julia (influential women in the church)

- Chloe and Lydia (who hosted house churches)
- Priscilla (a teacher)
- The daughters of Philip (who were prophetesses)

He made it clear that men and women are equal before God (Galatians 3:26-29).

- 20 Key members of the Women's Christian Temperance Union who played a key role in winning women the vote in the late nineteenth century included Kate Sheppard (1847 – 1934) in New Zealand and Anne Knight (1786 – 1862) in Britain. Note also that the Roman Catholic Church published *The Catholic Suffragist Journal*.
- 21 M. Bragg, *The Book of Books* (UK: Hodder & Stoughton, 2011), pp. 205-226.
- 22 R. Dawkins, *The God Delusion*, p. 135.
- 23 It should be said, however, that many Old Testament principles were not revised and completed by Jesus, and as such, hold true today. Certainly, all the foundational principles of the New Testament are first introduced in the Old Testament.
- 24 B. Russell, "Is There a God?" an article commissioned, but never published, by Illustrated magazine in 1952, now in *The Collected Papers of Bertrand Russell*, Vol. 11: Last Philosophical Testament, 1943-68. (London: Routledge), pp. 547-548.
- 25 C. Darwin, in Darwin Correspondence Database, www.darwinproject.ac.uk/entry_13230, accessed on 26th April 2014.
- 26 K. Ward, "The New Atheist (part 1)" at St Georges Cathedral Perth, Western Australia (September 2009). This can be heard on YouTube (published on 29th August 2012).
- 27 A. Plantinga, "The Dawkins Confusion: Naturalism 'ad absurdum'," *Books and Culture* 13/2 (March/April 2007).
- 28 C. S. Lewis, *The Abolition of Man* (New York: HarperCollins, 1944/2001), p. 81.
- 29 A. J. Toynbee, *A Study of History* (Oxford University Press, 1957).
- 30 L. Newbigin, *The Gospel in a Pluralist Society* (Grand Rapids, MI: Eerdmans, 1989).
- 31 *Ibid.*, p. 9.
- 32 *Ibid.*, p. 170.
- 33 Augustine, *De Genesi ad litteram*, ii.9, i.21, tr. E. McMullin, "How Should cosmology Relate to Theology?" pp. 17-57 in A. R. Peacocke (ed.), *The Sciences and Theology in the Twentieth Century* (London: Oriel Press, 1981), p. 19.
- 34 J. Calvin, *Commentaries*; Genesis, Vol I, Genesis, chapter 1, verse 5.
- 35 *Ibid.*, verse 6.
- 36 N. J. Hawkes, "An Apology for the Scientific Credibility of Faith," D Min thesis, Australian College of Theology, submitted February 2004.
- 37 N. J. Hawkes, *Evidence of God* (Eugene, OR: Wipf and Stock, 2012).

- 38 It is worth noting, however, that Christian truth has been fixed and stable for the last two thousand years while scientific truth has continually changed.
- 39 Note that *Who Moved the Stone?* was written under a pseudonym, Frank Morison.
- 40 A. Flew (with Roy Varghese), *There is a God: How the World's Most Notorious Atheist Changed His Mind* (New York, HarperCollins, 2007).
- 41 C. S. Lewis, *God in the Dock: Essays on Theology and Ethics*, ed. W. Hooper (Grand Rapids, MI: Eerdmans, 1945), p. 101.

Chapter 7: The Evidence of God in Death

1. Shakespeare, *Macbeth*, Act V, Scene 5.
2. From the poem by Dylan Thomas (1914 – 1953), “Do not go gentle into that good night.”
3. M. K. Gandhi, “The Fear of Death,” *Young India*, 13th October 1921, reprinted in *The Moral and Political Writings of Mahatma Gandhi*, Authored by the Avatar, ed. Clarendon (Oxford University Press, 1986-1987), vol. 3, p. 235.
4. This idea was promoted by the Polish/British anthropologist, Bronisław Malinowski.
5. L. Ellis, E. A. Wahab and M. Ratnasigan (2013), “Religiosity and fear of death: A three-nation comparison,” *Mental Health, Religion & Culture*, 16 (2): p. 179.
6. Y. Wen (2010), “Religiosity and death anxiety,” *The Journal of Human Resource and Adult Learning*, 6 (2), pp. 31-37.
7. N. T. Wright, *Surprised by Hope* (New York: HarperCollins, 2008), p. 54.
8. *Ibid.*, p. 111.
9. *Ibid.*, pp. 141-142.
10. C. S. Lewis, *The Problem of Pain* (London: The Centenary Press, 1940), p. 127.
11. John Spong, “*A Call for a New Reformation*”, (Westar Institute, Volume 11-4, July-August 1998), see Article 1.
12. John Spong, “*A Call for a New Reformation*”, (Westar Institute, Volume 11-4, July-August 1998), see Article 3.
13. John Spong, "The God Beyond Theism", *The Voice*, October 1999.
14. John Spong, “*A Call for a New Reformation*”, (Westar Institute, Volume 11-4, July-August 1998), see Article 2.
15. The scientist and theologian, Arthur Peacocke, suggested that human beings appear to be rising beasts rather than fallen angels. See: A. Peacocke, “The challenge and Stimulus of the Epic of Evolution to Theology,” in Steven Dick (ed.) *Many Worlds* (Philadelphia and London: Templeton Foundation Press, 2000), pp. 97- 98.

16. Interview with Tony Jones on *Lateline* (ABC, Australia), 30th October 2000. See also: An article on the work of Peter Fenwick and Sam Parnia, "Soul-searching doctors find life after death," in *Telegraph* (London: 22 October 2000).
17. P. van Lommel, R. van Wees, V. Meyers and I. Elfferich, "Near Death Experience in Survivors of Cardiac Arrest: A prospective Study in the Netherlands," in *The Lancet*, 15th December 2001, 358 (9298): pp. 2039-2045.
18. J. D. McPherson, "*Our People Die Well*," (Bloomington, IN: AuthorHouse, 2008).

Bibliography

- Alexander, D. *Creation or Evolution: Do We Have to Choose?* (Oxford: Monarch Books, 2008).
- Augustine, *Confessions*, X.
- Bacon, F. *The Advancement of Learning* (1605).
- Barbour, I. G. *Religion in an Age of Science* (London: SCM Press, 1990).
- Barbour, I. G. "God's Power: A Process view," pp. 1-20 in J. Polkinghorne (ed.) *The Work of Love: Creation as Kenosis* (Grand Rapids, MI: Eerdmans, 2001).
- Barlow, N. (ed.), *The Autobiography of Charles Darwin* (London: Collins, 1958).
- Barrow, J. D. "Cosmology, Life, and the Anthropic Principle": *Annals of the New York Academy of Sciences* (2001) 950 (1), pp. 139-153.
- Blacket, J. *Fire in the Outback* (Sydney: Albatross, 1997).
- Boslough, J. *Stephen Hawking's Universe* (New York: Simon and Schuster, 1983).
- Boyle, R. *The Works of the Honourable Robert Boyle*, ed. T. Birch, second edition, 6 volumes (London: Rivingtons, 1744).
- Bragg, M. *The Book of Books* (UK, Hodder & Stoughton, 2011).
- Brooke, J and Cantor, G. *Reconstructing Nature: The Engagement of Science and Religion* (Edinburgh: T&T Clark, 1988).
- Browne, T. *Religio Medici* (1642), ed. J. Winney (Cambridge University Press, 1983).
- Bryson, B. *A Short History of Nearly Everything* (London: Doubleday, 2003).
- Calvin, J. *Commentaries: Genesis*, Vol I (Grand Rapids, Michigan: Baker Book House).
- Cammaerts, É. *The Laughing Prophet: The Seven Virtues and G. K. Chesterton* (London: Methuen & Co. Ltd., 1937).
- Collins, F. *The Language of God: A Scientist Presents Evidence for Belief* (New York, Simon & Schuster, 2007).
- Collins, F. in *Test of Faith*, Film (Exeter, UK: Paternoster, 2009).
- Colson, C. *The Body: Being Light in Darkness* (Nashville, TN: Thomas Nelson, 1992).
- Curriden, M. "Guilt by Heredity? His Lawyer Says It's in the Killer's Genes," *The National Law Journal* (7th November 1994), A12.
- Darwin, F. (ed.), *The Life and Letters of Charles Darwin*, Vol 1 (London, 1887).
- Darwin, F. (ed.), *The Life and Letters of Charles Darwin*, Vol 2 (New York: Appleton, 1898).
- Davies, P. *The Mind of God: Science and the Search for Ultimate Meaning* (New York: Simon & Schuster, 1992).
- Davies, P. *How to Build a Time Machine* (Penguin, 2002).
- Davies, P. "Taking Science on Faith," *New York Times*, 24th November 2007.
- Dawkins, R. *The God Delusion* (New York: Bantam Books, 2006).
- De Duve, C. "Lessons of Life," pp. 3-13 in S. Dick (ed.) *Many Worlds* (Philadelphia and London: Templeton foundation Press, 2000).

- Desmond, A. and Moore, J. *Darwin* (London: Penguin Books, 1991).
- Dirac, P. "The Evolution of the Physicist's Picture of Nature," pp. 45-53 in *Scientific American* 208 (1963).
- Dostoevsky, F. *The Brothers Karamazov*, 1879, tr. C. Garnett (Barnes & Noble, Inc., New York, 1995).
- Dyson, F. *Infinite in all Directions* (New York: Harper & Row, 1988).
- Ellis, L., Wahab, E. A. and Ratnasingan, M. "Religiosity and fear of death: A three-nation comparison." *Mental Health, Religion & Culture* (2013) 16 (2), 179–199.
- Flew, A. (with Roy Varghese) *There is a God: How the World's Most Notorious Atheist Changed His Min* (New York, HarperCollins, 2007).
- Fox S. W. and Dose, K. *Molecular Evolution and the Origin of Life*, ed. J. L. Fox (New York: Marcel Dekker, 1977).
- Frankl, V. E. *Man's search for Meaning* (New York, Washington Square Press, 1963).
- Franklin, J. "The Mathematical World," *Aeon Magazine* (posted 7th April 2014).
- Gandhi, M. K. *The Moral and Political Writings of Mahatma Gandhi* (Oxford University Press, 1986-1987).
- Gould, S. J. *Ever Since Darwin* (New York: Norton, 1979).
- Gould, S. J. *Dinosaur in a Haystack: Reflections in Natural History* (London: Jonathan Cape, 1996).
- Graham, L. R. *Science and Philosophy in the Soviet Union* (New York: Knopf, 1972).
- Hart, D. B. *Atheist Delusions: The Christian Revolution and Its Fashionable Enemies*. (New Haven, CT: Yale University Press, 2009).
- Hawkes, N. J. "An Apology for the Scientific Credibility of Faith" (Sydney: Australian College of Theology, doctoral thesis, 2004).
- Hawkes, N. J. *Evidence of God: A Scientific Case for God* (Eugene, OR: Wipf and Stock, 2012).
- Hawking, S. *A Brief History of Time* (London and New York: Bantam, 1988).
- Heisenberg, W. *Physics and Beyond* (New York: Harper and Row, 1971).
- Hoyle, F. "Hoyle On Evolution," *Nature* 294 (12th November 1981), 105.
- Hoyle, F. "The Universe: Past and Present Reflections," pp. 1-3 in *Annual Review of Astronomy and Astrophysics*, 20 (1982).
- Ifrah, G. *The Universal History of Numbers: From Prehistory to the Invention of the Computer* (New York: John Wiley, 2000).
- Jastrow, R. *God and the Astronomers* (New York: W. W. Norton, 1978).
- Jones, E. S. *The Unshakable Kingdom and the Unchanging Person* (Nashville, TN: Abingdon Press, 1972).
- Toynbee, A. J. *A Study of History* (Oxford University Press, 1957).
- Jung, C. G. *Modern Man in Search of a Soul* (Orlando, FL: Harcourt Brace Jovanovich 1933).
- Lennox, J. *God's Undertaker: Has Science Buried God?* (Oxford: Lion, 2009).
- Leslie, J. "Intelligent Life in Our Universe," pp. 119-132 in Steven Dick (ed.) *Many Worlds* (Philadelphia and London: Templeton Foundation Press, 2000).

- Lewis, C. S. *The Problem of Pain* (London: The Centenary Press, 1940).
- Lewis, C. S. *The Abolition of Man* (New York: HarperCollins, 1944/2001).
- Lewis, C. S. *God in the Dock: Essays on Theology and Ethics*, ed. W. Hooper (Grand Rapids, MI: Eerdmans, 1945).
- Lewis, C. S. *Miracles: A Preliminary Study* (London: Geoffrey Bes, 1947).
- Lewis, C. S. *Surprised by Joy* (Orlando, FL: Harcourt Inc, 1955)
- Li, T. Y. and Yorke, J. A. "Period Three Implies Chaos," *American Mathematical Monthly*, 82 (1975), 481-485.
- Linde, A. "The Self-Reproducing Inflationary Universe," *Scientific American*, Vol. 271, No.5, Nov.1994, 48-55.
- Lorenz, E. N. "Deterministic non-periodic flow," *Journal of the Atmospheric Sciences*. 20 (1963), pp. 130-141.
- Luther, M. *Werke* (Weimarer Ausgabe: 1927), vol 48.
- McGrath, A. E. *Science and Religion: An Introduction* (Oxford: Blackwell, 1999).
- McPherson, J. D. "Our People Die Well," (Bloomington, IN: AuthorHouse, 2008).
- Mencken, H. L. *Minority Report*, 1956. (reprinted by Johns Hopkins University Press, 2006).
- Micklethwait, J and Wooldridge, A. *God is Back: How the Global Revival of Faith is Changing the World* (New York: Penguin Press, 2009).
- Monod, J. *Chance and Necessity*, tr. A. Wainhouse (London: Collins, 1972).
- Myers, D. *A Friendly Letter to Skeptics and Atheists: Musings on Why God is Good and Faith Isn't Evil* (Dan Francisco, CA, Jossey-Bass, 2008).
- Newbigin, L. *The Gospel in a Pluralist Society* (Grand Rapids, MI: Eerdmans, 1989).
- Newton, I. *Principia: The Mathematical Principles of Natural Philosophy*, tr. A. Motte, 1825. (New York: Daniel Adee, 1825).
- Newton, I. "First Letter to Richard Bentley" (1692) in Newton's *Philosophy of Nature: Selections from his Writings*, ed. H. S. Taylor (New York: Hafner, 1953).
- Novak, M. *On Two Wings: Humble Faith and Common Sense at the American Founding* (San Francisco: Encounter, 2002).
- Nietzsche, F. *Human, All Too Human*, 1878. (republished in 1996 by Cambridge University Press).
- Peacocke, A. R. (ed.) *The Sciences and Theology in the Twentieth Century* (London: Oriel Press, 1981).
- Peacocke, A. R. *Intimations of Reality*. (South Bend, IN: University of Nôtre Dame Press, 1984).
- Peterson, I. *Newton's Clock: Chaos in the Solar System* (New York: MacMillan, 1993).
- Plantinga, A. "The Dawkins Confusion: Naturalism 'ad absurdum'," *Books and Culture* 13/2 (March/April 2007).
- Polkinghorne, J. C. *Reason and Reality: the Relationship Between Science and Theology* (London: SPCK, 1991).
- Polkinghorne, J. C. *Quarks, Chaos and Christianity* (London: Triangle, 1994).
- Polkinghorne, J. C. *Scientists as Theologians* (London: SPCK 1996).

- Polkinghorne, J. C. *Belief in God in an Age of Science* (Yale University Press, 1998).
- Polkinghorne, J. C. *Science and Theology: An Introduction* (London: SPCK, 1998).
- Poythress, V. S. "A biblical view of mathematics," in *Foundations of Christian Scholarship: Essays in the Van Til Perspective*, Gary North (ed.) (Vallecito: Ross House Books, 1976), pp. 158-188.
- Poythress, V. S. "Mathematics as rhyme," *Journal of the American Scientific Affiliation* 35/4 (1983), pp. 196-203.
- Rothschild, B. M. "So we know anything about the kinds of diseases that affected dinosaurs?" *Scientific American*, 21 October 1999.
url = <http://www.scientificamerican.com/article/do-we-know-anything-about/>
- Russell, B. *Why I Am Not A Christian and Other Essays on Religion and Related Subjects*, ed. P. Edwards. (London: George Allen & Unwin.1957).
- Russell, B. "Is There a God?" in *The Collected Papers of Bertrand Russell*, Vol. 11: Last Philosophical Testament, 1943-68. (London: Routledge).
- Sacks, J. "Atheism has failed. Only religion can defeat the new barbarians," *The Spectator* (15th June 2013).
- Spong, J. "*A Call for a New Reformation*", (Westar Institute, Volume 11-4, July-August 1998) 3.
- Spong, J, "The God Beyond Theism", *The Voice*, October 1999.
- Steyn, M. *America Alone* (Washington, DC: Regnery Publishing).
- Tattersall, I. *Becoming Human: Evolution and Human Uniqueness* (Orlando, FL: Harcourt Brace, 1998).
- van Lommel, P., van Wees, R., Meyers, V. and Elfferich, I. "Near Death Experience in Survivors of Cardiac Arrest: A prospective Study in the Netherlands" in *The Lancet*, 15th December 2001, 358(9298): pp. 2039-2045.
- Ward, K. "The New Atheists" (Part 1). A lecture given at St Georges Cathedral Perth, Western Australia (September 2009). This can be heard on YouTube (published on 29th August 2012).
- Watts, F. (ed.) *Science Meets Faith: Theology and Science in Conversation* (London: SPCK, 1998).
- Waugh, P. *Postmodernism: A Reader* (London: Edward Arnold, 1992).
- Wen, Y. "Religiosity and death anxiety," *The Journal of Human Resource and Adult Learning* (2010) 6 (2), pp. 31-37.
- Weinberg, S. *The First Three Minutes* (New York: Basic Books, 1977).
- Wilkinson, D. *Christian Eschatology and the Physical Universe* (London: T & T Clark, 2010).
- Wright, N. T. *Surprised by Hope* (New York: HarperCollins, 2008).

COMMENTARY, CONTEXT AND REFLECTIONS

What is original work that makes a contribution to knowledge?

There are two aspects to *Who Ordered the Universe* that indicate original research, and which offers a new contribution to knowledge.

The first of these is the novel collection of subjects that point to the possibility of God's existence. At the time of writing, such a breadth of subjects, all in one clustered argument, had not been presented or appreciated by apologists. However, the fact that these subjects exist is not the major compelling point. Nor is it because it includes the subjects of "suffering" and "death", subjects not normally associated with apologetics. What is compelling is that these subjects are mutually supportive, clustered and iterative. They all make room for each other, which is to be expected if God exists. If there is a divine mind, then it is entirely reasonable that something of his/her divine fingerprints be seen in every sphere of reality. In other words, together, they indicate the reality of a *telos*.

The existence of this reality has been masked by some academics who speak almost exclusively into the sound shells of their own discipline with little appreciation of what is going on elsewhere. Interdisciplinarity, postdisciplinarity and transdisciplinarity studies are challenging and difficult to move through academic journals and editorial gatekeepers. For example, at the time of writing *Who Ordered the Universe*, very few apologists had picked up on the extraordinary comments made by mathematicians and mathematical physicists who spoke about the inexplicable mathematical properties of the universe. One of the few books that did was: Luk Bergmans, Teun Koetisier *Mathematics and the Divine*¹ but this was not widely available, and it was written more from an historical rather than an apologetic perspective. Since this time, more publications on this subject have emerged, but this was not the case before *Who Ordered the Universe* was written.

One of the outcomes achieved by *Who Ordered the Universe* is that it releases the apologist into tropes, theories, paradigms and approaches that the researcher may not have previously utilised. It gives researchers new colours to paint with and it encourages the mixing of those pigments to make even more colours.

The second aspect of *Who Ordered the Universe* that is original and which makes a contribution to knowledge is the discussion on the phenomenon of "near death experiences" (NDEs). This is an area of study that has been bedevilled by quasi, pseudo-scientific claims, speculation and silliness. Little empirical work had been done to investigate it. One of the

1 Luk Bergmans, Teun Koetisier *Mathematics and the Divine I: A Historical Study* (Amsterdam, Netherlands: Elsevier Science & Technology, 2004).

reasons for this was that although some trends could be established, there was so much variation in people's reported experiences, that no one was able to make sense of it.

The major contribution of *Who Ordered the Universe* is that it does not treat these variations as variables that have masked knowledge, but as attributes that have contributed to knowledge. Rather than shrug at the complexity of reported experiences, the final pages in chapter 7 of *Who Ordered the Universe* examines them all, and reorders them into a sequence that might explain the variations. Although the diagram in the final chapter of the book sits on just one page, it is actually the product of a lot of information. This diagram looks at how the interplay of four factors could explain the diversity reported by those investigating NDEs. These factors include the nature of a person's death; the culture of the person who has died; a person's spirituality; and the level of a person's empathy (goodness). These different factors are filters that could colour and determine the final NDE outcome. Thus, by making use of the information given by variations to the norm, it is possible to build a model that can give direction and impetus to further study.

COMMENTARY, CONTEXT AND REFLECTIONS

Professor Paul Davies introduced me to the bizarre world of quantum physics. It was enough to cause me to speculate on the nature of mathematics (in relation to quantum physics) in the chapter “Evidence of God in Mathematics” in *Who Ordered the Universe?* The ideas spawned then were further developed in the paper that follows.

This paper, and the two that follow it, allude to quantum physics’ famous ‘double slit’ experiment. As the papers are independent of each other, it has been necessary to re-tell elements of the double slit experiment in each of them. Do forgive the repetition.

This paper, and the one that follows, were examined by Dr Mark Worthing (1997 winner of the international Templeton Prize for science and faith book of the year), and by Dr Chris Mulherin, (Executive Director of ISCAST¹).

Clues From Quantum Physics that Tell Us What Mathematics Actually Is

by
Dr Nick Hawkes

in
ISCAST Online Journal, *Christian Perspectives on Science and Technology*,
see: <http://iscast.org/node/702> (May, 2019)

Key words

Quantum; Physics; Mathematics; Philosophy; Theology; Materialistic; Reductionism

Abstract

The philosophy unconsciously held by atheists working in science is that of “materialistic reductionism.” This states that everything that exists is merely the sum total of its constituent particles. Therefore, nothing has particular significance. However, such a philosophy is now struggling to come to terms with the recent discoveries of science, particularly in quantum physics where scientists are speaking of consciousness being the ultimate reality. Similarly, the philosophy of materialistic reductionism has not proved helpful in unravelling the mystery of what mathematics actually is.

1 ISCAST is a network of people, from students to distinguished academics, exploring the interface of science, technology, and Christian faith in Australia. The patron of ISCAST is Professor Graeme Clark AC FAA FRS, who did pioneer work in developing the bionic ear.

A breakthrough understanding of mathematics (solving the impasse over whether maths is simply a language we invent, or whether it is a strange new land with discoveries waiting to surprise us) is obtained when maths is overlaid with the principles of quantum physics. This allows for the unknown surprises of maths to exist, and then to collapse into a mathematical language when observed.

---oOo---

The thinking that underpins the philosophy of most atheists is ‘materialistic reductionism’. Most atheists wouldn’t be able to put this name to their thinking but they would nonetheless hold to its basic tenets. Materialist reductionism came into vogue in the 17th century as Europe was going through a metaphysical revolution, (giving up Aristotelian flavoured Christianity in favour of ‘liberal’ flavoured Christianity and atheism).

Materialistic reductionism is ‘reductionist’ because it reduces the significance of existence, saying that nothing has significance, for everything is simply a composite of meaningless particles of matter. Most reductionists would also claim to be “empiricists” as they would not claim anything to be true unless they had first proved it to be so through empirical evidence.

Christians should rightfully rejoice in the empirical truth of science. After all, science uncovers the order, creativity and rational mind of God. This thought was put well by the 17th-century German astronomer Johannes Kepler who is reputed to have described science as, “thinking God’s thoughts after him.” (This saying is widely attributed to Kepler but never with a citation.) There is therefore nothing wrong with empiricism. Most Christians are empiricists to a degree. They love the mathematical beauty of the universe and the outrageously unlikely fine-tuning of the physical forces that have allowed life to develop. Christians see this as pointing to the rationality of God. Francis Collins, who directed the international team that mapped the human genome, said:

I have found there is a wonderful harmony in the complementary truths of science and faith. The God of the Bible is also the God of the genome. God can be found in the cathedral or in the laboratory. By investigating God's majestic and awesome creation, science can actually be a means of worship.¹

Materialistic reductionism does, however, have a problem when it comes to seeking out truth. Its particular weak point is that it suppresses questions on anything but mechanism. In

other words: it can describe the technical specifications of a car very well, but can't tell you why the car exists. It can give a right answer, but it hasn't got the capacity to answer the really significant questions.

One of the reasons for the limited field of vision of materialistic reductionism is that its only centre of reference for knowing is 'self'. This enthronement of self as the centre for all things was well expressed by Fredrich Nietzsche who said: "If there is a God, how can one tolerate not being God oneself?"²

Materialistic reductionism therefore makes Christian theologians nervous. They understand full well the propensity of humankind for grabbing at God's crown so they can wear it for themselves. The human desire to be like God in having the authority to determine what was right and wrong was actually the very first sin mentioned in the Bible (Genesis 3:1-5). This, of course, does not mean that God (or theology) should be allowed to impose theological dogma on science. However, it does mean that scientists who are Christians understand that truth comes in the wider context of God's character, purpose and meaning. In other words, they understand that a bigger game is being played.

The appropriateness of materialistic reductionism as the underpinning philosophy of science is increasingly being called into question. This is because materialistic reductionism is poorly placed to underpin a world of science where mystery, complementarity, and consciousness are emerging as significant entities.

A foray into the world of mathematics will help explain this further.

The mystery of mathematics and quantum physics

Mathematical philosophers have wearied themselves for many centuries trying to determine what maths actually is. A materialistic reductionist approach to this question cannot help but be human-centric. It suggests that maths is simply a language that humans have invented to help them quantify things such as the number of eggs in an egg carton.

However, other mathematicians disagree with this human-centric view and point out that mathematics is not so much a language but a mysterious unexplored land that sits waiting for us to explore and make great discoveries. They point out that maths delivers surprises that mathematicians never asked of it, such as the Mandelbrot set. The Mandelbrot set is based on a fairly simple equation that was expected to draw a fuzzy white dot. Instead, it drew intricate, organic-looking pictures that were infinitely magnifiable. Its capacity to be magnified is limited only by the computing power of the computer doing the calculations.

Materialistic reductionism doesn't cope well with this sort of mystery.

One of the most fertile fields of science for mystery is quantum physics. Again, materialistic reductionism struggles to cope with the findings of Nobel prize-winning physicists such as Eugene Wigner and John von Neumann who speak of physical matter being composed of ‘contents of consciousness’.

Materialistic reductionism reigned supreme in the modernist era when humankind looked as if it was conquering all ignorance with knowledge. It was a time when, to misquote an old aphorism concerning the health benefits of apples: a-scientific-breakthrough-a-day-kept-the-need-for-God-away. But now scientists are discovering more mystery. For example: the strange force that is causing the universe to pull against gravity causing it to expand at an ever-increasing rate is unknown. Scientists have simply labelled this force ‘dark energy’. And as we said earlier, a great deal more mystery is seen in the quantum world where sub-atomic particles collapse from being a cloud of potential into being a tiny particle of matter only when they are observed.³

The assertion being made in this paper is that an underpinning world-view of theism may be more fruitful when it comes to uncovering truth. Theism makes sense of the primacy of ‘observation’ in quantum physics, and it also explains why the universe is rationally transparent to our inquiry. Theism is a philosophic position that makes sense of mystery as well as order.

According to Judeo-Christian thinking, there are two things of significance concerning the universe.

The first is that the universe is meant to showcase God’s creative genius, and to do so on a grand scale. This means that whenever a scientist with a theistic worldview examines the cosmos, he or she is not surprised by its wonder. In fact, they fully expect to be amazed. King David wrote about the wonders of the cosmos showcasing the glory of God in a 3,000 year-old song, Psalm 119:1-4. The Apostle Paul also spoke about the order of creation pointing to the likely existence of God. He suggested that to be indifferent to its wonder was culpable folly (Romans 1:20). Similarly, when Paul spoke to the citizens of Athens during one of his missionary journeys, he gave the reason why God ordered the world as he did. It was so that people “would seek him and perhaps reach out for him and find him” (Acts 17:27 NIV). In other words, there was a relational reason for the universe being so amazing.

This brings us to the second biblical feature of the universe as understood by theologians. It is the fact that humankind has exactly the right amount of intellect to unlock the secrets of the universe. One of the great mysteries of science is that the cosmos is so rationally open to our inquiry—and that mathematics can unlock its secrets.

This feature of the universe sits very comfortably with Christian thinking. Christians know that God is relational, and that the wonders of creation are designed to be comprehended. They are designed this way so that we would be encouraged to reach out to the one who designed it. It must be said, however, that whilst God wants to be found, he doesn't force himself on us with overwhelming evidence for his existence. Rather, he gives us enough evidence (through the wonders that exist) to prompt us to reach out and freely choose to relate to him without coercion.

This mindset has implications for what Christians expect to see in science. Christians fully expect the workings of the universe to be understandable. Why? Because their worldview persuades them that God is inviting people into a relationship through it.

One of the most powerful tools available to scientists to help them unlock the secrets of the universe is mathematics.

A brilliant quantum physicist from the Institute for Photonics and Advanced Sensing at Adelaide University recently voiced a question during a conversation with me. He was telling me that there was no way of knowing what was going on in quantum physics except through mathematics. This led him to wonder how long mathematics would be able to do this as scientists continued to drill down into the strange world of sub-atomic particles.

Because of my Christian world-view, I felt emboldened to suggest that mathematics would always be able to explain the fundamentals of matter—because we are meant to understand it. My comment was an example of theology looking over the shoulders of science and saying: “What you see is of no surprise to us. We have had that understanding for many centuries.”

It was then my turn to ask my scientist friend a question. I asked if he saw a link between mathematics and quantum physics.

He said that he'd never really thought about it.

So, let's dare to do so.

What is mathematics?

This paper suggests that there are not just analogous similarities between mathematics and quantum physics, but that there may be a connection in reality. Furthermore, if the connection between the two disciplines is rightly understood, it will resolve the ancient conundrum that has puzzled philosophers for centuries, namely: trying to understand what mathematics actually is.

Theology has been conducive to mathematics for a very long time. It is significant that most philosophers up until Nietzsche were theists, including Descartes, Leibniz, Kant and

Hegel. This means that philosophy and mathematics have often walked hand in hand. Pythagoras, Plato, Galileo, Descartes, Pascal, Spinoza, Newton, Leibniz and Laplace were all philosopher-mathematicians. It is alleged that Plato had the phrase “Let no one ignorant of geometry enter” engraved above the door of the Academy he founded in Athens.

It seems that for much of human history, the one discipline has invited comment from the other. This has resulted in a host of different theories about what mathematics actually is.

Philosophers wonder whether maths is simply a language we have formulated to describe the order around us?

Partly it is, but not entirely. Maths can lead us to discoveries mathematicians didn't expect to make—for example (as we've said before) the Mandelbrot set. Does this therefore mean that maths exists independently of humanity? Does it sit there waiting for humanity to discover it, like some hitherto unexplored land?

Partly, but not entirely. Maths doesn't really exist until we give it a voice (learn to notate it)... and so the debate continues even today. This has resulted in a plethora of mathematical philosophy 'isms' such as Platonism, Empiricism, Logicism, Formalism, Conventionalism, Psychologism, Intuitionism, Structuralism, Fictionalism, and Nominalism—to name but a few. Tweaking these 'isms' has been particularly fertile ground for students seeking a PhD.

Most mathematical philosophers are realists. 'Mathematical realism' holds that mathematical entities exist independently of the human mind. Humans don't invent mathematics; rather, they discover it. Triangles, for example, are real entities, not just creations of the human mind. However, they are perceived by the mind.

Although it is widely embraced by mathematical philosophers, there is a problem with mathematical realism, and it is this: Where and how do the mathematical entities exist, and how do we know about them? Is there a world occupied by mathematical entities that is completely separate from our physical world? On the one hand, mathematical truths seem to have a compelling inevitability, but on the other hand, the source of their truthfulness remains elusive.

How do we unify these different aspects of mathematics? How do we allow for the order of mathematics, its surprises, its mysteries, its comprehensibility, and its capacity to be codified into a language that is beautiful?

Help from a surprising quarter: quantum physics

I would like to suggest that a breakthrough in understanding the essence of mathematics can be derived from quantum physics.

Quantum physics examines the world of tiny, subatomic particles (smaller than an atom). It explores how these particles behave and what their relationship is to energy. In the quantum world, a particle can act as a wave or as a particle. It is a world in which particles can appear and disappear, or change their form depending on whether or not they are observed.

The discovery of these phenomena in the last century has caused a seismic shift in how we think about physics. Quantum physics has required scientists to move beyond having a purely mechanistic view of the material world and to consider matter in a completely different way. As a result, scientists no longer talk about electrons orbiting the nucleus of an atom. They talk about a ‘probability wave’, which denotes where an electron *probably* is at any one time. Similarly, elementary particles are no longer *things*. Elementary particles live in worlds of probabilities, not actualities.

One of the scientists who pioneered the work of quantum physics was Werner Heisenberg. He became well known for the ‘uncertainty principle’ which he developed in 1925. The Heisenberg uncertainty principle states that you can either know the velocity of an electron, or you can know its position, but you can’t know both. This is just one of many paradoxes in the quantum world that physicists have learned to live with.

Heisenberg’s work was developed further by the English physicist, Paul Dirac, and the German physicist, Erwin Schrödinger. As a result of their research, physicists have discovered that subatomic particles only appear when they are observed. It is the process of observation that results in them collapsing into physical reality.

Let me stress: this is not a lunatic, crackpot idea. This is serious science.

Some leading scientists working in the field of quantum physics are even beginning to speak of matter itself being a ‘content of consciousness’. As we said earlier, one of the scientists making this claim is the Nobel prize-winning physicist, Eugene Wigner. He said: “Study of the external world leads to the conclusion that contents of consciousness are the ultimate reality.”⁴ This view was shared by John von Neumann (also a Nobel prize-winning physicist). He said: “All real things are contents of consciousness.”⁵

The question raised in this paper is whether or not there is a behavioural link between mathematics and quantum physics.

It is suggested that there are at least five links:

1. Quantum physics can only be understood by mathematics
2. Both mathematics and quantum physics are elemental, primal, features of the universe.
3. Both can be rightly understood as being dualistic in form.

4. Both collapse into reality only when they are observed
5. Both have a reliance on consciousness.

The thesis being proposed is an idea that was first mooted in the book *Who Ordered the Universe*.⁶ Essentially, it is the idea that mathematics only exists in language form when it is observed. In other words, just as consciousness is foundational to quantum physics, so consciousness is foundational to mathematics. Although mathematics may already exist, it only collapses into reality (into a language we understand) because of consciousness.

If this thesis is correct, it solves the interminable argument over what mathematics actually is. Is it a language, or an unexplored land? If we allow our understanding of mathematics to be informed by quantum physics, we can see that it is possible for mathematics to exist in complementarity, in a dualistic form that manifests itself as language because of consciousness.

Consciousness at two levels

Nothing currently known can explain the existence of complex mathematical coding except for ‘consciousness’.

Similarly, nothing currently known can explain the existence of mathematics other than a consciousness.

Both mathematics and quantum physics appear to rely on a consciousness that exists at two levels. The first is a ‘grand overall consciousness’. This is responsible for two things:

1. The existence of mathematics—specifically the mathematics used to build the universe.
2. “Observing” the quantum ‘clouds of potential’ of the cosmos so that they collapse into physical reality and build the universe.⁷

The second level of consciousness operates at the human level. Human consciousness is required for two things:

1. It enables humankind to discover profound and unexpected things from mathematics that has hitherto been beyond them, waiting to be discovered.
2. It is required to enable scientists to observe sub-atomic particles into physical reality in scenarios such as quantum physics’ famous double slit experiment.

At first blush, it would seem that ‘human consciousness’ has been invited to operate in partnership with a ‘grand overall consciousness’. It is certainly hard to imagine how the two forms of consciousness could be irrelevant to each other.

A requiem for materialistic reductionism

The idea that everything can be explained from the bottom up—by our atoms, chemical composition and neural pathways, has been blown out of the water by quantum physics. This may not have percolated through to the biological world of Richard Dawkins, but perhaps it will some day.

Quantum physics has shown us that the old deterministic way of thinking about reality—that we are all just the product of a lot of tiny billiard balls that bump into each other to create sentient beings—now has very little credence.

Science has journeyed a long way from Isaac Newton's mechanistic view of physics. Einstein can be blamed for heralding this new wave of thinking. His famous equation, $E=mc^2$, showed that matter was simply a state of energy. If that were not strange enough, quantum physics suggests that matter may be even stranger—it may be a 'content of consciousness'. The Danish physicist, Niels Bohr, says that those who are not shocked when they first come across quantum physics cannot possibly have understood it.⁸

However, whilst this is so, it should be stressed that quantum physics is not just a speculative philosophy; it is a highly predictive discipline. Physicists may not intuitively understand it, but they have found that its mathematics works in fruitful ways that result in useful, practical outcomes.

So, what can we conclude?

There is good reason to believe that physics is fundamentally about consciousness. The old, deterministic idea that matter gives rise to mind has been turned on its head. It may now be that mind gives rise to matter!

By equating matter to energy, Einstein began to dethrone matter as a fundamental reality. Quantum physics has now completed the job by suggesting that matter may be a 'content of consciousness'.

This reality is something that theologians have known for centuries. They have understood for a long time that fundamentally, we exist because of the mind of God.

The other gift that quantum physics has given us is a model that allows mathematical philosophers to finally resolve what mathematics actually is. Mathematics, like quantum physics, exists within the basic fabric of the universe and is waiting for us to observe it. When it is observed, mathematics collapses into being a language that describes physical things. This means that mathematics, like sub-atomic particles, exists in complementarity with itself.

End notes

1. Francis Collins, “Why this scientist believes in God.” Viewed on CNN website: http://www.cnn.com/2007/US/04/03/collins.commentary/index.html?eref=rss_topstories, Posted: 1337 GMT, April 6, 2007.
2. Friedrich Nietzsche, quoted by Albert Camus, 1951 in *L’Homme révolté (The Rebel)*, Tr. Anthony Bower, Penguin, Modern Classics, 2000, (Part 2: Metaphysical Rebellion; Nietzsche and Nihilism), 73.
3. Nicholas Hawkes, “The Challenge of Quantum Physics for Atheism,” in the ISCAST Online Journal, *Christian Perspectives on Science and Technology*, 2019, see: <https://www.iscast.org/journalpage>.
4. Eugene Wigner “Remarks on the Mind-Body Question,” pp. 171-174 in *Symmetries and Reflections*, (Bloomington: IN, Indiana University Press, 1967), 171.
5. John von Neumann, in Keith Ward, *Is Religion Irrational?* (Oxford: Lion Hudson, 2011), 21.
6. Nicholas Hawkes, *Who Ordered the Universe*, (Oxford: Monarch Books, 2015), 108-114.
7. Nicholas Hawkes, “The Challenge of Quantum Physics for Atheism,” in the ISCAST Online Journal, *Christian Perspectives on Science and Technology*, 2019, see: <https://www.iscast.org/journalpage>.
8. Niels Bohr, quoted in W. Heisenberg, *Physics and Beyond*, (New York: Harper and Row, 1971), 206.

COMMENTARY, CONTEXT AND REFLECTIONS

What is original work that makes a contribution to knowledge?

The specific original contribution to knowledge made by this paper is that it poses a new and novel way of solving the intractable problem that has baffled academics for 2,400 years concerning what mathematics actually is. It enacts this process by approaching the problem from the angle of quantum physics.

This, it has to be said, is a daring tilt at one of the great mysteries of academia. The relationship and interplay between mathematics and quantum physics will be explored later in this thesis. What we can say now, however, is that this relationship would benefit from further investigation, and that this paper seeks to unlock new avenues that will facilitate it.

The second paper on quantum physics

The second paper on quantum physics is again a development of an idea mentioned in *Who Ordered the Universe?* vis: quantum's famous 'double slit' experiment. This paper explores what its significance might be in uncovering the nature of existence and whether it points to God. These ideas are explored with a degree of humility as there is so much we don't yet understand.

The Challenge of Quantum Physics for Atheism:

A reflection on science and faith

by

Dr N.J. Hawkes (May, 2019)

in

ISCAST Online Journal, *Christian Perspectives on Science and Technology*,

see: <http://iscast.org/node/702> (May, 2019)

Abstract

Both science and theology are concerned with uncovering truth, and as such, both disciplines can work together. One of the things theology can do, is put science into a bigger picture. Theology is able to frame science's 'how' with theology's 'why'.

This paper takes a theological look at the quantum world's famous 'double slit' experiment. Here, it was found that a sub-atomic particle collapses from being a 'cloud of potential' that is in superposition with itself, into being a tiny piece of matter only when it is observed. In other words, consciousness, either on the part of the observer, or the sub-atomic particle, is required for matter to exist in physical form. This presents problems for atheism. The sub-atomic particles of an atheist should not exist as a physical reality unless they have first been intentionally observed.

And for that to happen, you would need God.

---oOo---

If God exists, and is rightly described in the Bible, then scientists and theologians could well benefit from looking at each other's work. Of course, neither discipline should be controlled, or bullied by the other. Humankind largely got over that sort of silliness centuries ago. Both disciplines are concerned with uncovering truth. And as such, both have something to contribute. Put bluntly, science can stop theology from making stupid claims; and theology can help free science from its narrow, empiricist prison.

If Christianity is right, God has drawn progressively closer to us in four steps.

First, he shows us the probability of his existence in the wonders of creation (Romans 1:20; Acts 17:24-27). The order, beauty, and rational accessibility of the universe can be appreciated by anyone, but the details of its workings are understood by science, not theology.

God then comes closer, and reveals something of his nature to his chosen prophets in the Old Testament. They record their experiences in documents that begin to make up Scripture.

Then, God comes closer—and now comes to us in person, as Christ Jesus. Jesus is the perfect 'icon' (representation) of God, because he is God (Colossians 1:15-20). He shows us what God is like, and he pays the price for our sins so we can be with God.

Finally, God comes even closer: he comes within us by his Spirit—to empower his followers for mission, and to build a godly character in them.

If this is true, then Christianity is well positioned to put science into a bigger picture. Theology is able to frame science's 'how' with theology's 'why'.

As such, the two disciplines should at least be civil enough to raise their hats to each other.

Sometimes they can do more. The recent discoveries of quantum physics are very exciting and should be of great interest to theologians—not least because they show that atheism (which says that there is no god) is a worldview that is scientifically unlikely.

Let's look at two things:

Firstly: how theology can point out issues relevant to science, which would help scientists understand the order they see in the universe.

Secondly: how science can enrich theology, by showing how quantum physics makes atheism highly implausible.

Now let's turn to a remarkable feature of the universe—its extraordinary order; and explore how theology can point out a possible truth concerning this order to science.

Order

The Judeo-Christian scriptures teach that God has chosen to reveal himself—at least in part, in creation. This idea was given prominence in 17th century England by the concept of there being ‘two books’, which were able to point people to God. These were: 1) The Bible; and, 2) the wonders of creation. The idea was that something of God’s nature could be understood through the study of the natural world. The famous 17th century scientist, Robert Boyle, wrote:

When with bold telescopes I survey the old and newly discovered stars and planets ... when with excellent microscopes I discern nature’s curious workmanship, when with the help of anatomical knives and the light of chemical furnaces I study the book of nature ... I find myself exclaiming with the psalmist, “How manifold are thy works, O God, in wisdom hast thou made them all!”¹

Boyle was able to celebrate the two disciplines of science and theology, declaring, “as the two great books of nature and scripture have the same author, so the study of the latter does not at all hinder the inquisitive man’s delight in the study of the former.”²

Thomas Brown, physician and author (1605–1682), was another who was convinced of the veracity of both the Bible and nature in revealing God. He wrote: “Thus are there two books from whence I collect my divinity: besides that written one of God, another of his servant nature, that universal and publick (sic) manuscript, that lies expanded to the eyes of all. Those that never saw him in the one have discovered him in the other.”³

This seventeenth century sentiment continues to be voiced today. Francis Collins, who directed the thirteen-year project that identified the 3.1 billion letters of the human genome, says:

I have found there is a wonderful harmony in the complementary truths of science and faith. The God of the Bible is also the God of the genome. God can be found in the cathedral or in the laboratory. By investigating God's majestic and awesome creation, science can actually be a means of worship.⁴

Mathematics has been another tool used by scientists to lay bare the order of the universe. One of the areas this has occurred has been in the field of quantum physics.

Quantum physics seeks to understand the world of sub-atomic particles. The scientific laws of this branch of physics are very different from those that operate in Einstein’s world of ‘special relativity’. Whilst quantum physics looks at very small objects, special relativity looks at objects which are very fast. The discontinuity between these two branches of physics caused the English physicist, Paul Dirac, to wonder what would happen if the two sets of laws were brought together, and an electron was accelerated so that it went very fast. He worked

out from mathematics that the only way the two branches of physics could be resolved, is if a totally new object existed—a positively charged, mirror image of the electron. He called this theoretical particle a ‘positron’.

The positron was the anti-matter counterpart of an electron.

Four years later, the American Physicist, Carl Anderson, discovered the positron using a cloud chamber.

The significant thing about all this is that a particle was discovered by mathematics—before it was discovered in reality.

Paul Dirac later reflected on the power of mathematics, and why the universe was constructed along beautiful mathematical lines. He said: “God is a mathematician of a very high order, and he used very advanced mathematics in constructing the universe.”⁵

The Hungarian-American theoretical physicist, Eugene Wigner, expressed a similar thought. He spoke about the “unreasonable effectiveness of mathematics in the natural sciences.”⁶

A more recent example of the faith scientists have in the power of mathematics occurred when their calculations persuaded a research team to spend \$4.75 billion to build the Large Hadron Collider, near Geneva. Their faith in mathematics was rewarded in 2012 when they found the Higgs boson, a sub-atomic particle they reasoned must exist as a result of mathematics.

Mathematics is the scientific language of the universe—and this is only made possible because the universe is so incredibly ordered. Quite simply: order is the big surprise of the universe.

Order in chaos

Scientists are starting to discover that order can sometimes even be found in chaos.

It seems that some chaotic systems can behave in non-chaotic ways.

If you plot the successive events of a chaotic system on a three dimensional graph, you would expect to end up with a chaotic mess. Often, you do. However, you sometimes end up with a beautiful pattern in which the sequence of events seems to circle around one particular point for a long time. These favoured possibilities have been dubbed ‘strange attractors’. In other words, there appears to be orderly disorder in some chaotic systems.⁷ It’s even possible for a chaotic system to have more than one strange attractor. Others don’t seem to have any.

A conversation

Imagine that a mathematical physicist studying strange attractors is having coffee with a Christian theologian.

What might the theologian say on hearing about strange attractors?

That theologian might nod their head and say: “As a theologian, what you say doesn’t surprise me at all. God is the one who brings order out of nothing, and creates. I therefore suspect you will never find perfect disorder in any physical system that God has been responsible for. If you’ve not found strange attractors in some chaotic systems, perhaps you’ve not run the experiment for long enough. After all, long periods of time are no problem to a God, who exists both within and beyond time.”

The theologian might pause for a moment, before adding: “The only place where theologians would expect to find chaos, would be where there is evil. All Satan can do is destroy. He can only ‘kick down God’s sandcastles.’ He can never build them.”

That might make for a mutually enriching discussion.

The theological question prompted by the order we see in creation is this: Does this order illustrate a quality of God? In other words: Is the order of creation a language God has used to point to his essential nature? Was king David right when he wrote, 3,000 years ago:

*The heavens declare the glory of God;
the skies proclaim the work of his hands.
Day after day they pour forth speech;
night after night they reveal knowledge.
They have no speech, they use no words;
no sound is heard from them.
Yet their voice goes out into all the earth,
their words to the ends of the world (Psalm 19:1-4 NIV)?*

If God is whispering something about his nature through his creation, then perhaps theologians and scientists might benefit from having an occasional cup of coffee together. Of course, scientists must be careful to maintain the integrity of scientific method, but this doesn’t mean they can’t let theologians look over their shoulder, and hear them say, “Yes. That makes sense.”

This brings to mind the closing comments of the astronomer and physicist, Robert Jastrow, in his book, *God and the Astronomers*. He writes:

At this moment, it seems as though science will never be able to raise the curtain on the mystery of creation. For the scientist who has lived by his faith in the power of reason, the story ends like a bad dream. He has scaled the mountains of

*ignorance; he is about to conquer the highest peak; as he pulls himself over the final rock, he is greeted by a band of theologians who have been sitting there for centuries.*⁸

Understanding God in science

Christian theologians fully expect that something of God's nature will be understood from science—and are therefore able to rejoice when new scientific findings are discovered.

However, theologians also have to look beyond the order they see in the cosmos, and make sense of suffering, chaos and evil. They understand that whilst the universe is 'God-breathed', it is also something which has been corrupted by sin and suffering (Romans 8:20-21). Theologians understand that this universe is not God's 'end game'. They speak of a fulfilment that lies beyond it—which each of us is invited to participate in.

It must also be said that God is infinitely more than that which can be determined simply by the order of creation. Nonetheless, the order of the cosmos does point us to something of the character of God. It tells us that God is rational.

Theologians understand that God is not a fraudster. By this, they mean that God reveals himself as he actually is. God does not wear a mask to misrepresent himself because we can't cope with the reality of who he is. To do that would be relationally dishonest. So, when God reveals himself through the order of the universe, he is revealing himself as he actually is. God's strategy is to reveal as much of himself as we can comprehend. He does not overpower us with so much self-revelation that it quashes our 'free choice' and removes our need for faith.

This honesty of God in his self-revelation is a consistent feature. For example: God allows us to see his essential reality in Jesus (Colossians 1:15-20). Similarly, when God showed us that he lives in community within himself as Father, Son and Holy Spirit, this was not a mask. God was allowing us to see his essential being.

If this self-revelation of God is difficult to comprehend—good. It has to have aspects of mystery. God must logically be beyond our understanding if he is to be more than something created by our imaginings.

'Order' as the fingerprint of God

Theologians understand that God is inherently creative. God brings order from nothing. This means that wherever we see order in created systems, we see the fingerprint of God.

The order we see in creation therefore suggests that faith in God is reasonable.

Physicist and cosmologist, Paul Davies, says that scientists also have to share this faith.

They have to have faith ‘that the universe is governed by dependable, immutable, absolute, universal, mathematical laws of an unspecified origin ... (To) think that such laws exist without reason is anti-rational.’⁹

These understandings suggest that there is room for theologians to talk to scientists about the order they see.

The scientific problem for atheism, posed by quantum physics

The universe is made up of tiny sub-atomic particles that are governed by physical laws quite unlike the normal Newtonian physics that operate in the macro world. Quantum physics is the field of physics that studies this strange sub-atomic world—and believe me, it is strange. The Danish physicist, Niels Bohr, says that those who are not shocked when they first come across quantum physics cannot possibly have understood it.¹⁰ The American physicist, Richard Feynman, agrees. He says, “I think I can safely say that nobody understands quantum mechanics.”¹¹

So let’s retreat back to the safety of theology for a moment.

The Bible speaks of God being the one who brings order out of nothing. The theological stories that teach this truth are contained in the creation accounts at the very beginning of the Bible. They speak of God seeing something in his mind’s eye—and of him then calling creation out of nothing.

Please remember that phrase: “...God seeing something in his mind’s eye”...

...Now let’s go back to the world of quantum physics.

Imagine that a ray gun (shooting sub-atomic particles, like an electron) is aimed at a barrier. This barrier has two vertical slits cut into it.

There is a back wall some distance behind the barrier which stops those particles that pass through the slits. This back wall has the ability to measure where these particles hit.

When all is in place, the scientists fire the gun.

The result amazes them.

Scientists discovered that the electrons didn’t behave like tiny marbles, but behaved like waves. When the electrons passed through the slits, they fanned out in semi-circular ripples. The two sets of curving ripples (from the two slits) interfered with each other, before hitting the back wall in a wave pattern.

Scientists then wondered what would happen if they fired the particles one at a time. Doing this meant there was no chance of particles being able to interfere with each other.

However, a wave pattern still formed on the back wall.

The scientists were stunned. Each particle had apparently split itself into two, gone through two slits simultaneously, and interfered with each other, before hitting the back wall. As particles don't do this, it was concluded that each particle must exist as a 'wave of probability' which allowed it to pass through both slits, yet still be physical enough to interfere with itself.

If that wasn't strange enough, things soon became even more complicated.

Scientists then placed a measuring device near the slits so they could observe which slit an individual electron actually passed through. They then fired the electron gun, shooting one particle at a time towards the two slits for a period of one hour.

The result of this was stranger than anyone could have imagined. When the electrons were being 'observed', they stopped behaving like a wave and began behaving like tiny marbles. The electrons now hit the wall behind the slits in two vertical lines.

So there we have it: Sub-atomic particles, such as electrons, don't actually exist as physical particles until they are observed.

...Which brings us back to God.

The first three verses of the Bible say: "In the beginning God created the heavens and the earth. Now the earth was formless and empty, darkness was over the surface of the deep, and the Spirit of God was hovering over the waters. And God said, 'Let there be...'" (Genesis 1:1-3 NIV).

In other words, God saw something in his mind's eye—and that caused what he saw to come into being. This is consistent with quantum physics. The act of God 'observing', caused something that was once just a wave of probability to become physical reality.

This truth should be of some interest to us because you and I exist within physical reality. We are composed of sub-atomic particles that someone has observed, causing those particles to become a physical reality.

This truth calls to mind the words God spoke to Jeremiah in the Old Testament: "Before I formed you in the womb I knew you..." (Jeremiah 1:5 NIV). Perhaps these words have a significance we've not been able to appreciate until now!

The idea that sub-atomic particles need to be observed before they become a tiny package of matter is a discovery that leaves the atheist in a difficult position. Quantum physics makes it clear that the sub-atomic particles that make up an atheist should not exist as a physical reality, except as a wave of probability that is in superposition with itself—because no one (no God) has observed them into physical reality.

Your existence requires someone to observe your sub-atomic particles into being. In other words, your existence needs someone outside of you who is capable of intent.

The quantum ‘double slit’ experiment raises a number of questions:

- What would happen if you switched off the instrument that was doing the observing?
- If you dismantled the observing instrument, and just put its component bits in place, what would you see?
- How far away would you need to put the observing instrument, before the image on the back wall changed from two vertical lines back to a wave pattern?

I don’t know the scientific answers to these questions because I haven’t done the experiments. (Someone probably has.) But I think I can give you an answer theologically. A theologian would expect the image on the back wall to be that of two vertical lines—only when the instrument functionally measures, and the results are seen by someone with the ability to cognate.

This begins to suggest some highly significant things about the existence of God.

Let’s explore this further and expand on what it means to ‘observe’. Here are a few definitions:

- To observe means to view with the expectation of understanding the reality of something.
- To observe means to seek to understand, and establish a relationship with the physical reality of something.
- To observe is to bring something into significance in the consciousness of the observer.
- To observe is to establish a cognitive relationship with something.

At first look, this language conjures an image of something that is conscious enough to be relational.

So, let’s explore further.

And there’s more...

Some leading scientists working in the field of quantum physics are now beginning to speak of matter itself being a ‘content of consciousness’. One of the scientists making this claim is the Nobel prize-winning physicist, Eugene Wigner. He says: “Study of the external world leads to the conclusion that contents of consciousness are the ultimate reality.”¹² His view is shared by John von Neumann (also a Nobel prize-winning physicist). He says: “All real things are contents of consciousness.”¹³

It has to be said that not all quantum physicists agree with these scientists.

The issue at stake is this: Is it the electron that is conscious and is observing the instrument watching it? Or is the reverse? Is it the consciousness of intelligent observers, metered through the observing instrument, which is exerting power over the electron?

It is difficult to imagine how an electron could be conscious, for it would not be enough for it to simply be conscious; it would also have to be intelligent. The electron would need to be intelligent enough to recognize that a measuring instrument was in place, and was working.

It is interesting to speculate what might happen if scientists were to add complexity to the measuring device. How complex would they have to make it before it was beyond the comprehension of the electron to recognize that the device was observing it—if that were even possible?

It therefore seems more likely that it is the cognitive intent of the observer that collapses the electron from being a wave of probability, into being a tiny particle of matter.

Whilst this conclusion seems reasonable, it is not an open and shut case—particularly given the existence of another strange feature of the quantum world: the phenomenon of “entanglement.”

Physicists have discovered that if two sub-atomic particles have connected with each other—and then flown off to different parts of the universe, the particles will still act as if they are connected. What you do to one particle will instantly be mirrored in the other. (The Irish physicist, John Bell records Einstein’s disparaging reference to quantum entanglement when Einstein described it as “spooky action at a distance.”)¹⁴

This feature of the quantum world suggests a level of connectedness between sub-atomic particles that is independent of the physical strictures imposed by the speed of light. Perhaps this could be ‘consciousness’.

So let’s digress, and consider what it might mean if it was the consciousness of the sub-atomic particles, and not the observer, that caused the particles to collapse into tiny bits of matter.

It would suggest that all matter is imbued with consciousness. That conclusion would sit well with the convictions of Eugene Wigner and John von Neumann. If it were true, such a finding would have enormous impact, as it would break science out of its empiricist prison, and force it to consider a wider reality. It would certainly present a challenge to atheism. Conversely, it would make perfect sense to theologians, for it would suggest that all creation exhibits, in part, the consciousness of God.

It might be reasonably pointed out that the fact that atoms and molecules exist as tiny particles doesn’t mean that their electrons are behaving as tiny particles. They may still be

behaving as waves of potential. This is true—to a point. The fact remains that if anything physical is to exist in the universe, sub-atomic particles need to build it. Nothing physical can be built just by collecting a whole bunch of ‘waves of potential’ together. An unbound particle that exists as a wave of probability somehow needs to transition into being a ‘bound’ particle, i.e. one that links with other particles—if it is to build an atom. An unbound particle will allow itself to become ‘bound’ because it allows the particle to exist in a lower energy state. (All matter rolls downhill when it comes to energy.) However, energetics cannot explain why a cloud of potential collapses into a physical particle that can co-operate with others. The only mechanism physicists are currently aware of that causes anything like this to happen is ‘consciousness’.

One way or another, it seems that consciousness lies behind the existence of all physical things. Sub-atomic particles in the quantum world only collapse into physical bits of matter when observed.

This phenomenon, of course, does not occur in the larger world of biology. There is no evidence that a person collapses into a physical form only when another person observes them...and this is significant. It appears that all the sub-atomic particles that constitute physical things in the universe have *already* been observed—and so exist as physical realities.

And this also poses a very real problem for atheists.

The Atheist’s dilemma

Atheists generally fall into two camps when asked the question: Why does anything exist?

Some say that the universe has always existed. The great English physicist, Fred Hoyle, (an atheist), desperately tried to believe this for many years, until evidence for the ‘Big Bang’ became overwhelming.

The idea that the universe has always existed has recently been resurrected by those positing the idea that there are an infinite number of universes that collapse and give rise to new ones. A moment’s thought, however, shows that this doesn’t solve the question. It just shifts it to another level. Where did the infinite number of universes come from? No scientist of any worth will lazily invoke the term ‘infinite’ to magically make anything they want to happen, happen.

Fundamentally, the idea that the universe has always existed falls foul of the second law of thermodynamics, which says, in essence, that everything that exists is slowly sliding down an entropic slope into disorder.

Other atheists believe that the universe has come from nothing. One of these is

Lawrence Krauss who wrote a book called: *A Universe from Nothing*.¹⁵

His book evoked a sharp response from the American Orthodox philosopher, David Bentley Hart, who wrote: "...it would be a very poorly trained theologian indeed who produced anything as philosophically confused or as engorged with category errors as Lawrence Krauss's, *A Universe from Nothing*."¹⁶

This calls to mind a wry comment made by Einstein, who said: "the man of science makes a very bad philosopher."¹⁷ A look at the diatribes against religion emanating from the English biologist, Richard Dawkins, would also bear this out.

The essential difficulty with believing that the universe came from nothing is this: It requires you to believe that everything came from nothing, as a result of nothing, via a mechanism that has never been discovered, and for which there is no precedent...and which fractures the law of 'cause and effect' which underpins all of science.

As such, it is not tenable.

Conclusion

So what can we conclude?

Science and faith have important things to say to each other, and can be mutually enriching.

It is also fair to say that the findings of quantum physics raise big issues for atheism—and Christian apologists would do well to understand these issues. Until very recently, atheists have claimed to be the ones standing on the high ground of evidence—and have looked down at theologians with disbelief and barely concealed derision. Now it seems it is the theologian who is standing on the high ground of evidence.

However, there are many reasons for atheism—and not all of them have much to do with truth. So, whether or not the findings of quantum physics present a mortal blow to atheism... is something only you can decide.

End Notes

1. Robert Boyle, *Some Motives and Incentives to the Love of God* (1648), cited in: David L. Woodall, "The Relationship between Science and Scripture in the Thought of Robert Boyle" 1997, pp 32-39 in *Perspectives on Science and Christian Faith*, 32.
2. Robert Boyle, *The Excellency of Theology Compared with Natural Theology* (tract, 1772) in R. Boyle, *The Works of the Honourable Robert Boyle*, ed. T. Birch, second edition, 6 volumes (London: Rivingtons), Vol 4, pp. 1-66.

3. Robert Browne, 1642. *Religio Medici*, (ed.) James Winney (Cambridge, 1983) part I, section 16.
4. Francis Collins, "Why this scientist believes in God." Viewed on CNN website: http://www.cnn.com/2007/US/04/03/collins.commentary/index.html?eref=rss_topstories, Posted: 1337 GMT, April 6, 2007.
5. Paul Dirac, "The Evolution of the Physicist's Picture of Nature," *Scientific American*, 1963, vol. 208, issue 5, 45-53.
6. Eugene Wigner, "The Unreasonable Effectiveness of Mathematics in the Natural Sciences," in *Communications in Pure and Applied Mathematics*, 1960, 13:1.
7. John Polkinghorne, *Reason and Reality: the Relationship Between Science and Theology* (London: SPCK 1991), 36.
8. Robert Jastrow, *God and the Astronomers* (New York: W. W. Norton, 1978), 116.
9. Paul Davies, "Taking Science on Faith," 24th November 2007, *New York Times*, A17.
10. Niels Bohr quoted in W. Heisenberg, *Physics and Beyond*. (New York: Harper and Row 1971), p. 206.
11. Richard Feynman, *The Character of Physical Law* (Cambridge: MA, MIT Press, 1965), 129.
12. Eugene Wigner "Remarks on the Mind-Body Question," pp. 171-174 in *Symmetries and Reflections*, (Bloomington: IN, Indiana University Press, 1967), 171.
13. John von Neumann, in Keith Ward, *Is Religion Irrational?* (Oxford: Lion Hudson, 2011), 21.
14. John Bell, *Speakable and Unspeakable in Quantum Mechanics* (Cambridge University Press, 1987), 143.
15. Lawrence Krauss, *A Universe from Nothing*, (New York: Simon and Schuster, 2012).
16. David Bentley Hart, "Science and Theology: Where the Consonance Really Lies," *Renovatio*, Zaytuna College, 5th June, 2018.
17. Albert Einstein, "Physics and Reality" in the *Journal of the Franklin Institute*, 1936, vol. 221, Issue 3.

COMMENTARY, CONTEXT AND REFLECTIONS

What is original work that makes a contribution to knowledge?

The contribution to knowledge made by this paper is its exploration of one of the most profound questions with which humanity has wrestled: What does it mean, “to exist”?

If it is true, as several eminent physicists have suggested (based on the phenomenon seen in the “double slit” experiment) that matter needs the input of consciousness in order to exist, then this points to the existence of an overarching “mind”... and this, of course, has major consequences for atheism.

At the moment, the *modus operandi* of many quantum physicists, when faced with evidence of consciousness, is to ignore it or minimize it as an inconvenient reality. (This tendency will be discussed later in the thesis.) At this stage, we can say that this paper presents an epistemological challenge to such narrow methodological strategies.

The third paper on quantum physics

Science has moved on, even in the brief time since the last paper was written. It is now understood that sub-atomic particles can be knocked from superposition into physical reality by physical forces as well as by consciousness, and this will be discussed later.

The last paper asked questions about what might happen to a sub-atomic particle if the instrument observing which slit the particle went through (in the ‘double slit’ experiment) was switched off. We can now answer this question. Physicists have discovered ‘quantum erasing’. In simple terms, this is how it works.

The instrument set up to measure which slit the quantum particle went through was linked to a computer. Whilst the computer stored the information, the quantum particles behaved like tiny marbles. However, the moment the information was erased from the computer, the quantum particles stopped behaving like tiny marbles and turned into waves of probability that produced a wave pattern (more correctly an ‘interference pattern’) on the back wall.

The phenomenon of quantum erasing says something significant about the role of consciousness in quantum physics. This will be explored further in the next paper. In it, I seek to explore what transfers the coding language of mathematics to the quantum world, enabling it to build the universe.

Towards a New Enlightenment

by

Nick Hawkes

Publishing reference:

Hawkes, N. J, "Towards a New Enlightenment," *Crucible* Volume 11.2, Nov. 2020.

Abstract

Some areas of science, such as quantum physics, have advanced to such a degree that they are beginning to bump up against metaphysical questions that have to do with 'order' and 'consciousness'. The famous double-slit experiment in quantum physics, together with the extraordinary fine-tuning of the elemental forces of the universe that have allowed sentient life to exist, point to the existence of a mind, i.e. consciousness. This paper explores how mathematics provides the software for building the universe, and the quantum world provides its building blocks. It suggests that the link that transitions mathematics to the quantum world, enabling it to build the universe, is 'consciousness'. It is arguable that Aristotle's 'ultimate cause', banished at the first Enlightenment, is making a comeback... and the times are calling for a New Enlightenment.

---oOo---

It is difficult to overstate the seismic shift in philosophic thinking brought about by The Enlightenment of the 17th to 19th century. Prior to The Enlightenment, the cultural philosophy of the time was based on Aristotelian thinking which factored in an ultimate cause when studying natural science, as articulated in Aristotle's 'Four Causes'.¹ However, The Enlightenment instituted new principles for doing science that removed all consideration of an ultimate cause. This thinking was articulated particularly by the English philosopher, Francis Bacon [1561-1626], who is considered to be the father of modern scientific method. Bacon was a man of faith and could never have anticipated the impetus his thinking was to give to the atheistic cause. It is like Jean-Paul Sartre taking off with the existentialism of Kierkegaard and turning it into something Kierkegaard never envisioned—something that missed his foundational theistic conviction entirely. In his Essays, Bacon wrote: 'A little

philosophy inclineth man's mind to atheism, but depth in philosophy bringeth men's minds about to religion'.²

Bacon's conviction has not been shared by many scientists in recent centuries. Perhaps this is because the specialist knowledge they have needed to acquire to progress their particular scientific field has left them with little time to explore any philosophy at any depth. They have been so caught up with the 'how' question, they have ignored the bigger and more profound question of 'why'.

Having said this, it would be wrong to give the impression that a-scientific-discovery-a-day-keeps-the-need-for-God-away. Some, in the science departments of our universities, have begun to notice that it is the philosophy departments rather than the science departments that are becoming clubhouses for atheists. The American physicist, Robert Griffiths, the winner of the Heinemann Prize in mathematical physics in 1984, said: 'If we need an atheist for a debate, we go to the philosophy department. The physics department isn't much use'.³

Griffiths' comment is, of course, merely an observation. For empirical data, we need to turn to the geneticist, Baruch Shalev. He documented the religious views of all 719 Nobel Prizewinners from 1901 to 2000, noting the percentage that were atheists, agnostics or freethinkers. Surprisingly, only 10.5% fell into the godless category. Very significantly, this figure dropped to only 4.7% for physicists, but rose to 35.2% for winners in literature.⁴ It would seem that those who really know the empirical reality of the universe are those who are more likely to believe in God.

As the West lurches into a post-Christian future and becomes less sure of the foundational truths that have led to its civility and prosperity, science has continued on apace. Some sections of science, such as quantum physics, have advanced to such a degree that they are beginning to bump up against metaphysical questions that have to do with order and consciousness.

God, it would seem, is making a comeback—not for lazy, irrational reasons, but because information, rationally synthesized, suggests a comeback is warranted. Indeed, without allowing for the possibility of an overarching mind—scientists have to be decidedly irrational and believe that everything came from nothing as a result of nothing, via a mechanism that has never been discovered, and for which there is no precedent... and which undermines the law of cause and effect which underpins all science. As such, the science of our times is calling for a New Enlightenment.

A New Enlightenment

Why is a New Enlightenment required? In recent centuries, Francis Bacon's 'method', of doing science transgressed the boundary of logic and became deified. Science became, at least in some people's mind, the 'reason' for existence. It is time to call out this fallacious idea and expose it for the fiction it is. Science explains how things came to be. In and of itself, science causes nothing. It is simply a tool, a language, used to explain already existing processes.

The reality of a prime cause of existence was, as we've said, fully appreciated by Aristotelian thinking—a thinking that held sway until The Enlightenment. Over the centuries, Aristotle's convictions about the 'Unmoved Mover', i.e. God, got expelled from academic discourse, along with his outmoded theory of how the universe was constructed.

However, with the discoveries of quantum physics, and the extraordinary levels of fine-tuning that have allowed the universe to produce sentient life, Aristotle's conviction concerning God is again knocking on the door of some of the world's rational thinkers, demanding to be heard. Put simply: the times we are living in are calling for science to be unlocked from the empiricist prison it has been caged in so that it takes better account of reality as we now understand it. What it calls for is none other than a New Enlightenment. To explain why, we need to review some of the recent findings of science, and take note of some of the questions that have puzzled scientists in recent decades.

Quantum Physics

The first finding comes from quantum physics—specifically the discovery that a sub-atomic particle only collapses into a physical particle when it is observed. This was demonstrated by the 'double slit' experiment.

The 'double slit' experiment involved setting up a ray gun that shot sub-atomic particles, like an electron) at a barrier. This barrier has two vertical slits cut into it. There was a back wall some distance behind the barrier that stopped those particles that passed through the slits. This back wall had the ability to measure where these particles hit. When all this was in place, the scientists fired the gun.

The result was entirely unexpected. Scientists discovered that the electrons didn't behave like tiny marbles, but behaved like waves. When the electrons passed through the slits, they fanned out in semi-circular ripples. The two sets of curving ripples from the two slits interfered with each other, before hitting the back wall in a wave pattern. Scientists then wondered what would happen if they fired the particles one at a time. Doing this meant there was no chance of particles being able to interfere with each other.

However, a wave pattern still formed on the back wall. The scientists were stunned. Each particle had apparently split itself into two, gone through two slits simultaneously, and interfered with each other, before hitting the back wall. As particles don't do this, it was concluded that each particle must exist as a 'wave of potential', or wave of probability, that allowed it to pass through both slits, yet still be physical enough to interfere with itself.

If that wasn't strange enough, things soon became even more complicated. Scientists then placed a measuring device near the slits so they could observe which slit an individual electron actually passed through. They then fired the electron gun, shooting one particle at a time toward the two slits, for a period of one hour. The result of this was stranger than anyone could have imagined. When the electrons were being observed, they stopped behaving like a wave and began behaving like tiny marbles. The electrons now hit the wall behind the slits in two vertical lines.

The double slit experiment suggests that sub-atomic particles, such as electrons, don't actually exist as physical particles until they are observed. This phenomenon has resulted in some leading quantum physicists speaking of matter as being a 'content of consciousness.' One of the scientists making this claim is the Nobel prize-winning physicist, Eugene Wigner. He said: 'Study of the external world leads to the conclusion that contents of consciousness are the ultimate reality'.⁵ John von Neumann, also a Nobel prize-winning physicist, shares this view. He said: 'All real things are contents of consciousness'.⁶ Whilst not all quantum physicists agree with these scientists, the comments made by Wigner and Neumann highlight the potential role consciousness plays in quantum physics.

Mathematics

Nothing happens to mathematics until consciousness reveals it. Consciousness is the medium that allows mathematics to come to life. But does this mean that consciousness causes mathematics? The fact that consciousness reveals mathematics does not mean it causes it. What can be said is that nothing known to humankind explains the beautiful and highly complex nature of the mathematical software of the universe other than mind (or consciousness). We are therefore suggesting that Consciousness, (capital C), gives rise to consciousness. This is a position that requires a 'leap of faith'. It is therefore a position that should be held tentatively and with a degree of humility. However, it does seem to be a position that is the 'best fit' of the facts as we currently understand them.

Eugene Wigner has written about the amazing ability of mathematics to describe the physical world. He spoke of 'the unreasonable effectiveness of mathematics in the natural

sciences'.⁷ In saying this, he was, in fact, saying no more than Galileo said in the 16th century when he wrote:

*Philosophy is written in the grand book, the universe, which stands continually open to our gaze. But the book cannot be understood unless one first learns to comprehend the language and read the letters in which it is composed. It is written in the language of mathematics.*⁸

The question is: If mathematics provides the software program for building the universe, how do its instructions cross over to quantum physics, which provides the elemental building blocks of the universe? What is the controlling link between mathematics and the quantum world? The clue to the answer may be provided by the quantum 'double slit' experiment and by the astonishing level of fine-tuning of the basic forces that have allowed life to develop in the universe.

The fine-tuning of the universe

There are four forces that build the universe: 1) gravity, 2) the electromagnetic force, 3) the strong nuclear force, and 4) the weak nuclear force. If the ratio of the relative strengths of the electromagnetic force and the gravitational force had differed by as much as one ten-thousand-trillion-trillion-trillionth (that's 10^{40}), life would not have existed on Earth. If this value were slightly bigger, all stars would be at least 40% more massive than our Sun. This would mean that stellar burning would be too brief and too uneven to support complex life. If the value were any less, all stars would be at least 20% smaller than our sun. This would render them incapable of producing the heavy elements necessary for life to develop.

The ratio of electrons and protons in the universe also had to be exactly right for life to exist. This ratio must be finely balanced to the degree of one part in 10^{37} . If this fundamental constant were any larger or smaller, electromagnetism would dominate gravity, preventing the formation of galaxies, stars, and planets.

The 'strong nuclear force' is the force that holds atoms together. This force had to be precisely right to allow 0.7% of its mass to be converted into energy. If the amount of matter converted were slightly smaller, the universe would consist only of hydrogen. If the amount of matter converted were slightly bigger, nuclear fusion would occur so quickly that no hydrogen would remain, and no galaxies, stars, or planets could have formed.

The Big Bang also gives evidence of extraordinary fine-tuning. The radiation left over from the big bang is referred to as the 'cosmic microwave background'. It is responsible for warming the universe 2.725°C above absolute zero. (Absolute zero is minus 273.15°C , or minus 459.67°F). The radiation is detectable in space at one part in 100,000. If this number

were any smaller, the universe would exist only as a collection of gases. No galaxies, stars, or planets would exist. Conversely, if the number were any bigger, the universe would only consist of large black holes.

The rate at which the universe expands had to be finely tuned to one part in 10^{55} . If the universe had expanded any faster, matter would expand too quickly for stars, planets and galaxies to form. If the universe had expanded any more slowly, it would have collapsed under the force of gravity before any stars could have formed.

Finally, the mass density of the universe had to be finely tuned to permit life—to a degree of one part in 10^{59} . If the universe was slightly more massive, an overabundance of deuterium from the big bang would have caused stars to burn too rapidly for the formation of complex life. If the universe had been slightly less massive, a lack of helium would have resulted in a shortage of the heavy elements necessary for life to develop. These numbers suggest that the universe is precisely constructed in such a way as to allow life to exist. This points to the existence of a Mind. Nothing in human experience can explain the existence of anything so extraordinarily fine-tuned other than consciousness.

Having reviewed the extraordinary fine-tuning of the universe, we can now return to the question: If mathematics provides the software for building the universe, how do its instructions cross over to quantum physics, which provides the elemental building blocks of the universe? What is the medium that links mathematics to the quantum world? In the light of what has been discovered in the quantum world, and also in the fine-tuning necessary to build the universe, it is not unreasonable to suggest that the link between mathematics and quantum physics is provided by ‘consciousness’.

The dance between mathematics and physics

Scientists have long understood the extraordinary effectiveness of mathematics in describing the universe. They have also appreciated that whilst a lot of quantum physics is non-intuitive, mathematics describes it very well. However, what is more surprising is that scientists are discovering that there is a two-way conversation between mathematics and quantum physics. Not only is mathematics effective in quantum physics, but quantum physics is increasingly being seen to be effective in modern mathematics. The Dutch theoretical physicist, Robbert Dijkgraaf, writes:

Ideas that originate in particle physics have an uncanny tendency to appear in the most diverse mathematical fields. This is especially true for string theory. Its stimulating influence in mathematics will have a lasting and rewarding impact, whatever its final role in fundamental physics turns out to be. The number of

*disciplines that it touches is dizzying: analysis, geometry, algebra, topology, representation theory, combinatorics, probability—the list goes on and on.*⁹

Zhengfeng Ji, a Chinese quantum and information scientist who is currently a professor at the University of Technology, Sydney, Australia, has shown how almost infinitely complex mathematical problems can be solved with the help of quantum physics.

The proof of an almost infinitely complex problem can be verified without necessarily requiring a line-by-line analysis, which would take an impossibly long time. It can be enough to interrogate the solution with just a few questions. If, however, two sources which have the answer to the problem can be questioned, it would give confidence that the answer is right, provided, of course, there is no conferring between the two sources which claim to have the answer. This is called multiprover interactive proof, or MIP. It is a technique that allows scientists to verify a proof without actually seeing it. Zhengfeng, together with a team of colleagues, worked out that quantum ‘entanglement’ (which Einstein called, ‘spooky action at a distance’) boosts the power of MIP provers hugely.¹⁰ This illustrates how quantum physics can be of enormous help to mathematics.

Another example of the extraordinary link between mathematics and quantum physics is seen in the ‘Wallis Product’. In 1655, the English mathematician and cleric, John Wallis, produced a formula for pi (π) that was the product of an infinite number of ratios.

$$\frac{2 \times 2}{1 \times 3} \times \frac{4 \times 4}{3 \times 5} \times \frac{6 \times 6}{5 \times 7} \times \frac{8 \times 8}{7 \times 9} \dots (\text{repeat multiplying the next ratios } ad \text{ infinitum})$$

$$= 1.570796 \text{ (to six decimal places) } = \text{the "Wallis Product"}$$

$$\text{The Wallis Product} = \frac{\pi}{2}$$

Scientists were amazed when the same formula was discovered in quantum physics—in their calculations of the energy levels of a hydrogen atom! What these discoveries suggest is an extraordinary level of ‘connectedness’ between mathematics and quantum physics. This prompts the question of what it is that connects and holds things together? Consciousness is one possibility. In fact, at the moment, it is hard to identify another contender. The existence of an overarching consciousness would make sense of what scientists are observing.

Questioning minds

In the penultimate page of his book, *A Brief History of Time*, the late Stephen Hawking wrote:

*What is it that breathes fire into the equations and makes a universe for them to describe? The usual approach of science of constructing a mathematical model cannot answer the questions of why there should be a universe for the model to describe. Why does the universe go to all the bother of existing?*¹¹

A possible answer to this question, that takes account of what scientists are experiencing, is ‘consciousness’.

When Richard Dawkins, mistakenly attributes to our genes qualities and motives that can only rightly be ascribed to intelligent beings,¹² he is, in fact, unconsciously pointing to the need to factor in an overarching consciousness.

Similarly, when Paul Davies talks about the need for scientists to have ‘faith’ that the universe is ordered, if they are to do science... and have faith that humankind has the necessary mental ability to unlock its secrets, he is saying something very profound about the universe.¹³ Davies also reminds us that life is not just about ‘chemical reactions’, it is about information.¹⁴ In saying this he is pointing to the need for something to exist that very much looks like purpose, i.e. consciousness.

Francis Crick, who with his colleague, James Watson, discovered the double helix structure of DNA in 1953, wondered how nature could invent highly complex nucleic acids such as DNA and RNA, as well as enzymes made of protein that govern their function. He was faced with a chicken-and-egg problem. One couldn’t exist without the function of the other. In the end, he and his colleague, Leslie Orgel, reasoned that life could have arisen elsewhere in the universe (where a compound capable of replacing the function of the enzymes occurred) that was disseminated to other planets like Earth by the deliberate activity of an extra-terrestrial society, something which they called ‘directed panspermia’.¹⁵

Crick, an ardent atheist, could not fathom how life came to be without suggesting a ‘consciousness’. But in his case, he has swapped the consciousness of God for the consciousness of alien life forms! Crick spent the last few decades of his life exploring the nature of consciousness. At the end of his career, Crick believed that he had failed to get any understanding of it. It is entirely possible that Crick’s lack of further enlightenment may have been influenced by his unwillingness to consider the possibility of God.

What is, and is not, being said

Putting forward the theory that consciousness is behind the building of the universe is not a claim aimed at smuggling ‘God of the gaps’ into science. God of the gaps is the lamentable practice of seeing a seemingly impossible complex phenomenon in nature, or the cosmos, that science can’t explain—and lazily saying, ‘God did it.’ Then, as science advances

and explains how the phenomenon occurred through natural processes, the need to invoke God is overturned and Christians are made to look stupid.

‘God of the gaps’ is NOT what is being proposed. There are clear empirical reasons to propose ‘consciousness’ as the link between mathematics and the quantum world. It is a theory that fits well with the facts of quantum’s double slit experiment, and with the facts surrounding the fine-tuning of the forces of the universe. If this ‘consciousness theory’ becomes one that is accepted, the implications are huge. It would compel us to consider the possibility of purpose.

Reflections on consciousness

A pertinent question to ask is, whether or not consciousness directs a quantum outcome, that is whether consciousness selects one outcome from a cloud of probability. If God exists and is directing the universe to a desired end, it would make logical sense to say, from a theological perspective, that the answer is ‘yes’. Certainly, if God does not exist, then the problem of making sense of the observations discussed in this paper becomes very real. If there is no God, what is it that causes the quantum ‘cloud of probability’, i.e. sub-atomic particles in superposition with themselves, to transition from lack of definition and become an ordered universe?

Conclusion

Mathematics provides the software for building the universe, and the quantum world provides its building blocks. This paper suggests that the medium that links mathematics to the quantum world is ‘consciousness’. If this is true, it requires the return of Aristotle’s God, not just as an ‘Unmoved Mover’ who originally set the universe in motion, but one who is more intimately involved—as the consciousness that both causes the universe to exist and also be sustained. The findings of modern science have presented a challenge. Perhaps this challenge will result in a New Enlightenment.

End Notes

1. Hankinson, R.J, (1998), *Cause and Explanation in Ancient Greek Thought*, (Oxford University Press, 1998), 159.
2. Francis Bacon *Essays, Civil and Moral*, (1625), The Harvard Classics 1909 – 14, Chapter 16 “Of Atheism.”
3. Robert Griffiths, quoted in: Tim Stafford, “Cease-Fire in the Laboratory,” *Christianity Today*, April 3, 1987, 18.
4. Baruch Shalev, *100 Years of Nobel Prizes* (New Delhi: Atlantic Publishers, 2003).
5. Eugene Wigner “Remarks on the Mind-Body Question,” pp. 171-174 in *Symmetries and Reflections*, Bloomington: IN, Indiana University Press, 1967), 171.
6. John von Neumann, in Keith Ward, *Is Religion Irrational?* (Oxford: Lion Hudson, 2011), 21.
7. Eugene Wigner, 1959, “The unreasonable effectiveness of mathematics in the natural sciences,” Richard Courant lecture in mathematical sciences delivered at New York University, 11th May 1959.
8. Galileo Galilei *Il Saggiatore*, quote translated by R.H. Popkin in (*The Philosophy of the Sixteenth and Seventeenth Centuries* (New York: Simon and Schuster, 1966), 65.
9. Robbert Dijkgraaf “Quantum Questions Inspire New Math,” (Quanta Magazine), See: <https://www.quantamagazine.org/how-quantum-theory-is-inspiring-new-math-20170330/>
10. Zhengfeng Ji, Anand Natarajan, Thomas Vidick, John Write and Henry Yuen, *MIP*=RE* (Cornell University, submitted 13th Jan 2020). See: <https://arxiv.org/pdf/2001.04383.pdf>
11. Stephen Hawking, S. *A Brief History of Time* (London and New York: Bantam, 1988), 174.
12. Richard Dawkins *The Selfish Gene* (Oxford University Press, 1976).
13. Paul Davies, ‘Taking Science on Faith,’ *New York Times*, 24th November 2007.
14. Paul Davies, “The Origin of Life, II: How Did It Begin?”
http://aca.mq.edu.au/PaulDavies/publications/papers'OriginsOfLife_II.pdf.
15. Robert Olby *Francis Crick. Hunter of Life's Secrets* (Cold Spring Harbor, NY: Cold Spring Harbor Laboratory Press, 2009).

COMMENTARY, CONTEXT AND REFLECTIONS

What is original work that makes a contribution to knowledge?

The area in which this thesis has particularly made a contribution to knowledge has been in the area of quantum physics and its interplay with theology. Almost all of the questions and connections made in the three previous papers on quantum physics have represented new ideas. This is largely because there has been so little written about that interplay. Both disciplines have stayed within the paucity of their own understanding rather than enjoying the synergy that can come from holding hands.

The particular contribution to knowledge made by this paper “Towards a New Enlightenment” is that it searches for a link between mathematics (the “software” of the universe) to the quantum physics (the “hardware” of the universe). As both mathematics and quantum physics show evidence of “mind”, it is suggested that the information in mathematics crosses over to the physical form of quantum physics through the agency of “mind”. In other words, consciousness (“or mind”) provides the substrate, or “ground of being” that harmonises and links mathematics and quantum physics so that it builds a universe. This is a significant claim, and one worthy of further exploration.

REFLECTIONS ON QUANTUM PHYSICS

Schrödinger's cat

It is difficult to overstate the alarm and disquiet in the scientific community brought on by the idea that consciousness might be determinative of physical existence. I'll try and summarise the scientific theorizing and experimentation that has occurred to illustrate this.

It all begins with a cat—which is either lucky or unlucky.

In 1935, Erwin Schrödinger devised a thought experiment, now known as 'Schrödinger's cat'. He did it to highlight the dissonance between quantum mechanics and Newtonian physics. According to the thought experiment, the cat is trapped in a box with poison—which will be released if a radioactive atom decays. Radioactivity is a quantum process, therefore, before the box is opened, the radioactive atom is in superposition with itself (in an undefined state). Therefore, the cat has to also be in limbo, in superposition between life and death.

Schrödinger's thought experiment therefore poses the question: "*When* does a quantum system stop existing as a superposition of states and become one or the other?" It also raises the question of what requirements are needed to qualify as a 'conscious observer'? Would a cat's observation do the trick? And do the probability waves of particles spread out again when not observed and particles somehow become less 'real', as described by the Copenhagen Interpretation? (The Copenhagen Interpretation says that until a system's properties are measured, they can encompass a myriad of values.) Who is observing us to force us to collapse into our current reality? Are there multiverses with different options... or is God observing us?

It is not surprising that Albert Einstein found the whole idea of a sub-atomic particle not existing physically until it is measured unpalatable. With fellow theorists, Boris Podolsky and Nathan Rosen, he argued (in a 1935 article) that there must be more to reality than quantum mechanics can describe. When considering a pair of quantum particles that had become 'entangled', and then separated: they postulated that an observer could perfectly predict the position of the distant particle (or measure its velocity) without touching it—if both properties existed before being measured.

However, Einstein's theory (that was dismissive of 'entanglement') was shattered in 1964 when the Northern Ireland physicist, John Bell, did some experiments. He discovered that if two observers randomly and independently chose between measuring one or another property of their particles, such as its position or velocity, the average results could not be

explained by any theory. Bell therefore showed that physical properties don't exist until they are measured.¹

There has been some interesting work recently where scientists have reconfigured Schrödinger's cat idea and combined it with the entanglement phenomenon of quantum physics. Two pairs of entangled photons were polarized horizontally or vertically (so that if one was polarised horizontally, its entangle partner photon would instantly polarize vertically). One of each of the pair was put inside a sealed box. Scientists then postulated what would happen if they took a peek inside the box (in which an interferometer analysed what the particles were doing). This interferometer either did, or did not measure what was going on—depending on the toss of a coin. Nora Tiechler, a quantum physicist at Griffith University in Brisbane, carried 90,000 runs of this experiment.² What made the experiment interesting was that Tiechler wondered what might happen if the photons represented human beings who were similarly subject to a random process? What would they experience?

The results indicated that there were limits to the correlations between pairs of particles within the sealed box and, paradoxically, some correlations that went beyond those limits. That's quantum physics for you! One of things it proved was that correlations cannot be explained *just* by saying that physical properties don't exist until they are measured. Perhaps unsurprisingly, scientists are divided about how helpful this work is.

Let's retreat back to the safety of history and what we can know.

The Hungarian-American physicist, Eugene Wigner held the view (as we've said earlier) that consciousness somehow triggers a sub-atomic particle in superposition to collapse into a physical reality. I was intrigued to read that this view has “fallen out of favour” with scientists—at least according to David Chalmers, a philosopher and cognitive scientist at New York University.³ But here's the thing: It has fallen out of favour, *not* for scientific reasons, but because it “makes observers special.”

That's not good news for God!

Being out of favour because it “makes observers special” comes close to building a conclusion into the premise. It is putting on ideological blinkers.

The London-based writer, Zeeya Merali, reports that most physicists agree that inanimate objects (such as air particles) can knock quantum systems out of superposition

1 Eric Cavalcanti, “A New Quantum Paradox Throws the Foundations of Observed Reality Into Question,” in *The Conversation*, August 24, 2020. See: <https://theconversation.com/a-new-quantum-paradox-throws-the-foundations-of-observed-reality-into-question-144426>

2 Zeeya Merali, “This Twist on Schrödinger's Cat Paradox Has Major Implications for Quantum Theory” *Scientific American* August 17, 2020, See: <https://www.scientificamerican.com/article/this-twist-on-schroedingers-cat-paradox-has-major-implications-for-quantum-theory/>

3 *Ibid.*

through a process known as ‘decoherence’. In other words, consciousness is *not* required. However, I would respectfully like to point out that just because something else can do ‘it’ as well, doesn’t negate the significance of consciousness being able to cause a sub-atomic particle to collapse from superposition into physical reality. Nothing has explained how and why consciousness can do such a thing.

Scientific philosophers have been scrambling around trying to find a theory to explain this consciousness phenomenon without using the G word—God... and they have been remarkably inventive. Merali lists a number of them. Here they are, with some of my comments.

- The idea that there is no collapse at all. Whenever you make a quantum measurement, reality fractures, creating parallel universes to accommodate every possible outcome.
- The ‘Bohmian’ theory (named after the American theoretical physicist, David Bohm) that says that quantum systems do have definite properties. It’s just that we don’t know enough yet to understand them. (This, I submit is simply putting the outcome before the cause. It may prove to be true sometime in the future, but it is certainly not yet true.)
- QBism (pronounced “cubism”) suggests that a person can only use quantum mechanics to calibrate his or her beliefs about what he or she will measure in an experiment. (Existentialism meets quantum mechanics!)
- And finally, one of my favourites: Retrocausality. This allows events in the future to reach back in time and influence the past. Time travel indeed!

Let’s get back to real science.

Scientists have recently discovered that quantum systems collapse into physical reality when they get too big. A person, for example, cannot be in superposition. (Only their pre-existing subatomic particles can.) Evidently, the biggest thing scientists have been able to put into superposition (at the time of writing) is a 2,000-atom molecule. This raises the question: Does physical reality exist only as a result of a collection of quantum particles getting too big... and no god is required?

Perhaps... although it all sounds a bit chancy.

Equally, they could have been observed.

Given the philosophical confusion caused by quantum mechanics, it is little wonder that Professor Margaret Reid (a Fellow of the Australian Academy of Science) has reported that most quantum physicists adopt the “shut up and calculate” philosophy!⁴

A theological muse on God’s revelation, quantum physics and black holes

In the light of what we have learned about quantum physics, it is interesting to speculate whether it has significance for how God reveals things to humankind.

If it is reasonable to propose the existence of an overarching ‘consciousness’ that gives revelation to humankind: is this something that fractures quantum’s ‘no-hiding theorem’? This theorem says that whilst information can be copied and deleted at will in the macro (classical) world. In the quantum world, information cannot be created nor destroyed.

So, how does God give revelation (new information) without fracturing the no-hiding theorem? Has God put himself into a self-impose exile where he cannot give us any revelation? Are the Deists and the liberal revisionists like John Spong right and there is no personal God who communicates and acts in response to prayer?

The notion of a non-communing God is profoundly unchristian. It is also untrue experientially according to the testimony of many Christians. They experience God acting in their lives, but understand that to enter that experience, they must stoop low to enter the humbling door of faith—a door that makes everyone equal: rich or poor; educated or uneducated. Such is the genius of God.

God communicating with us by his word (be that through Scripture or through his Spirit) does not mean that God has left himself without testimony in the physical cosmos as well (see: Psalm 119:1-4; Romans 1:19-20). As we’ve said before, that’s precisely where God hangs his ‘invitation card’ encouraging people to seek him out. ‘Natural revelation’ is therefore a significant aspect of God’s communication with us.

The question is: How does God’s revelation play out in the science of the cosmos? Specifically, if God is present, active, and communicating, it would suggest that the universe may not be the ‘closed system’ of quantum physics, as information can be created. It can come from God.

The easy answer to this conundrum is simply to say that God only operates in the macro world when giving us revelation. In other words, God simply reorders existing quantum particles and puts them to work delivering new information. No new quantum particles (with their information) are required.

4 Margaret Reid, “Einstein Verses Quantum Mechanics ... and Why He’d Be a Convert Today,” in *The Conversation*, June 13, 2014, See: <https://theconversation.com/einstein-vs-quantum-mechanics-and-why-hed-be-a-convert-today-27641>

Nonetheless, there is a nagging suspicion that when God gives revelation, something is necessarily coming from outside the closed system of the cosmos. What is it, scientifically? To claim that this information is purely spiritual and non-corporeal, i.e. is unreal and invisible to the physical world, would be a rather easy answer—and one that is probably correct (1 Corinthians 2:14). It is an answer that assumes that the laws of physics have no application in the spiritual world. Those laws certainly didn't bother Jesus much when he miraculously appeared after his resurrection to his disciples who were hiding behind locked doors (John 20:19).

But what if God *did* use the physical world to impart revelation? What consequences would that have for our understanding of the quantum world? What would it say about the “information paradox” that Stephen Hawking wrestled with for the latter part of his life? This paradox arises because gravity draws quantum particles into black holes. So, where does the information they contain go?

Cosmologists tell us that black holes will eventually consume all matter in the universe. This means that the only things that will be left in the universe will be black holes. The question is: do black holes then become the eternal prison for all the information of the universe?

As it turns out, the information in black holes is not lost. Stephen Hawking has shown that black holes are not completely black. They glow slightly with radiation (which has been labelled, “Hawking radiation”). This means that black holes slowly lose mass, erode and die over a period of trillions of years. Hawking suggests that the information that has been swallowed by the black hole is radiated back out into the universe, or even to another universe. Therefore, as the English cosmologist, Brian Cox, says: ‘it would seem that black holes are not tombs, but gateways.’⁵

It is significant that the language of scientists is now sounding remarkably theological. Here are two further statements from Brian Cox.

Black holes tell us that our intuitive understanding of space and time are wrong, and that a deeper reality exists...

*Space and time are not fundamentally a property of nature. They emerge from a deeper reality in which neither exists.*⁶

These words cast a shadow over the thinking of “materialist reductionists” who reduce humanity to “materials” and say there is nothing more that makes humans significant. It seems that scientists are now whispering theological truth to us!

5 Brian Cox, *The Universe with Brian Cox* (film), Series 1, Episode 4, “Heart of Darkness: Black Holes,” 2021 (see: 41 - 50 minutes). <https://view.abc.net.au/video/ZW3171A004500>

6 *Ibid.*

Another intriguing phenomenon to emerge from the study of black holes is that evidence it gives for the interconnectedness of reality. This was something also hinted at by quantum entanglement. Scientists are suggesting that information contained within a half eroded black hole becomes the “same place” as distant information that was emitted eons earlier through Hawking radiation.⁷ If this confuses you, you are in good company. The exact mechanism of this is currently baffling scientists and is still being worked out.

So, where does this leave us?

If we have dispensed with space-time as the fundamental reality and have replaced it with “information,” that is highly significant. Information, by definition, is not randomly or chaotically configured. It is something that is ordered. This suggests that at the heart of reality is order... and that begins to sound a lot like ‘Mind’.

So, here’s the question: Does this deeper reality have a divine origin? Is this deeper reality God?

Brian Cox would insist, quite rightly, that this deeper reality may be natural, not supernatural. Certainly, no one can rightly posit God simply because they have reduced reality to information. To do that is to fall into the discredited thinking of inventing a “God of the gaps.” But what we can say is that the discovery of a deeper reality beyond space-time is totally consistent with theistic belief.

This leads to the second question: “Is information fundamentally God?”

Christians would say that that whilst God is the ultimate source of information, information is not God. To suggest that it was would be tantamount to saying that the universe (which made the information) is God... which is New Age paganism.

Let’s return the subject of revelation being the impartation of information. Is this information contained within quantum particles in a closed system of our universe, or does God’s revelation break into any closed system from outside? Logic suggests that the latter is more likely to be the case, not least because it is possible that the “closed system” of our universe may not be closed at all. As previously indicated: Stephen Hawking suggests that our information may spill over into another universe.

It needs to be said that God (as Christians understand God) is not constrained by anything in our physical world. This means that are dimensions and spiritual pathways open to God which scientists have no clue of. (Note: Again, this is not lazily invoking “God of the gaps”; it is a logical reality. If God exists, then God must be more than our minds can conceive—if God is to be more than that which our minds have conceived.)

So, what can we conclude?

7 *Ibid.*

When posed with a theological question, a good practice is to surround the question with statements relevant to the subject, that we are reasonably sure are correct. We can then say that the answer has to be contained somewhere within those statements.

The question in this instance is: How does God give information (revelation) in a universe constructed by quantum particles which contain information that cannot be created or destroyed?

Here are eight statements relevant to the question which can be considered correct:

- 1) God is relational and chooses to give us revelation (information).
- 2) Humility towards God precedes revelation.
- 3) Whilst God's kingdom is not a disembodied spiritual existence, it is nonetheless spiritual (John 4:24; 1 Corinthians 15:40-44). As such, spiritual revelation could be expected to bypass the limits imposed by physical existence.
- 4) God can give new information by re-ordering existing quantum particles—if God chooses to work within the physical laws of the universe when giving revelation.
- 5) God is not made less by imparting information to humanity. As such, God's existence already fractures the rules of quantum physics.
- 6) God is the creator of quantum physics, not a slave to quantum physics. Therefore, God is not limited by it when it comes to anything he does, such as revelation.
- 7) In the physical world, God normally chooses to work within the laws of nature he has put in place, but God is not constrained by them.
- 8) The physical reality and constraints of this universe do not represent God's 'end game' for his creation. God's end game is the 'kingdom of God'.

We can therefore say that God's revelation to us (input of information) very likely bypasses the limitations posed by the quantum world, as it is something mediated by his Spirit. As such, the notion of God inputting information does not fracture the 'no-hiding theorem' of quantum physics.

In summary, it is reasonable to suggest that quantum physics is compatible with the idea of God. It is reasonable to suggest that it even points to God (as being the supreme 'consciousness'). However, quantum physics does not constrain God.

The Context for the Accompanying Thesis

Please Note

The book *God and Me: Reasons for Faith* is NOT being offered as one of the clustered publications being submitted for a PhD because it has not yet been published. Excerpts from the book are included here because it forms the conclusion to the ‘contextual statement/s’ required that tie the submitted publications together and give them context.

INTRODUCTION

As mentioned in the introduction to this corpus of material forming the PhD, the marketing of *Who Ordered the Universe* was a disaster as a result of Lion Hudson going into voluntary liquidation. It was considered that the information contained within the book was too valuable to lose. As such, about 5 - 10% of it was harvested from it and reintroduced in a new 84,000-word book: *God and Me: Reasons for Faith*—excerpts from which you are about to read.

Even in the few years since *Who Ordered the Universe* was published, society has moved on, requiring me to reflect different priorities in new book. In brief, thinking is now less tethered to truth. A person’s position on justice and morality is now developed rather more by emotions than rational thought. So, when a young adult considers God, it is against an untidy mish-mash of science, philosophy, morality and angst regarding his or her meaning.

The new book therefore seeks to be a ‘one stop’ resource for Christians and those considering Christianity who are heading into life where an atheistic tsunami is waiting to engulf them—particularly at university. (Please note: the book, and the excerpts from it contained in this thesis, are written with American spelling and punctuation, as the book is aimed at the American market.)

I learned what subjects to write about as a result of accessing five resources:

- 1) Young adults (a good few of whom have come to dinner). Their input in informing me about their issues and questions has been, and is, vital. Some have also read sections of the manuscript of my books and suggested changes.
- 2) Dr Ben Sparks (quantum physicist at the Institute for Photonics and Remote Sensing, University of Adelaide).
- 3) Dr Leonard Long (philosopher, theologian, historian and medical practitioner)

- 4) Peter and Desleigh Wright (who travel to South Australian Christian schools and conduct seminars in which they use questionnaires to determine what students are thinking about faith, before engaging in conversations.)
- 5) Discussions with university chaplains

I particularly valued my one-on-one conversations with young adults. Typically, I'd listen, ask a few questions and jot down some notes. Discussion would follow. After the chat, I'd send a summary of what had been said by email so they'd have a lasting record.

A typical example of this is the verbatim appended below. It records a chat I had with Shaun (not his true name).

Shaun had come to ask questions about faith. He was active in the church and was at University.

Question 1)

Shaun asked: "Can you have healing without conviction? Will God heal supernaturally if the patient does not have faith?"

Nick:

Great question.

Jesus often commended a sick person for their faith, saying it was a key reason why they were healed, but faith was not always required, e.g. when Jesus healed the lame man at the pool of Bethesda. We therefore can't be formulaic and have rules about what God will and will not do with healing. This reality should keep us from the sin of trying to "control" God by our rules.

Question 2)

Shaun asked why is there was such a "disconnect" between God's actions and the nature in the Old Testament and the New Testament.

Nick:

There is no disconnect. God does nothing significant in the New Testament that he hasn't first foreshadowed in the Old Testament. The Old Testament is the "manger" in which the New Testament is laid. God teaches his people in stages, stages that are evident in the nature of the three most important covenants God made with humankind in the Bible.

- 1) The covenant with Abram (the covenant of babies). Abram had no say or responsibilities.

- 2) The covenant at Mt Sinai (the covenant of children). God's people were now children who were required to behave rightly to stay in a covenant relationship with God.
- 3) The covenant of Jesus (displayed at the last supper). This was the covenant of maturity. It is the covenant of grace.

It must also be remembered that Jesus is God's final revelation, so he completes God's revelation to us, e.g. by amending 'concessional' Old Testament laws (see: Matthew 5:21-48)

Question 3)

Shaun said he was conscientious and diligent in his studies. Does the reality of God's grace mean it doesn't count for much?

Nick:

It depends on what you put your faith in. The rich young ruler who came to Jesus had kept all that the 'law' required... but still lacked something. He put the security from his wealth as a priority over God.

Diligence is wisdom, and will reap wisdom's reward. But it must not become an OCD tyrant, or a subtle way of making yourself feel you have 'earned' God's grace.

Discussion followed.

Shaun confessed that whilst he has no problem talking to people one-on-one, he has a fear of talking in a large group. He's even seen a psychologist. Anxiety is an issue.

Nick asked what lies he had heard in his youth that led him to believe he couldn't 'measure up' in a group of people? Why did he feel he needed to believe it? What 'reward' does he get from believing it?

Shaun has a maths/science interest at college, but his real love (not yet formally explored) is psychology.

Question 4)

Shaun asked why science and Christianity were seen to be at war, when he knows that in theory, they shouldn't be?

Nick:

Another good question.

The two disciplines are not at war. Both have their origins in God, so they can't war with each other. But the two disciplines answer different questions. Science answers the question 'how'. Christianity answers the question 'why'. As such, Christianity frames science and puts it in a bigger picture. The two disciplines also help "police" each other.

Christianity can rescue science from its narrow empiricist prison; and science can stop theologians requiring people to believe “six impossible things before breakfast.”

The two disciplines worked together until The Enlightenment dispensed with Aristotelian thinking about a Prime Cause behind everything. Now, however, science is now bumping up against meta-questions in fields of study such as quantum physics, so Aristotelian thinking may be making a comeback.

The notion that science and Christianity are at war is an overblown idea of those who don't know enough. Less than 6% of physics Nobel laureates between 1900 and 2000 did not believe in God, whereas 35% of Nobel laureates in literature were atheists. It seems that those who really are rational empiricists are more likely to believe in God. They see the absurd level of ‘fine-tuning’ of the elemental forces of the universe which has allowed life to develop. This suggests the existence of ‘mind’. So, in a very real sense, science shows the ‘mind of God.’

Question 5)

Shaun talked of a friend (a girl) who used to attend church but who is now scathing of anyone who can take the Bible and its teaching seriously... because it is so outdated.

Shaun asked how he should respond.

Nick:

It doesn't sound as if she is open to reason. I suspect that she simply wants to give herself reasons to live autonomously from God. In reality, her reasoning is deeply flawed. It is chronological arrogance to say that anything ‘old’ can be scorned and ignored.

The Bible is a unique piece of writing. Despite being written over a 1,500 year period, it fits together as a coherent whole. There is no other piece of literature like it. Whilst the cultural background in which the Scriptures were written have changed, the consistent principles that God has cause to be recorded in Scripture have not. This is one of the most remarkable features of the Bible.

The essence and language of apologetics

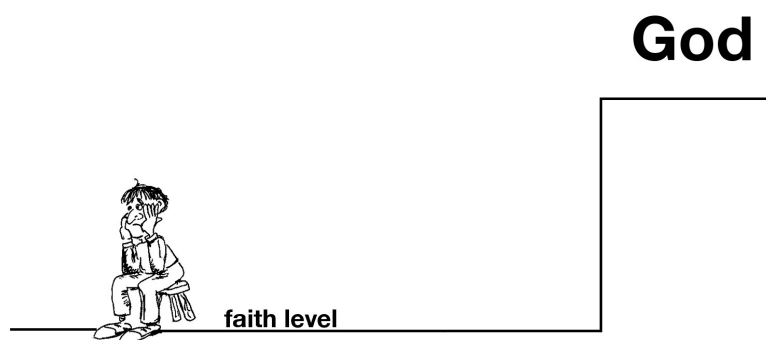
Prior to constructing the book, “God and Me: Reasons for Faith,” it is appropriate to pause and consider what apologetics is... and how we should go about it. When I'm teaching students about apologetics, this is what I typically say:

The word ‘apologist’ comes from Greek, *ἀπολογία*, which literally means ‘speaking in defence’, i.e. it is the formal defence of an idea or position. A Christian apologist is therefore someone who speaks in defence of Christianity.

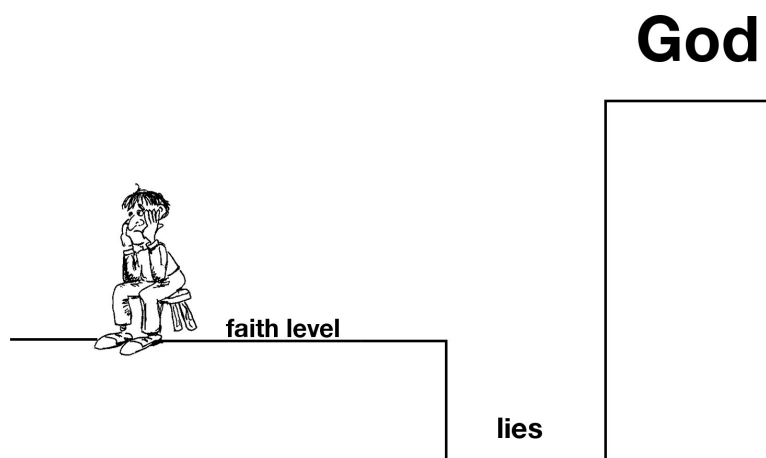
Whilst it is only Jesus Christ who wins for us the right to be with God, God chooses to use us who make up his church to bring others to faith in Jesus Christ. This is a function that *all* Christians have. Some who do this, however, will be specialists, such as evangelists and apologists.

A Christian apologist is someone who gives the intellectual underpinning for those considering Christianity, and they do this in the public forum, the ‘marketplace’, where those with Christian faith mix with those without Christian faith.

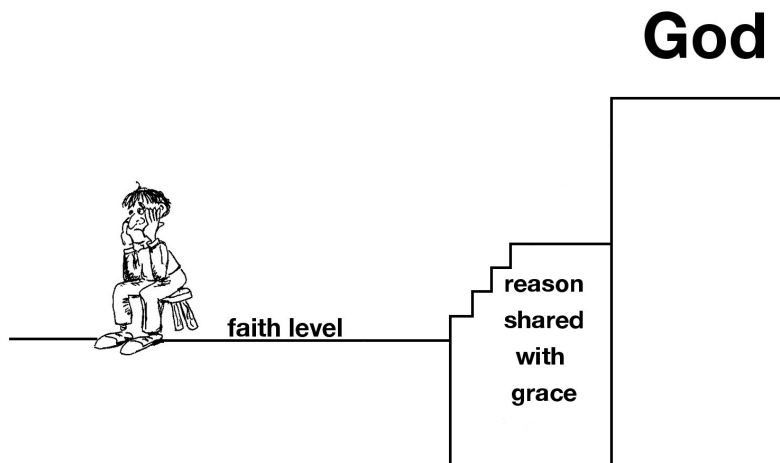
The function of the apologist is best described by these cartoons. They show an individual with a low level of faith, someone who is nowhere near God.



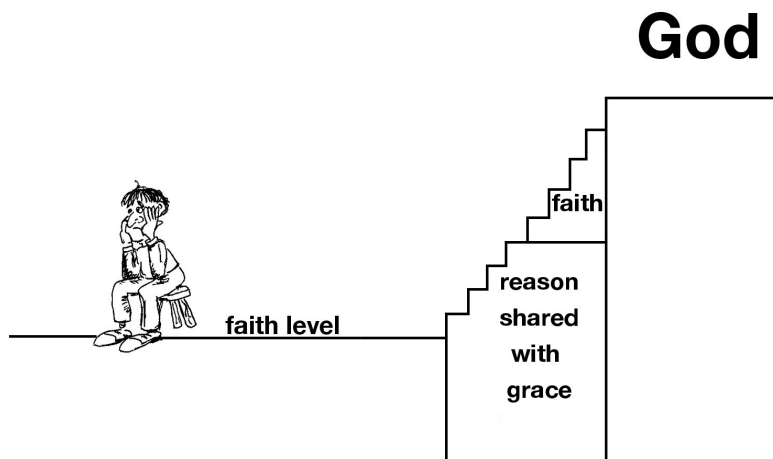
The likelihood of our sad and sorry friend reaching God is made that much harder if he (or she) has accepted lies about God as fact. Sadly, some of these lies can even come from those within the church—particularly concerning issues of science and faith.



The role of the apologist is to ‘fill in’ those lies... and to give good reasons for faith, which lifts our friend a good deal closer to God.



No apologist (or evangelist), however, will be able to take the final steps for anyone seeking to reach God. God always reserves the requirement for an individual to have ‘faith’ in order to take the last steps to God. Whilst the apologist builds the first platform (as a teacher), it is the evangelist (the preacher) who motivates people to navigate the last steps. Notwithstanding this, the very last step must be made by the individual alone—a reality insisted on by the Danish theologian and philosopher, Søren Kierkegaard.



Truth

The best friend of the Christian apologist is ‘truth’.

Truth springs from the very essence of who God is. He is the perfect embodiment of truth and is the one who guarantees it (Psalm 31:5). This means that despite the best endeavours of postmodernists to convince us that truth is ‘relative’ ... and the existentialists who say that truth is simply that which works for you at any one time, real truth cannot be altered by a whim or by changing circumstances.

All truth derives from God. At one point, the Bible simply describes God by saying “God is truth” (John 3:33). As God embodies truth, he desires truth from us who are his people (Psalm 51:6). Therefore, speak truth. This is particularly important if you aspire to be an apologist.

Truth is the essential ally of the apologist. When faced with the claims of anti-theists, or when faced with questions from those who are sincerely seeking answers, the Christian apologist simply leans back into the safety of God’s truth and experiences its strength.

Truth is therefore an ally to anyone who is placed in a situation where they need to a reason for their faith—and it can be used strategically. The reason for this is based on simple logic. If God exists (and is as described in Scripture) then anyone who attacks the validity of God must necessarily embrace untruth. The art of the apologist is to listen and wait until the “untruth” spills out. When that happens, the apologist says, “Ah ha: there it is,” and can begin to fashion an answer... *if* the time is right to share it (note: Matthew 7:6).

I once listened to the great apologist, John Lennox, recount a story whilst speaking at the Adelaide prayer breakfast in 2014, which illustrated the above principle well. He spoke of a time when he was required to sit next to a strident atheist and his wife at an Oxford college dinner. The atheist expressed his dismay at Lennox sitting with him, and said something like: “Oh no; a Christian. Don’t you know there is no meaning to life? We are simply the sum of our atoms and molecules.”

John Lennox spotted the ‘untruth’ straight away and replied, “I don’t think that’s true, and I think I can prove it to you.”

“How?” demanded the atheist.

“What’s for dinner?” asked John.

The atheist reached for the dinner menu and began to read it out.

John held up his hand and said, “How do you know that’s true and not meaningless? All you are looking at is compressed cellulose and ink pigment.”

The atheist’s discomfort was no way helped by his wife leaning over and saying, “He’s got you, darling.”

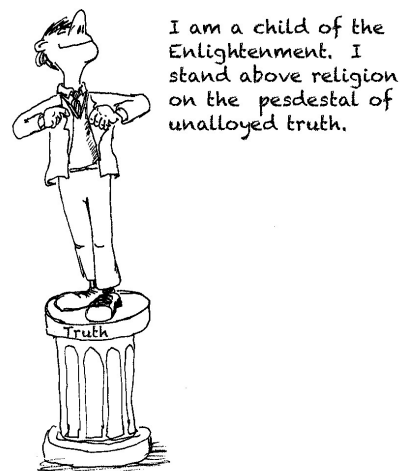
Truth *and* grace

It is perhaps pertinent at this point to talk about the *manner* in which apologetics should be conducted. The clue for this is seen in prologue of John’s gospel. In the

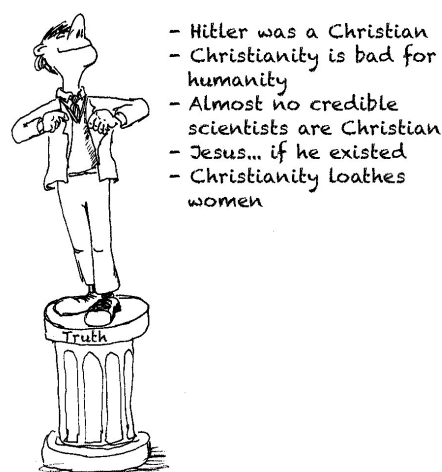
opening chapter, John says: “grace and truth came through Jesus Christ” (John 1:17). That’s our clue. Grace without truth is sentimentality. Truth without grace is legalism. Embodying both is Christ-like.

This is not always easy to do in practice. It can sometimes be difficult to be entirely gracious given the outrageous behaviour of the ‘new atheists’ like Richard Dawkins. This is again best expressed by cartoons:

Dawkins claims:



...which, he feels, gives him a right to say (in his book *The God Delusion*):



The apologist’s job is to shine a light on the lies, distortions, and arrogance of the ‘new atheists’—and this sometimes requires strong words. So, how are we to do it?

Again, Jesus gives us our example. He was the perfect definition of grace but that didn’t stop up shining a light on the duplicity, ignorance, and unfaithfulness when he came across it.

His words in Matthew 23:1-36 are a fulsome excoriation by anyone's standard! It needs to be remembered, however, that Jesus had a rather unique authority when it came to passing judgement, one which we do not have (John 5:22-23; 8:15-18). So shine a light on evil, but don't judge (Matthew 7:1-5).

Teaching theology

One of the aims of the new book *God and Me: Reasons for Faith* is not only to equip people with information that will cause them to remain strong in faith, but also to teach them how to do their own theology. *God and Me* seeks to do this by teaching people to use 'octagons'.

At the end of the introduction to the book, I say:

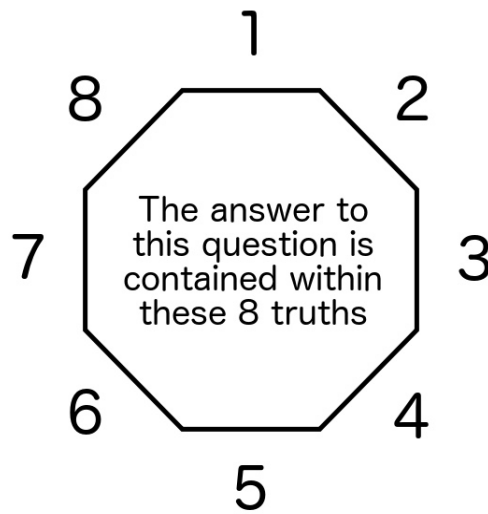
Whenever you are faced with a tough theological question, a good practice is to go to the Bible and identify those key truths that are relevant to the question—truths which you can be certain about. These truths act like fences that keep you from straying into danger.

You can then circle your tough question with these truths (fences). This allows you to say that the answer to the question has to be contained somewhere within that ring of truths.

When I do this, I usually end up with an octagon, i.e. eight truths within which the answer is contained. In fact, I have ended up with an octagon so many times, that I now try to end up with one. (My first octagon is actually contained in the chapter on "The Evidence of God in Suffering" in *Who Ordered the Universe?*) Seeking to fill the different facets of an octagon helps ensure that I have covered the subject thoroughly, and that I'm not charging off in any direction based only on one or two verses of Scripture.

The other good thing about constructing a theological octagon is that it makes room for mystery and humility. It builds the safe fences beyond which you do not stray... but it does not tell you exactly where the truth is within those fences.

There are seven octagons in *God and Me*. Here is one that seeks to answer the question: "Did God send COVID-19?"



1. God is loving and is the perfect definition of love.
2. Times of crisis are times of opportunity when we can show God's love, generosity and self-sacrifice.
3. God has the right to bring judgment on us in this life as a consequence of us choosing evil. He has warned us of this reality. But God's judgment is always aimed at bringing about our repentance so that new beginnings and blessings can follow.
4. God is just and is the perfect definition of justice.
5. We all live in a broken and fallen world, and we all share in its dangers.
6. God sometimes uses a situation of sickness to show his glory by bringing healing (John 9:2-3).
7. Times of difficulty can help us grow godly character (James 1:2-4).
8. This life is not all there is. Christians can view it from the perspective of eternity. God, and his goodness will ultimately triumph. Evil will be judged and killed off (Romans 8:35; Revelation 21:1-4).

By introducing the reader to the technique of using 'octagons', it is hoped that they will be equipped to do their own theology.

God and Me: Reasons for Faith **Excerpts (with commentary)**

COMMENTARY, CONTEXT AND REFLECTIONS

God and Me is specifically designed those who want to know the scientific and philosophic arguments for why Christianity is intellectually reasonable. In addition, it deals with the biggest ‘faith blocking’ questions of our time.

Too many churches today have not given their young adults a robust, reasoned faith... and as a result, most young Christian adults who go to university will lose their faith by the time they leave. The mournful atheistic worldview of society’s opinion leaders will have taken over their minds, leaving them anxious, angry, self-obsessed and struggling under the burden of meaninglessness.

This book aims to reverse this trend.

A Brief Description of Each Chapter

Introduction

1) The cosmos, meaning, and me

The question young adults ask more than any other is: “Do I have meaning?” This chapter looks at evidence for an answer in the ‘fine tuning’ of the cosmos, which suggests the existence of ‘mind’ and ‘purpose.’

2) Creation, evolution, and me

In what way is humanity special, given that it has 98.8% of its DNA in common with a chimpanzee? What is the biological evidence for God, particularly in the light of attacks on Christianity from the likes of Richard Dawkins?

3) Jesus, evidence, and me

Many people don’t know the Jesus story and are unfamiliar with the claims he made. This chapter speaks about these things, and gives historic and archaeological evidence for Jesus’ existence.

4) History, morality, and me

This chapter shines a light on atheism in history and exposes its legacy. We look at what atheism and Christianity do to a nation’s culture.

5) Philosophy, truth, and me

The philosophy departments at our universities are generally leading the atheistic charge, so we put modern philosophy under the microscope. This is an important chapter for young adults heading to university.

6) Quantum physics, atheism, and me

The recent findings of quantum physics present some very real challenges to atheism. In fact, it is difficult to claim a rational mandate for atheism in the light of these findings.

7) Suffering, death, and me

The issue of suffering is one of the biggest ‘faith-blocking’ issues of our time. This chapter seeks to give a non-simplistic, holistic answer. The chapter is both informative and pastoral.

8) Other faiths, Christianity, and me

Christians are sometimes accused of being arrogant in their claim that Jesus is the only way to God. This chapter reviews the different options for believing this might be so (reviewing ‘pluralism’, ‘exclusivism’ and ‘inclusivism’,)... as well as reviewing other faiths.

9) Church, its moral failure, and me

This chapter seeks to answer (and take seriously) the moral failure of the church, and the perceived moral failure of God (with Old Testament violence, and the savagery of God in sacrificing his own son).

10) Sex, the Bible, and me

This is always a question young adults ask, and the church has not always been very helpful in what it teaches. This chapter seeks to be both biblical and compassionate.

11) The future after death, and me

Many people ask questions about life after death, and what happens when we die. The church has not often given clear direction on this. This chapter is therefore important. It makes use of some of the thinking of the Anglican theologian N.T. Wright.

Postscript

This is a brief reflection from me, the author, who writes while dying of cancer.

COMMENTARY, CONTEXT AND REFLECTIONS

How you begin a book is important. People will form an opinion about a book when reading the first page—which is when they make a decision about whether or not they will persist with it.

When I teach people how to write (or how to preach), I normally say: The first sentence needs to compel attention. In other words, it has to have a ‘hook’. Then, the first few paragraphs need to give the reader good reasons to continue reading. This can be done by developing an emotional connection, i.e. crafting a beginning that causes the reader to care about what you are writing about. With fiction books, this done either by crafting pathos about a lead character, or by capturing people’s attention with horror, action or humour. However, with non-fiction books, the writer needs to capture the reader’s attention by showing relevance—a relevance that conjures curiosity.

One of the best ways of establishing early interest in a non-fiction book is to touch on people’s deepest ‘felt need’. In this case, I’ve sought to touch on people’s hunger for meaning.

The opening page needs to point to what’s coming in the rest of the book, and give reasons for the reader to be optimistic about it. These pages also need to give reasons why the reader should trust me (the author) to take them on a journey through the book. I therefore need to develop a personal rapport.

This is what I have sought to do at the start of *God and Me: Reasons for Faith*.

THE START OF “GOD AND ME”

Introduction

Let’s begin with you. Who are you... and why do you exist? It is the most profound question you will ever ask, so it’s worth taking some care over the answer.

The current sociological climate is not a kind one for people seeking to answer this question. Most philosophers and opinion leaders of our time simply tell you that you are a rather oddly shaped bag of sub-atomic particles that came from nothing, as a result of nothing.

My fervent hope is that we will be able to say something more truthful and helpful in the pages that follow.

I have had the privilege of interacting with young adults for most of my life. The question they ask, in those beautiful still moments when the time is right to ask the really important things is: Do I have meaning? It was the question put to me by a medical student in India who struggled to believe he was significant in a nation of 1.3 billion people. It was the question put to me by a sexually confused young man in Sparta, Illinois.

Getting anyone to be still enough to ask this question is not easy. Today's society abhors deep thinking and gives you all sorts of toys to trivialize and fill up your day. This brings to mind an aphorism of the seventeenth century French scientist and theologian, Blaise Pascal who said, "All of humanity's problems stem from man's inability to sit quietly in a room alone."¹ I do hope you find time to look at the stars at night and think. Otherwise, you will be swept along by the mainstream secular/atheistic culture of our time, which will leave you lying on the scrap heap of meaninglessness—where you will slowly desiccate and lose your humanity.

The journey ahead will therefore take a modicum of courage. The easy way is to do nothing and to lazily and uncritically adsorb the culture of the day. This is so terribly dangerous. One of the reasons for this is that a lot of the atheistic culture promulgated by media's opinion leaders, is parasitic on true science. I use the word, parasitic, quite deliberately. Today's culture bombards us continually with the message that rationalism means not embracing the idea of God. It holds up in glittering lights the idea that being an atheist means that you are your own person, and that you are grown up and no longer need the childish notion of a divine being. Those who still believe in the quaint idea of God are to be scorned, ridiculed and pitied.

In reality, nothing is further from the truth. However, to discover this truth will take courage, because it is the nature of society to force you to conform to its thinking.

The truth of who you are is not only vitally important for you, but also for the generation that follows you. To illustrate this, let me tell you a story.

It only takes one generation

Following The Reformation, ninety percent of Hungary and Poland was Protestant. However, within one generation, both countries were solidly Roman Catholic. The reason for this extraordinary turnaround was that the aristocracy of both nations hired Catholic Jesuits to educate their children.

It only took one generation.

Without passing judgment about whether it was a good thing for Poland and Hungary to be Catholic, this story should remind us of the importance of being eternally vigilant about whom we allow to educate our children. If your son or daughter is being educated in the humanities department of a Western university, you can almost guarantee they will finish college indoctrinated with an anti-West, anti-Christian culture.

It is perhaps necessary at this point to give some historical contextualization to this claim and explore the evidence for it. Charles Reich is an American legal and social scholar. He writes:

*There is a revolution coming. It will not be like revolutions in the past. It will originate with the individual and the culture, and it will change the political structure as its final act. It will not require violence to succeed, and it cannot be successfully resisted by violence. This is the revolution of the New Generation.*²

This comment does not pass judgement on whether the cultural change in our universities is good or bad, but it does give warning that change has, and is, coming about. A term that has been bandied about by people viewing the cultural change in Western universities is “Cultural Marxism.” It is a term used by those on the political right (such as the Canadian psychologist and social commentator, Jordan Peterson) to attack those on the political left. The angst of many people, not just those on the political right, is typified by the title of an article written by Philip Salzman, professor emeritus of anthropology at McGill University Quebec. His article was entitled: “Marxism Failed in the World, but Conquered Western Academia”.³

The Australian journalist, Misha Ketchell, takes issue over the claim that “Cultural Marxism” is taking over Western universities? She claims to have “crunched some numbers” and shown that Neo-Marxists did not poll as popularly as Friedrich Nietzsche in recent academic papers.⁴ I’m not sure this is of much comfort to Christians. What Ketchell fails to point out is that both Nietzsche (associated with the right) and Marx (associated with the left) wanted to dismantle society and, in order to do so; both saw the trashing of Judeo-Christian values as their highest priority.

Neo Marxists have availed themselves of the tool of Postmodernism to dismantle the pillars of Western culture. Political commentators such as Alasdair Elder speak about Neo Marxists capturing and weaponising language, fostering “resentment culture” and activism, and making strategic use of “justice for minorities” as a tool to bring about change.⁵ It must be said that his is a brutal (and very right wing) presentation of these claims.

There are two articles that speak well and in a balanced way about the cultural change in Western Universities. The first is by the Australian theologian, Rob Smith who wrote an article entitled, “Cultural Marxism: Fact or Fiction.” He speaks of the significance of the Neo-Marxist, Antonio Gramsci, who rose to prominence in the Italian Communist party early in the 20th century. Gramsci said that if you want to stop people living according to the dictates of the capitalist system, you have to cut the roots of Western civilisation – in particular, its Judeo-Christian values,

Gramsci's thinking has been hugely influential to philosophers, historians, sociologists and educationalists – people such as Louis Althusser, Raymond Williams, Pierre Bourdieu, Michel Foucault, Jürgen Habermas, E. P. Thompson, Eric Hobsbawm, and Stuart Ha.

Rob Smith writes about the influence of the Frankfurt School on Western academia through its development of Critical Theory. In essence, Critical Theory was targeted social critique that had as its aim the undermining of the status quo, so that society could be changed. Rob Smith notes, however, that Critical Theory was 'long on trenchant, unremitting criticism of any aspect of Western culture that was deemed to be oppressive or dehumanising, but short on constructive proposals.'⁶

It is important to understand the context in which the Frankfurt School arose. It arose from the context of two world wars (one that included the Holocaust) and the Great Depression of the 1930s. Its thinkers reasoned that if the status quo of society had been responsible for such 'unparalleled barbarism,' then society had to change. Rob Smith says that the primary objective of the Frankfurt School was therefore to identify and attack the economic and social structures that had created industrial capitalism, and to critique the ideas that defended the disparities of class and race. Because of this, Smith believes that it is quite fitting to say that Cultural Marxism was the Frankfurt School's underlying philosophy.

The other great article that details the origins of Cultural Marxism and how its influence has overtaken Western universities, is one written by Jeffrey Breshears. The article is called, "The Origins of Cultural Marxism and Political Correctness." It is a magisterial article of 36,000 words.⁷ However, it is well worth the read – even though it leaves the reader with a profound sense of depression.

Sadly, too many churches have given up their responsibility for teaching young adults a robust, reasoned faith. As a result, the increasingly mournful atheistic world-view of our society is taking over their minds, leaving them anxious, angry, self-obsessed and struggling under the burden of meaninglessness.

There are generally two reasons for this. The first is because too many pastors, ministers and priests are uninformed. Whilst they may be able to give you the latest theories on theological topics like the atonement, many remain ignorant of the issues young people are really seeking answers to: issues such as the scientific credibility of faith, suffering, and other faiths. As such, the church has not given its young adults the philosophical foundations they need to engage with the atheistic tsunami waiting to deluge them at university and in the workplace.

The other reason young people leave the church is that its ministers, particularly in Protestant churches, have not had a passion for the gospel. Some of the reasons for this can be

traced back to the 1960s, a time when America was in turmoil. Once revered pillars of society, including religious institutions, were being protested against, and the Nihilistic winds of postmodernism were being felt everywhere. It was a time when young adults could avoid being sent to Vietnam if they went to college. (You may be interested to know that Bill Clinton, Joe Biden, and Dick Cheney all had ‘student deferments,’ but it cannot be said it was because they wanted to avoid Vietnam.) One of the certain ways to avoid the draft was if you trained as a cleric. This resulted in an influx of ordinands who brought with them, from their seminaries and universities, a radicalized liberal culture. It was a culture that put a priority on being critical of the gospel rather than proclaiming it. People in their congregations, including many adults today, were not taught why conventional Christianity is valid. These people picked up on the hopelessness of liberal theology and left the church.

It only takes the loss of one generation.

So, what can we do to avoid being the generation that drops the baton? How will you and I influence the next generation? Let’s pick up our responsibility and leave a worthy legacy. For me, it means writing this book.

The first six chapters are designed to give people a rational foundation for Christianity. Chapters 7 through 10 have a different function. They are designed to address the common faith-blocking issues of our time. The final chapter (Chapter 11) unpacks the substance of the hope Christians look forward to.

Chapter 1: The Cosmos, Meaning, and Me

COMMENTARY, CONTEXT AND REFLECTIONS

This chapter was the first time that I would be hitting the reader with science—so I had to be careful and learn the lesson taught by my first apologetic book, *The Dance Between Science and Faith*.

I therefore chose to trial this chapter with a number of readers. One of them was an atheist, a young adult with leanings towards Buddhism. On his advice, I depowered the technical details slightly.

I've not included excerpts of these technical details as they are largely concerned with the apparent 'fine tuning' of the universe, a subject already covered in *Who Ordered the Universe?* I have, however, included one number (a new one), a number with rather a lot of "0s". This is because big numbers can bamboozle people who are not naturally numerate. They can struggle to imagine the reality of them unless they see it displayed visually.

EXCERPTS FROM THE CHAPTER

Does the remarkable being that is 'you' have significance? Do you have meaning? One of the biggest clues to the answer is found in the cosmos. If it can be shown that the universe displays evidence of design and purpose, it will be a fair indication that you also have purpose.

I suspect that deep down in your soul, you instinctively know that your existence *has* meaning, despite the atheistic clamouring of our age that tells you otherwise. It would be very wise to listen to that inner voice of yours, and here's why.

The universe you live in displays no evidence of being the product of random chaos. In fact, its grandeur, size and level of order should blow your mind. Here's a little teaser to get you thinking:

There are four forces that build the universe. These will be mentioned later, but for now, I'll just mention just two of them: 'the electromagnetic force' and 'the gravitational force'. The significant thing to note is that the ratio of the strengths of the electromagnetic and gravitational forces needs to be very close to the observed value of 10^{40} , (that's 1 followed by 40 0s!) if planets capable of developing life are to form.¹

This fact alone should give you a fair indication that the universe has been remarkably fine-tuned to allow for intelligent life to flourish on the third planet out from a middle-aged star. Once we know that the universe is carefully designed, then we are half way to discovering that we also are designed—and therefore have meaning.

If we are to look for clues for the hand of God in the universe, we will need to open our eyes. In other words, we will need to wake up from the deadly slumber of the atheistic

reductionist and his horrible, blinkered, half-human world. Not for him the wonder of the cosmos, Beethoven, Mother Teresa, comedy and laughter. For him, nothing is true; his sense of wonder has no significance. Any sense of needing something greater than self to believe in cannot be countenanced. The only truth allowed is the truth that there is no truth. Everything is meaningless, for he is convinced that he is nothing but a chance collection of atoms.

Please let that not be you. I invite you to take off the blinkers and see the bigness of reality. Give yourself permission to wonder and be amazed, to recover the childlike delight of saying “Wow!” I say this, because I think you are meant to. There is good evidence that God has hung his business card in the cosmos and invites us to see it. A three-thousand-year-old songwriter certainly seemed to think so. The psalmist writes in the Old Testament:

*The heavens declare the glory of God;
the skies proclaim the work of his hands.
Day after day they pour forth speech;
night after night they reveal knowledge.
They have no speech, they use no words;
no sound is heard from them.
Yet their voice goes out into all the earth,
their words to the ends of the world (Psalm 19:1-4)*

I believe it is reasonable to suggest that the outrageous splendor and order of the cosmos is an invitation for us to consider the possibility of a Creator, and perhaps learn a few things about him.

...and later in the same chapter...

Anthony Flew (1923 - 2010)

Anthony Flew was professor of Philosophy at Reading University in the UK. He was the intellectual spokesperson for atheism in the late twentieth century. Whilst he was not the only mouthpiece for atheism at this time, he was the one who gave atheism its academic backbone. As such, atheists lionized him.

It therefore came as a shock when he announced in 2004 that he now believed in the existence of God—and he’d done so as a result of learning about the ‘fine tuning’ of the universe.²

As you might imagine, this threw the atheistic community into disarray. If you search the Internet, you will discover even now that some atheists still don’t believe it, and claim that

a Christian writer put words into his mouth. Others were less kind and suggested Flew had become old and senile.

Flew responded by saying that his whole life “has been guided by the principle of Socrates: “Follow the evidence, wherever it leads.””³

...and later in the same chapter...

Monkeys with computers

Many atheists have claimed that a universe such as ours containing intelligent life could have arisen by chance—in the same way that a group of monkeys typing on computers could eventually type out a Shakespearean sonnet.

The Jewish Physicist, Gerry Schroeder, has exposed this idea as a myth.⁴ He reports on the fact that the British National Council of Arts actually placed a computer in a cage with six monkeys for one month. In that time, they’d managed to produce an impressive fifty pages of typing—but not one word.

This should be of no surprise.

Schroeder tells us that a Shakespearean sonnet is 14 lines long—and contains about 488 characters. This means that it would take 26 (the number of letters in the alphabet) multiplied by itself 488 times to have a chance of typing the sonnet by chance. This equates to 1 chance in 10... with 690 zeros after it! To put this into perspective, this is significantly more than the number of protons, electron and neutrons in the observable universe (which has been calculated to be 10... with a paltry 80 zeros after it).

In case you want to know what 10... with 690 zeros after it looks like, here it is. It is 10, with:

000,000,000,000,000,000,000,000,000,000,000,000,000,000,000,000,
000,000,000,000,000,000,000,000,000,000,000,000,000,000,000,000,
000,000,000,000,000,000,000,000,000,000,000,000,000,000,000,
000,000,000,000,000,000,000,000,000,000,000,000,000,000,000,
000,000,000,000,000,000,000,000,000,000,000,000,000,000,000,
000,000,000,000,000,000,000,000,000,000,000,000,000,000,000,
000,000,000,000,000,000,000,000,000,000,000,000,000,000,000,
000,000,000,000,000,000,000,000,000,000,000,000,000,000,000,
000,000,000,000,000,000,000,000,000,000,000,000,000,000,000,
000,000,000,000,000,000,000,000,000,000,000,000,000,000,000,
000,000,000,000,000,000,000,000,000,000,000,000,000,000,000,
000,000,000,000,000,000,000,000,000,000,000,000,000,000,000,
000,000,000,000,000,000,000,000,000,000,000,000,000,000,000,
000,000,000,000,000,000,000,000,000,000,000,000,000,000,000,
000,000,000,000,000,000,000,000,000,000,000,000,000,000,000,
000,000,000,000,000,000,000,000,000,000,000,000,000,000,000,
000,000,000,000,000,000,000,000,000,000,000,000,000,000,000,

000,000,000,000,000,000,000,000,000,000,000,000,000,000,000,000,
000,000,000,000,000,000,000,000,000,000,000,000,000,000,000,
000,000,000,000,000,000,000,000,000,000,000,000,000,000,000,
000,000,000,000,000,000,000,000,000,000,000,000,000,000,000,
000,000,000,000,000 after it!

And that is just the chance of typing one 14-line Shakespearean sonnet! Imagine the number of chances you would need to get the zillions of things in place to produce a universe capable of producing intelligent life!

We should not ask the impossible from the concept of infinity. It is an abuse of mathematics to use the term ‘infinity’ like a magician’s hat from which you can pull anything you want. It becomes even more of an abuse if your motive for doing so is to avoid taking the existence of God seriously.

So, what can we conclude? Two things:

- 1) The miracle of our universe’s existence should not be dismissed or taken for granted.
- 2) It is quite rational to suggest that there is a mind behind the existence of our universe.

To believe that the facts and figures detailed here are no more than happy coincidences, requires significantly more faith than that of the Christian who believes there is a mind behind it all.

Beginnings

The only thing known to humankind that has ever produced significant ‘order’ from nothing is intelligence. Chance alone can’t do it. Time can’t do it. Energy alone can’t do it. It has been the experience of humanity that only a mind directing energy can do it. To believe, as atheists do, that everything came from nothing as a result of nothing, is not a rational position.

This reality raises the interesting question of ‘beginnings’.

Was there a beginning to the universe?

Alexander Vilenkin is professor of evolutionary science at Tufts University. In 2003, he, along with cosmologists Alvin Borde and Alan Guth, proved that any expanding universe cannot have an infinite past. It must have had a beginning. He says: “All the evidence we have says that the universe had a beginning.”⁵

It would seem that we can’t avoid the reality of this.’ Vilenkin says unequivocally:

It is said that an argument is what convinces reasonable men, and a proof is what

*it takes to convince even an unreasonable man. With the proof now in place, cosmologists can no longer hide behind the possibility of a past-eternal universe. There is no escape; they have to face the problem of a cosmic beginning.*⁶

The English humorist and author, Terry Pratchett, encapsulated the logical difficulty of atheism when it comes to explaining the origins of the universe, when he wrote: “In the beginning there was nothing... which exploded.”⁷

Sir Anthony Kenny is, or has been, a professor of philosophy in both Cambridge and Oxford. He also highlights the atheist’s dilemma, saying: “A proponent of the Big Bang theory, at least if he is an atheist, must believe that the universe came from nothing and by nothing.”⁸

The cosmologist, Paul Davies, also puts the issue starkly: “...the coming into being of the universe, as discussed in modern science ... is not just a matter of imposing some sort of organization ... upon a previous incoherent state, but literally the coming-into-being of all physical things from nothing.”⁹

...and later in the same chapter...

Science at war with Christianity

“Science is rational and Christianity is not”... such is the claim of many strident atheists. Many go further and say Christianity is actively at war with science, suppressing its truth.

In reality, this claim is but one of the myths some people wrap around themselves in order to hide from truth and stay huddled within the rhetoric of their own kind. Colin Russell (1928 – 2013) was professor of history at Cambridge and the UK’s ‘Open University’. He wrote:

*The common belief that... the actual relations between religion and science over the last few centuries have been marked by deep and enduring hostility... is not only historically inaccurate, but actually a caricature so grotesque that what needs to be explained is how it could possibly have achieved any degree of respectability.*¹⁰

The truth about Christianity’s relationship with science is far more complex.

It may surprise you, but it is not just Christians who display faith, scientists need it too. They need to have faith that the universe is put together in a way that is ordered, consistent and open to rational inquiry. If they didn’t have faith in these realities, they couldn’t do

science. This has led to some of the world's top scientists saying that belief in God is scientifically reasonable. Paul Davies, a mathematical physicist and cosmologist says:

I belong to the group of scientists who do not subscribe to a conventional religion but nevertheless deny that the universe is a purposeless accident. Through my scientific work I have come to believe more and more strongly that the universe is put together with an ingenuity so astonishing that I cannot accept it merely as a brute fact.¹¹

Here's another interesting fact:

Robert Grosseteste and Roger Bacon were clerics in the church in the 13th century. Both men were responsible for revolutionizing how science was done. Until they turned up in history, science was largely restricted to passive observation. However, when Grosseteste and Bacon arrived, they introduced the notion of experimentation. It can therefore be said that experimental science (at least in the West) was born in the Christian church.

In fact, it is very hard to imagine how science could have flourished in the West without Christianity. This was because science was sometimes seen as a spiritual discipline. Why? Science helped to uncover the creative hand of God. Many of the world's top scientists today say the same thing, as we shall see later.

One of the key events in history used by atheists to ridicule Christianity and support their claim that Christianity is inherently anti-science, is the story of the Roman Catholic Church putting Galileo on trial for heresy. They did so because Galileo taught that the earth was not the center of the universe but a heavenly body that circled the sun—an idea that had been revived a century earlier by Copernicus.

The real story is, again, more complex... and it's a ripping yarn, so it's worth telling.

COMMENTARY, CONTEXT AND REFLECTION

The story of Galileo's trial was spoken of in *Who Ordered the Universe?* but it was felt important enough to include in this new book as well. This I have done, but have taken the opportunity to include new material. (This is fairly typical of how I have treated information 'harvested' from *Who Ordered the Universe?* because it was thought too good to lose.)

CONTINUING THE CHAPTER

Galileo's tiff with the Catholic Church

Galileo lived at a time when the Roman Catholic Church was desperately trying to regain control in the face of The Reformation, which saw different groups of Protestants going off in a thousand different theological directions. In response to this, the Catholic

Church called the Council of Trent (1545–63) at which they decided that only doctors of the church were allowed to give definitive interpretations of Scripture.

Galileo, however, fractured this ruling and was giving interpretations of scripture in the light of his scientific findings. He taught his heliocentric model of the universe as fact, despite the Catholic Church only permitting him to teach it as a hypothesis. (This is worth noting as it shows that the church was not trying to suppress his scientific inquiry.) The Catholic authorities instructed Galileo to get proof for this theory, and then let the church's doctors of divinity interpret the significance of his findings for the church.

The problem was, Galileo didn't actually have the knockout proof for his heliocentric theory of the earth circling the sun. Proof could only come from measuring the parallax of a distant star (measuring its different angle from the Earth six months apart). It was actually Aristotle who defined this requirement (which he'd become convinced of as a result of his study of Pythagoras). Unfortunately, the instrument needed to measure parallax to the required level of accuracy didn't exist. Ptolemy, Copernicus and Tycho Brahe had tried, but failed. Galileo also tried, but failed. In desperation, he asked the German astronomer Johannes Kepler for help, but Kepler couldn't deliver either. It wasn't until 1832 that the German scientist Friedrich Bessel built an instrument capable of measuring the parallax of a distant star.

Galileo could actually be obstinate and even wrong when it came to science. For instance, he ascribed the movement of the ocean's tides to the heliocentric motion of the earth, even though Kepler had shown that tides were linked to the timing of the moon's orbit.

In reality, Galileo's fight was not so much with the Catholic Church but with the Aristotelian philosophers whose understanding of the universe was particularly challenged by Galileo's hypothesis. Put simply, Aristotle taught that the sun, moon and stars orbited the Earth in perfect circles—the initial motion being caused by God. Right at the edge of space (or 'aether' as he called it) stars existed that didn't move at all.¹²

Galileo's hypothesis challenged this thinking, and the Aristotelians refused to look through Galileo's new invention (the telescope) at Jupiter's moons to see evidence of his theory for themselves. One of these was Guilio Libri, professor of Aristotelian Philosophy at Pisa. Another was Cesare Cremonini, Professor of Aristotelian Philosophy at the university of Padua. He was friendlier toward Galileo than Libri and did look through the telescope, but he complained it gave him a headache and said he wouldn't do it again! (In reality, it would have cost him his job if he gave credence to Galileo's theory.)

Galileo fueled antipathy with the church by putting the theological objections of Pope Urban VIII (who was once kindly disposed toward Galileo) into the mouth of the fool,

Simplicius, in a satirical book he wrote. It was therefore not surprising that the church brought Galileo to trial on 22 June 1633. Galileo was required, under threat of torture, to “abjure, curse and detest” his Copernican theories.

So there you have it in a nutshell.

I hope the story reminds you to be careful with atheistic claims that Christianity is inherently anti-science.

If there is a mind behind the universe, (as is suggested by the remarkable order and fine-tuning of events that caused it to exist), then scientific truth and theological truth have the same origin—God. Therefore, the two disciplines cannot, or should not, fight. They should, however, be allowed to answer different questions. As we said earlier: science answers the question ‘how’ whilst theology answers the question ‘why’.

...and ‘why’ is a very, very, interesting question.

COMMENTARY, CONTEXT AND REFLECTION

Bertrand Russell’s mention of “flying teapots” in this section was alluded to in *Who Ordered the Universe?* but the text surrounding it is new.

CONTINUING THE CHAPTER

Willful atheism

As I write this chapter, I am seeking to present facts that suggest faith in God is rational and reasonable. However, I am under no illusion that ‘facts’ will always be the key that unlocks faith in the heart of an atheist. Most atheists hold their position for emotional reasons rather than rational ones (as will be seen in a later chapter). Thomas Nagel, professor of philosophy at New York University, displays something of this reality when he says:

I want atheism to be true and I am made uneasy by the fact that some of the most intelligent and well-informed people I know are religious believers. It isn't just that I don't believe in God and naturally, hope there is no God! I don't want there to be a God.¹³

It is therefore worth pausing for a moment so we can consider the reality of ‘willful atheism’.

I used to think that the apostle Paul was being a bit unreasonable when he said that there was no excuse for not believing in God, because the evidence for God can be seen clearly in creation. He wrote: “For since the creation of the world God’s invisible qualities—his eternal power and divine nature—have been clearly seen, being understood from what has been made, so that people are without excuse” (Romans 1:20).

Now, however, I am not so sure Paul was being extreme.

In his book, *Jesus Among Other Gods*, the Christian apologist, the late Ravi Zacharias, makes the point that the problem posed by many atheists is not the absence of evidence, but the suppression of evidence. In other words, whilst many atheists trot off intellectual excuses for not believing in God, what they are actually doing is refusing to have an honest look at the evidence that does exist. They are doing exactly what the apostle Paul accuses them of in Romans 1:18—they are ‘suppressing’ evidence.

What makes this particularly odious is that they are doing this whilst claiming to stand on the intellectually high ground of reason. I respectfully want to suggest that such people need to come at Christians with something more substantial than the claim that the universe came from nothing, as a result of nothing, via a mechanism which science has no proof of.

Despite lack of scientific evidence, some have tried to make this very claim. The American scientist, Lawrence Krauss, (a strident atheist) wrote a book called *A Universe from Nothing*. It is a philosophically muddled book in which he speculates that it is possible for a universe to come from nothing—provided some parameters (such as quantum fields and the physical laws that govern them) are already in existence to allow it. He wants to call the empty space of the cosmos ‘nothing’ whilst also insisting that this ‘nothing’ is actually a cauldron of virtual particles which can pop into physical existence when interacting with powerful fields. But as Neil Ormerod, Professor of Theology at Australian Catholic University, has pointed out: “Scientifically this may well be correct, but it clearly does not address the question of whether something *can* (italics mine) come from nothing.”¹⁴ Krauss’ great mistake, of course, is to fail to understand what ‘nothing’ really means.

The inherent hubris of humankind means that many simply *don’t want* God to exist. This is presumably because any God presents a challenge to their autonomy. They don’t want to make God the Lord of their life, as it would be inconvenient to their life-style.

I must hasten to say that many morally good atheists do exist, and some of them have legitimate intellectual problems with theism—‘suffering’ being one of them. However, if you bring to an intellectual debate a mindset of not actually *wanting* there to be a God, then you will not come with an open mind. You will come to the debate with a self-blinding bias.

What surprises me is the passion people can display who want to believe there is no God. It’s good to be aware of it because you can be attacked by raw emotion and ridicule rather than reason if you challenge their thinking. So, have the wisdom to know when to speak and when to keep silent.

The philosopher and mathematician, Bertrand Russell, (an atheist) was once asked what he would say to God if he had to explain why he didn't believe in him. Russell replied, "Not enough evidence." This raises the question of how much evidence is enough?

Russell scorned the idea of Christianity and used a spectacularly unfair analogy to ridicule the idea of God's existence. He said that since we can't prove that there isn't a tiny teapot (a teapot that's too small to see) circling the Sun, we have to allow that such a teapot could be circling the Sun. Russell said that this was the sort of reasoning Christians displayed when they insist we have to allow for the possibility of God, because he can't be disproved.¹⁵

Bertrand Russell may have been a polymath of towering intellect, but this did not prevent him from occasionally putting forward an argument that was both crass and intellectually flawed. To state the banally obvious: a teapot is a man-made object built for brewing and pouring tea. By its definition, by its origin and by its function, it is not an object in space.

However, a universe riddled with codes, order and mind-bogglingly unlikely occurrences, is quite another thing. If we look for a reasonable explanation, we can only use the patterns we have already found to work. And the only thing we know that is capable of producing such an absurd level of order is intelligence, i.e. God. As such, the Christian argument for God's existence is both rational and scientifically reasonable.

Not everyone, however, is interested in looking for truth. I once heard someone say: "If life has no purpose, why work it out?" It seems to be a sentiment that reflects the philosophy of many in society, which is odd, because it is an illogical, circular argument. If you don't at least *try* to work out what the meaning of life is, you will, rather unsurprisingly, come to the conclusion that life has no purpose. It is also philosophically invalid to put the conclusion in the premise.

Many don't bother trying to 'work life out' because it results in a highly desirable outcome—the freedom to do what they like. Unfortunately, it also carries with it an attendant outcome that is highly toxic to human well-being: they consign themselves to meaninglessness.

Being able to 'do what you like,' and having 'no meaning,' is a dreadful cocktail of convictions that have resulted in the worst human abuses seen in history. It is also a mournful expression of hopelessness that can find little expression outside of deep depression. I would want to spare you that, so please don't stick your head in the sand and surround yourself with ignorance when it comes to God.

...and later in the same chapter...

Worshipping nature

Atheists who appeal to rationally understandable scientific processes as the cause of everything, come dangerously close to nature worship. They are appealing to something they see in the universe—scientific process—and saying it made everything.

Christians would say they are worshipping a process rather than the creator of the process. There is little difference between doing this and worshipping a tree rather than the creator of the tree. Please don't do it.

Perhaps a small discourse is warranted here on the 'laws of nature'.

Laws of nature are simply mental conclusions we come to as a result of seeing observable regularities in nature. They are not gods. They do, however, point to 'order' and 'regularity'—an order and regularity that can reasonably be ascribed to a 'mind'.

Isaac Newton made the point that the fact that we have a 'law of gravity' tells us only how things behave under the influence of whatever gravity is. It tells us nothing about the what/how/whence of gravity and how it can reach across the squillions of kilometers of empty space and pull things in.

So please don't ask anything of the 'laws of nature' they can't deliver—or turn them into gods.

Where you stand with 'The Enlightenment' will determine what you see

It is difficult to overstate the seismic shift in philosophic thinking brought about by The Enlightenment of the 17th century. Prior to The Enlightenment, the cultural philosophy of the time was based on Aristotelian thinking which factored in an 'ultimate cause' when studying natural science, (see: Aristotle's 'Four Causes'). However, The Enlightenment instituted new principles for doing science that removed all consideration of an ultimate cause. This way of thinking was articulated particularly by the English philosopher, Francis Bacon (1561-1626), who is considered to be the father of modern 'scientific method'.

The reason I mention this seismic change in thinking is this: It seems curiously circular to follow Francis Bacon's directions for rational inquiry and exclude all thought of God—then look at science and be surprised that you see no God!

...and later in the same chapter...

Conclusion

I mentioned in the introduction to this book that atheism is parasitic on science. What I mean by this is that it tries to suck academic credibility from science, whilst giving nothing of intellectual substance back in return. I hope that this chapter makes it clear that any claim by atheists that their position stands on the high ground of rationality is bogus.

I can think of no better way to end than with a quote attributed to the great quantum physicist, Werner Heisenberg. “The first gulp from the glass of natural sciences will make you an atheist, but at the bottom of the glass God is waiting for you.”¹⁶

Chapter 2) Creation, Evolution, and Me

COMMENTARY, CONTEXT AND REFLECTION

People who are not scientists can tend to ascribe to science a significance that science, in reality, cannot deliver on. Non-scientific atheists can use the word “science” as a magical word that can make anything happen. This is curiously ironic given that atheists can pour scorn on Christians for ascribing the very same things to God—with the marked difference that at least with God there is good evidence of ‘mind’, whereas science is simply a discipline that helps us uncover observable regularities that leads us to understand how things work—and can work if we manipulate different factors.

The chapter also deals with the question of evolution—always a perennial issue in apologetic debates. The subject was addressed in *Who Ordered the Universe?* and it is addressed again here in *God and Me* but at a greater depth. This chapter looks more closely at the boundaries of evolution—seeking neither to overplay nor underplay its significance. It takes note of some of the thinking of the Jewish agnostic David Berlinski regarding evolution, and gives a quick summary of dating techniques used to date the age of the earth. This is necessary because of overblown claims that come from some Christian quarters.

This chapter leads up to the dot points concerning the significance of chapters 1-3 in Genesis that were also listed in *Who Ordered the Universe?* These were considered too precious to lose. These dot points also lead nicely into the next chapter that speaks about the person and work of Jesus.

EXCERPTS FROM THE CHAPTER

Is Christianity scientifically credible?

According to a South Australian survey conducted in 2001, eighty percent of tertiary trained people (who don't attend church) believe that Christianity is not scientifically credible.¹ In other words, they believe you have to commit intellectual suicide to be a Christian. I can't imagine this statistic has improved much in the intervening years.

Whichever way you view it, this statistic is deeply concerning.

Christians have no right to put obstacles to others coming to faith by requiring them to believe things that are scientifically absurd. Exaggerated claims have been publicized by some Christian organizations aimed at discrediting the evolutionary theory. Sadly, their writings are often distortions of scientific truth. As a result, they have achieved little other than to fuel a sub-culture amongst Christians that holds views not seen to be credible by most scientists.

Equally, secular scientists need to be careful that they don't trumpet the claim that evolution discredits the existence of God. Whilst evolution is a plausible mechanism that explains the development of biological diversity, it cannot explain why such a mechanism exists, how the universe began, why it is so amazingly ordered, and why we can understand it.

Some have questioned the ability of evolutionary theory to explain all of the biological complexity we see in life, and have done so for legitimate scientific reasons. These views should be respected, but it needs to be said that such scientists are a minority group. Despite this, no scientific theory should be dismissed on ideological grounds—whether these ideologies are religious or atheistic. Any theory needs to be held up to rigorous scientific scrutiny and be accepted or rejected solely on that basis.

Other people seek to discredit evolutionary theory because they believe that by doing so they are protecting the status of the Bible as the infallible word of God. This is regrettable as they fail to understand that Scripture contains the consistent principles of God mediated through the writings of people living in a particular historical context. Those seeking to protect the Bible in this way do not appreciate, for example, that the opening chapters of Genesis are not primarily concerned with science's 'how' and 'when', but theology's 'who' and 'why'. As such, they try to impose on scripture dogma the original authors (and God) never intended.

When we interpret the Bible, our job is to look past those features in scripture that reflect the cultural context of the time (such as the necessity for women to wear veils) and see beyond them to the timeless principles that are consistent with *all* of scripture. This will reveal those principles God wants all people, at every period of history, to understand and live by.

Is the Earth really 4.5 billion years old?

It's very easy to be chronologically arrogant and sneer at the work of Archbishop, James Ussher (1581 - 1656), when viewing him from the perspective of today. To do so, would be a pity. By the standards of his time, he was considered to be a very bright chap who published widely throughout his life. He was renowned for his mastery of Semitic and classical languages, and for his knowledge of history. Ussher used the chronologies and dates mentioned in the Bible to work out that God must have created the world in 4004BC.

Scientists have since told us that the universe is 13.8 billion years old, and the Earth 4.5 billion years old.

So much for the Bible and Bishop Ussher!

But let's not be too rude. It is easy to forget that science was in its infancy in the early seventeenth century, and the discipline of reading the Bible in the way its original authors intended was not always appreciated. We might permit ourselves to say that Bishop Ussher would have done well to note what one of the great fathers of the Christian church, St. Augustine (354 - 430AD), wrote,² and perhaps a little of what the reformer John Calvin (1509 - 1564) also wrote. Both men were critical of those who turned to the Scriptures for answers to cosmological questions the writers of the Bible never intended to teach. Calvin said bluntly, "He who would learn astronomy and other recondite arts, let him go elsewhere."³

The big question is: Has evolution fully explained the origin and design of the marvelous range of species that live on our planet?

The short answer is that evolution has nothing to say about the origin of life on the planet, but is a remarkably useful and well-attested theory that explains the design of species that live, or have lived, on Earth.

There are two mistakes that can be made when considering evolution. The first is not to accept the full significance of it. The second is to over-blow the significance of it.

It is worth remembering that evolution only occurs in living organisms. As such, it cannot explain the extraordinary chemical and structural organization necessary to build the first living cell. Neither can it explain the existence of a universe able to develop sentient life.

One of those seeking to keep evolutionary biologists honest in their claims is the Jewish agnostic, David Berlinski. Berlinski (a mathematician and historian) is a senior fellow of the Discovery Institute's Center for Science and Culture. He is author of the book *The Devil's Delusion: Atheism and Its Scientific Pretension*, which he wrote in response to Richard Dawkins' book *The God Delusion*.⁴ Berlinski believes that evolution may not give a fully adequate explanation of the existence of all living things. In saying this, Berlinski is, in fact, simply voicing a misgiving that Darwin himself had. When writing about there being no (or not enough) evidence of pre-Cambrian life forms, Darwin wrote: "To the question, why we do not find records of these vast primordial periods, I can give no satisfactory answer ... The case at present must remain inexplicable; and may be truly urged as a valid argument against the views here entertained."⁵

Darwin's misgiving was picked up by the American scientist and college professor, Stephen Meyer, in his book *Darwin's Doubt*.⁶ It was a book that caused an unholy furor amongst biologists. Meyer's main argument is the mathematically impossible time scale required to support the emergence of new genes required to drive the explosion of new species during the Cambrian period. This difficulty had been picked up earlier at the 1966 Wistar Conference at the University of Pennsylvania. On this occasion, mathematicians,

engineers, and biologists tried to define the mechanism that drove evolution. They agreed that evolution happened, but they weren't sure how. Where did the innovations come from? Were they accidental or did they arise as a result of a system embedded within life forms? The mathematicians said to the group of rather frustrated biologists, that they couldn't make the math explain what the biologists were observing.

Stephen Gould and Niles Eldredge, the American evolutionary biologists, sought to solve the dilemma by positing the theory of 'punctuated equilibrium'. This suggested that there were bursts of biological development (evolution) in history that were followed by long stable periods in which there was little change. This, of course, prompts the question of 'how,' and 'why'.

It would seem that there are questions still to be answered. Berlinski, for example, wonders why there is a lack of major transitional fossils, and how the ingenious design of the eye could have evolved incrementally. He also wonders why sharks have shown little evidence of evolution in the last sixty million years.⁷

Unsurprisingly, his questionings have drawn a sharp response from Richard Dawkins, whose sensibilities have been sensitized both by his anti-theistic convictions, and by the overblown claims of biblical literalists.

If nothing else, Berlinski reminds all scientists to hold their position with a degree of humility, and with a readiness to re-examine their theories in the light of new evidence.

...and later in the same chapter...

Geological evidence

Geochronology is the science of determining the age of rocks, fossils, and sediments, usually by using radioactive dating methods. One of the most useful radioactive dating methods, centers on the use of Zircon crystals.

Zircon crystals are small crystals that form within rocks such as granite. Here's the interesting bit: In its molten state, Zircon rejects lead. When Zircon is first formed, it contains no lead. It does, however, contain uranium. Uranium exists as a number of isotopes that decay over huge periods of time into lead. This means that if you know the radioactive half-life of the uranium isotopes, and can measure how much of it has turned into lead, then you can date the age of the Zircon in the rocks.

The uranium isotope ^{238}U decays into lead (^{206}Pb) with a half-life of 4.47 billion years. ^{235}U , another common uranium isotope, decays into ^{207}Pb with a half-life of 0.704 billion

years. As both isotopes usually occur in Zircon, you have two dating mechanisms for rocks containing Zircon.

But how accurate are they?

The two uranium/lead dating mechanisms are accurate to within 1%, and both show that the earth is billions of years old.

Those wishing to hold on to Bishop Ussher's idea of the earth being 'young' have claimed that radioactive dating is wrong because it assumes:

1. The decay rate has been constant throughout time.
2. The isotope levels in the specimen have not been altered during its history by the addition or removal of either parent or daughter elements.
3. When the rock was formed, it may have already contained an amount of daughter material.

So, what can we say?

Firstly: Geologists have assumed that the decay rate has remained constant throughout time, and have done so because there is no evidence to the contrary. Secondly: Geologists have methods for detecting loss or removal of the parent or daughter elements, and so can account for it. Thirdly: it is known from laboratory tests that molten Zircon really does reject Lead. We can therefore be very sure that Zircon contained no lead in its early molten state.

So, the earth really is very old.

I hope that helps.

...and later in the same chapter...

Ways of thinking about the creation accounts in Genesis

Dr. David Wilkinson is, at the time of writing, Principal of St. John's College, Durham University. He is not only a theologian, but also one of Britain's top astrophysicists. I once heard him go through the different theories regarding how the creation accounts in the first three chapters of the Bible have been understood.⁸ I've researched them a bit more (so all mistakes are mine!) and can now present them here for you.

1) Genesis is a scientific textbook

This idea was promoted in the 20th century by the American young-earth creationist, Henry M. Morris (1918-2006). Young earth creationists take seriously the work of Bishop James Ussher, who, as we've said earlier, concluded from his study of biblical genealogies, that the Earth was created in 4004BC.

In order for Henry Morris to conclude the earth was only 6,000 years old, he believed that God made the earth with a partial appearance of age. Despite this, Morris firmly dismisses the significance of geological fossil records, and the theory of biological diversification through evolution.

Morris backed his claims by suggesting that the speed of light had changed through history. Sadly for Morris, it was found that his 'error bars' were so huge that there was, in reality, no evidence for the change in the speed of light.

To support the evidence for a young earth, some have claimed that human footsteps have been found, together with dinosaur's footprints, in the petrified mud of the Paluxy River in Texas.⁹

However, on closer inspection, the allegedly human footprints showed no regularity of direction or stride length, and were found to be either depressions of weathered rock, or the footprints of a small dinosaur. This new evidence was so convincing that John D. Morris, (son of Henry Morris), head of the Institute for Creation Research, reported in the January 1986 issue of his publication *Impact* that "it would now be improper for creationists to continue to use the Paluxy data as evidence against evolution."

2) The universe was made old with perfect 'antiquing'

This idea was promoted by Phillip Gosse, the English naturalist (1810-1888). Gosse argued in his book *Omphalos* (the Greek word for 'navel') that if God created everything from nothing (*ex nihilo*), there would be traces of an existence that had never occurred. So whilst Adam did not require a navel (as he was never born), he must nonetheless have had one. Similarly, some trees had growth rings that they never grew, and fossil records existed of life that had never actually existed.

The rather obvious problem with this theory is: Why would God create things in this way? If he did, it would suggest that God was a deceiver.

It is fair to say that this idea is one that few have taken seriously.

3) Gap Creationism

Thomas Chalmers (1780-1847), a Scottish theologian and political economist, promoted this idea. Chalmers believed that the six days of creation involved literal 24-hour days, but that there was a gap of time between the first and the second verses of Genesis, between God creating the heavens and the earth, and God creating the things that existed on the earth. This, he felt, gave an explanation for the great age of the earth. He further speculated that this gap in time was the result of Satan's 'fall', which caused

the earth to become “formless and empty” (Genesis 1:1). God then reconstructed the universe (in a process called ‘ruin reconstruction’).

The Gap theory therefore allows for fossil animals.

4) Day-age creationism

Hugh Miller (1802-1856), a Scottish geologist and theologian, promoted this theory. He believed that the ‘six days’ were really ‘six ages’. These ages correspond to six different geological rock strata: Azoic, Silurian, Carboniferous, Permian, Oolitic and Tertiary.

This idea, in a less specific form, is still believed by some Christians today who cite Psalm 90:4 and 2 Peter 3:8 as indications that ‘a day’ could equate to ‘a thousand years’. 2 Peter 3:8 says: “But do not forget this one thing, dear friends: With the Lord a day is like a thousand years, and a thousand years are like a day.” It has to be said, however, that these Bible verses were written to teach the timelessness of God. They were not designed to teach that God’s year equals one thousand human years.

Having said that, the sequence of events listed in Genesis reflects moderately well the sequence scientists now understand must have happened in the formation of planet Earth—particularly if you allow that “birds” (Genesis 1:20) could actually refer to flying insects. (The Hebrew word, *owph*, literally means ‘a creature with wings’.) But whilst this is so, such a translation is unlikely. The repeated phrase “and there was evening, and there was morning,” after the creation events of each day, also suggest that this theory is unlikely.

5) “Days” are days of revelation

The best-known exponent of this theory was Air-Commodore Percy J. Wiseman (1888 - 1948). He was an Assyriologist who wrote the book, *Creation Revealed in Six Days*.¹⁰ Wiseman believed that days of creation were not days of creation but days of ‘revelation’. His conviction was given further prominence by the Baptist theologian, Bernard Ramm (1916 - 1992) who wrote: “We believe ... that creation was *revealed* in six days, not performed in six days. We believe that the six days are pictorial revelatory days, not literal days, nor age-days. The days are means of communicating to man the great fact that *God is creator*, and that *He is Creator* of all (italics his).¹¹

This theory relies on an imaginative rewriting of scripture so that it reads: “In the beginning, God made *known* the heavens and the earth,” rather than its correct reading: “In the beginning, God made the heavens and the earth.”

It doesn't require a great biblical scholar to tell us that Wiseman's rewording is not a natural reading of the biblical text. An examination of the text makes no mention of any 'revelatory visions'.

6) A Synthesis of theories

Elements of 'Gap Creationism', 'Day-age creationism', and 'Days of revelation' have been combined together recently in a theory put forward by the Oxford mathematician and theologian, John Lennox.

Lennox is one of the finest apologists for the Christian faith, so his thinking on the first two chapters of Genesis is worth noting. He takes seriously the chronological sequence of the creative events, but notes that the word "day" can have a number of definitions.¹² A day of creation can simply be a period of creative activity.

Lennox believes that the initial act of creation (Genesis 1:1-2) is separated from the six days of creation that followed. The reason he gives for this is that the repeated phrases: "And God said," and "there was evening and there was morning," only begin in Genesis 1:3. By separating 'the beginning' from day 1, the universe is free to have an indeterminate age.¹³

Lennox also explains the creation of the sun and moon after the days of creation (in Genesis 1:16) by adopting the idea that the Hebrew word for 'create' used in this verse (*asah*) can mean 'to appoint', or 'to work in', something that is already there.¹⁴

What can we conclude?

How then are we meant to understand the first two chapters of Genesis that speak of God creating the world?

It is not easy to answer this question, as the writing we have in Genesis has few parallels. We are therefore unable to say that it is 'like' any particular form of writing.

What can be said is that these opening chapters of Genesis appear to be a tapestry of many styles of writing. It has poetic elements such as repeated phrases such as "and it was so," and, "it was good."

Other scholars see significance in the number of times key words are repeated. Therefore, numerology may be involved.

The first chapter of the Bible is certainly a highly stylized piece of writing. It begins by speaking about three days in which the heavens, sea and land are formed; and then it continues to the next three days when God populates each of these three environments.

Some of the early church fathers found significance in this ordered process. One of them was Gregory of Nyssa (335-394AD) who was Bishop of Cappadocia, in what is now central modern Turkey. (He was one of the Cappadocian ‘Fathers’ who played a key role in hammering out an understanding of the Trinity and the Nicene Creed.) Gregory picked up on the ordered structure of Genesis, chapter 1, and accorded biological significance to it: saying that God’s act of creation, “proceeded by a sort of graduated and ordered advance to the creation of Man.”¹⁵ He suggests that when God made humankind, he made use of the biological features he first put into plants. God then incorporated these features into animals, where they were further developed, before they were used as a basis for God making humankind.

It can be tempting at this point to say, “Wow! Isn’t this guy talking about evolution?” but, of course, he is not. The concept of evolution was something that had only been vaguely articulated by the Greek ‘Atomists’, Leucippus and Democritus. What it does show is that Gregory was keenly appreciative of the sequential, ordered process of God’s creation.

And so it continues...

Chapter 3) Jesus, Evidence, and Me

COMMENTARY, CONTEXT AND REFLECTIONS

Only now in the book is it appropriate to talk about Jesus. Most agnostics would not be ready to consider the details about God (as Jesus) without first being convinced that belief in God is scientifically reasonable. That's why the first two chapters have been positioned at the start of the book.

Putting the evidence for God in 'natural revelation' at the start of the book is not only logical, it is a pattern adopted by the apostle Paul in the New Testament. Paul makes this clear when writing the church in Rome (Romans 1:18-20). He also makes use of this technique when making his "men of Athens" speech in Acts 17:24-27. His is a good model to follow, for it ensures that the apologist begins with what people know, then he or she is in a position to lead the listener on into the complete revelation of God in Jesus Christ.

The 'new atheists' have made outrageous claims about the existence of Jesus Christ, which, because of their popular acclaim, have been disseminated widely. As such, this chapter shines a light on what they say and shows it up to be what it is: demonstrably false.

EXCERPTS FROM THE CHAPTER

I learned to fly in the UK, courtesy of Southampton University Air Squadron. Tragically, other than a bit of 'outback' flying with a mate, I've hardly flown at all since. Because I've not had a current license, I've been content to fly with other people in command of the aircraft. One day, a guy I'd not met before offered to take me flying. As we were getting to know each other during a preliminary chat, he discovered that I was a pastor. He frowned and said, "Of course, you know that Jesus never said he was God, don't you?"

Now, I have to say: There are times and places for conversations—particularly just minutes before you place your life in a person's hands in a light aircraft. So, what did I say?

I said: "I have difficulty with that statement..." and then I gave a thirty-second summary of the gospel evidence for Jesus' divinity.

I'm pleased to report that he still took me flying, and that he got me back safely.

This conversation reminded me that many attacks on Christianity spring from a lack of knowledge.

In the fervent hope that it may help when someone says something similar to you, let's have a look at Jesus.

...and later in the same chapter...

What was Jesus' mandate, goal, message and task?

Jesus' mandate was to represent his Heavenly Father's authority, character and purpose, (John, chapters 4-12).

Jesus' goal was to carry out God's rescue plan for humankind and for all of creation.

Jesus' message was: "Get ready for the kingdom of God." The kingdom of God is God's 'end game', and he wants you to be part of it. It will be the occasion when God causes heaven and earth to be remade and combined. When this happens, God will be with his people in the fullest sense (2 Peter 3:13; Revelation 21:1-3).

It is worth noting that John the Baptist was sent by God to get people ready for the coming of Jesus. His message was, "Repent, because the Kingdom of God *is* coming." But when Jesus came, his message was, "Repent, because the Kingdom of God *has* come, and is now accessible to you." Jesus therefore *represented* the kingdom of God (Luke 17:21), *inaugurated* the kingdom of God (Mark 1:15), and *obtained* the kingdom of God... for us.

Jesus' task was to be a 'sacrificial lamb'. What does this mean?

God has one answer to the problem of evil: he kills it off. Jesus came to take on himself the evil of all of humankind. He was sacrificed for us like a lamb. Jesus epitomized our evil, and was rejected by God. That's why he said on the cross: "My God my God, why have you forsaken me?" (Matthew 27:46, quoting Psalm 22:1).

This is not a case of God the Father engaging in child brutality, as Richard Dawkins is so fond of claiming. (It's extraordinary, isn't it, that the greatest gift of love the world has ever seen should be so trashed and debased?) It should be remembered that Jesus is part of the Trinity of God that comprises Father, Son and Holy Spirit (John 14:16-17; 1 Peter 1:2). Each member of it mutually indwells the others. Because each member of the Trinity perfectly represents the others, it can reasonably be said that *all* of the Trinity suffered on the cross.

Understanding the Trinity of God

In his book *The God Delusion*, Richard Dawkins also trashes the idea of the Trinity. His main beef is that he doesn't understand it. The poor chap wants to design a god that will fit into his intellect. It hasn't yet occurred to him that if a god were so small as to fit into his intellect, that god would be no god at all. Almost by definition, God has to be more than our intellect can conceive.

The Bible insists that there is only one true God (Deuteronomy 6:4). However, this one God lives in community within himself of Father, Son and Holy Spirit. The church sought to

describe this mystery by using the term ‘the Trinity of God’. (Tertullian was the first to use this term in 210 AD.)

There are hints of the truth of the threefold nature of God even in the Old Testament:

Let us make humankind in our image (Genesis 1:26).

Man has now become like one of us (Genesis 3:22).

Whom shall I send? and who will go for us? (Isaiah 6:8).

It is also worth noting that one of the Old Testament words for God, *Elohim*, is a plural word.

Finally, there is a theological reason why ‘the Trinity’ makes sense. The Bible says that, “God is love” (1 John 4:8). But no one can love, or be loving, unless there is another object or person to love. God therefore needs to live in community within himself if he is to be loving. The doctrine of the trinity is therefore a logical necessity.

Let’s now return to our main subject, Jesus, and explore why it was that Jesus died on the cross.

What did Jesus achieve by dying on the cross?

Here’s a list of the main reasons Jesus died on the cross. These are sometimes referred to as the ‘different theories of the atonement’. However, in reality, there is only one theory of the atonement—which has a number of facets. Different theologians come up with slightly different lists of these. Here’s mine:

Jesus’ death:

1. Was **an expression of love**
2. Was an act of **substitution** (Jesus swaps with us and suffers our punishment)
3. Was a **payment of debt** for our sins (ransom)
4. Was **atonement** (paying for our sins)
5. Signified **reconciliation** (appeased God’s wrath at our sin and brought us peace)
6. Was a **moral example** of sacrificial love
7. Signified **transformation**. Jesus death makes us eligible to be filled with God’s Holy Spirit. This means we can understand the things of Christ, grow the character of Christ, and be raised to eternal life with Christ.
8. Signified **Christ as victorious king**. Sin and death are defeated, and Jesus rules with total authority, unchallenged by evil.

Some people waste a lot of time trying to decide which of the above is most correct. Rather foolishly, they set one factor against all the others. The truth is: *all* of them represent

something that is significant about Jesus' death. They can be linked together logically in this way:

Because of God's love (*an expression of love*); Christ substitutes himself for us (*substitution*); so that he can pay the penalty for our sins (*ransom*); by atoning for them on our behalf (*atonement*); to appease God's anger at evil, and bring us peace with God (*appeasement*); with an act of obedience (*moral example*); which results in us being filled with God's Spirit, so that we can grow the character of God (*transformation*). All of which results in evil being killed off, and Jesus being crowned king of all (*Christ, the victorious king*).

...and later in the same chapter...

Can the New Testament accounts of Jesus be trusted?

The 'new atheists', such as Richard Dawkins, Sam Harris and Christopher Hitchens, claim that the New Testament accounts of Jesus are nothing but unreliable ideas passed on like "Chinese whispers"¹ containing nothing but "hearsay upon hearsay."² As such, the New Testament accounts of Jesus are unreliable and fictitious.

In order for these New Atheists to perpetuate such falsehoods, they need to avoid scholarly research—and they have been remarkably successful at doing so. They give little evidence of having done more than paddle about in the shallow end of Google—re-quoting the anti-Christian rhetoric of their tribe.

The reality is: Christianity is not a culturally derived religious philosophy that evolved gradually over the years. Christianity is based on concrete historical events. This claim is hugely significant and very bold... for if it can be shown that the New Testament accounts of Jesus are nothing but myths and exaggerations formed incrementally over the years by overzealous adherents, Christianity disappears in a puff of smoke leaving nothing behind but moralistic platitudes.

So let's take a look at the historical integrity of the gospel stories of Jesus in the Bible.

Evidence from the New Testament

John, the disciple who was closest to Jesus, begins his epistles (letters) with these words:

That which was from the beginning, which we have heard, which we have seen with our eyes, which we have looked at, and our hands have touched—this we proclaim concerning the Word of Life. The life appeared, we have seen it and

testify to it, and we proclaim to you the eternal life, which was with the Father and has appeared to us. We proclaim to you what we have seen and heard, so that you also may have fellowship with us (1 John 1:1-3).

John is making it quite clear that he is writing from his first-hand experience of being with Jesus. He is not at all interested in teaching myths that might have developed about Jesus at a later stage.

Peter and the other apostles said similar things. Luke records them in Acts saying: “We are witnesses to these things” (Acts 5:32).

The apostle Paul was equally passionate about accurately transmitting Jesus’ words and actions. He understood that the revelation he had of Jesus (and the truths handed to him by the apostles) were a sacred entrustment that he needed to pass on faithfully in an untainted way.

The gospel writer Luke, who wrote one of the gospel accounts of Jesus’ life, says he took real pains to research all that happened in the life of Jesus using first-hand accounts of the apostles. He begins his gospel, saying:

Many have undertaken to draw up an account of the things that have been fulfilled among us, just as they were handed down to us by those who from the first were eyewitnesses and servants of the word. With this in mind, since I myself have carefully investigated everything from the beginning, I too decided to write an orderly account for you, most excellent Theophilus, so that you may know the certainty of the things you have been taught (Luke 1:1-4).

One of the extraordinary features of the New Testament is how soon the Scriptures were written after Jesus’ death. There is no hint of the theology of Jesus gradually being fabricated by over-imaginative Christians in the years after his death. Far from it! The fully finished theological and historical record of Jesus exploded into being, fully formed, very quickly after Jesus’ time on earth came to an end.

What is more: we have an incredible number of early New Testament manuscripts that give us the assurance that what was written within living memory of Jesus, is what we read today.

The earliest piece of New Testament manuscript found by archaeologists is a tiny piece of papyrus found in Egypt. It is known as P52 and it is thought to date between 90-150AD, possibly just thirty years after the apostle John wrote it.

Because so many early copies of the New Testament text have been found, the different texts can be crosschecked for accuracy. Remarkably, the texts have been found to retain an accuracy of over 99%. In archaeological terms, this level of accuracy is unheard of; it has no parallel.

So please don't dismiss the gospel accounts of Jesus in the New Testament as unreliable.

The historical credibility of the gospels

The late Christopher Hitchens, one of the most vociferous 'new atheists', made the claim that there is, "no firm evidence whatever that Jesus was a 'character in history'." He went on to say that, "The case for biblical consistency or authenticity or 'inspiration' has been in tatters for some time, and the rents and tears only become more obvious with better research."⁴

Hmmm!

In order for him to say such a thing, Hitchens has needed to ignore scholarly research, embrace slanderous rhetoric, and pass it off as informed comment. His assertions have less to do with scholasticism than Goebbels' craft of propaganda, obfuscation and deception. His claims are so mind-bogglingly inaccurate that they are shocking.

Here's why:

Christianity is a historical religion

As we've said earlier: Christianity is not a philosophy that developed over the years. Nor is it one that has depended on one person's claimed 'revelations' whilst meditating somewhere. Neither is it a philosophy. Christianity is based on concrete historical events. This is Christianity's great strength: It is real, because it has a basis in history. This, of course, makes Christianity very vulnerable because if it can be shown to be factually incorrect historically—Christianity collapses like a pack of cards.

So, let's look at the historical evidence for Jesus' existence.

Josephus

The first evidence we have comes from Josephus.

Josephus was born c.37AD, just seven years after Jesus' death. He was a Jewish military leader who sought to defend Galilee from the invading Romans in 67AD. Unfortunately, General Vespasian (who later became emperor) captured Josephus. Josephus abruptly changed his allegiance and agreed to become an interpreter and advisor to the Romans. The Romans gave him a villa in Rome and supported him while he wrote a propagandist work, *Jewish War*, and a history of the Jewish people called *Jewish Antiquities*.

In this later work (written about 90AD) Josephus writes: (and I'm careful here to exclude any controversial sections that some historians think were added later):

About this time there lived Jesus, a wise man ... for he was one who wrought surprising feats and was a teacher of such people who accept the truth gladly. He won over many Jews and many of the Greeks ... When Pilate, upon hearing him accused by men of the highest standing amongst us had condemned him to be crucified, those who had in the first place come to love him did not give up their affection for him (Jewish Antiquities, 18,63-64).

Tacitus

Another person who wrote about Jesus was Cornelius Tacitus (c. 56-120AD). Tacitus was proconsul of Roman Asia. He wrote the *Annals of Imperial Rome*, which was a history of the emperors Tiberius, Gaius, Claudius and Nero. Only some parts of the *Annals* have survived. One section of the surviving literature gives an account of the great fire of Rome that raged for six days, destroying 14 of the 18 city districts. Tacitus mentions that Nero tried to deflect the blame for the fire from himself to Christians. He wrote:

Therefore, to scotch the rumor, Nero substituted as culprits, and punished with the utmost refinements of cruelty, a class of man, loathed for their vices, who the crowd called Christians.

*Christ, the founder of the name, had undergone the death penalty in the reign of Tiberius, by sentence of the procurator Pontius Pilate, and a pernicious superstition was checked for the moment, only to break out once more, not merely in Judea, the home of the disease, but in the capital itself, where all things horrible or shameful in the world collect and find a vogue (Tacitus, *Annals of Imperial Rome*, 15.44).*

Pliny the Younger

Another near contemporary of Jesus was Pliny the Younger (c. 61-112AD). He was sent by Trajan to sort out the disorganized province of Bithynia, south of the Black Sea. Pliny wrote about the rapid spread of Christianity and the fact that he had interrogated some captured Christians to find out about their faith. The letter is significant because it takes the existence of Jesus Christ for granted. He wrote about Christians saying:

...they had been in the habit of meeting on an appointed day before daybreak and singing a hymn antiphonally to Christ as if to a god, and binding themselves with an oath – not to commit any crime but to abstain from theft, robbery, and adultery, from breach of faith, and from repudiating a trust when called upon to

honor it. After this ceremony, it had been their custom to disperse and reassemble to take food of a harmless kind (Pliny, Letter 96).

The historical evidence of Jesus' existence is overwhelming, particularly when you add the very significant details recorded in the gospels. We need to remember that these gospel accounts of Jesus' life were written at a time when those who were eyewitnesses to Jesus' life could have challenged the truth of their contents.

There is no record of any challenge ever occurring.

Archaeological Evidence

Let's now turn our attention to the archaeological evidence for the gospel accounts of Jesus' life. It is fabulous stuff!

Nazareth

In 2008, the Atheist Press of America put out a book *The Myth of Nazareth—the invented town of Jesus*, written by amateur archaeologist, René Salm.

If René had taken a little more care he might have discovered that the modern-day town of Nazareth was, in all probability, a satellite hamlet of the main city of Nazareth that existed in Jesus' time. This main city (now known as *Tel Yafia*)⁵ would have been 2,500 meters southwest of the hamlet of Nazareth where Mary lived. (Her hamlet was probably one of five contained within the city borders.)

It is reasonable to assume that Joseph had his workshop in Nazareth city because that's where the population center was. The city would also have been the place where the synagogue existed—later made famous by Jesus when he went there and read from the book of Isaiah at the start of his ministry (Luke 4:14-21). The little hamlet of Nazareth (where modern Nazareth now exists) would have been too small to have a synagogue—as archaeology has confirmed.

History gives us some clues about how Joseph happened to be living in Nazareth, 160 kilometers north of his hometown, Bethlehem.

For much of the period that existed between the time of the Old Testament and the New Testament, the Seleucid Empire occupied Galilee and Judea. The Seleucids imposed Greek culture on the region. However, the Jewish Maccabean revolution (167 to 160BC) freed the Jews from the Seleucids, and allowed Jewish colonists to move north into Galilee. Some of these colonists developed a city that they named 'Nazareth' in celebration of their Davidic ancestry. The Hebrew word *nazara* means "of Davidic ancestry."⁶ Joseph, originally from

Bethlehem (David's city), would therefore have been at home in Nazareth city, as he was a descendant of king David.

It is likely that the distinctive Jewish culture of Nazareth city was stamped out in 68AD when Vespasian's Roman army invaded the region. The city was then Romanized... and continued on through the centuries until it was obliterated by the Muslim invasion.

Final proof of Nazareth's existence came from a fragment of stonework found by archaeologists in 1962 at an ancient synagogue in Caesarea Maritima. The stone tablet contained a list of places where priests were sent to perform their duties.⁷ One of the places it mentions is Nazareth. The inscription read: "*The eighteenth priestly course, Hapizzatez, [at] Nazareth*" (line 18).

We therefore know that the city of Nazareth existed and that it was big enough to warrant the services of priests who were rostered on to minister there.⁸

Can I just pause here and vent a little exasperation? Do atheists seriously think that those writing the biographies of Jesus would have invented a mythical town (such as Atlantis) and written about it to people who had, or could have had access to, those with a living memory of Jesus... and expect it to be unchallenged?

Seriously!?

Jehohanan

Some historians attack the historical credibility of Jesus' being buried in the tomb of Joseph of Arimathea. They said that no person defiled by crucifixion would ever be put into a family tomb.

Then, in 1968, building contractors working in northeast Jerusalem uncovered a family grave. It contained an ossuary box, (a stone box containing the bones of someone who had died). The ossuary box had a Hebrew inscription on it saying that the bones were those of Jehohanan the son of Hagkol. Jehohanan had been crucified some time in the first century and his lower leg fractured—just like those of the two rebels who were crucified either side of Jesus. The end of the nail that had pierced Jehohanan's heel was bent, making it extremely difficult to withdraw, so it had remained imbedded in the bone.

So it seems that a crucified person could be buried in a family grave after all.

The pool of Bethesda

Liberal theologians (who cast doubt on a lot of biblical historicity) have claimed that the gospel of John contains fictitious accounts written to embellish the Jesus story. They used to

cite the account of Jesus healing the lame man at the pool of Bethesda as one such example (John 5:1-9), as there was no archaeological evidence of such a pool existing.

And then... yes, you've guessed it... archaeologists working in the grounds of St. Anne's church, just north of the temple mount, confirmed the existence of an extensive pool complex that comprised the pools of Bethesda. Archaeologists had been working in the area for many decades, but it was only in 1964 that their excavations confirmed their existence.

John's gospel describes the pool in some detail. He speaks of the existence of five covered colonnades. These have all been found. One of the reasons excavations took so long to discover them was that so many buildings had been built over the top of the pools during the ages, including a pagan temple and a large Byzantine church.

Excavations showed the existence of two main pools separated by a dam wall. The depth of the pools is surprising. It is thought that these pools were used to water animals being taken through the sheep gate to the temple to be sacrificed. John's account of the water being "troubled" probably refers to the occasional earth tremors that occurred in the area. (Jerusalem is built over a geological fault line.)

Alexander, son of Simon

I've reserved the next archaeological find for last, as I find it particularly exciting.

In 1941, the Hebrew University professor, Eleazer Sukenick, and his assistant Nahman Avigad, were excavating the tombs of the Kidron Valley that runs along the eastern edge of the temple mount. They discovered a tomb that had been blocked by a large closing stone. When they entered the tomb, they found eleven ossuary boxes containing bones. The professor documented his findings, and the artifacts were stored away.

For some reason, the findings of the professor were not made public until 1962. When they were, it caused a sensation. On the side of one ossuary box facing the wall was inscribed "Simon Ale," the name "Simon," and the first three letters of "Alexander."⁹ Realizing he didn't have enough room to carve "Alexander", the engraver started again on the second line, carving "Alexander." Then, on the third line, he inscribed "(son) of Simon."

The lid of the box was inscribed "of Alexander" in Greek... and below it, in smaller letters, "Alexander QRNYT." The most probable meaning of QRNYT is that it is a misspelling of *qrnyh*—Hebrew for "Cyrenian.

Archaeologists conclude that it is highly probable that these bones were those of the son of the man forced to carry the crossbeam of Jesus' cross. Mark writes:

A certain man from Cyrene, Simon, the father of Alexander and Rufus, was passing by on his way in from the country, and they forced him to carry the cross (Mark 15:21).

Wow!

The fact that Mark gives details of both sons, suggests that their names were relevant to his readers. In other words, his readers would probably know of them because both men had become Christians. (It is possible that Alexander's brother, Rufus, is the Rufus mentioned by Paul in Romans 16:13.)

These are outstanding archaeological findings, and the consistent feature of these discoveries is that they back up the gospel accounts of Jesus. Christopher Hitchens' claim that biblical authenticity "has been in tatters for some time, and the rents and tears only become more obvious with better research" is so manifestly wrong and outrageous as to beggar belief.

Blame or believe

Jesus came to Earth with a truth claim... and that truth concerns your identity and mine. The tragedy is: many people have not listened to him. Sometimes, they haven't listened for rational reasons. Hopefully, these have been addressed. On other occasions, people haven't listened for emotional reasons. So, let's end this chapter by addressing some of them.

Should we blame God, or believe him?

Here's what can be said:

1. If God is distant and uninvolved with us; then blame God for being aloof. But if God has come to us to show us what he's like—then trust God.
2. If God is evil and is responsible for evil; blame God. But if God is good and has a plan to kill off evil—then trust God.
3. If God is powerless to change the character of a person on the inside; then blame God for being irrelevant. But if God has given us his transforming Spirit—then trust God.
4. If God has given us nothing to hope for beyond this life of suffering; blame God for being cruel. But if he has invited us to join his everlasting kingdom—then trust God.
5. If God is simply a theory, just one of many world-views competing for your allegiance; ignore him for being too vague. But if he is real and has come to us in history—then trust God.
6. If the idea of God has changed radically throughout history so that what is said about him is inconsistent; discard God for being confusing. But if the Bible has

given a clear, consistent witness to God's character and purpose over the years—then trust God.

7. If God requires you to make yourself good enough to earn the right to be with him; then dismiss God for asking the impossible. But if he has died in your place to make it possible—then trust God

No other person in history has made such claims or done such extraordinary things as Jesus Christ. No one else in history has displayed such spiritual authority—and backed it up with miracles of healing. No one else in Jesus' time has been so well attested by historical records.

The big question, of course, is, "What does this mean for you?"

Chapter 4) History, Morality, and Me

COMMENTARY, CONTEXT AND REFLECTION

This chapter seeks to get people ready to address the next chapter “Philosophy, truth and me” which is a key chapter in *God and Me*. It does so by telling the story of atheism and shining a light on how atheism has played out in history. Has it worked? Has it ever resulted in a freer, fairer, more civilized and prosperous society?

It was disturbing to read in a leading Australian newspaper that “millennials” in the West are gravitating towards Socialism because it is very trendy (as happened in the 1960s and 1970s)—without subjecting it to critical thought.

This chapter provides that critical thought—if people are open enough to seek it. (And that is a big *if!*)

Many of the subjects addressed in this chapter were first “road tested” in my blogs.

THE CHAPTER

There is an ideological battle going on between world-views in the Western world. It is a battle for your heart. One of the central issues in this battle is this question: Does the universe have meaning because God made it, or does it have no meaning? It is a question of ‘origins’.

Having a right understanding of origins is important because what you believe about it will determine the ‘world-view’ you live by. The Christian world-view is grounded in the Bible’s doctrine of creation being a deliberate act. This is in contrast to atheism’s world-view, which believes the universe is both irrational and meaningless.

It is no accident that the story of origins is placed right at the start of the Bible. It sits there, as if to say: “If you don’t get this locked into place, don’t bother reading any further.” Certainly, if you don’t build on the truth of the opening few chapters of the Bible, your life will be adrift; un-tethered to an ultimate grounding for morality, meaning, truth, and hope.

The first three chapters of the Bible state unambiguously that there is only one God, and that this one God has created all that exists. It makes it clear that God thought his creation was precious. (The Hebrew word used to describe this is *towb*, which means ‘good/lovely/precious’.) They also make it clear that God is not apathetic toward humankind, but seeks to have a relationship with us.

These are the central truths upon which the rest of the Bible is predicated. The Bible is the record of God rescuing us back to himself, along with the rest of creation—and it is an amazing story.

So, tell me: What is it you believe about your ‘origins’? Why do you exist? Are you a meaningless accident, or are you really meant to be here? What evidence is there of you being a meaningless by-product of an absurd and inexplicable phenomenon of existence? Or does the extraordinary, finely tuned order of the cosmos, its mathematical beauty, and its ability to form humanity, indicate purpose?

What is the truth about you?

Is it all about my happiness?

The concept of truth has taken a bit of a battering in recent decades. Evidently, people are less inclined to seek it these days, preferring instead to pursue those things that make them ‘happy’. Happiness is now the measure of what is ‘good’.

This sort of thinking is similar to the Epicurean philosophy that existed twenty-three hundred years ago. And now here it is again, bobbing up in history. Epicurus lived in the 3rd century BC. He was a rationalist who advocated prudence and aimed at the ideal of developing happy, equalitarian communities—without any thought of God. Death was simply the dissolving of a bag of atoms. Sadly, it didn’t take long for his thinking to degenerate into a philosophy of self-focused happiness. *My* happiness became the ultimate good. *My* happiness became the ultimate goal. The ultimate significance was therefore *self*. And—dare I say it—the ultimate god I serve, became *self*.

I once listened to the Australian politician, Kevin Andrews, talk about his book on marriage. It was called, rather sadly, *Maybe I do*. When introducing his book to us, he said that a few decades ago, marriage was considered to be a morally good thing to do... and it was morally good to do all you could to make your marriage last. However, in recent years, this has been overtaken by a new morality. Now the focus is not on doing the right moral thing in marriage. Now the measure of all things is ‘does it make me happy?’ Something is only morally good if it makes me happy.

It is little wonder that narcissism has become one of the diagnostic features of our age. The term ‘narcissism’ comes from the Greek myth of Narcissus, a young man who fell in love with his own reflection in a pool of water. It is important to note that narcissism is different from self-esteem. Narcissism is having an inflated and untrue image of self. Self-esteem is having a true image of yourself, and knowing your worth.

People with self-esteem value personal achievement and personal relationships. This is in contrast to Narcissists who lack empathy and have poor relationship skills. So, here’s a hint: Don’t marry one.

Professor Jean Twenge and Keith Campbell, have been investigating whether people born in more recent generations are more narcissistic than previous generations. It turns out that they are, and they have documented their findings in their book *The Narcissism Epidemic: Living in the Age of Entitlement*.¹ Evidently, plastic surgery rates have increased, and there is a greater drive to be ‘unique’, to stand out rather than fit in. This is even evident in the names people are choosing for their children. Crucially, they show that relationships are not as stable as they once were. More children are being born to unmarried couples, and people don’t stay married for as long.

Into the midst of this self-worship and self-obsession comes Jesus. He comes as a servant to wash the feet of his disciples and die on a cross for us to pay the price for our sins. The difference between his attitude and that of the world today is monumental.

The story of atheism

Let’s return to the ideological fight over you. Who will win your heart—God or atheism?

To help you decide, let’s have a look at atheism.

The oldest and most pervasive sin of humankind is the first sin mentioned in the Bible. It was the desire of Adam and Eve to have the authority of God when it came to their opinion about right and wrong (Genesis 3:1-6). This has expressed itself in history either by humanity inventing religions that they can use to control God... or deciding they didn’t need God at all. In recent years, Western civilization has largely chosen the latter.

The early Greek philosophers Leucippus (5th century BC) and Democritus (4th century BC) promoted ‘atomism’. This was the idea that all matter (including gods) was made of indivisible tiny particles. Whilst gods may exist, they were not interested in humanity. It was therefore better to concentrate on what could be rationally understood. This philosophy became formative of the materialist thinking of Epicurus, whom we have already mentioned. His radical materialist thinking said that we should focus on building caring, inclusive communities and not look at creation and ask why it exists or who is responsible for it. Rather, we should only ask *how* the natural sciences work. We need to get on and try and make the best of things without thought of God.

This radical materialist thinking effectively shut people down from asking the really interesting questions regarding identity and meaning. It promoted a very shallow, two-dimensional way of thinking that resulted in communities living without purpose, and without a moral bedrock. It is significant that Plato was dismissive of such philosophy saying that no atheist could be trusted because they had no god to whom they were accountable.²

Epicurean thinking went on to influence the Roman philosopher, Lucretius who popularized atheism through his famous poem *De rerum natura* in 55BC. The poem became lost to history until Poggio Bracchiolini, a papal secretary, rediscovered it in the library of a German monastery in 1417. Lucretius' work was quickly disseminated, largely due to the newly invented printing press (which aided the dispersal of atheistic literature some years before it aided the spread of Reformation literature, including the Bible).³

Philosophers were hungry for this sort of thinking during The Enlightenment and spread atheism throughout Europe under the banner of 'rationalism'. The Irish freethinker, John Toland (1670 - 1722) took the thinking to Germany where he tutored Caroline of Ansbach, the teenage princess who went on to marry George II of England.

America's contribution to the spread of atheism came from fuelling into flame the idea that religion was 'at war' with science. The educationalist and diplomat, Andrew White, and the philosopher and physician, John Draper, both used a misinterpretation of the Galileo trial to promote the myth that Christianity was inherently antagonistic to science.

And now this atheism has trickled down through history to you... and is being preached by the likes of Richard Dawkins.

So, what are you going to do with it?

Atheism is a fabulous tool for giving yourself a philosophic mandate to 'do your own thing', to 'do what you like', to 'be your own king'. This mandate for self-obsessed autonomy is, of course, particularly attractive to the young. Only later do they discover that it turns to ashes in their mouths, leaving them with the taste of meaninglessness and lack of hope. Their suicide rates have risen alarmingly.

So, be careful with atheism. God has revealed his glory in the cosmos, and revealed his love in Jesus. I therefore confess to getting grumpy when people stand in the way of our children hearing about this good news. So, let me direct some fairly blunt talk to the self-styled urban literati—the deistic priests of our time—who tell us what is, and is not, permissible to believe. It is a message for trendy libertines who have a monopoly on our media, who huff and puff their political correctness and atheistic convictions. My message is this:

Hands off our children! Don't you dare damage them by imposing atheistic meaninglessness in the guise of secularism. Don't rip their value and their sacred identity from them. Don't rip away their 'ground of truth' and leave them floundering in shallow, hedonistic, self-obsession. Your legacy to them is one of meaninglessness and lack of identity—both of which help fuel the statistics of their suicide.

Don't you dare damage our children with your atheistic, values-free convictions, and claim you are being rational. You are not being rational. To claim that everything came from nothing as a result of nothing, takes a staggering level of faith. It certainly fractures the laws of 'cause and effect', the basic principle that undergirds all of science.

God came in history as Jesus—a verifiable fact. He came to die for our sins and rescue us back to God. This is a life-giving, hope-giving, value-imputing act that stands in stark contrast to the illogical meaninglessness you are seeking to impose on our children.

Whew! Just felt I needed to say that.

Who's leading social change?

This brings me to the subject of who it is that is leading Western civilization down the path of atheism.

The media have certainly played a big part in this. They are increasingly moving their emphasis from reporting news to imposing social engineering agendas on society. Media personnel seem to have become today's self-appointed 'Gnostic priests' possessed of secret wisdom the rest of us don't have. We are simply "useful idiots," (to borrow a term used by Communist leaders to describe non-Communists during the cold war).

The scorning of Christianity and the deification of self (a habit we picked up during The Enlightenment) is a culture that is fostered particularly by the humanities departments of our universities. These, of course, have provided most of our media personnel.

It is a wonder to me that much sense comes from the warring interests of competing minority groups at our universities. The university culture that currently exists seems united in only two things: the denigration of Western civilization, and the ridicule of Christianity. As such, the path they point to for the future looks both bleak and poorly defined. Very little thought seems to have been given to what our meaning is; what the basis of morality is; and what destiny we can hope for. Our humanities departments seem unable to teach anything other than a resentment philosophy that leaves people floundering in a sea of self-obsessed meaninglessness. This is a dangerous place to be... which brings me to a story:

Guarding the philosophical climate of a nation

I once lived just a few kilometers from a place of mass murder.

At the time, my father was a chaplain to the NATO forces that were stationed at Hohne in north Germany. I spent my holidays there when term ended at boarding school. The infamous Nazi concentration camp, Belsen, was just a couple of miles away.

I remember it clearly. A straight concrete road ran to Belsen from Hohne. I visited it once when I was sixteen years of age, but being so young, I was not able to understand the full horror of what I was seeing in the photographs on display there. What I did notice, however, was that I couldn't hear the sound of any birds singing. It was as if nature itself was holding its breath, appalled at the evil that had taken place there.

What little I was able to absorb caused me to wonder how the country I lived in and admired, could be capable of such evil? Somehow, the most civilized nation in the world; a nation of exquisite culture and scientific excellence, had walked away from its Christian heritage—and produced the extermination camps of Belsen, Auschwitz, Treblinka and Majdanek.

General William Donovan, a member of the US prosecution team at the Nuremberg war trials, kept records of all that was learned at the war trials conducted there. These records were organized into 150 volumes, and are now kept at Cornell University. They make sobering reading as they reveal that the Nazis understood that Bible-believing, evangelical churches would have to be neutralized by infiltration, extermination and indoctrination. Only those churches that compromised their Christian values would be spared. Donovan reported: “National Socialism, by its very nature, was hostile to Christianity ... The purpose of the National Socialist movement was to convert the German people into a homogeneous racial group united in ... aggressive warfare.” Donovan's reports make it clear that, notwithstanding public rhetoric, the Nazi party planned to eliminate authentic Christianity completely.⁴

It would seem that atheism, whether it be in the form of Hitler's National Socialism, Communism, or the neo-Marxist ideologies that are becoming the vogue in the West—cannot help but remove all that is sacred from what it means to be human... and this paves the way for the vilest abuses that humankind can perpetrate. Tragically, it seems that without God, humanity reverts to the law of the animal kingdom, where it makes perfect sense for the strong to enslave, predate, and abuse the weak.

The Austrian psychologist, Viktor Frankl, survived the horrors of no less than four Nazi concentration camps. When he reflected on his experience, he wrote: “I am absolutely convinced that the gas chambers of Auschwitz, Treblinka and Majdanek were ultimately prepared not in some ministry or other in Berlin but rather at the desks and lecture halls of nihilistic scientists and philosophers.”⁵

Abuses by any military regime cannot occur unless its nation's opinion leaders first establish a philosophic climate that removes both the sacredness of humankind and godly moral boundaries. Sadly, the West is now doing both. The humanity departments in our universities have been allowed to develop an intolerant anti-Christian, Neo-Marxist culture that is oppressive. The justification for this is that they are 'enlightened rationalists'. In reality, they neither understand the scientific wonders and mysteries of the cosmos, or the historical and theological underpinnings of Christianity. They just re-quote tired anti-Christian clichés which they have failed to examine thoroughly for truth. It seems as if the wisdom of millennia accumulated by the world's cultures is being trashed, and the lessons of history ignored. No one remembers that Communism once tried to dismiss the concept of family, but had to reverse their decision when they saw its ruinous effect on society.

Today's liberal ideas have been smuggled into our society under the banner of 'compassion' and 'justice'. These emotive words have been used to shut down rational debate. I sometimes wonder whether I've woken up in some sort of parallel universe. It's hard to believe what's happening.

With some surprise, I discover that I am now a grandfather. This lovely reality brings with it some disquieting fears. I confess to being deeply concerned for my grandchildren's future. My generation had the choice of passing on to them a blessing or a curse. Sadly, I fear we have passed on the latter. Our children have been brought up with a state-sanctioned secular world-view. As a result, they don't know anything about why they exist, what their meaning is, what their moral boundaries are, or what destiny they can hope for. As a result, they believe themselves to be meaningless... and are committing suicide in record numbers.

So, what of the future?

History has taught us that the lifecycle of a civilization is inexorable and inevitable—almost. Only one thing has ever reversed a civilization's decline and injected new life into it, and that one thing is Christianity. John Wesley's Methodism is one such example. It is widely credited with preventing England's poor from descending into total gin-sodden depravity, and it introduced a moral climate that probably prevented England from suffering the bloody uprisings and revolutions that were occurring in Europe. The poor and the desperate encountered the gospel.

And so can you.

Truth and heritage

It can fairly be said that we are currently living in the twilight of truth. We live in a world of half-truths, manipulation and deceit that has made truth hard to find. This is

interesting given that our Christian heritage once provided a culture that valued truth. Fortunately, some in society have retained enough memory of Christian morality to not abandon the concept of truth entirely. In fact, it can be said that our current secular society is parasitic on its Christian heritage for its claims of tolerance and justice... whilst simultaneously undermining these ideals by promoting meaninglessness, moral laxity, and lack of absolutes. This is a pity because the best that secularism can offer society is a list of rubbery rules that lack any foundation that might give confidence that they were 'right'.

As the West free-falls away from its Christian heritage, it is beginning to forget the ideals that have underpinned its medical, educational, legal, and political systems. Whilst Christian culture remains vaguely present in people's psyche, it is all but invisible to them because they have swum in it for so many centuries. Just like a fish swimming in water doesn't know it is wet, people today don't know what a world with apparently 'self-evident' morality looks like. They can't conceive of truth, or good, without instinctively drawing on their Christian heritage to some degree. Despite their excursion into postmodern ideals of relativism and the scorning of meta-narratives such as the Bible, most people in the West do not fully appreciate the level to which they are still influenced by Christian values.

But now, society is marching into a future without Christianity, and they don't know what it's going to be like. From the evidence we have so far, (garnered from historical precedent), Western civilization's prospects are not promising.

A pertinent question to ask is: What is the end-point to the West's foray into atheism? Is it to become drunk with the promise of unrestraint; to become slaves to untutored stupidity and self-destructive immorality? Is it the freedom to be mad, bad and sad? If history has taught us anything, it is this: It is fiction to believe we don't need God to form a civilized, just society. Many philosophers have tried. Even non-atheistic philosophers such as Immanuel Kant and *Søren Kierkegaard* have fallen into this trap. Both attempted to come up with a philosophy for morality that didn't require God... and both failed.

Could this mean that the 18th century Scottish philosopher, David Hume, is right in believing that moral decisions are made intuitively in response to our emotions... and nothing is inherently right or wrong?

What can history teach us?

As The Enlightenment unfolded, Hume's 'emotional self' came to be seen as nothing more than a cultural construct. For the libertines, this meant relocating the source of authority about good to 'the self'. And for those wanting to reform society, it meant relocating the source of authority about good to a governing system (an idea encouraged by the thinking of the German philosopher, Hegel).

The tension between these two ideologies has resulted in the bun-fight we see going on in society today. On one hand, we have libertarians seeking personal freedom—as per Hume; and on the other, we have minority groups (post-modernists) who want to reform society so they can have power—as per Marx. Neo-Marxists do, however, make use of liberal-thinking libertines. They need advocates of liberal thinking to help rid society of Christian values... which then leaves the stage clear for new governing systems to be put in place.

Significantly, both groups don't know what to do about 'morality' and have left it undefined and undervalued. Sadly, with no God to guarantee what good is, society is losing its cohesion and has become terribly vulnerable.

Historical evidence indicates that when God is dismissed, society loses the cultural antibodies it needs to protect itself from totalitarianism—where truth becomes meaningless, justice is trashed, high control is exercised, and humans are reduced to being useful automatons—and if not useful, expunged. Societies that have cast off Christian values inevitably collapse into some sort of totalitarianism that dehumanizes and devalues people. It consigned millions to starve to death in its pursuit of communist collective ideology. It murdered people in gas chambers, and littered the 'killing fields' of Cambodia with bones. At a societal level, history teaches us that humanism inevitably transmutes to in-humanism despite the ideals of its philosophers.

Notwithstanding this, the West is blindly stumbling toward an atheistic future, banning Jesus from its schools, its politics, its moral laws, and marriage. Forgive me if I am not optimistic about this. It is difficult not to feel a little bleak as a new generation emerges that doesn't know its identity, or what it is that guarantees worth and hope.

So, what does this mean?

It means this: There is an urgent need for our nation to repent, to discover its true purpose, true value, true meaning, and true hope. In other words, it is time to look seriously at the claims of Jesus.

It is highly significant that we can check them out. Why? Because Christianity is evidence based, as we said earlier. This means that Christian hope is not just wishful thinking. It is not a philosophical analgesic someone dreamed up to make them feel better in the face of the inevitability of death. It has at its heart, the love of God, the initiative of God, and the presence of God amongst us as Jesus.

Christian hope is therefore a future certainty, grounded in the reality of Jesus.

There is not much hope without the truth of God, is there? The German philosopher, Friedrich Nietzsche popularized the idea that "God is dead" and attacked all doctrines that he considered to be a drain on life's "expansive energies." (This probably helped explain why he went mad and died, probably of syphilis, in 1900.) Without God, his "life expanding"

comments didn't amount to much. He said, "In reality, hope is the worst of all evils, because it prolongs man's torments."⁶

Oh dear!

Let me give you an invitation. When you are tired of the deceits of humankind and feel ready to embrace truth, explore the reality of God.

Personally, I believe God hangs his business card in the cosmos; teaches us his character in Scripture; and comes seeking us in person as Jesus. In other words, he invites us to share in a divine friendship that is as large as the cosmos, as intimate as a child in a manger, and as committed as a man on a cross.

True atheists can't allow moral outrage

Some evil is so shocking that it defies belief. A Nazi guard asking a mother to choose which of her two children will be taken to the gas chamber; the rape and mutilation of women in war; tossing babies in the air and catching them on bayonets; the bombing of children in a school...

How do you respond to this?

This sort of raw evil causes moral outrage in most of us. Only the depraved and those who are evilly deluded could think otherwise. We somehow know instinctively that these things are wrong.

This prompts the question: How do people become evil, and what world-views encourage it?

Hitler adapted Nietzsche's atheistic philosophy and used it to underpin his Nazi ideology. Without the constraints of God, it was perfectly okay for Hitler to dominate, enslave and kill the weak. His abiding ambition was for the Aryan race to take over Europe through savage warfare, and establish itself as the crowning power of Europe, indeed: of history.

In doing this, Hitler was simply imitating the brutal reality of the animal and plant world. It was therefore 'natural'. But whilst there is some sort of perverse logic to this thinking, most of us recoil at the evil it sanctioned... and we do so at a deep, visceral level.

The same is true for Communism. It too has stripped humanity of its sacredness and subsumed everything to the well-being of 'The Party'. When discussing the terrible consequences of its policies on the starving peasants of the Ukraine, Stalin is reputed to have said, "If only one man dies of hunger, that is a tragedy. If millions die, that is only statistics."

This de-humanizing philosophy also explains the evils committed by Pol Pot and his army. (They did the bayonet thing with the babies in Cambodia.)

But here's the question: If there is no God to guarantee what is morally good or morally evil, how can we know what 'good' actually is? At best, all we can say is that evolution has taught us that things are more 'efficient' for our species if we co-operate and are nice. But that doesn't really satisfy. After all, evolution has taught many animals to kill off rivals from other species, and even from within their own species.

So, the big question is: Where do atheists get their 'visceral' moral code from? If they hold true to their atheistic tenets, they can't have moral outrage. They can only talk in terms of what is efficient for the well being of their DNA.

From this, I can only conclude that most atheists actually make very bad atheists. Put simply: Their world-view is not consistent with what they experience in reality.

Some atheists speak of 'good' as something that is self evident, and therefore we don't need God to be moral. There are two answers to this.

The first is that for many atheists, morality is self-evident only because they have, as we said earlier, a folk-memory of the Christian culture that was instilled in their lives by their grandparents. The sad reality is that many atheists are leaning on the Christian heritage of their forbears... whilst simultaneously whittling these values away. Quite how long these values will last in their hands, who knows

The second thing worth mentioning is that Christian morality is not self-evident in many non-Christian civilizations. In some cultures, trickery and deceit is lauded (e.g. by the Sawi tribe in Irian Jaya, pre-1960). In others, strength and dominance over others was lauded above all else (such as the early Roman Empire).

What we can say, however, is that most humans are instinctively moral beings. The Bible suggests this is because we are made in the image of God—who is the preeminent moral being.

So, what can we conclude?

Simply this: If you want to be authentically and consistently moral, you need to acknowledge God. Otherwise, there is no reason, value or purpose in the 'good' you define for yourself. And what happens when the 'good' of *my* happiness is threatened by *your* good? Whose good wins?

Without God, morality falls into a heap.

This reality has even percolated through to Richard Dawkins. He admitted that if God were eliminated from society, people would behave poorly. Dawkins cited an experiment carried out by Professor Melissa Bateson of the University of Newcastle, U.K. It entailed setting up a coffee station with a 'honesty box' system of payment. Evidently, when a picture

of a large pair of eyes was displayed near the honesty box, customers were three times more likely to pay. It instilled the idea that someone was watching.

The Jewish agnostic, David Belinski, picked up this idea when he wrote:

*What Hitler did not believe, and what Stalin did not believe, and what Mao did not believe, and what the SS did not believe, and what the Gestapo did not believe, and what the NKVD did not believe, and what the commissars, functionaries, swaggering executioners, Nazi doctors, Communist Party theoreticians, intellectuals, Brown Shirts, Black Shirts, gauleiters, and a thousand party hacks did not believe, was that God was watching what they were doing.*⁷

So, if morality is important to you, seek out the God who both encourages it and guarantees it.

A warning from Russia

Aleksandr Solzhenitsyn (1918 - 2008) was a Russian philosopher and a political prisoner of the Communist Party. He was eventually released from the *Gulag* he was in, and came to America, where he watched, with deep sorrow, as Western democracies slowly became the sort of amoral society he'd just escaped from. In a speech given at Harvard's 327th anniversary in 1978, he said:

The defense of individual rights has reached such extremes as to make society as a whole defenseless against certain individuals. It is time, in the West, to defend not so much human rights as human obligations.

*Destructive and irresponsible freedom has been granted boundless space. Society appears to have little defense against the abyss of human decadence, such as, for example, misuse of liberty for moral violence against young people (and) motion pictures full of pornography, crime, and horror.*⁸

Solzhenitsyn sounds a warning bell, but he laments the fact that the West is not listening. The reason for this, he said, is because change in societal value has come about gradually. This has resulted in society sliding lazily into a *laissez faire*, benevolent humanism. He says that the driving philosophy behind this move is social Marxism, the erroneous idea that, "there is no evil inherent in human nature. All the defects of life are caused by wrong social systems, which must be corrected."⁹

Solzhenitsyn gives a stark warning. He says that liberalism inevitably morphs into radicalism, and radicalism morphs into socialism.

If Solzhenitsyn is right, then it is a frightening snapshot of the future for Western society... unless we re-discover our spiritual identity.

It should therefore be of concern that the Australian media reported that socialism is booming in popularity among young people.¹⁰ It is booming, evidently, because they have no knowledge of how the socialist world-view has played out in history. No one has ever tapped them on the shoulder and pointed out that refugees are not flocking to seek out the civility and culture of any Communist or neo-Marxist state. Communism, in the form of Lenin, Stalin and Mao was responsible for killing tens of millions of people. Many were murdered and many others were starved to death because of the enforced ideology of collective farming. Pol Pot was less subtle: he simply engaged in blatant genocide. By any measure: Marxism's socialist heritage is blood red.

But it seems that many young adults don't know their world history. This is ironic because in their lust for unbridled liberty, they are, in fact, laying themselves open to a repressive ideology that will enforce conformity... and lack any form of Christian civility.

At a conference on Marxism in Melbourne in 2015, The British academic, Roz Ward, spoke about why she developed the *Safe Schools* program (designed to create safer and more inclusive environments for same sex attracted, and intersex students in primary and secondary schools). She did so, she said, for the express purpose of implementing Marxism in the classroom. Roz Ward provides a good example of a neo-Marxist using the libertine wing of society to further her own ideological cause.

Such behavior gives me no reason to be confident about the future. Such things have even caused the columnist and activist, Jonathon Van Maren, concern. He wrote an article entitled, "Atheists sound the alarm: Decline of Christianity is seriously hurting society."¹¹ In his article, he cites the British journalist, Douglas Murray, who calls himself a 'Christian atheist' i.e. someone who is an atheist but who has Christian morals. Murray says:

...our modern concept of human rights, based as it is on a Judeo-Christian foundation, may very well outlive Christianity by only a few short years. Cut off from the source, our conception of human rights may shrivel and die very quickly, leaving us fumbling about in a thick and impenetrable darkness.

This should give us cause for thought.

The American philosopher, David Bentley Hart, reminds us:

Among all the many great transitions that have marked the evolution of Western civilization ... there has been only one—the triumph of Christianity—that can be called in the fullest sense a 'revolution': a truly massive and epochal revision of humanity's prevailing vision of reality, so pervasive in its influence and so vast in its consequences as to actually have created a new conception of the world, of history, of human nature, of time, and of the moral good.¹²

It would be a pity to see all this disappear.

Both reason and intuition are pointers to the need for morality, but it is only God who can give that morality its foundation and guarantee of what is 'good'. Without God's parameters and values, morality collapses into expediency... and expediency will always trash truth. When that happens, you have moral freefall that only a totalitarian state can survive... for a while.

Put simply: history has shown that the idea that a nation can have a healthy morality without religion is a fiction.

Satisfaction and fulfillment

Humankind has to face one of two great disappointments. The first: is never being able to achieve one's goals. The second: is to have achieved them.

Why do I tell you this?

You may remember the American Rock band, Imagine Dragons? The band gained notoriety in 2012 when it shot to fame with its debut album *Night Visions*. It sold over 2 million copies in the US and went platinum in twelve countries. They were named "The Breakthrough Band of 2013," and *Rolling Stone* magazine named their single *Radioactive* "the biggest rock hit of the year."

They went on to win a Grammy Award for Best Rock Performance, and a World Music Award. In May 2014, the band was nominated for a total of fourteen different Billboard Music Awards, including Top Artist of the Year and a Milestone Award. They had reached the top... and experienced the goal they had worked toward all their life.

However, the things that went along with fame disturbed the band's lead singer, Daniel Reynolds. He found himself growing increasingly disconnected from his family and from life in general as the band's success grew. He stated: "That's a scary thing when you get everything that you could have wanted but yet you still feel an emptiness, because at that point you think, *Oh man, if this doesn't fill it, then I don't know where to look anymore.*"

Daniel had achieved the goal he had dreamed of and pursued his whole life... but when he reached it, he found that it left him empty

So tell me: How's your sense of emptiness? What has not yet been fulfilled in your life? What are you still hungering for concerning hope, identity and meaning?

The Australian aborigines have a saying: "A man will remain a child until he knows his story." So, tell me: Do you know your story? Do you know who you are, why you exist on this planet, and what your intended destiny is?

If you listen to the current bevy of strident atheists, life is pretty bleak. There is only darkness. The twentieth century French biologist, Jacques Monod, said: “The ancient covenant is in pieces: man at last knows that he is alone in the unfeeling immensity of the universe, out of which he has emerged only by chance. Neither his destiny nor his duty have been written down.”¹³

The danger in remaining “a child” and not knowing your identity or purpose is that you collapse back into the behavior of the animal kingdom, and things can become pretty ugly.

It is therefore crucial that you know who you are, what your purpose is, and how much God values you.

Chapter 5) Philosophy, Truth, and Me

COMMENTARY, CONTEXT AND REFLECTION

Up to this point, the book *God and Me* has addressed two rational objections to Christianity: its scientific credibility, and the historical evidence for Jesus Christ. One particularly large objection remains, and this is the antagonism towards Christianity shown (in general) by modern philosophers. If our young adults see our designated ‘thinkers’ espousing atheism, it is little wonder that they too wish to align themselves with them.

As such, this chapter takes a cold hard look at modern philosophy and shows up its darker side; a side not known to many.

THE CHAPTER

Where does today’s society get its sense of identity from? Where does it get its values from?

Personally, I don’t think that society gets it from anything very academic. Society seems to lazily absorb its values from films, media opinion leaders, and songs. I have always felt that songs are where the soul of a civilization comes out into the open. I’m reminded of Simon and Garfunkel’s wistful ballad, *Sounds of Silence*, in which they sing: “the words of the prophets are written on the subway walls...”

Is that where we have to go to get our identity—to the nihilism and rebellion graffitied onto subway walls... and if so, should this be of concern?

Yes and no.

I say “no” because I am very glad society does not go to our universities’ philosophy departments for answers about meaning and values. Many Western philosophers have closed their minds to the idea of God, and can only see life through the filter of atheism. As a result of this, the art of philosophy has largely died... and philosophy departments have closed in many universities. Hardly anyone in our nation can name a current philosopher who is making a significant impact on the culture of our time.

Why is this?

I’ve had a little peek into the world of modern philosophy, and I don’t like much of what I see. It is a world that has invented its own vocabulary—a secret language that is unintelligible to most other people. But whilst modern philosophy’s inability to communicate itself in common language is a major failing, it is not its main failing. Its main failing is that philosophers in the last century or so have chosen to put on blinkers that stop them seeing the rational evidence for God. They give little evidence of looking at any philosophy earlier than René Descartes (1596 - 1650) and so ignore all non-materialist philosophies. (Descartes, a

French philosopher, is considered to be the father of modern philosophy.) Having relegated God to the sidelines, philosophy today has been unable to give humankind any grounds for knowing its identity, meaning, truth or hope. It can only offer silence when it comes to the ‘big’ questions of life. As a result, today’s philosophy is in retreat, and can only do two things:

First: it has stopped asking questions about the big issues of identity, meaning and values... and has concentrated on bickering about the rules of logical thought. In other words, today’s philosophers have turned philosophy into a sterile academic mind game. And nobody cares much about that!

Second: as modern philosophy has journeyed down the atheistic rabbit hole, it has lost sight of the basic question: “If this is the way the world is, what is the best way to live?” It has simply concluded that life is meaningless, and that there is no such thing as truth. Nothing is inherently good or sacred.

Well... thanks very much you modern philosophers. You are not only incomprehensible, but you are so blinkered that you are completely unable to offer anything to humanity other than meaninglessness, and a philosophy of living that is as mournful as it is destructive.

It is destructive because this thinking boils down to ‘do your own thing’; ‘be your own god’. This, of course, opens the doors to unbridled, self-centered, hedonism. This philosophy really got under way in the 1960’s with the thinking of Jean-Paul Sartre (1905 - 1980). With his existentialism, ‘nothingness’ replaced God; hopelessness replaced hope; and truth became something you invented in the moment.

Sartre spoke of humans being trapped in a permanent state of frustration because we can choose what we are but we can never become what we really want to be. (His is the angst-cry of a typical existentialist who makes no room for God.) Sartre says that the only relevant values are the ones you create in moments you encounter other people. Essentially, it is all about ‘you’. You create your own values in reaction to others. This gives you the freedom to choose whatever you want to believe, because there is no reality beyond the self.

His relevance for us today is that his existentialism has given birth to the ‘wild-child’ we know today as ‘post-modernism’. It is a way of thinking that has significantly influenced today’s culture, often unconsciously. Post-modernism scorns institutional establishments and traditional moralities, examining both forensically for their systemic repression of minority groups. It calls for the old order and their meta-narratives (such as the Bible) to be supplanted by the new order—minority groups. It demands that old truths be trashed. There is now no

such thing as truth. Truth is simply what works for you at the time. You are free to change it tomorrow.

Sartre advocated polygamy and had, at one time, four mistresses on the go. His philosophy of loose-living and revolutionary ideas perfectly suited the climate of the 60s.

Then eventually, all the revolutionaries woke up sexually dissipated, without knowing who they were. And when they grew up a bit more, they couldn't pass on any meaning or values to their children. Some of the better informed also noticed Jean-Paul's revolutionary Marxist ideals being played out by Pol-Pot's murderous regime in Cambodia.

So... if that's the best modern philosophy can offer—good riddance.

But there is a part of me that knows that notionally, philosophy *should* be concerned with ideas of truth, meaning and sound reasoning—and that, surely, is a good thing. I, for one, would welcome truth that was a little more than what is written on a subway wall. But if you are to do philosophy well, you will need to take off the blinkers and consider the rational, social, historical and moral evidences that exist for God.

Anti-theism removes reason from existence, and removes what's sacred from humanity. This has led to scientific absurdity and the most horrific evils of history. Put simply: The madness of anti-theism has delivered hell on earth.

In contrast, authentic Christianity has been civilization's greatest blessing.

Where are the atheists?

Some in the science departments of our universities have begun to notice that the philosophy departments are becoming clubhouses for atheists. The American physicist, Robert Griffiths (winner of the Heinemann Prize in mathematical physics in 1984) said: "If we need an atheist for a debate, we go to the philosophy department. The physics department isn't much use."¹

It is extraordinary, isn't it, that you don't go to the science department (the place of things empirical and rational) to find an atheist; you go to the philosophy department. Now, I know Griffiths' comment is a generalization, but it nonetheless makes you think.

The geneticist, Baruch Shalev, documented the religious views of all 719 Nobel Prize winners from 1901 to 2000, noting the percentage that were atheists, agnostics or freethinkers. Surprisingly, only 10.5% fell into that godless category. Very significantly, this figure dropped to only 4.7% for physicists, and rose to 35.2% for winners in literature.² It would seem that those who really 'know' the empirical reality of the universe are those who believe in God.

Christian Anfinsen, Nobel Laureate in chemistry said the same thing with rather less grace: “I think only an idiot can be an atheist. We must admit that there exists an incomprehensible power or force with limitless foresight and knowledge that started the whole universe going in the first place.”³

If this is true, it rather suggests that our atheistic philosophers don’t know enough.

Philosophers don’t know enough

The extraordinary order scientists see in the universe demands some sort of explanation. The American astrophysicist, Gregory Benford, writes: “The overwhelming impression is one of order. The more we discover about the universe, the more we find that it is governed by rational laws ... You still have the question: why does the universe bother to exist?”⁴

Whilst science can lay bare the workings of the universe, it can’t tell us *why* it exists. As such, it is silent on the really big questions of life. Erwin Schrödinger (1887 - 1961), a Nobel Prize-winning physicist, put it well when he said: “The scientific picture of the world around me is very deficient. It gives me a lot of factual information, puts all our experience in a magnificently consistent order, but is ghastly silent about all that is really near to our heart, that really matters to us.”⁵

In a 1948 debate between Father Frederick Copleston and the atheistic philosopher, Bertrand Russell, Russell said: “I do think the notion of the world having an explanation is a mistake. I don’t see why one would expect it to have.”⁶

This comment from someone who was arguably Britain’s top atheist is truly extraordinary. His answer to the mind-boggling complexity, codes, and patterns of the universe was simply to not see them, and not ask questions about them. This is unbelievable. It would be like an explorer seeing the coast of a magnificent new land through a telescope, and saying, “I don’t think we should ask what that is, or why it exists.”

I hope you are as deeply troubled as I am that such brain-dead thinking could masquerade as sophisticated thought. It is appalling! It is sticking your head in the sand and saying, “because I choose not to see it, it doesn’t exist.”

This sort of thinking has much in common with what philosophers call ‘positivism’. I’ll let Einstein tell you what it means. He said: “I am not a positivist. Positivism states that what cannot be observed does not exist. This conception is scientifically indefensible, for it is impossible to make valid affirmations of what people ‘can’ or ‘cannot’ observe. One would have to say, ‘only what we observe exists’, which is obviously false.”⁷

Three cheers for Einstein!

Anthony Flew, who as we said earlier, was atheism's preeminent philosopher in the late twentieth century, came to believe in God's existence through examining the evidence. He talks about the "endemic evil" of dogmatic atheism that says, "We should not ask for an explanation of how it is that the world exists; it is here and that's all."⁸

I think Flew is right to draw this "endemic evil" to our attention.

The renowned physicist, Stephen Hawking, ends his book, *A Brief History of Time*, with a question. Why is it "that we and the universe exist? If we find the answer to that, it would be the ultimate triumph of human reason—for then we should know the mind of God."⁹ It is tragic, but perhaps unsurprising, that many modern philosophers do not want to know the mind of God, and so fail to understand the purpose of creation.

I can't help but reflect that such determined atheism, adhered to despite the facts, must be hard to live with. What would you dare let yourself think about? What would you do with the prodding of your heart to search out the reasons for your existence? Would you ever let yourself look up into the night sky?

Katherine Tait, wrote about her famous atheist father, Bertrand Russell in her book, *My Father, Bertrand Russell*. She claimed that Russell's whole life was a search for God. That's fairly surprising, isn't it? It would be fair to say that if it were so, he hid it well. Perhaps it was the very tension of his soul that caused him to be so acerbic toward Christianity. It cut too close to the bone. Katherine writes, "Somewhere at the back of my father's mind, at the bottom of his heart, in the depths of his soul, there was an empty space that had once been filled by God, and he never found anything else to put in it." He had the "ghostlike feeling of not belonging, of having no home in this world."¹⁰

The Christian philosopher, David Bentley Hart, begins his book *The Experience of God*, by saying, "An absolutely convinced atheist, it often seems to me, is simply someone who has failed to notice something very obvious."¹¹ He continues this thought at the very end of his book, *The Experience of God*, saying:

Those who have entirely lost the ability to see the transcendent reality that shows itself in all things, and who refuse to seek it out or even to believe the search a meaningful one, have confined themselves for now within an illusory world, and wander in a labyrinth of dreams. Those others, however, who are still able to see the truth that shines in and through and beyond the world of ordinary experience, and who know that nature is in its every aspect the gift of the supernatural, and who understand that God is that absolute reality in whom, in every moment, they live and move and have their being—they are awake.¹²

To encourage 'wakefulness,' let me make this bold statement: Atheism is the religion of

the busy. Busyness stops people thinking deeply and exploring the truth of things. Busy people only have time to adsorb the culture of ‘the norm’—a culture defined by commercialism and society’s opinion leaders.

Indigenous Australians have sometimes reminded us of a discipline that has been lost to the Western world. Miriam-Rose Ungunmerr-Baumann, an indigenous artist and writer from Daly River said at the 1988 International Liturgy Assembly in Hobart:

What I want to talk about is another special quality of my people. I believe it is the most important. It is our unique gift. It is perhaps the greatest gift we can give to our fellow Australians. In our language this quality is called ‘dadirri’ ... It is inner, deep listening and quiet, still awareness ... It is something like what you call ‘contemplation’ ... It renews us and brings us peace.

God says to us: “Be still and know that I am God” (Psalm 46:10). Why? Because he wants to be known.

So, I invite you to free yourself of ‘hurry sickness’ and be still.

I have dared to suggest, that atheism is fueled by a dreadful cocktail of ignorance and willfulness. Anthony Walsh is an American criminologist and professor at Boise State University. He wrote a book called “A Nation Divided,” in which he said:

For a great many philosophers and scientists, the problem with those whose science and philosophy have led them to reject God is that they have not learned enough. They have succumbed to ‘God of the gaps’ thinking whereby God was the placeholder waiting for science to fill the gaps. More science and more philosophy is the cure for such thinking.¹³

Francis Bacon (1561 - 1626) developed the rules underpinning ‘scientific method’ and was therefore a huge influence on science. It is significant that he too made the claim that a hunger for great knowledge in philosophy will lead you to God. He said, “A little philosophy inclineth man’s mind to atheism, but depth in philosophy bringeth men’s minds about to religion.”¹⁴

This brings to mind Jesus’ teaching: “Ask and it will be given to you; seek and you will find; knock and the door will be opened to you” (Matthew 7:7).

Let’s not be frightened of seeking.

Philosophers respond to Richard Dawkins

The English biologist, Richard Dawkins, has written a number of books seeking to prove that the complexity and order we see in nature has a perfectly rational explanation, and

that belief in God is not necessary.¹⁵ Dawkins argues that evolution works at the level of the gene. The survival and replication of genes is the true purpose of life. Genes occupy and then discard bodies.

This, of course, raises the question of how and why the DNA in genes became so clever. How did the codes get encoded in the DNA of genes? As such, Dawkins may not have identified genes as being the basic agent responsible for change, so much as pointed to genes being the tools God uses to allow change. Dawkins also fails to answer why it is that we can rebel against our genetic tendencies and make real choices. Similarly, he needs to explain why it is that evolution has not only molded our bodies but also human consciousness, a consciousness that leads most of us to seek God.

Anthony Flew also criticizes Dawkins for attributing to genes characteristics that can only be attributed to persons.¹⁶ He makes reference to Dawkins' book, *The Selfish Gene* and says, "Genes, of course, can be neither selfish or unselfish any more than they, or any other non-conscious entities, can engage in competition or make selections."¹⁷

Flew picks up the claim Dawkins made that: "we, and all other animals, are machines created by our genes," and says that if this were true, it would be no use Dawkins going on to say: "Let us try to teach generosity and altruism, because we are born selfish." Flew says that, "No eloquence can move programmed robots."¹⁸ He goes on to remind us that, "Natural selection is not inherently creative; it does not positively produce anything."¹⁹ It simply reorders what has already been created.

David Bentley Hart, with his sharp philosophical mind, is appalled at the populist, distortions of fact and logical thought exhibited by the new breed of militant atheist. He speaks of their thinking as:

*...vacuous arguments afloat on oceans of historical ignorance, made turbulent by storms of strident self-righteousness, is as contemptible as any other form of dreary fundamentalism. And it is sometimes difficult, frankly, to be perfectly generous in one's response to the sort of invective currently fashionable among the devoutly undevout, or to the sort of historical misrepresentations it typically involves.*²⁰

Hart singles out Richard Dawkins in particular, saying, "His embarrassing incapacity for philosophical reasoning—never fails to entrance his eager readers with his rhetorical recklessness."²¹ Elsewhere, Hart says:

...it seems obvious that among the innumerable evidences of late modern culture's lack of spiritual depths one must include its manifest impotence to produce profound atheists. Instead, the best it seems we can hope for today are dreary

*purveyors of historical illiteracy, theatrical indignation, subfusc moralizing, and the sort of logical confusions that Richard Dawkins has brought to a level of almost transcendent perfection.*²²

One can't help but wonder how the 'new atheists' (Sam Harris, Richard Dawkins, Daniel Dennett, and Christopher Hitchens) can attract such adoring fans? Perhaps the apostle Paul gives us a clue when he warns us, "For the time will come when people will not put up with sound doctrine. Instead, to suit their own desires, they will gather around them a great number of teachers to say what their itching ears want to hear" (2 Timothy 4:3).

The fact that Dawkins *et al.* can be applauded, lauded and made into very rich men by those who mindlessly cheer them on says something quite distressing about Western society. We seem to have entered a cultural dark age where ignorance and obfuscation masquerades as intelligent thought.

Certainly, there seems to be a bewildering willfulness to atheism these days, spurred on by an inability to remember what has happened in history. This point was brought home to me when I was walking outside the University of Adelaide during "Orientation Week," a time when all the university's clubs were advertising themselves to new students. The Marxists had a trestle table, so I wandered over for a chat. I asked them what their 'pin-up' nation was that showcased Marxism to its best advantage, either currently, or in past history. They couldn't answer. I inquired whether it was Stalin (who killed about 12 million people), or Mau (he killed 42 million) or Pol Pot (who murdered about 2 million)?

I was asked to leave.

It seemed to me as if today's neo-Marxists suffer from a particularly debilitating case of amnesia.

Bentley Hart also makes this point saying: "The reason the very concept of God has become at once so impoverished, so thoroughly mythical, and ultimately so incredible for so many modern persons is not because of all the interesting things we have learned over the past few centuries, but because of all the vital things we have forgotten."²³

If you want to hear David Bentley Hart in full flight, expressing his scorn at the thinking of the new atheists, you can't go past his appraisal of Daniel Dennett's book *Breaking the Spell*. Hart writes:

*Dennett's argument consists in little more than the persistent misapplication of quantitative and empirical terms to unquantifiable and intrinsically non-empirical realities, sustained by classifications that are entirely arbitrary and fortified by arguments that any attentive reader should notice are wholly circular.*²⁴

—which is about as thorough a destruction you will ever read of someone's book!

Nihilism

The defining ideology of today's atheistic culture is nihilism, the belief that nothing has meaning. As nihilism doesn't stand for anything, it wants to allow everything in all its perversity—pornography, late term abortions, and more. The battle cry for nihilists is 'personal freedom', nothing must infringe it.

This loss of faith in the old certainties that held society together has, according to the British historian, Arnold Toynbee, been the consistent symptom of civilizations in decline—civilizations that commit cultural suicide.²⁵

Today's strident demands for personal freedom are being smuggled into society under the banner of 'tolerance'. But as G.K. Chesterton pointed out in one of his pithy aphorisms: "Tolerance is the virtue of someone who doesn't actually believe anything." So, it's worth asking, isn't it: Should everything be tolerated? If not, who decides what's 'in' and what's 'out'? Who has the power... and by what means do they choose?

Tolerance, as it pertains to civility and gracious behavior, is a good thing; but, when tolerance is a trick used by those in power to erase traditional truth from society, it should be of huge concern.

The truth is: if everything must be tolerated, then nothing can be said to be true. And if Christianity, with its claims about God, can be said to be untrue, then it can be relegated to a place of insignificance. The reality is, of course, if Christianity is not allowed a place in society—society has not become tolerant; it has become intolerant. It has reversed the centuries of good work done by people who fought for religious freedom and civility.

This growing repression of Christianity should be of great concern, for no other world-view has ever produced civilizations that have been so fruitful, fair and emancipated. Bentley Hart says that only Christianity "constituted a rejection of and alternative to nihilism's despair, violence, and idolatry of power; as such, Christianity shattered the imposing and enchanting facade behind which nihilism once hid."²⁶

Nihilism does not look very attractive when compared to the wisdom and civility of Christianity. So, please don't choose it.

Of greater concern is the fact that people today don't so much choose nihilism (or neo-Marxism) so much as lazily fall into it because they lack the inclination to engage in good critical thinking. The American philosopher and theologian, Bruce Gore, says that the sort of intellectual rigor demonstrated by the 13th century philosopher Thomas Aquinas, which so impacted his generation, could not achieve the same result today. The current generation exists "in a culture of sound bites; not sustained rational thought but impressions." He goes on

to lament: “This isn’t sustained rational discourse.” It is just verbal potshots that don’t necessarily connect to anything that is a reliable frame of reference. He warns that this trend is heading society toward “intellectual collapse.”²⁷

Real reasons for atheism

Social researchers tell us that the percentage of people who are atheists is increasing in the West. It is interesting that most atheists claim rational reasons for their non-belief in God. However, research conducted by the American Psychological Association suggests this is not so. They conducted studies in which they interviewed atheists, and graded the extent to which their atheism was influenced by experiences of disappointment, anger, hurt, or alienation.

What is fascinating is that 54% reported that they had relational and emotional reasons for non-belief. Another study of 429 Americans put the number higher at 72%. In other words, people were atheists for emotional reasons. Their non-belief had nothing, or very little, to do with being rational.²⁸ Nonetheless, the twentieth century saw a marked rise in the incidence of atheism in the West in the 1940s and 50s. The 70’s however bucked the trend in some Western philosophy departments. *Time* magazine reported that there was a revival of belief in God amongst many of the world’s top philosophers. It said:

*God? Wasn't he chased out of heaven by Marx, banished to the unconscious by Freud and announced by Nietzsche to be deceased? Did not Darwin drive him out of the empirical world? Well, not entirely. In a quiet revolution in thought and arguments that hardly anyone could have foreseen only two decades ago, God is making a comeback. Most intriguingly, this is happening not among theologians or ordinary believers ... but in the crisp, intellectual circles of academic philosophers.*²⁹

Notwithstanding the advent of the *Society of Christian Philosophers* in 1978, the interest in God by Western university philosophy departments has not been maintained. Atheism is usually the only world-view allowed now, and this is a pity.

Despite the fact that atheists claim their world-view is based on rationalism, it is a world-view with gaping holes in its logic. Atheism requires people to have a very blinkered view of reality, and it requires a person to hold scientific convictions that are irrational. Specifically, it requires:

- 1) the belief that everything in the universe (or universes) came from nothing, as a result of nothing.

- 2) the belief that the absurd level of order and fine-tuning of the universe which has allowed life is the result of chance... and to claim this when the only factor known that has ever explained such a thing is 'intelligence'.
- 3) an ignorance of world history and of world-views that have been responsible for the best when it comes to civility and justice.
- 4) the belief that the deep-seated moral code within us is simply a product of evolution, which has taught us that things are more 'efficient' for individuals if we co-operate and are nice. It requires you to believe this, even when evolution has taught most other animals to kill off rivals from other species, and from within their own species.
- 5) an ignorance of Jesus Christ and the historical evidence surrounding the gospel claims of his life, death and resurrection.

Put simply: the empiricist prison of atheism doesn't match most people's experience of life.

So, what can we conclude?

Atheism may hide behind the coattails of rationality, but when you sweep the coattails away, it is difficult to see anything other than wounded people... or those who are willful atheists, i.e. those who *want* to not believe because they want to 'do their own thing'.

Evidence suggests that there is a mind behind the universe... and if this is so, we'd do well to find out about that 'Mind'... and co-operate with the big plan.

Nietzsche and the legacy of atheism

Friedrich Nietzsche (1844 - 1900) was a German philosopher who exerted a profound influence on modern intellectual history. It's worth having a look at him as he brings into sharp focus what atheist philosophy looks like.

Nietzsche argued that there were two fundamental types of morality: 'master morality' and 'slave morality'. Master morality values pride, strong will, nobility and power. Slave morality values kindness, empathy, and sympathy—characteristics that are to be scorned.

Master morality makes judgments about whether an action is 'good' or 'bad' depending solely on whether it suits a current situation. It is the noble 'self' that determines value, and this 'self' does not seek or require anyone else's approval. In contrast to this, 'slave morality' lives by values that have proved most useful for a community, that have been handed down to him or her by history or convention.

Nietzsche, with his masterful command of pithy sayings and irony, says we should throw off the shackles of convention, scorn what is weak, and work to become a “superman,” i.e. give rein to our unconscious “will for power.”

Wow! No wonder the rebellious youth of the twentieth century loved it!

It is not hard to see why Hitler also loved it and used Nietzsche’s philosophy to formulate his Nazi ideology of dominance and power.

In the cold reality of history’s morning, it is easy to see Nietzsche’s philosophy for what it is: an elitist imprimatur for selfishness and ego. It is a philosophy that offers hubris and takes away meaning. It is also a philosophy that provides no anchor for morality—a fact that frightened Nietzsche, but not enough to prevent him from the sexual liaisons responsible for the syphilis that probably sent him mad and ended his life prematurely.

Nietzsche popularized the phrase, “God is dead.”

The reality is: Nietzsche is dead, and Christianity is still alive—even if it is waning in the Western world. The reason his philosophy couldn’t kill Christianity is simple: It was because Nietzsche’s existentialism crashed against the existential experience of Christians who knew God as *Abba*, (Father). Nietzsche’s philosophy may well have sloughed off the merely religious (with their rituals and bureaucracies) but it did not bother the true Christian who has experienced God personally.

It is significant that Nietzsche couldn’t cope with the moral vacuum and meaninglessness inherent in his own philosophy. He felt a deep sense of connectedness (rather than meaninglessness) with a horse when he saw it being flogged. He observed this at the time he began to go mad. It would seem that Nietzsche’s heart argued with his head.

Nietzsche, as I said, railed against anything he considered to be weak or lacking passion. He deplored ‘slave mentality’ which abhorred strength in order to make virtues of empathy and kindness. Nietzsche was scornful of those who needed to invent or adopt Christianity in order to justify their weakness.

However, just as the optimism of humanism bled to death on the bloody fields of Flanders in World War 1, Nietzsche’s philosophy became bloodied by the brutalities of every despot that used it to seek their own empowerment. Nietzsche’s “superman,” and the selfish tyrant, turned out to be terrible twins—impossible to tell apart.

Atheism and death

One of the things atheism is deafeningly silent about is death. The reason is simple: it offers no hope beyond death. Occasionally, atheism tries its hand at bravado and says that those who are truly mature don’t need any concept of life after death.³⁰ It was not, however, a

concept that gave Stalin any comfort when he was dying. His daughter, Svetlana, wrote that his last act before death was to shake his fist in rage against God.³¹ So, in a perverse way, he acknowledged God at his death, albeit not in a way that did him much good!

So... may I ask: How well does the world-view you live by, handle death?

If you are (very reasonably) wondering what I mean by 'world-view': it is what you believe about your meaning, morality, and destiny. How well does your world-view address the reality of death and suffering which you will inevitably face? I ask it because I'm not sure atheism handles it very well.

When faced with death or suffering, the atheist can do one of two things: He or she can rail, as Stalin did, in moral outrage against God. The problem with this, of course, is that if there is no God, it is a senseless exercise... and oxymoronic.

The alternative is to simply say that death and suffering are just symptoms of the meaninglessness of existence. As such, neither should evoke any emotion at all.

In the face of this meaninglessness, there can only be one of five responses:

1. The first option is to live a life that gives as much pleasure as possible, a life of self-centered hedonism. But a note of warning: If this option is chosen, it has been the experience of history that it will not satisfy. You will be left with a withered soul that aches for more. The soul seeks inexorably for meaning, as a compass needle seeks North Pole.
2. You have the option of being very depressed. Some people are asking whether one factor causing an increase in suicide numbers is a sense of meaninglessness in an increasingly atheistic culture.³²
3. Another option is to borrow some of Christianity's principles and live a life that is relationally rich and full of acts of service. In other words, an atheist can elect to live a 'good' life and thereby force a meaning on a meaningless life—even if it is only self-delusion. Of course, the atheist can't really call what they do 'good' because there is no God to guarantee what 'good' is. Good is simply what leaves them feeling... well, good. And isn't that interesting? When the atheist lives the Christian way, they feel fulfilled and happy, despite knowing that everything they do has no ultimate meaning.
4. Give way to a lust for power and kill anyone who disagrees (as happened in the French Revolution and in Hitler's Germany).
5. The other alternative, of course, is to stop being an atheist and believe that God exists!

And so, we leave the bewildered atheists with their conundrum. Their soul wants to point north, whilst their head wants to point south.

The reality is, atheism is not kind to the soul. Atheists need to be very careful not to dwell too much on the logical outcome of their concept of truth. Truth is a beautiful thing when it shines a light on hope, but it is a terrible thing when it shines a light on meaninglessness.

So, what can we say to conclude?

Most of us have a sense that we were created for something more than this life. We feel we have loved too much, and meant too much, for us to have no significance after death. There is a persistent suspicion that we are designed to have some sort of relationship with eternity.

The Old Testament writers understood this. One of them (probably King Solomon) wrote: “(God) has ... set eternity in the human heart; yet no one can fathom what God has done from beginning to end” (Ecclesiastes 3:11). In other words, the notion of eternity burns in our hearts, but we can’t work out what God is up to.

Eternity

Arthur Malcolm Stace (1885 – 1967) was an Australian soldier. He gained fame as a reformed alcoholic who converted to Christianity, and spread his message by writing the word ‘Eternity’ in chalk on the footpaths of Sydney. He did this from 1932 to 1967—thirty-five years!

This word has since become part of Sydney’s folk-law. It was the word Sydney’s civic leaders chose to have emblazoned in lights across the Harbor Bridge at the turn of the millennium. It is a disturbing and powerful word. It is one that challenges society’s pursuit of meaninglessness, lack of boundaries, self-obsession, and hedonism.

As I reflect on the Bible’s teaching on eternity, the one thing it gives, more than anything else, is hope. It gives hope when we are faced with the obscenity and finality of death.

The existence of eternity also gives us dignity. Its existence means that we are created for more than collecting toys and T-shirts from your favourite holiday island. To simply be content with doing that is a woefully shallow way of living.

Why atheist intellectuals become Christians

It is enlightening to read the testimonies of eminent academics who were once atheists, and learn what it was that caused them to do a U turn and embrace belief in God.

One of them was the British writer and intellectual, Francis Spufford, professor of creative writing at Goldsmiths College, London. His is an interesting case because he came to faith partly as a result of observing the difference in moral behavior between atheists and Christians. He said that he lost his faith in atheism partly as a result of feeling that his secular circle was more judgmental and unforgiving than the church he and his atheist friends had mocked. It dawned on him that despite not consistently living up to their ideals, Christians at least held the key to human acceptance and community. Christians were under no illusions; they had a profound belief in each other's imperfection and guilt. However, they had an even deeper trust in God's forgiveness. In this "league of the guilty," as Spufford put it, no one had grounds for looking down on anyone else, and no one had any bragging rights. This highly attractive aspect of Christianity helped him become a practicing Christian.

The other intellectual who became a Christian is, of course, Anthony Flew. We have talked about his conversion earlier, so we won't dwell on it, other than to note again the reason he came to believe in God.

It is difficult to do justice to the shock his conversion caused the atheistic world. In the late twentieth century, Flew was *the* front-runner making the philosophic case for atheism. He was their thinker. So when he came to believe in the existence of God, it caused dismay and disbelief amongst atheists.

What I love about Flew's story is the courage he displayed in seeking truth. He did not withdraw from debate with leading Christians, but sought out their thinking with the objective of understanding it. So it was that in 2004, Flew became a theist.

The reason he gave for believing in God was, as we've already said: the extraordinary 'fine tuning' of our universe that enabled it to develop sentient life. He said, "I now believe that the universe was brought into existence by an infinite Intelligence. I believe that this universe's intricate laws manifest what scientists have called the Mind of God. I believe that life and reproduction originate in a divine Source."³³ Flew made it quite clear that he had come to his position, not because of fear of death in his advancing age, or because he had lost his intellectual faculties. Quite the reverse: he said that, "the journey to my discovery of the Divine has thus far been a pilgrimage of reason. I have followed the argument where it has led me. And it has led me to accept the existence of a self-existent, immutable, immaterial, omnipotent, and omniscient Being."³⁴ Flew went on to say: "Science spotlights three dimensions of nature that point to God. The first is the fact that nature obeys laws. The second is the dimension of life, of intelligently organized and purpose-driven beings, which arose from matter. The third is the very existence of nature."³⁵

So, there we have it: observations of morality and observations of scientific reality have caused intellectual atheists to believe in the existence of God.

Neither Spufford nor Flew were scientists. If we venture into the world of science, the incidence of theism (belief in God) increases. This does not surprise the cosmologist, Paul Davies. He makes the point that there is no evidence to suggest that the universe is logically necessary. As such, its existence needs explanation. He says that the atheist's claim that the laws of nature exist without reason is absurd. Davies goes on to say: "As a scientist, I find this hard to accept. There must be an unchanging rational ground in which the logical, orderly nature of the universe is rooted."³⁶

It is important to note that 'order' is not something scientists impose on the universe, order is the 'nature' of the universe... and it is this order that requires a better explanation than atheism.

Truth

Authentic intellectual investigation centers on the notion of truth, so it is a concept worth exploring.

I think it's fair to say that the notion of truth has not fared well outside of Christianity. Some religions allow people to lie and deceive if it benefits their religious cause. The result of this is that you can never tell if such people are telling the truth. Leaders of totalitarian secular regimes also lie—so much so, that everyone expects it. These leaders lie about atrocities, civil abuses, and the malicious activities they are engaged in. As such, they have long since used up the capital of trust people have invested in them. No one believes them anymore.

In the animal world, where there is no morality, it makes perfect sense to deceive, enslave and predate in order to thrive. And that's where a society's morality must inevitably end up if you think you are just another animal, and ignore God.

It might be pertinent at this point to look objectively at what truth is, because its very concept is under attack these days. I'll mention just three rules for defining truth.

1. The first is, the 'law of non-contradiction'. This states that if something is true, it cannot be something else. For example: Michael cannot be my son, and not be my son. (People who claim that all religions are the same often fracture this law.)
2. The second requirement is that a truth must be universally true. The truth about my cat being black must be true in Nigeria, as well as in Alaska. If it is not true, I must work on my truth claim and add some qualifications.
3. The third requirement for a truth statement is that it needs to be logical. In other words, it needs obey the rules of the syllogism: e.g.

All men are mortal.

Aristotle is a man.

Therefore, Aristotle is mortal.

Truth is a precious thing, and authentic Christians are passionate about it. They have to be, because they know that God requires it, defines it, and embodies it. Christianity, more than any other religion, is preoccupied with truth. Certainly, Jesus was. He said, “I tell you the truth” about eighty times in the gospels—which is a pretty fair indication of the importance he placed on it.

The primacy of truth is not easily found in other religions. Hinduism is essentially based on mythology, Buddhism on mysticism, and Islam on a private revelation that others can’t verify. The new, syncretistic religions of today, such as New Age, are fairly careless about truth, whilst secular Postmodernism goes even further and has given up on the idea of truth altogether.

In contrast to this, Christianity makes a feature of truth.

Christianity, you see, is not just one faith among many: it is faith based on truth. In other words, Christianity is evidence-based (as we said earlier). If it can be shown that any of the essential truths about Jesus are false, Christianity becomes invalid. Notwithstanding the cancerous invasion of ‘Deism’ into Christian institutions in the guise of liberal theology, Christianity remains a religion that is founded on the historical life, death and resurrection of Jesus.³⁷ Wherever the institutional church has forgotten this, it has emptied its churches, lost its passion for mission, and found itself unable to offer anything in the way of hope. It has simply preached moralism.

Truth matters. Instinctively, we know this is so. There is something good about truth. Truth seems to be something outside of us, beyond us—something that measures us and invites us to climb up to it. Most of us are glad that truth is there, even if we can’t always reach it.

To act in a way that is true and right is to live out a concept of truth that is unique to humans. Simply to act in a way that is merely expedient (or programmed by evolution) is to be sub-human—it is to be less than we have been called to be. To engage in this sort of behavior is to collapse back into nature’s “red in tooth and claw” where it makes perfect sense to enslave, kill, and exploit in order to thrive.

Please don’t be sub-human.

Conclusion

The American journalist and satirist, Henry Louis Mencken (1888–1956), wrote:

*God is the immemorial refuge of the incompetent, the helpless, the miserable. They find not only sanctuary in his arms, but also a kind of superiority, soothing to their macerated egos; he will set them above their betters.*³⁸

Is he right, or is this yet another example of atheistic rhetoric running ahead of truth? Is it true that Christianity is simply a crutch for ineffectual people with an anxiety complex?

I hope I have said enough to indicate this is not the case. The Christian faith is historically, morally and scientifically reasonable—and is held to be true by millions of people across many nations and centuries. While that doesn't prove anything, it should at least suggest that we not dismiss Christianity carelessly. The fact that anything bothers to exist at all demands more from us than a shrug of the shoulders. To believe the universe came from nothing, and that its incredible mathematical order is meaningless, requires an extraordinary leap of faith.

Frankly, it is not a faith I share. Neither is it one shared by thousands of the world's most eminent scientists. There are very good reasons for taking the existence of God seriously. But I think it is important to understand that whilst people of faith know that what they believe is rational, they also know that their faith in God is *more* than rational. This makes logical sense. The truth about God necessarily has to be more than that which our rational brains can conceive—if God is to be more than something our brains have conceived.

Science points to a mind behind the universe. And since time, matter and space came into being at the time the universe came into being, God must exist outside of space and time. God therefore doesn't need a physical body.

This fact might usefully have been whispered into the ear of Yuri Gagarin who was reputed to have said, "I see no God" when orbiting Earth aboard Vostok 1 in 1961. Christians, of course, were not surprised he didn't see God. No Christian thought he would literally be there in space. The laws of physics teach us that time and space are inseparably linked. This means that if God exists (and is not physically there in space) he's also not physically constrained by time. In other words, if he exists, he must logically live in eternity.

Brian Leftow is the Nolloth Professor of the Philosophy of the Christian Religion at Oriel College, Oxford. He reminds us that: "The condition for a creative agent to exist is not for it to have a body... rather to have the capability of intentional action."³⁹

It is significant that the ancient writers of Scripture described God as an eternal Spirit. This matches what would have to be the case according to the theory of special relativity and sensible thinking.

As we draw this chapter to an end, one question requires an explanation: Why does the universe exist? Anthony Flew reminds us: “If there is to be a plausible law to explain the beginning of the universe, then it would have to say something like: ‘empty space necessarily gives rise to matter-energy’”—which is ridiculous.”⁴⁰

The Oxford philosopher, Richard Swinburne, says simply, “It is very unlikely that a universe would exist uncaused, but rather more likely that God would exist uncaused.”⁴¹ So, the existence of the universe, and the laws that govern it, make belief in a higher mind reasonable.

Even Charles Darwin spoke of “the laws impressed on matter by the Creator.”⁴²

The big question is: Where do these laws come from?

For the Christian, the answer is found in Jeremiah 33:25, where God says that he has “established the laws of heaven and earth.”

I invite you to seek out that law-giver.

Chapter 6) Quantum Physics, Atheism, and Me

COMMENTARY, CONTEXT AND REFLECTION

This chapter pushes beyond the subjects normally considered in apologetic discourses. It is very new ground, and at this stage, is still quite speculative. Nonetheless, quantum physics is a discipline that is beginning to provide the apologist with a rich source of material that can be used to defend and promote faith in God. This should not be surprising. If God's fingerprints can be seen in the rest of science (in its order and comprehensibility), then we can expect them to be found in quantum physics as well.

The challenge for me, as a writer, was to put cutting edge, non-intuitive quantum thinking in language that is accessible to people. This required me to road-test the ideas in public lectures and in blogs.

It is worth stressing: this is 'new ground'. Very little credible thinking done in this area. It is hoped that this chapter, and the papers it has spawned, will stimulate further thinking and research into the fascinating area.

THE START OF THE CHAPTER

I have a friend who is a professor. (I sometimes move in exalted circles!) The relevance of this is that I'd been doing some reading in the area of quantum physics, and I came up with a question that had relevance to my existence... and, incidentally, yours. So I emailed him the question.

He didn't know the answer. So he passed the question on to the Institute for Photonics and Advanced Sensing at Adelaide University. Evidently, the question got passed around the faculty and none of them were very sure how to answer it, so they sent a quantum physicist out in a taxi to talk to me.

Let me tell you, I was staggered—both at the grace of the brilliant young man who came to visit me, and that anyone should take me, a theologian, seriously.

Centuries ago, theology was known as 'the queen of the sciences'. This was because people believed that all science relied on God, and that the greatest science was exploring the truth of God. Science was therefore the craft of uncovering God's order.

Alas, theology's crown has long since been cast aside. Talk of God is now seen to be irrational and unscientific, something to be spurned and derided. Many universities don't even have a theology department now.

But here's the thing: If God exists, and is rightly described in the Bible, then scientists and theologians could well benefit from looking at each other's work. Of course, neither

discipline should be controlled, or bullied by the other. Humankind largely got over that sort of silliness centuries ago.

Both disciplines are concerned with uncovering truth, and as such, both have something to contribute. Put bluntly, science can stop theology from making stupid claims; and theology can help free science from its narrow, empiricist prison.

I was a bit hesitant to put this chapter in the book, because it invites you, dear reader, to travel down the crazy rabbit hole of quantum physics, which, believe me, is weird. So, here's my promise: I will make it understandable, and it will be relevant. In fact, understanding it may be the key to your very existence.

If you're ready, let's begin.

COMMENTARY, CONTEXT AND REFLECTION

What follows has largely been reported in the papers submitted in this corpus of material being submitted for a PhD, so no more will be said of it here.

Chapter 7) Suffering, Grief and Me

COMMENTARY, CONTEXT AND REFLECTION

This chapter on suffering signals a significant ‘change of gear’ in the nature of the writing in *God and Me*. Prior to this chapter, the book has appealed to the mind. However, when addressing the subject of suffering, we must also appeal to the heart, in a way that is pastoral.

It is an undeniable reality that all of us will face grief and suffering. Everyone has their own story. Simply bulldozing your way through these feelings and sensibilities with rational theories about suffering can leave the reader both unsatisfied and wounded. As such, this chapter is the point at which a pastoral heart is introduced—and will continue to be seen throughout the rest of the book. This is because the issues that follow have as much to do with the heart as the head. Rationality is not dispensed with, however. It is just that the heart has been invited to stand alongside it.

COVID-19 makes a brief appearance, so the issue of suffering is considered in the contemporary context.

EXCERPTS FROM THE CHAPTER

The last thing anyone wants to hear at a time of grief is a theological treatise. If you are in deep grief, then I invite you to just read this opening section, then come back to the theological section when you feel you are ready to explore the issue of suffering more.

Let me also say, that I am writing this chapter as much as a pastor as an academic.

A Personal note from me to you in your grief.

Suffering is a vexing subject and, for all of us, a deeply personal one. It is impossible to give quick, trite answers. I will therefore mention just two things. The first is that God shares your grief. He grieves with you because he loves you. The shortest verse in the Bible is: “Jesus wept.” He did so when he saw the grief of two sisters caused by the death of their brother Lazarus.

God understands your grief... and shares it. Because he loves you, he is wounded when he sees you grieve.

The second thing is this: If you have suffered from grief, abuse or injustice, know that God is angry. He hates it. That’s why he has set a time when the imperfections of this world will be identified, judged, and killed off. God’s eternal kingdom is his ‘end game’, and God wants you to be part of it. That’s the place where every tear will be wiped dry (Revelation

21:4) and all the things that once bewildered you will become clear... although I very much suspect that you won't even remember your questions when you're there!

The Theological Section

I was once invited to do some preaching in America by a friend. As I was still relatively young in those days, I found myself playing a game of flag American football where you have to snatch a flag Velcroed onto the belt of an opponent, instead of tackling him. Somewhat predictably, the game deteriorated and things got more physical. It was fun. I remember the leader of the local church youth group who organized it, John, very well. He impressed me greatly with his love for God, and his love for the young adults he cared for.

I mention this only because two years later, John got called to New York to attend a finance meeting at the World Trade Center. He died when Islamic terrorists flew a plane into the building where his meeting was being held.

The question is: Where was God in all of this?

None of us will get through life without encountering significant grief. Life, with all its imperfections, is a bruising business. It is therefore perfectly understandable for someone who is experiencing suffering to ask: Why did it happen? What is the meaning of it all? And crucially: Why did God allow it?

I think it can be safely said that the incidence and severity of suffering constitutes one of the biggest obstacles that prevents people reaching out to God. A South Australian study conducted amongst 311 tertiary trained people revealed that 41% of them agreed with the statement: "The incidence of suffering in the world suggests that no loving God is in control." About 12% were undecided.¹

So, what can we say in response?

First, as I have already said: God loves you and cares for you more deeply than you will ever know. The love God has for you means that he shares your pain, and the fact that he endured it himself as Jesus means he understands your pain. Secondly, know that God excels at bringing hope from ruins, life from the ashes, and resurrection from death.

There are no easy answers to the vexing question of suffering. Some things will always remain a mystery. However, the Bible does give us some guidance on the subject. In fact, as I look at the different philosophies and religions around the world, nothing gives such a complete, sensible, and hope-engendering explanation of suffering as Christianity.

The atheist simply says that suffering is a fact life in an unfeeling universe. When it is pointed out to him that some suffering comes from wicked gratuitous evil, the atheist simply says that it is an "education problem." In other words, the atheist doesn't take evil seriously.

The adequacy of a Christian understanding was brought into sharp focus when I had the privilege of visiting the great nation of India.

You can't be in India very long before you encounter a beggar—some obviously suffering. My understanding of Hindu culture told me that people believed they could gain merit from God if they were generous to a beggar. However, it also told me that a Hindu priest could say three things to the beggar (let's say the beggar was a man). The priest could say that his pain was an illusion and not real, for that is what the Vedas teach. Secondly: He could say that the beggar's low estate was caused by his sinfulness in an earlier life (reincarnation). Thirdly, the priest might tell the beggar to live out his station in life and not improve it, in order to faithfully live out his karma.

The Christian, however, would say three very different things. Firstly, the Christian would say that the beggar's pain was real. Secondly, the Christian might say that the beggar's suffering was the result of a broken, sinful world, which we all should take responsibility for. Thirdly, The Christian might feel the Spirit of God within him or her prompt them to help the beggar improve his station in life.

The reality of how Christianity played out in India was not difficult to see. Time and again, I came across Christian initiatives designed to help the poor, offering them free medical care and micro-business loans.

Christianity has something very significant to say about the vexing issue of suffering. The real skill is to steer a course between theological poverty (being ignorant of the things the Bible teaches about suffering), and theological arrogance (believing we can know everything about suffering).

...and later in the same chapter...

Is it worth praying?

As I write this, the world is in the midst of the COVID-19 pandemic. The Internet is showing pictures of people prostrating themselves in prayer before God in city squares, beseeching God to have mercy on them. The big question, of course, is whether prayer changes anything.

According to research done by Jeanet Bentzen at the University of Copenhagen, the number of Google searches for "prayer" increased by forty percent during the COVID pandemic. This phenomenon was not seen in the global financial crisis of 2007 – 2009... and that is probably understandable. The GFC might make you broke, but it didn't kill you.

COVID-19 is a pandemic, a plague of truly biblical proportions... and people have responded differently to it depending on their character and what they believe. Generally speaking, it appears that the pandemic has pricked the atheistic/self-worshiping hubris of many in the West. We have been reminded that we are not gods; we can't do everything 'my way', and center everything on 'my' pleasures. COVID19 has brought us all face to face with our mortality. It has forced us to think about what is good, worthwhile, and what it is that gives us meaning.

But this is avoiding the issue we began with: Does prayer change anything?

The answer depends, in part, on the type of prayer. I suspect that some of the increased interest in prayer is a reflection of people's desperate search for relief in the face of crisis. For some, it will be little more than superstition—loading the odds in your favor. This sort of prayer is a bit like not walking on the cracks of a pavement, or not walking under a ladder. Whilst God, in his grace, may hear such prayer, I'm not convinced of its efficacy.

But what about prayer that is truly relational? What about prayer that seeks the reality of God; prayer in which the petitioner sees the holiness of God, and in that light, sees the state of their own sinfulness and the sinfulness of their nation? What about prayer in which there is true humility and repentance? Wow! If the testimony of biblical history is true, this type of prayer is powerful. God says in the Old Testament:

If my people who are called by my name will humble themselves and pray and seek my face and turn from their wicked ways, then will I hear from heaven and will forgive their sin and will heal their land (2 Chronicles 7:14).

God holds his hands out to us and invites us to pray, i.e. to talk with him honestly. Why? Because he is relational. The relevance of this is fairly obvious. If prayer didn't change anything, God wouldn't ask us to pray. It would be a futile exercise. But God loves doing life with us... and prayer is his chosen language of communication.

And that is why people of humility and conviction pray.

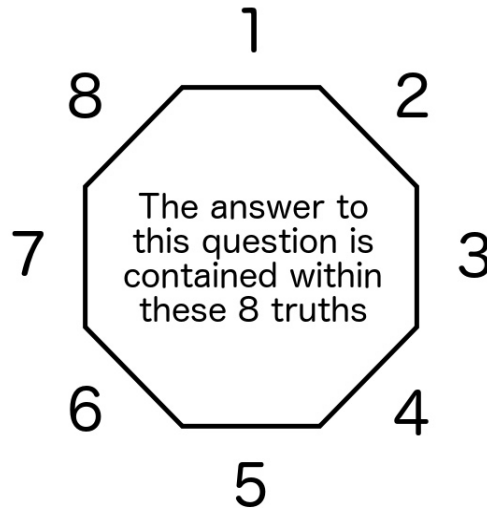
It has been the testimony of history that prayer changes things. This doesn't mean that bad things never happen to Christians. They do. As we said earlier, the Bible says that the "rain falls on the just and the unjust" (Matthew 5:45). It also says that God has chosen never to be so obvious as to compel belief. He always leaves room for the need for faith if we are to know him.

Christians know that the best is yet to come... but in the meantime, they pray—for they know that prayer changes things.

Did God send COVID19?

Did God send COVID-19? That's a very unsettling question isn't it? What can we say?

Let's define the biblical truths that are relevant to the question, and build another octagon. The question we need to ring with biblical truths is: "Did God send COVID-19?"



1. God is loving and is the perfect definition of love.
2. Times of crisis are times of opportunity when we can show God's love, generosity and self-sacrifice.
3. God has the right to bring judgment on us in this life as a consequence of us choosing evil. He has warned us of this reality. But God's judgment is always aimed at bringing about our repentance so that new beginnings and blessings can follow.
4. God is just and is the perfect definition of justice.
5. We all live in a broken and fallen world, and we all share in its dangers.
6. God sometimes uses a situation of sickness to show his glory by bringing healing (John 9:2-3).
7. Times of difficulty can help us grow godly character (James 1:2-4).
8. This life is not all there is. Christians can view it from the perspective of eternity. God, and his goodness will ultimately triumph. Evil will be judged and killed off (Romans 8:35; Revelation 21:1-4).

Having identified these truths, where do you think the answer lies?

Chapter 8) Other Faiths, Christianity, and Me

COMMENTARY, CONTEXT AND REFLECTIONS

This was one of the most difficult chapters to write, but it was a very necessary one. The claim of most Christians that Jesus Christ is the most adequate pathway to God is an arrogant, culturally imperialistic, crass and intolerant comment—or it would be, except for one disturbing fact: Unless it were true. The chapter talks about the evidence for why this might be the case.

The material in this chapter is a development of a section in a booklet I authored in 2001 to accompany a video entitled: *BASICS II: The Hard Questions*. (It was sold for a few years in Christian bookshops around Australia.)

The reason why this chapter was so hard to write was because a major cultural shift has occurred in Western thinking over the last decade. A culture has developed that has become repressive of what can and cannot be discussed. A person can now be guilty of a crime, without there being any intent to commit it... and be considered guilty of a crime, unless they can prove their innocence. Normative rules of natural justice have been turned on their head. People engaged in academic discourse can be declared guilty of being offensive, solely on the basis of someone “feeling” they have been offended... even if what has been said is both true and gracious. I very much fear that this cloud of oppression now threatening society presages a new dark age. These were some of the disturbing thoughts that plagued me as I wrote this chapter. What can you now say about other religions—even if they are true? Is it still possible to have a civil debate about such things?

In the fond hope there is still some appetite for truth, I included this chapter—not least because it concerns a major “faith-blocking” issue for people investigating Christianity.

I have not, however, included excerpts from the chapter here because the chapter runs to 7,522 words, and each part is necessary to give the context for the rest. There were constraints to keep the PhD corpus of material to a manageable size...

Chapter 9) Church, Its Moral Failure, and Me

COMMENTARY, CONTEXT AND REFLECTIONS

Another big “faith-blocking” issue for those investigating Christianity is the moral failure of the church in history. This is a very real issue that needs to be addressed. To help in this, the delightful aphorism “a mouse living in a biscuit tin does not make it a biscuit” was rescued from *Who Ordered the Universe?* and included in this book as well—with suitable additional commentary.

The defects of the church, of course, don’t just concern history; they concern the actions and activities of the church today. As such, this chapter takes a hard look at the three main branches of the church today: The Roman Catholic Church; The Protestant Church; and The Pentecostal Church—and calls for reform in significant areas.

The vitriol of the “new atheists” has now also called into question the moral character, not just of the church (which is perfectly understandable), but of God. This chapter therefore addresses this issue—specifically, it examines the acts of violence sanctioned by God in the Old Testament, and the violence of God in requiring the death of his son.

Again, only a brief excerpts from this chapter has been included (see below) in deference to the requirement to keep the PhD corpus down to a sensible size.

EXCERPT FROM THE CHAPTER

Atheists have pointed to the moral failure of Christianity in history as a reason for it to be scorned and avoided.

Leaving aside the rather obvious fact that atheists do not put the humanist ideologies of Stalin, Hitler, Mau, and Pol Pot under the same scrutiny, what can we say?

I believe that Christians need to take this particular criticism very seriously, and to use it to motivate reform. Why? Because the institutional church needs it.

In this chapter, we’ll look at two issues. In part 1) we will ask the question: Is Christianity bad? In part 2) we will ask the question: Is God bad?

Part 1) Is Christianity bad?

One of the main planks in the argument of militant atheists such as Richard Dawkins, Sam Harris, Christopher Hitchens, and Daniel Dennett, for why Christianity should be spurned, is its moral failure in history. Certainly, the dreadful abuses of the Crusades, the

Spanish Inquisition, and more recently the sectarian violence of Northern Ireland and Bosnia have reflected poorly on Christianity. Particularly recently, of course, the church has had to deal with the obscenity of child abuse within its institutions.

It has to be said that the institutional expression of church has often been imperfect, and un-Christ-like. People with a hunger for power have sought to use Christianity as a means to further their ambitions or satiate their lusts. But alongside and within the fallible institutional church, there has been the ‘true church’, the church that embodies the grace and truth of Jesus. We see its beautiful influence on individuals, families, cities and nations. We see it in Mother Teresa working amongst the beggars of Calcutta. We see it in the wonderful priests working amongst the beggars living on the rubbish dumps in Juarez, Mexico.

None of us would dare say who belongs to which church—only God can do that. In reality, most Christians know themselves to be living in *both* the fallible church and the faithful church. We know this because the church is a reflection of us. We are both. That is why every single one of us needs God’s grace and forgiveness.

The story is told (probably apocryphal) that *The Times* once sent out an inquiry to famous authors, asking the question, “What’s wrong with the world today?” to which the Christian writer and philosopher, G.K. Chesterton, responded: “Dear Sir. I am. Yours, G.K. Chesterton.”

The problem of being good

Christians understand themselves to be imperfect, broken, and a ‘work in progress’. They see themselves as 100% flawed because of their human nature, and 100% righteous in the eyes of God because Jesus has paid the price for their sins. In other words, Christians see themselves as both saint and sinner.

My wife and I once had the privilege of starting a youth group in Adelaide. Rather bewilderingly, it grew—largely due to the influx of young adults who had no previous experience of Christianity. To teach the team that they were both saint and sinner, we had T-shirts made with the emblem of a princess kissing a frog, underneath which was written: DGMAMGHFWMY, which stood for: “Don’t get mad at me, God hasn’t finished with me yet.”

Now, don’t get me wrong, I am not suggesting that becoming a Christian makes no difference to people’s moral behavior. Quite the reverse: In my experience, (and I would argue, the experience of history), nothing is as transformative of individuals, families, towns or nations as authentic Christianity. The teaching of the apostle Paul in the New Testament made it clear that if he didn’t see evidence of the Holy Spirit’s work in a person or a

community, he would challenge that person or community. When someone becomes a Christian, God's Holy Spirit indwells them (Romans 8:9). Paul expected two consequences to follow from this. The first was a transformed character. The second was an empowered ministry. If he didn't see evidence of either of these things, he would ask why. However, whilst these changes begin at the point someone becomes a Christian, change does not fully occur instantaneously. In other words: at conversion, divine 'perfection' is not conferred, but divine 'infection' begins.

One must also point out that the behavior of the church is irrelevant to the question of whether or not God exists. The philosopher, Anthony Flew, put it well when he said, "The excesses and atrocities of organized religion have no bearing whatsoever on the existence of God, just as the threat of nuclear proliferation has no bearing on the question of whether $E = mc^2$."¹

Chapter 10) Sex, the Bible, and me

COMMENTARY, CONTEXT AND REFLECTIONS

No excerpts from this chapter have been included here, as the chapter is largely theological rather than apologetic in nature. The other reason they are not included is again because of the need to keep this PhD corpus of material to a sensible size.

The importance of the subject, particularly for young adults, is, of course, huge. Sadly, sex is not always a subject that the church had handled well, or in a way that young adults have found helpful. Nor has the institutional church spoken with “one voice” on the subject. It has displayed both legalism and licentiousness, given no clear direction, and therefore lost its right to speak prophetically to the younger generation.

This chapter had to be written with great care, showing both empathy and understanding... as well as teaching clearly about God’s boundaries which keep us in the ‘sweet spot’ of what it is that works best.

Chapter 11) Life after death, and me

COMMENTARY, CONTEXT AND REFLECTIONS

No excerpts from this chapter have been included here either, as the chapter also is theological rather than apologetic in nature. It is, however, an important chapter—both for Christians and those who are not.

I've learned that in the quiet moments when people give themselves permission to think, many people wonder about what happens after death—if anything. Being indifferent to death, calm in the knowledge that you have lived fully (as Nietzsche advocated) is, in reality, a philosophy of hopelessness and meaninglessness. Few are persuaded by it when the prospect of death becomes a reality. It is, perhaps, a philosophy that could only be espoused by a young philosopher, not an old one. (Nietzsche wrote *Thus Spake Zarathustra* in 1883 when he was 39.)

Death, of course, is the final mystery; the final test for what is true.

For some reason that eludes me, the church in the West (at least as I've experienced it) has been coy about preaching on what happens after death. Is it because of confusion, ignorance, or embarrassment (felt particularly by those who have taken on board a liberal revisionist expression of Christianity) at daring to hint at a reality beyond this life? I don't know. All I know is that the early church didn't have any such inhibitions. The New Testament church continually alludes to a hope that transcends current suffering, and a joy that comes from being certain about the future.

If people in the pews are uncertain about what happens after death, those outside the church (who flip flop between Deism and atheism, depending on the circumstances) are even more confused. You don't have to be a pastor for very long before you become accustomed to the most bizarre things being said at funerals.

“My (loved one) is now a star in the sky...”

No they're not. That's Norse mythology.

“My loved one is now a raindrop, or a rainbow, or the wind on my cheek.”

No they're not. That's Buddhism.

... but you nod politely, love them... and when the opportunity arises, share a hope that really is grounded on truth.

It was decided to end the main part of *God and Me* with this subject as if forms a natural crescendo. “What will happen in the end?” “Are you ready for it?”

It's a good question.

Chapter 12) A Personal Note

COMMENTARY, CONTEXT AND REFLECTIONS

Endings are important. They should be memorable and linger in the reader's mind well after the book is closed.

Here's mine:

THE CHAPTER

May I finish this book on a personal note—so you might know a little more about the one who dares write to you?

I am dying of cancer, which is perhaps relevant to the substance of this book. Whatever else death does, it certainly tests the worth of the world-view you have lived by, doesn't it? Is what you have believed well founded and adequate? Is the hope of a destiny beyond this grief-stricken world grounded in truth?

So, what can I say?

Let me begin by assuring you that I am neither good nor brave. Like you, I rely on the undeserved love of God who has done so much to woo my love. As death comes closer, I can do nothing other than wrap myself a little tighter in God's word (Scripture) and let myself lean back further into his love. To have God whispering to my heart at this time is very special. This is particularly so at the moment. I am writing this as the COVID-19 pandemic plays out and this may mean that very few people will see me to the door of death. I could so easily be lonely. But if you know God, you are never alone—and his promises mean that the prospect of death holds no fear.

If I had ignored God's self-revelation in the cosmos, and ignored Jesus Christ, then fear and uncertainty would perhaps be reasonable. But God *has* revealed himself to me, and this has changed everything. It has resulted in me knowing that life is purposed, and that I have been in an adventure that is part of something very big.

A voice from future

Have you ever wondered, in a whimsical moment, what an old 'you' might say to the young 'you' that once stood on the threshold of adult life?

Rather extraordinarily, I was able to do just that. When I was seventeen, I used to write the occasional poem. One of them was called, 'Shakespeare's Player', and I never finished it. The poem expressed the typical angst and uncertainties of a young man.

Fifty years later, I rediscovered the poem, and was able to finish it. So... a sixty-seven year old 'me' was able to reassure the seventeen year old me (in a poem, at least). It was a heart-warming, if slightly bizarre, experience.

This is the poem:

Shakespeare's Player

*As Shakespeare's player struts and frets his hour upon the stage,
I search the stage of life for friends to lend my patronage.
And having chosen sect or clan, I'll then assume their idioms
to stay with them and strive to keep rebellion to a minimum.
I arm myself with all their necessary personalities,
and with the wardrobe act each part—accepted frivolities.*

*Am I doomed to forge myself on fellow man or deity?
And if on God, must all pride change to humble, base servility?
Will nothing stay to fuel the fires of glory or successfulness?
Because with God, I might lose out and suffer in my humbleness;
then try and calm neurosis by my biblical researches,
and be a priest with lost ideals, and preach in empty churches.*

*Have churches too all lost their cause as everything decays—
and rots to make a playground for the pigeon's deft displays?
Am I just a fluke of fate, an accidental outcome?
of swirling galaxies in space that spilt some cosmic breadcrumbs.
And who will say what right is good and whether there is meaning,
or whether I'm an accident—a thought that is demeaning?*

*This was the young man's angst I had when life was still ahead,
but now I'm old, I can report, God understood my dread.
"Give yourself to me," he said, "I've won for you a place...
beside me in eternity where you can see my face.
Your life on earth will test you and refine you for the story...
that is yours when you come home and see me in my glory."*

Sampson's last prayer

Quite how a mildly dyslexic, academically lukewarm, absent-minded Australian should end up championing the validity of faith in God is a mystery. I hope it is one that gives you confidence, because if God can use me, he most certainly can use you.

Some of you will know the story of Sampson in the Old Testament. Like me, Sampson was a very imperfect fellow. Despite this, God empowered him to protect the Hebrew people from those who wanted to exterminate them.

At the end of his life, Sampson was not in great shape. He had been blinded by his enemies and was shackled as a prisoner. One day, his tormentors brought him out so they could gloat over his downfall. Like Christians today, he had become an object of scorn and ridicule.

Then Sampson prayed one last prayer. He prayed for the strength to push over the two central pillars holding up the giant edifice built by those who scorned his God.

Why do I tell you this?

Because I too have prayed... and am reaching for the two pillars of 'anti-theism' and 'untruth'... and I'm starting to push.

End Notes

Introduction

1. Blaise Pascal, (*Pensées*, 1670).
2. Charles Reich, *The Greening of America* (Random House, 1970), 4.
3. Philip Carl Salzman, “Marxism Failed in the World, but Conquered Western Academia,” *The Daily Caller*, January 11, 2016
4. Misha Ketchell, *The Conversation* (See: <https://theconversation.com/is-cultural-marxism-really-taking-over-universities-i-crunched-some-numbers-to-find-out-139654>) posted on September 8, 2020, 6.11am AEST.
5. Alasdair Elder, *The Red Trojan Horse: A Concise Analysis of Cultural Marxism*, (Amazon.com.au: Kindle Store, 2017).
6. Rob Smith, “Cultural Marxism: Fact or Fiction,” *Eternity News* (see: <https://www.eternitynews.com.au/opinion/cultural-marxism-fact-or-fiction/> Posted August 18th, 2021, 02:43PM.)
7. Jeffrey D. Breshears, “The Origins of Cultural Marxism and Political Correctness” (Atlanta, GA: *The Areopagus*, August 13, 2019).

Chapter 1

1. The English cosmologist, Paul Davies, cites the work of the Australian physicist, Brandon Carter, who discovered that the universe needs to contain both radiative and convective stars if it is to be life-friendly. Carter worked out that in order to get both sorts of stars, the ratio of the strengths of the electromagnetic and gravitational forces needs to be 10^{40} . (See: Paul Davies, *The Goldilocks Enigma* [London: Allen Lane, 2006], 164.)
2. “There is a God, leading atheist concludes,” NBC News, 9th December, 2004.
3. Anthony Flew with Roy Abraham Varghese, *There Is a God: How the World’s Most Notorious Atheist Changed His Mind* (New York: Harper Collins, 2007), 155.
4. Gerald Schroeder, “Has Science Discovered God?” <http://science.lenicam.com>. The thinking of Gerald Schroeder played a key role in changing the philosopher, Antony Flew, from being an atheist to someone who believed in God’s existence.
5. Alexander Vilenkin cited in “Why physicists can't avoid a creation event,” by Lisa Grossman, *New Scientist* (January 11, 2012).
6. Alexander Vilenkin, *Many Worlds in One* (New York: Hill and Wang, 2006), 176.
7. Terry Pratchett, *Lords and Ladies* (Discworld Novel, 1992).
8. Anthony Kenny, *The Five Ways: St. Thomas Aquinas' Proofs of God's Existence* (New York: Schocken Books, 1969), 66.

9. ABC Science Online, “The Big Questions: In the Beginning,” Interview of Paul Davies by Phillip Adams, <http://aca.mq.edu.au/pdavies.html>.
10. Colin Russell, quoted in Alister McGrath *Science and Religion* (3rd ed), (Hoboken, NJ: Wiley-Blackwell, 2020), 22.
11. Paul Davies, *The Mind of God: Science and the Search for Ultimate Meaning* (New York: Simon & Schuster Ltd., 1992), 16.
12. Aristotle described God as the ‘Unmoved Mover,’ i.e. someone who was the prime cause of all motion in the universe, but is himself never moved. God moved the heavenly bodies furthest from Earth so they circled the Earth in a perfect circle. Their movement caused the sun, moon, and stars nearer to Earth to also move in circles around the Earth. At the center of the universe was the Earth, which did not move—much like rubbish caught in a whirlpool collects at the center and does not circle. Aristotle believed that physical matter was made up of a combination of four ‘corruptible’ elements: earth, wind, fire and water. He called the fifth element that filled outer space, ‘aether’ (or ‘quintessence’).
13. Thomas Nagel *The last Stand* (New York: Oxford University Press, 1997), 130.
14. Neil Ormerod, “The metaphysical muddle of Lawrence Krauss: Why science can't get rid of God.” See: <https://www.abc.net.au/religion/the-metaphysical-muddle-of-lawrence-krauss-why-science-cant-get-/10100010> Uploaded: Monday 18 February 2013, 3:36pm.
15. Bertrand Russell, “Is There a God?” an article commissioned, but never published, by *Illustrated* magazine in 1952, now in *The Collected Papers of Bertrand Russell*, Vol. 11: Last Philosophical Testament, 1943-68. (London: Routledge), 547-548.
16. Fiona Ellis, “God, Naturalism, and the Limits of Science,” pp. 8-20 in *Are There Limits to Science?* Ed. G. Straine (Cambridge: Cambridge Scholars Publishing, 2017.), 17. This quote has been attributed to Werner Heisenberg but the original quotation in German is: “*Der erste Trunk aus dem Becher der Naturwissenschaft macht atheistisch, aber auf dem Grund des Bechers wartet Gott.*” (The source cited in Ulrich Hildebrand: ‘Das Universum – Hinweis auf Gott?’ in ‘Ethos. Die Zeitschrift für die ganze Familie,’ Berneck, Schweiz: Schwengeler Verlag AG, No. 10, Oktober 1988, p. 10).

Chapter 2

1. Nick Hawkes, *An Apology for the Scientific Credibility of Faith* D Min thesis, Australian College of Theology, submitted February, 2004.
2. Augustine, *De Genesi ad litteram*, II.9, 1.21, E. McMullin, (tr.), “How Should

Cosmology Relate to Theology?” pp. 17-57 in A. R. Peacocke (ed.), *The Sciences and Theology in the Twentieth Century* (London: Oriel Press, 1981), p. 19.

- a. Origen of Alexandria and Basil of Caesarea similarly advocated an allegorical understanding of Genesis 1, see: Adam Rasmussen, *Genesis and Cosmos* (Boston: Brill, 2019).
3. John Calvin, *Commentaries: Genesis*, Vol I, Genesis, chapter 1, verse 6 (Grand Rapids, Michigan: Baker Book House), 79.
4. David Berlinski, *The Devil's Delusion: Atheism and Its Scientific Pretensions* (New York: Crown Publishing, 2008).
5. Charles Darwin, *On the Origin of Species*, (London: John Murray, 1866 edition), 308.
6. Stephen C. Meyer, *Darwin's Doubt: The Explosive Origin of Animal Life and the Case for Intelligent Design*, (New York: HarperOne, 2013).
7. David Berlinski, “The Deniable Darwin,” *Commentary*, Vol. 101, June 1996 No. 6.
8. Some of this section was informed by a talk given by Dr. David Wilkinson at Tabor College, Adelaide, South Australia, on 11th January, 2010. Dr. David Wilkinson is Principal of St. John's College, Durham University. He is not only a theologian, but is one of Britain’s top astrophysicists.
9. *Footprints in Stone*, 1973 (film, produced by Stanley Taylor for Films for Christ Association, Inc. Mesa, AZ.) This film has since been withdrawn. For more, see: <http://paleo.cc/paluxy/sor-ipub.htm>
10. Percy J. Wiseman, *Creation Revealed in Six Days* (London & Edinburgh: (Marshall, Morgan & Scott, 1948).
11. Bernard Ramm, *A Christian View of Science and Scripture* (Grand Rapids, Eerdmans, 1954), 151.
12. John C. Lennox, *Seven Days That Divide the World: The Beginning According to Genesis and Science* (Grand Rapids: Zondervan, 2011), 48-51.
13. *Ibid*, 53.
14. *Ibid*, 59.
15. Gregory of Nyssa, quoted in: *Ancient Christian Commentary on Scripture: Genesis 1-11*, A Louth (ed.), (New Haven, CT: Institute of Classical Christian Studies, 2001), Genesis 1:26.

Chapter 3

1. Richard Dawkins, *The God Delusion*, (London: Bantam, 2006), 93.
2. Christopher Hitchens, *God Is Not Great: How Religion Poisons Everything*, (New York: Allen & Unwin), 120.

3. Hitchens, *God Is Not Great*, 115.
4. *Ibid.* 122.
5. The American explorer, Edward Robinson incorrectly claimed in 1841 that the Old Testament city of Japhia was Yafia. It was an understandable mistake given that Yafia is the same as Japhia in Hebrew.
6. *Nazara* literally means ‘branch.’ This was probably because King David was the ‘branch’ (descendant of) of his father, Jesse (1 Sam 16:1-13). In other words, it signaled that the town was a Davidic town, and was therefore thoroughly Jewish.
7. The research was conducted in 1962 by the Department of Archaeology of Hebrew University, Jerusalem, with the assistance of Southern Baptist Theological Seminary, Louisville, Kentucky.
8. The early church fathers, Justin Martyr (100-165AD) and Origen (185 – 254AD) both spoke of Nazareth, and both would have had contact with the *Desposyni* (people of the blood line of Jesus). However, the Jewish historian, Josephus, doesn’t mention the city. This should not be surprising given that Josephus only mentions 20% of the important cities in Galilee.
9. Ossuary box designated “Number nine.”

Chapter 4

1. Jean Twenge and Keith Campbell, *The Narcissism Epidemic: Living in the Age of Entitlement*, (New York: Atria Books, 2009).
2. Plato, *Laws*, Chapter 10.
3. I am indebted to Dr. Leonard Long (medical practitioner, philosopher, theologian and historian (retired) currently resident in Adelaide, Australia) for this historical information.
4. Donovan X, 18, 03, 02 (Cornell University).
5. Viktor E. Frankl, *The Doctor and the Soul: From Psychotherapy to Logotherapy*, R. and C. Winston (tr.), (New York: Knopf, 1955).
6. Friedrich Nietzsche, *Human, All Too Human* (1878), 71. Hope.
7. David Berlinski, *The Devil's Delusion: Atheism and Its Scientific Pretensions* (New York: Crown Publishing, 2008), Chap. 2, “An Insult to Human Dignity.”
8. Aleksandr Solzhenitsyn, “A World Split Apart,” a speech given at Harvard’s 327th anniversary, 8th June, 1978.
9. *Ibid.*
10. “Socialism is booming in popularity among young people, survey finds,” ABC, Hack, See: <https://www.abc.net.au/triplej/programs/hack/socialism->

booming-popularity-among-young-people-survey-finds/11655582
(Posted Wed 30th Oct 2019, 6:19pm).

11. Jonathon Van Maren, "Atheists sound the alarm: Decline of Christianity is seriously hurting society." posted Nov 4, 2019, (<https://www.lifesitenews.com/blogs/atheists-sound-the-alarm-decline-of-christianity-is-seriously-hurting-society>).
12. David Bentley Hart, *Atheist Delusions: The Christian Revolution and Its Fashionable Enemies* (Yale University Press, 2009), xi.
13. J. Monod, *Chance and Necessity*, A. Wainhouse (tr.), (London: Collins, 1972), 167.

Chapter 5

1. Robert Griffiths, quoted in: Tim Stafford, "Cease-Fire in the Laboratory," *Christianity Today*, April 3, 1987, 18.
2. Baruch Shalev, *100 Years of Nobel Prizes* (New Delhi: Atlantic Publishers 2003).
3. Christian Anfinsen, "There Exists an Incomprehensible Power with Limitless Foresight and Knowledge" pp. 138-140 in Henry Margenau and Roy Varghese, *Cosmos, Bios, Theos*, (Peru, IL: Open Court, 1997), 139.
4. Gregory Benford, "Leaping the Abyss: Stephen Hawking on Black Holes, Unified Field Theory and Marilyn Monroe," *Reason* 4.02 (April 20002), 29.
5. Erwin Schrödinger, *My View of the World* (Cambridge: Cambridge University Press, 1964), p.93.
6. Howard P. Kainz, *The Existence of God and the faith-instinct*, (Cranbury, NJ: Rosemont Publishing, 2010), 21.
7. Albert Einstein, *The Quotable Einstein*, Alice Calaprice (ed.), (Princeton, NJ: Princeton University Press, 2005), 238.
8. Anthony Flew with Roy Abraham Varghese, *There Is A God: How the World's Most Notorious Atheist Changed His Mind* (New York: Harper Collins, 2007), 86-87.
9. Stephen Hawking, *A Brief History of Time* (London and New York: Bantam, 1988).
10. Katharine Tait, *My Father, Bertrand Russell* (London: George Allen and Unwin, 1967), 79.
11. David Bentley Hart, *The Experience of God: Being, Consciousness, Bliss* (Yale University Press, 2014), Chap 1, part 1, first sentence.
12. *Ibid.* Final paragraph.
13. Anthony Walsh, *A Nation Divided* (Wilmington, DE: Vernon Press, 2019), 67.
14. Francis Bacon *Essays, Civil and Moral*, (1625), The Harvard Classics 1909 – 14, Chapter 16 "Of Atheism."

15. Books written by Richard Dawkins include: *The Selfish Gene* (1976), *The Blind Watchmaker* (1986), *River out of Eden* (1995), *Climbing Mount Improbable* (1996), *The God Delusion* (2006).
16. Anthony Flew with Roy Abraham Varghese, *There Is a God: How the World's Most Notorious Atheist Changed His Mind* (New York: Harper Collins, 2007), 79.
17. *Ibid.* 80.
18. *Ibid.* 80.
19. *Ibid.* 78.
20. David Bentley Hart, *Atheist Delusions: The Christian Revolution and Its Fashionable Enemies* (Yale University Press, 2009), 4.
21. *Ibid.*
22. David Bentley Hart, *In the Aftermath: Provocations and Laments* (Cambridge, UK: Eerdmans, 2009), xii.
23. David Bentley Hart, *The Experience of God: Being, Consciousness, Bliss* (Yale University Press, 2014), Part three, VI.
24. David Bentley Hart, *Atheist Delusions: The Christian Revolution and Its Fashionable Enemies* (Yale University Press, 2009), 7.
25. Arnold J. Toynbee, *A Study of History* (Oxford University Press, 1957).
26. David Bentley Hart, *In the Aftermath: Provocations and Laments* (Cambridge, UK: Eerdmans, 2009), 6.
27. Bruce Gore, in an interview with Lucas Miles. See: Episode 107—Bruce Gore on “Church History and Revisionist Theology (<https://art19.com> 55 minutes running time; quote taken from 27-28 minutes).
28. Bradley, D. F., Exline, J. J., & Uzdavines, A. (2016, March 17). Relational reasons for nonbelief in the existence of gods: An important adjunct to intellectual nonbelief. *Psychology of Religion and Spirituality*. Advance online publication. Exline, J. J., Park, C. L., Smyth, J. M., & Carey, M. P. (2011). “Anger toward God: Social-cognitive predictors, prevalence, and links with adjustment to bereavement cancer,” *Journal of Personality and Social Psychology*, *100*, 129-148.
29. *Time* magazine, 7th April, 1980.
30. Friedrich Nietzsche's book, *Thus Spoke Zarathustra*, is one such attempt at this bravado.
31. Rosemary Sullivan, *Stalin's Daughter* (London: Fourth Estate, 2015), chapter 10.
32. See: “A crisis of meaninglessness is to blame for the rise in suicides” (*Dallas News*, 25th June, 2018).

33. Anthony Flew with Roy Abraham Varghese, *There Is A God: How the World's Most Notorious Atheist Changed His Mind* (New York: Harper Collins, 2007), 88.
34. *Ibid.* 155.
35. *Ibid.* 89.
36. Paul Davies, "What Happened Before the Big Bang?" in *God for the 21st Century*, Russell Stannard (ed.), (Philadelphia: Templeton Foundation Press, 2000), 12.
37. In case you missed it earlier in the end notes: Deism is belief in a supreme being, but not one that can be known personally or which engages with humanity in any supernatural way
38. Henry L. Mencken, *Minority Report*, 1956 (reprinted by Johns Hopkins University Press, 2006).
39. Anthony Flew with Roy Abraham Varghese, *There Is A God: How the World's Most Notorious Atheist Changed His Mind* (New York: Harper Collins, 2007), 150.
40. *Ibid.* 141.
41. Richard Swinburne, *The Existence of God*, (Oxford University Press, 1979), 152.
42. Charles Darwin, *The Origin of Species*, J.W. Burrow (ed.), (New York: Penguin Random House, 1982), 458.

Chapter 7

1. Nicholas Hawkes, *An Apology for the Scientific Credibility of Faith*, Doctor of Ministry thesis submitted to the Australian College of Theology in 2004, 124.

Chapter 9

1. Roy Abraham Varghese, in *There Is a God: How the World's Most Notorious Atheist Changed His Mind*, Anthony Flew with R.A. Varghese (New York: Harper Collins, 2007), xxiv.

CONCLUSION

All research – particularly when submitted for a doctorate – must have an outcome or results. Indeed, the requirements of a doctorate demand originality and significance. My trope to commence addressing this challenge is “Cross the quadrangle.” If philosophers of mathematics and physics and theology engage and interface with clarity and precision, then the resulting knowledge will be different, disturbing and productive. This thesis seeks to use tangential thinking to link different academic disciplines in a way that unlocks new possibilities.

In this thesis, we have said to the mathematical philosopher, who is bewildered about what mathematics actually is: ‘Cross the quadrangle to the quantum physics department and learn from them insights that might allow a dualistic understanding of what maths is.’

To those in the theological department, we say: ‘Don’t recoil from science leaving the field to those claiming to be atheistic rationalists. Cross the quadrangle to the science department and learn how science can be one of the strongest tools for apologetics.’

To those in the quantum physics department, we say: ‘Don’t put your head in the sand when your discoveries point to the existence of “mind.” Your mantra of “shut up and calculate” is an appalling stultification of the academic quest to uncover truth. Cross the quadrangle to the theology department and see if what you are observing has broader significance.’

To the modern philosophy department, we say: ‘Stop shouting your deconstructive mantras into your own sound shell, and cross the quadrangle to the science department, so that you can recover the essence of truth. You might then consider crossing the quadrangle again to the history department to learn what the historic consequence have been of the philosophies you espouse.’

To those biologists who are locked into their materialistic reductionist convictions (that what we do is simply the result of the particles we are composed of) we say: ‘Cross the quadrangle to the quantum physics department to learn about the indeterminate nature of our quantum substructure.’

These connections are just some of the fruit that has come from this thesis. It is fruit that comes from being positioned as an apologist.