

Science and God's future

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Abstract

This paper considers the extent to which the scientific enterprise might contribute to the realisation of the future that God has prepared in the new creation of his promise. The argument presented draws on Tom Wright's proposal of four 'echoes of a voice' that resound in the human consciousness that have to do with the longing for justice, the quest for spirituality, the hunger for relationships and the delight in beauty – voices that help us to glimpse the glorious possibilities of eschatological life in God's new creation. The paper suggests that various dimensions of the scientific enterprise have something to say to us about justice, beauty and relationships. Firstly, advances in neuroscience may offer new insights in the exploration of a range of human virtues resonating with the justice mandate of the gospel. Secondly, new insights in contemporary physics and biology reveal beauty, elegance and symmetry in creation, pointing to new creation's eschatological goal of ultimate beauty, with its Christological allusions. Thirdly, key themes and developments in contemporary physics suggest a relationally-structured creation-community inhabited and energised by God's Spirit who is ever at work in the cosmos as it reaches towards its promised eschatological fulfilment in God.

Key words

Eschatology, trinity, new creation, science, spirituality, justice, neuroscience, beauty, community, perichoresis.

As we reflect on the relationship between science, faith and the future we might want to consider the future that God has prepared for us, and to ask ourselves: to what extent might the scientific enterprise contribute to the realisation of that future? In what ways might science enhance our experience today of the sort of life that God has prepared for us in the new creation of his promise? I heard someone say recently that the people of God are more drawn by God's future than controlled by their past. Well, that is how it should be, of course, even if we do not realize that as fully as we might. Michael Griffiths once wrote a book called *Cinderella with amnesia*, reminding us that the Church is something beautiful with a glorious future, but sadly it has often forgotten what that future is. How might we describe that future? Well, one way of putting it is that the future of the Church is very much tied up with the theological promise that God has committed himself to putting everything to rights again, not by demolishing his creation, but by *renewing* it.

A vicar in England once told the story of a huge Lego castle that one of his young sons had taken ages to make. He walked into the room and saw this impressive construction and said to his son, 'That's amazing ... did anything go wrong as you were making it?' 'Yes, quite a few times', his son replied. 'Weren't you tempted to throw the whole thing away?' his father asked. And the boy replied with some indignation that he couldn't do that – it was far too valuable and important to him to give up and dismantle (Kuhrt 2011 p. 71). That's what it's like with God and his world. God is Alpha and Omega, and the whole creation is caught up into God's glorious eschatological future. The concept of eschatology is an ambiguous one. In its original formulation it referred to the four *eschata*, or last things, in a chronological sense: death, judgment, heaven and hell. However, these things are not just 'last': they are, by virtue of their ultimacy, the 'greatest'.

In his great book, *Theology of hope*, Jürgen Moltmann writes that:

the eschatological is not one element of Christianity, but it is the medium of Christian faith as such, the key in which everything in it is set, the glow that suffuses everything here in the dawn of an expected new day.

Moltmann 1967 p. 16

And so it is more appropriate to define eschatology as that which expresses the *goal* of all creation, human and physical, rather than specific, identifiable *end things*. The task of theology is therefore to expound not a series of eschatological themes but the one eschatological reality of the risen Christ. And, of course, we are into Trinitarian thinking here: the Spirit is the eschatological power of God at work in all creation, enabling all that exists – personal and non-personal – to fully and finally become itself in the freedom of divine love. So eschatology reflects our whole orientation as the people of God. We are, again quoting Jürgen Moltmann, the 'wayfaring people of God', a people on the move, a people whose life takes place 'in the forum of the future of God and the world' (Moltmann 1977 p. 1).

Eschatology, of course, is not the same as progress. People today talk a lot about progress but, as another German theologian, Hans Schwarz, has pointed out, progress in our world today has become divorced from its Christian foundation. We are in great need, he says, of a Christian eschatology that 'provides a hope and a promise that we are unable to attain through our own efforts' (Schwarz 2000 p.20). And that hope is most fully expressed in John's great vision of a new heaven and a new earth in Rev. 21:2-4 (NIV):

I saw the Holy City, the new Jerusalem, coming down out of heaven from God, prepared as a bride beautifully dressed for her husband. And I heard a loud voice from the throne saying, 'Look! God's dwelling place is now among the people, and he will dwell with them. They will be his people, and God himself will be with them and be their God. 'He will wipe 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.

The old order has passed away. Behold the new has come! In his book *Simply Christian*, subtitled *Why Christianity makes sense* (Wright 2006), Tom Wright argues that God's redeeming grace is at work throughout history bringing his future about. One way in which we might understand this happening today has to do with what he calls four 'echoes of a voice' that resound in the human subconscious: 'the longing for justice, the quest for spirituality, the hunger for relationships, and the delight in beauty'.

Actually, argues Wright, these four 'echoes of a voice' point us towards God because they have their source in him: they are expressions of the one voice which alone can lead us out of the multiple alienations and frustrations of human existence into an authentic and specifically Christian way of life. When we respond to these echoes, however faint they may be, we are opening ourselves to the activity and energy of the Spirit of grace who knows no boundaries in reaching and restoring broken humanity. This is what grace means – it is the unmeasured and unmeasurable goodness of God who takes the initiative in putting everything right again. Taking an eschatological perspective, Wright suggests that these four echoes, which have to do with justice, spirituality, relationships, and beauty, may actually help us to glimpse the glorious possibilities of life in the new creation opened up to us in Christ.

Let us consider briefly three of these four 'echoes of a voice'. I will be leaving out what Wright calls 'the quest for spirituality' since the other three 'echoes', each in their own unique way, embrace spirituality by reminding us that we were made for more than bland secularism. They also offer us a way into understanding God's purposes for humanity, and indeed for his non-human creation – for the animal world, and for the whole cosmos, which, as Paul reminds us, is groaning as it waits in eager expectation for its full and complete liberation. And if science is God's gift to humanity to investigate how his universe works at both the macro cosmological level and the micro biological level, and if it is also a creative and humble enterprise that engages with the real world in which we all live, then perhaps it might have something to say to us about these four 'echoes' that both come from God and point us back to him. And if this is

so, then, as Christians, we should turn our insights into worship, informed not just by our faith, but also by what science can offer.

A passion for justice

We begin by looking at the first of Tom Wright's four 'echoes of a voice' – justice. God has a passion for justice – and justice is a theme that resonates throughout Scripture, reflecting the divine passion. Here are a few verses:

The LORD loves righteousness and justice; the earth is full of his unfailing love.

Ps. 33:5 (NIV)

Learn to do right! Seek justice, encourage the oppressed. Defend the cause of the fatherless, plead the case of the widow.

Isa. 1:17 (NIV)

[Matthew referring to Jesus, and quoting from the prophet Isaiah:]
Here is my servant whom I have chosen, the one I love, in whom I delight; I will put my Spirit on him, and he will proclaim justice to the nations.

Matt. 12:18 (NIV)

He has showed you, O man, what is good. And what does the LORD require of you? To act justly and to love mercy and to walk humbly with your God.

Mic. 6:8 (NIV)

In his book *Spirituality and liberation*, Robert McAfee Brown argues that in Mic. 6:8 '[w]e do not have *three different assertions* being made, but one assertion being made in *three different ways*'. So we:

cannot talk compellingly about any one of the three phrases until we have talked about all three of them.

Brown 1988 p.70

He expresses the logic of his case persuasively in the form of three equations: to *act justly* means to love tenderly and to walk humbly with God; to *love tenderly* means to walk humbly with God and to act justly; to *walk humbly with God* means to act justly and to love tenderly. So you cannot divorce spirituality from issues of social justice and compassion and care for the needy.

True worship has to do with how we live the *whole* of our lives, not just that part which we take along to church on Sundays. Worship has to do with getting involved in God's world precisely because that is where he is involved. A rabbi who travelled from town to town would often introduce his talks with the following story:

I once ascended to the firmaments. I first went to see Hell and the sight was horrifying. Row after row of tables were laden with platters of sumptuous food, yet the people seated around the tables were pale and emaciated, moaning in hunger. As I came closer, I understood

their predicament. Every person had a fork and spoon, but they were so long that no one could bend their elbow to bring the food to their mouth. It broke my heart to hear the tortured groans of these poor people as they held their food so near but could not consume it. Next I went to visit Heaven. I was surprised to see the same setting I had witnessed in Hell – row after row of long tables laden with food. But in contrast to Hell, the people here in Heaven were sitting contentedly talking with each other, obviously sated from their sumptuous meal. As I came closer, I was amazed to discover that here, too, each person had a long fork and spoon that prevented them from bringing the food to their mouth. How, then, did they manage to eat? As I watched, a man picked up his spoon and dug it into the dish before him. Then he stretched across the table and fed the person across from him! The recipient of this kindness thanked him and returned the favour by leaning across the table to feed his benefactor. I suddenly understood. Heaven and Hell offer the same circumstances and conditions. The critical difference is in the way the people treat each other.

Kranc 2005

Consistent with this picture of heaven, the apostle John describes in Revelation a place of future bliss where justice prevails and all is put to rights, a place where we will no longer be indifferent to one another's suffering and sorrows or pain or torment or poverty, because, of course, those things will have passed away. We read in 2 Chron. 19:7 (NIV): 'with the LORD our God there is no injustice'. God's future is a place of true justice, because God himself is perfect and just in all his ways. One measure of our Christian discipleship is the extent to which our lives reflect God's passion for justice. The call to righteousness is, of course, a call to forego a life of self-centred concern, and to look to the interests of others, as Paul writes in Phil. 2 (NIV). It is to pick up our spoon, dig it into the food we see before us, and then stretch out our arms to our neighbour in need. As Christians, however, we know what we ought to do, but often don't do it.

Can science help us in our search for justice in today's fractured, broken and, at times, brutal world? Consider for a moment those who are working at the frontiers of neuroscience and neurobiology. Through their work we may be able to understand scientifically why it is that humans behave in a compassionate or altruistic manner, or why they do not. That, of course, requires many different people working together – a multi-disciplinary collaboration between neuroscientists performing human brain imaging studies, cognitive psychologists, economic scholars and people who analyse complex systems, contemplative scholars from a variety of faith traditions, and philosophers. The trouble is that not many of these people actually talk to each other. What is needed is a greater willingness to pool resources and insights not only amongst different sectors of the scientific community, but also between scientists and theologians so that each may both contribute to and learn from the other.

Furthermore, as the neuroscientist Steven Rose points out in his book *The future of the brain*, many past scientific promises have turned out to be so perilously close to snake oil that we are entitled to be a little sceptical about how much we really do know about how the brain works. There are,

he rightly observes, 'paradoxes about using our brains/minds to try and understand our brains/minds' (Rose 2005 p. 9)! John Stein is a neuroscientist at the University of Oxford who works on deep brain stimulation. 'We know a great deal about the nuts and bolts of the brain', he says, 'but what we don't know is how this complex system works together' (*New Scientist* 2011).

And there are deep concerns many have about the ethical implications as neuroscientific developments segue seamlessly into the interventions of the new neurotechnologies, with their noble goal of healing sick minds. A new phrase, neuroethics, has entered the literature and become the subject of conferences around the world. There are other difficulties and obstacles to overcome, of course. Evolution cannot help us very much, as brain tissue and nerve cells are not preserved in the fossil record. Despite the proliferation of 'consciousness' studies, we still don't know very much at all about the nature of consciousness itself.

But – in spite of all these obstacles – if science is truly God's gift to humanity, we should surely embrace new insights that the neurosciences might offer in exploring human virtues such as compassion, forgiveness, friendship, empathy, and altruism. Perhaps we might one day identify the neural correlates of altruistic and compassionate behaviour. If we truly are concerned for those who suffer, for example, with addictions and mental illness, then we must surely welcome those who are working at the cutting edge of neuroscience. There are many who believe that new developments in what has been called 'decision neuroscience' may significantly advance our understanding of the brain, giving us more insight into a variety of mental disorders ranging from depression to schizophrenia.

Here in Australia, the Florey Institute of Neuroscience and Mental Health – the largest brain research group in the Southern Hemisphere – has more than 300 scientists researching basic and clinical neuroscience areas aimed at developing better treatments for a range of neurological and psychiatric conditions. If we are truly captured by a vision of a new creation where justice rolls on like a river and righteousness like a never failing stream (Amos 5:24 *NIV*) and if we long to be what we know we are not yet, drawn more by God's future than controlled by our own past, then none of us should be closed to the potential contributions of neuroscience to a better and more just future, anticipating the perfect justice of the new creation of God's promise.

Of significance here are the insights of neuroscientists like Malcolm Jeeves, who asserts that:

any view of human nature that fails to recognize the psychosomatic unity of the person is a view that cannot be defended from science.

Jeeves 2004 p. 30

In his latest book, structured in the form of an email correspondence between a freshman psychology student and an emeritus scholar, he acknowledges the distinction between the altruistic behaviour of human beings and non-human primates, noting that altruism in the latter is strongly biased in favour of kin; nor do non-human primates

see any aversion to an inequitable distribution of the resources available that favor themselves.

Jeeves 2013 p. 125

Human beings, however, appear to demonstrate sentiments that are more prosocial, suggesting that they are wired for empathy and altruism more profoundly than non-human primates. Might this have something to do with the essentially and uniquely holistic nature of human beings created *imago Dei*, and might not neuroscientific research have some important work to do in this area?

A signpost to a larger beauty

In turning to the concept of beauty, we might note what Wright describes as the human delight in beauty. Defining beauty, of course, is not an easy thing to do, though the poet John Keats seems to have been clear enough that beauty is truth, and truth beauty. Beauty has to do with that which is appealing, attractive, and delightful, and it is a very subjective thing indeed. The Bible speaks to us about the inner beauty of those whose hearts are right before the Lord, but we know too that beauty is something that is visible to the eye. Throughout the ages, scientists and theologians alike have enthused about the beauties of earth and sky, seeing them as clear pointers to the beauty and majesty of the Creator God. Cicero once remarked that a person who cannot feel the power of God when gazing at the stars is probably incapable of any feeling at all! The Bible too bears witness to the glory and majesty of God's creation, as expressed in Ps. 8 and Ps. 19:1–6. These passages of Scripture from the Psalms speak of a creation that reflects the qualities of the One who has brought this creation into being. To speak of beauty as an attribute of the physical creation is, of course, to acknowledge the beauty of God himself. Alister McGrath, who has written widely in the science-religion field, has this to say:

If God made the world, which therefore has the status of being 'creation' as well as 'nature', it is to be expected that something of the character of God might be disclosed through that creation.

McGrath 2001 p. 21

How might we understand the beauty of God? For some early theologians the being and character of God is locked away in some impenetrable neoplatonic seclusion. However, God is not to be summed up in static language that has no place for his inner relationality and loving interaction with his creation. Clark Pinnock puts it well when he writes that:

God's fair beauty according to Scripture is his own relationality as triune community. It is God's gracious interactivity, not his hyper-transcendence and/or immobility, which makes him so glorious.

Pinnock 2001 p.6

And so we should not be surprised if God's creation were to offer us some windows into what God is like. This brings us, of course, to natural theology, at the heart of which lies the premise that the world is God's

world, and it must therefore tell us at least something about its Creator. Alister McGrath again:

Something of the torrent of God's beauty can thus be known in the rivulets of the beauty of God's creation.

McGrath 2003 p. 16

Of course, we may find ourselves wondering at times about how beautiful this world really is, in the light of so much brutality, squalor, pain and pollution. We live in a world that seems very far from Eden. But the good news of the gospel is that God is at work by his Spirit renewing creation, not destroying it in order to replace it with something brand new. This is the eschatological perspective that we need if we are to participate with God in his redemptive presence in the world.

Of course, whilst science must rightly continue to seek to alleviate human suffering and misery, it is important to understand that human beings live in a world that is good, but not perfect. God's evaluation of his creation in Gen 1-2 as 'good':

carries the sense of corresponding to the divine intention, including elements of beauty, purposefulness, and praiseworthiness.

Fretheim 2010 p. 13

Perfection – which is a measure of what we think the world should be like – is clearly not an appropriate way to describe creation, given the presence of catastrophes like earthquakes, tsunamis, volcanoes, wildfires and hurricanes, to name just a few of the extreme weather events that afflict our planet on a regular basis. Natural disasters are built into the very fabric of creation and reflect God's continuing activity in his unfolding creation. A coherent 'theology of nature' makes room for the wisdom of a God who has set in motion a process with a general direction and goal, the realisation of which is left not only to the operation of the laws of nature but also to free choices, random events and other unpredictable interactions within nature itself. So when we think about God redeeming creation, perhaps it is more from the effects on the creation that we humans have caused than from a fundamental flaw in the totality of God's creation.

And so we look forward with anticipation to the day when (as Paul writes in Rom. 8) the creation itself will be liberated from its bondage to decay and brought into the freedom and glory of the children of God. The new creation will be truly beautiful – complete in every way, a symphony of life and joy. This is how Tom Wright puts it:

The point of the story is that the masterpiece already exists – in the mind of the composer. At the moment, neither the instruments nor the players are ready to perform it. But when they are, the manuscript we already have – the present world with all its beauty and puzzlement – will turn out to be truly part of it. The deficiencies in the one part we possess will be made good. The things that don't make sense at the moment will display a harmony and perfection we hadn't dreamed of. The points at which today the music seems almost perfect, lacking just

one small thing, will be completed. That is the promise held out in the story. Just as, in one of the New Testament's greatest claims, the kingdoms of this world are to become the kingdom of God, so the beauty of this world will be enfolded in the beauty of God – and not just the beauty of God himself, but the beauty which, because God is the creator *par excellence*, he will create when the present world is rescued, healed, restored and completed.

Wright 2006 p. 47

For Wright, the present world really is a signpost to a larger beauty. And so the question arises: what does science convey to us about the beauty of this present world, indeed of the whole cosmos, at the level of both the really big and the really small? Writing last year in the UK newspaper, *The Guardian*, Jonathan Jones asks:

Is it possible that, in the modern world, science has simply replaced art? By that I mean, replaced its higher purpose of expanding minds and imaginations and revealing the beauty of existence.

Jones 2012

In defence of his thesis, he bemoans the current fads in the artistic world so beloved by contemporary critics, and then cites such amazing images as [the Hubble telescope's pictures of the Eagle Nebula or the Whirlpool Galaxy](#), and images of deep-sea worlds taken by submersibles; and taking a leaf out of the art book, he suggests that the craziness of the quantum world has more inherent beauty than much contemporary conceptual art.

New insights in contemporary physics and biology emphasise that everything in the universe is bound up with everything else – all things are what they are because they are related to everything else. In a book called *The Cosmic Dance*, the Italian theoretical chemist Giuseppe Del Re writes:

Major conceptual advances in science now require that we recover a view of the universe in which every single thing or event is in fact related to everything else.

Del Re 2000 p. 15

The concept of non-locality, a pivotal concept in quantum mechanics, reflects a radical interconnectedness that points towards an underlying order in the universe, an order that is much more subtle than that implicit in the deterministic order of Newtonian mechanics.

This interconnectedness, of course, reinforces our own connectedness to the whole of creation, as human beings, indeed all living things. Scientists have shown that only a universe as large as ours could have lasted the 15 billion years that are needed to bring into being the nuclear furnaces of stars which produce the carbon and oxygen necessary for human life. So the universe needs a very long history in order to become what God has always intended it to be. Indeed, one way of interpreting the process of evolution is to describe it as the history that is necessary for the Big Bang to become God's fruitful universe that we know today.

It is precisely because of our connectedness to all that has been brought into being that we are called to live in communion with creation, not over and above it: we need to learn to respect creation in all its beauty, diversity, complexity, mystery, raw power and energy. And that respect embraces not only the imperative to care for creation – which critically involves acting responsibly so that the poor are not marginalised through environmentally reckless practices – but also the wisdom to respect the natural forces that shape the unfolding evolution of our planet and acknowledge that perhaps we are not as smart as we sometimes think we are.

Similarly, the concept of 'emergence', which is a term that physicists use to describe what happens when an interconnected system of relatively simple elements self-organises to form more intelligent, more adaptive and complex higher-level behaviour, points towards the interconnectedness that characterises the universe. Whether we are referring to emergence as a property of natural processes – as, for example, in the growth of crystals or in fluid dynamics – or emergence as a characteristic in biological evolution, both categories alert us to the value of interpreting the physical universe as an integrated and interconnected reality.

Indeed,

the universe disclosed by science appears to be the most beautiful and glorious material thing imaginable, endowed with an internal mysterious order reminiscent of fractals, an eerie by-product of the mathematics of complexity.

Del Re 2000 p. 19

In 1979, the Polish-born computer scientist Benoit Mandelbrot was working on some mathematical iterations on the computer when he discovered a geometrical form which generated an extraordinarily complex structure, capable of an infinite number of magnifications. Paul Davies describes the resultant images as:

breathtaking in their variety, complexity and beauty. One sees an astonishingly elaborate tracery of tendrils, flames, whorls and filigrees. As each feature is magnified and remagnified, more structure within structure appears, with new shapes erupting on every scale.

Davies 1987 p. 63

Mandelbrot's pioneering research into fractal geometry reveals symmetries in its mathematical representation of nature that demonstrate a coherence permeating the physical world.

Let me note three things here. Firstly, the amazing beauty of these mathematical works of art is richly suggestive of the beauty inherent in the created order. Commenting on the beauty of fractals, Gert Eilenberger says that pictures of the Mandelbrot set demonstrate that:

an inner connection, a bridge, can be made between rational scientific insight and emotional aesthetic appeal; these two modes of cognition of the human species are beginning to concur in their estimation of what constitutes nature.

Eilenberger 1986 p. 179

Secondly, consistent with Mandelbrot's own philosophy that 'simplicity breeds complexity', we are encouraged to believe that the complexity apparent in the natural world derives from basic laws which themselves may not be complex. In fact, as Bill Stoeger points out, our understanding of the 'laws of nature' is still very imperfect: how they actually function in reality 'is much, much more than we know, understand, or have adequately modeled' (Stoeger 1999 p. 130).

And, thirdly, the fact that the universe can be described in elegant mathematical forms and equations (to which the anthropic principle bears witness) suggests that there must be some deep underlying reason for the coherence between mathematics and physics. So mathematicians are discovering what is already there, rather than constructing an elaborate human edifice based upon empirically derived data drawn from the real world.

I could cite many other examples of the beauty inherent in creation to which the scientific endeavour testifies. This year is the 60th anniversary of the publication by Watson & Crick (Watson & Crick 1953) marking the discovery of the double helix that describes the structure of DNA. Meselson and Stahl showed experimentally how the DNA double helix self replicates. This was hailed as the most beautiful experiment in biology.

The more we probe the nature of physical reality, the more beauty we discover. Taking an eschatological perspective, we might want to say that the unfolding of creation over time is an evolutionary process, the goal of which is ultimate beauty, a beauty into which we are being drawn daily as we walk with Christ, in whom resides and exists true beauty. Traditionally art has been viewed as the other side of the coin of beauty. Might we not want to suggest a new coin, with science and beauty as the two sides? Or, even better, a three-sided coin with art, science and beauty occupying the three sides ... the Creator of a universe in which science, art and beauty cohere is certainly worthy of our worship.

A community of creation

In his book *Imaging God*, the Canadian theologian Douglas John Hall suggests that the ultimate ontological category is 'being-with', precisely because we have been created by a God who is himself a communion of being, the Trinity of Father, Son and Holy Spirit. Indeed, to be human is to participate in the richness of reciprocal relationships, opening ourselves vulnerably to one another. Experientially, we actually discover who we are in the context of an extensive network of intricate relationships: I am, for example, a husband to my wife, a father to my children, a colleague amongst all of you here, a neighbour to those who live around me ... a brother in the community of God's family, and a son of my Father in

heaven. Our lives are embedded in community. This idea of community, of course, is something that pervades the whole biblical story: it is a theological given, if you like. In *Simply Christian* Tom Wright offers a third 'echo of a voice', which he identifies as a hunger for relationships. We long for relationship, because we are created as relational beings, made in God's image. And the story with which we are all familiar ends in Revelation with John's vision of a people from every tribe and language and people and nation serving God and reigning in the new heaven and earth that God has promised – a community at one with their God and with each other in his restored creation. Notice that – to be made in God's image is to be made not only for God and for each other – it is also to be made for life in communion with the natural order of things – God's good creation.

Many people ask the question: 'What on earth am I here for?' In one of my books, I recount an incident in the American TV series, *Everybody Loves Raymond*, in which Ally, Raymond's daughter, asks some questions about the origin of life. The typically inept Raymond thinks she is asking about how babies are made. Eventually he discovers that she is far more interested in why we exist at all. She asks: Why are we born? Why does God put us here? If we all go to heaven when we die, then why does God want us here first? Why are we here, Daddy? ... good questions! Poor Raymond fumbles around for a while until he blurts out a totally silly answer – God put us on earth to ease the heavenly congestion! It must be crowded up there, so God created this planet as a temporary measure until he could free up more space for everyone! (Wittmer 2004 pp. 97–88). Of course, the answer to the question 'What on earth am I here for?' is, in fact, as simple as it is profound: 'You are here to enjoy God on earth'. To live fully in God's image means to enjoy the experience of life in God, life with one another, and life in relationship to God's creation. It seems to me that evangelical Christianity has given prominence (rightly) to the first, acknowledged the second, but in large part ignored the last of these three.

In a landmark book written nearly 40 years ago, Harry Blamires emphasised the importance of what he called 'the Christian mind':

a mind trained, informed, equipped to handle data of secular controversy within a framework of reference which is constructed of Christian presuppositions.

Blamires 1966 p. 4

The implications of this statement are profound in the present context: many Christians, confined in their thinking to personal salvation, are unable to adequately frame a theological – let alone a Christian – understanding of creation. In this connection, I am encouraged by the work of organisations like ISCAST, dedicated to promoting the interrelationship between God and creation, between faith and science.

As Christians, we live in what Jürgen Moltmann describes as a 'creation-community', a community of both creatures and environments contributing to a 'web of life on earth'. Personal human life is not divorced

from the natural world which is our home. This, of course, lies at the heart of growing concerns to look after God's creation. We do not care for Planet Earth because it happens to be our environment (which is a very anthropocentric way of looking at it) – first and foremost, we care for this planet because it is God's creation. It has integrity precisely because it is God's handiwork, and, as many ecotheologians are pointing out, that in itself should be enough to arouse our concern and action. Indeed, experiencing human life in all its fullness has to do with paying attention to this creation in such a way that we see it with new eyes as God's creation, declaring the wonders of God. Consider the following well-known lines from Aurora Leigh, Elizabeth Barrett Browning's nineteenth-century verse-novel of contemporary early Victorian life in England:

Earth's crammed with heaven,
And every common bush afire with God:
But only he who sees, takes off his shoes,
The rest sit round it, and pluck blackberries.

Browning 1883 p. 265

Of course, the idea of a creation-community is embedded in Scripture. Genesis teaches us that we were created out of the dust of the earth, and to dust we will return. We find our place in the Eden of God's good creation (now spoiled, but Eden nonetheless), commissioned to care for all that God has lovingly and graciously given to us as our home. And when history comes to an end, and God's purposes are fulfilled in the reconciliation of all things to himself, Scripture reminds us that we will still be embedded in physicality. Eschatologically, the prophet Isaiah's promise of a restored humanity is framed by the promise of a restored world, in which the desert will rejoice as it blossoms like the crocus, the burning sand will become a pool and the thirsty ground bubbling springs: then will the blind see and the deaf hear (Isa. 35:5–6 *NIV*). The two promises are inextricably linked and are not to be pulled apart (Wainwright 2000 pp.162–173). So we anticipate a new creation that is fully physical, not some ethereal and esoteric habitation in the sky where we endlessly pluck harps and sing songs! What it will be really like, of course, we cannot tell, but it will have a physicality both like and unlike this world in which we now live.

C S Lewis understood this well in his *Chronicles of Narnia*. When the Pevensie children reached the new Narnia in *The Last Battle*, what did they see? This is how Lewis tells it:

It is as hard to explain how this sunlit land was different from the old Narnia as it would be to tell you how the fruits of that country taste. Perhaps you will get some idea of it if you think like this. You may have been in a room in which there was a window that looked out on a lovely bay of the sea or a green valley that wound away among mountains. And in the wall of that room opposite to the window there may have been a looking-glass. And as you turned away from the window you suddenly caught sight of that sea or that valley, all over again, in the looking glass. And the sea in the mirror, or the valley in the mirror, were in one sense just the same as the real ones: yet at the same time they were somehow different – deeper, more wonderful,

more like places in a story: in a story you have never heard but very much want to know. The difference between the old Narnia and the new Narnia was like that. The new one was a deeper country: every rock and flower and blade of grass looked as if it meant more.

Lewis 2005 p. 195

Of course, it is precisely because we are summoned to be in communion with creation, and not lords over it, that we are charged with the responsibility to care for God's creation. I am currently working with a number of other seminaries and colleges around Australia in the setting up of an Australian cohort of an international seminary alliance concerned for creation care and environmental sustainability. Why is this important? Because *this world is our God-given home*, and we have been charged to look after it.

There is a word that I often think of whenever I reflect on our interconnectedness with one another and with all of creation. It is the word *perichoresis*, a Greek word which means 'mutual interpenetration', conveying the interweaving currents of love and being that are at the heart of the Trinity. God is actually God by virtue of the loving relationships that exist within the divine life. Father, Son and Spirit are united in such union that it is impossible to imagine any one person existing without the others – three in one. *Perichoresis* is an inclusive concept that directs us into the essential nature of God's inner being of community and dynamic relationality, whose energies are not contained within his inner-trinitarian being, but spill out in other-centred love to all creation. As Catherine LaCugna puts it so well: this God who is love

...does not remain locked up in the 'splendid isolation' of self-love but spills over into what is other than God, giving birth to creation and history.

LaCugna 1991 p. 353

God has not created us to praise and honour him as if he, in his triune being, lacked something. Rather, he has created us that we might live in the fullness of his 'spilled-over' life in the creation that is bound up within his triune life of dynamic communion. This is the gospel of salvation, and it is what we have been created for. The ultimate goal and redemption of creation, to which the gospel continually points us, may be summed up in the language of 'Sabbath', the completion and crown of God's saving activity. It is *God's Sabbath*, the goal for which human beings are created. The gospel has to do with living life in this good world that God has made, enjoying the richness of all that he has created, in anticipation of – and witness to – the new creation of God's promise, the banquet to which all are invited.

How, then, do contemporary scientific insights cohere with this understanding of the hope to which we have been called, which is the hope of participation in the resurrection life of the whole cosmic community? Here we return to the idea of relationships. In a sense, the groaning of creation is a groaning for restored relationship ... where all things are reconciled. Isn't this what we hope for? And isn't this what the whole of creation longs for? The reconciliation of all things! We live in a

broken and fragmented world – broken relationships, a fragmented creation – but God in his grace is at work by his Spirit to integrate that which has been disintegrated. The Holy Spirit may be understood as the power of God at work in all creation – human and non-human – working ceaselessly to restore relationships and to bring back together that which has been torn apart. A feminist theologian named Elizabeth Johnson has written about the energizing presence of the Spirit who sustains all created things, pervades the cosmos and is to be celebrated with thanksgiving and open response. With delightful imagery, she likens the Spirit to a baker-woman [who] keeps on kneading the leaven of kindness and truth, justice and peace into the thick dough of the world until the whole loaf rises (Mt. 13:33 *NIV*, Johnson 1992 p. 137). Elizabeth Johnson's explicit eschatological orientation embraces a liberation that encompasses not only human life but all creation; as such, it shatters any dualistic notions we might have in which human beings are somehow 'caught up' by the Spirit, and transported out of this world and into some mystical, spiritual reality that has no bearing on the created order. For salvation has to do with living in the new creation – and God wants no one to be left out. And so, still waxing eloquently, Johnson speaks of the energizing life of the Spirit in creation, whose 'power makes all withered sticks and souls green again with the juice of life' (Johnson 1992 p. 128).

And so wherever in this beautiful but broken creation we see relationships being restored, there we see the hidden activity of the Holy Spirit. This has as much to do with the non-human creation as with you and me. The Spirit who brings healing and restoration to our personal lives is the same Creator Spirit who is at work in the cosmos, who was there in the beginning 'hovering over the waters' and is ever-present sustaining and renewing and acting as the agent of the unfolding and emerging universe. Scientific explanations of the relational character of the universe may therefore be understood as expressions of the Spirit at work in creation. Advances in science invite us to view the universe as a system of interrelated parts, in which the behaviour of the whole is ultimately more significant than detailed examination of the fragments that constitute the system, fascinating though they may be. In other words, each entity, whether a particle, a cell, a galaxy, an insect or a porcupine, is constituted within the context of a whole – we might say ecological – system.

Key themes in contemporary physics – such as quantum mechanics, chaos and complexity, emergence and self-organisation – alert us to the value of interpreting the physical universe as an integrated and interconnected reality. Diarmuid Ó Murchú, an Irish priest and social psychologist, writes in a book called *Quantum Theology* that the modern image of the universe as a machine:

has been transcended by the alternative perception of an indivisible, dynamic whole whose parts are essentially related and can be understood only as patterns of a cosmic process. At a subatomic level, the interrelations and interactions between the parts of the whole are more fundamental than the parts themselves.

Ó Murchú 1997 pp. 35–36

And so the whole cosmic community of creation may be understood as a web of life inhabited and energised by the Holy Spirit. In the Spirit everything is interconnected. And, as we look towards the future, the creative and re-creative Spirit is the vitalising Spirit, active from the moment of the big bang, releasing life and possibility as creation unfolds and reaches towards its intended goal. The relational Spirit of God enables all that exists to fully and finally become itself in the freedom of divine love. All humanity and all creation is caught up in this eschatological drive towards fulfilment in God, who, as Trinitarian love, welcomes and draws all creation – human and non-human – to himself through his Spirit.

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