God's divine love revealed through science

John R Hudson

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1 Celtic prayers

Let us adore the Lord,
Maker of marvellous works,
Bright heaven with its angels,
And on earth the white-waved sea.

At this evening hour may the understanding of all our hearts be opened to that Light which enlightens everyone who comes into the world. For this is the Light which gives us true knowledge of the Name over all by which God is known.

Our God is the God of all,
The God of heaven and earth,
Of the sea and of the rivers;
The God of the sun and of the moon and of all stars;
The God of the lofty mountains and of the lowly valleys.
He has His dwelling around heaven and earth,
and sea, and all that in them is.
He inspires all, He gives life to all,
He dominates all, He supports all.
He lights the light of the sun.
He furnishes the light of the night.
He has made springs in dry land . . .
He is the God of heaven and earth,
of sea and rivers, of sun, moon and stars,
of the lofty mountain and the lowly valley,
the God above heaven,
and in heaven, and under heaven.

Attributed to St Columba

2 The context

1. In 1927 George Lemaître (1894–1966), a Belgian Catholic priest, published a paper arguing that the only mathematical formula that made sense of all that was known about the universe at the time was one which suggested that the universe had started very small and expanded at a continuous rate ever since. Though it was to take another thirty years

before many scientists began to take him seriously, no serious scientist now disputes this theory, better known as the 'big bang' theory.

Before then scientists had believed that the universe was timeless and therefore that God had created to the earth, or the solar system or the Milky Way, out of pre-existing material. By showing that the universe had a starting point, Lemaître made the idea of God as the creator of the universe scientifically plausible.

2. This universe is highly improbable; if any one of six proportions had been slightly different during its early expansion, the universe as we know it would not have existed.

3. Life on earth is sustained through a multitude of organisms working together to sustain the earth's temperature; though the heat given off by the sun has increased significantly during the life of the earth, these organisms have managed to keep it cool enough for life to continue.

4. Life on earth is highly improbable; the proportions of oxygen and methane are such that life should not be possible. It only happens because some of the oxygen and methane is hidden in various cycles of earthly materials.

5. Viable systems depend on having a degree of randomness; completely predictable systems 'die' fairly quickly.

   This was a shock to many scientists — Einstein famously said 'God does not play dice with the universe.' God doesn't — he only allows the minimum amount of randomness which enables systems to continue to operate. But without this flexibility, many of the things we take for granted, like frying an egg, would be impossible.

3 God's love revealed

Even if you dispute the first three statements above because you dispute the length of time the earth has been in existence, the last two suggest a Creator who has taken a lot of trouble to get things 'just right.' This includes providing the minimum amount of randomness necessary to ensure that earthly systems can survive and be productive.

These systems are enough to provide the resources for everyone on earth to be fed, housed and clothed — the main reason why some people do not have enough is because others have denied them the means to have enough.

To make the most of our existence on earth, we need unconditional love; those who do not receive unconditional love as infants or at some time later on in their lives will never be able to make as much of their lives as those who have received unconditional love as infants or as soon as possible after infancy.

Only those who have accepted unconditional love are able to give it. God demonstrated his unconditional love for us through the sacrifice of his Son; if we accept his unconditional love for us — or the unconditional love a fellow human being has given us, we gain the capacity to give it to others.

'Loving your neighbour as yourself' is the most effective way of looking after yourself and your neighbour. Those who love their neighbour more than themselves lose the capacity to love their neighbour as their neighbour needs; those who love themselves more than their neighbour lose the benefit of the contributions their neighbour might make to their development as people.

Our intellectual capacity can grow, broadening and lengthening the perspectives we take, throughout our adult lives and in many cases well into old age; this applies to people who have learning disabilities as well as to people of average or above average intelligence. How much we grow intellectually depends partly on whether we have received unconditional love and partly on the sorts of stress we experience — moderate stress can prompt us to solve problems for ourselves and stretch our intellectual capacity; extreme stress can restrict it. Lack of intellectual stimulation — being in a rut — in the forties makes it less likely that intellectual capacity will continue to grow in old age.

All organisms have systems which warn them of potential harm to them; the more sophisticated ones involve integrating a wide range of the organism's functions, both physical and mental, both to deal with the present and to learn how to deal with potential harm in future. This integration often makes it meaningless to talk about 'physical' and 'mental' illness; harm can affect both our 'physical' and our 'mental' systems simultaneously.

The human body is largely self-healing as long as it is given the care and support needed for its built-in self-healing mechanisms. There are some situations where these self-healing mechanisms can be overwhelmed regardless of what human beings do but in many cases failures of these systems are as much failures of human beings to look after them properly.

Both physiological and emotional self-healing are best supported by people who 'love their neighbour as themselves.' People who lose, or have significantly fewer, relationships tend to do less well in all areas than those who have more relationships.

Those who receive sufficient care and support after extreme physiological or emotional harm recover faster than those who have experienced only moderate physiological or emotional harm. Those who do not receive sufficient care or support may never recover from the effects even of relatively moderate harm.

Emotional self-healing is more effective among those who forgive; those who never forgive never fully recover from the emotional harm.

Human beings have two capacities which distinguish them from animals: mathematics and spirituality. All animals have a primitive ability to count, in some cases up to seven or nine; human beings use two parts of the brain, one part is like the part animals have and the other is in a different part of the brain where they do any mathematics that involves more than three things. This ability has enabled human beings to understand many aspects of how God's creation works and so appreciate even more God's love revealed in creation.

A part of the human brain is devoted to spirituality and those who have a settled belief system are healthier and live longer on average than those who do not. No similar area has been found in the brain of any animal.

Mathematical game theory has demonstrated that, while those who behave badly may gain a temporary advantage, in the long term they lose out to those who behave well.

4 Christianity and science

It has become fashionable to see Christianity and science as addressing different issues; in fact, Christians and scientists actually disagree about the same things. For example, Calvinists believe that God has predestined those who will be chosen for his Kingdom; Arminians believe that God only predestined that it would be those who believed and therefore that the choice remains with us whether or not to believe. Similarly, some psychologists and sociobiologists believe that what we do is predestined by a combination of our genes and our experience

whereas other scientists believe that we have a wide range of choices in how we respond to events. So, in the matter of free-will, both Christians and scientists are divided on the issue.

Francis Bacon (1561–1626) argued that God had given Adam 'dominion' over the natural world and that man should use science to control the natural world; in 1967 Lynn White, a Christian historian, argued in 'The historical roots of our ecologic crisis' that it was precisely this interpretation that was at the root of our environmental problems. To this day there are Christians and scientists united on opposite sides of the debate about whether God gave us science to have dominion over nature or whether God gave us science in order to work in harmony with nature.

In fact, the idea that Christianity and science address different issues is relatively modern. For example, Dan Taylor (1738–1816), the Halifax man who left Methodism to become a Baptist and then led a group of (General) Baptist and Methodist churches known as the New Connection, said in his testimony:

> 1. I believe that the whole creation gives proofs of a Deity; ... But, ... there is an apparent necessity of a fuller discovery of the mind of God to man than the light of nature, in order to understand how we can be accepted with him.
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> 2. That the great God has therefore been pleased, at sundry times, and in divers manners, to make himself known and to reveal his will to man, by voices, visions, etc. by the ministry of the prophets and of his own Son; and afterwards by his apostles; ...
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> 3. That these instructions are since collected, by divine appointment, into one book, called the Bible, ...

Taylor's attitude, that we can learn from the book of nature but that we need the book of God for a complete revelation, was common in the eighteen and nineteenth centuries.

Michael Faraday (1791–1861), a Sandemanian Christian and possibly the greatest scientific experimenter ever, saw himself as revealing the wonders of God's creation and published more papers than anyone else because he was violently against patents and wanted to prevent anyone else from trying to 'own' any part of God's creation.

James Clerk Maxwell (1831–1879), a Presbyterian elder, regarded by Einstein as on a par with Newton and Faraday, re-formulated Faraday's discoveries into mathematical formulae (because Faraday did not have the mathematical training to do it himself).

Ada Lovelace (1815–1852), an Anglican and a mathematician who wrote the world's first computer program, wrote of the plans for the first computer:

> ... those who thus think on mathematical truth as the instrument through which the weak mind of man can most effectually read his Creator's works, will regard with especial interest all that can tend to facilitate the translation of its principles into explicit practical forms.

None of them thought that science and Christianity were addressing different issues.