

# Science mysteries

David Burges

*Scientists sometimes give the impression that science can explain everything, yet in reality there are many things that science cannot explain, as one would expect from the Bible's description of the greatness of the Creator of all things.*

**I**N THE BIBLE God declares: "For as the heavens are higher than the earth, so are My ways higher than your ways, and My thoughts than your thoughts" (Isa. 55:9). Modern scientists, seeking to understand the workings of the amazing universe that God has created, mostly ignore this fundamental truth, sometimes giving the impression that science has solved nearly all of the universe's mysteries. Thus for leading cosmologist Stephen Hawking the quest of science is to produce a unified 'theory of everything', which will encapsulate all the laws of physics. If found, it would raise the question, Does the universe need a creator, and, if so, does he have any other effect on it?<sup>1</sup>

This attitude is in marked contrast to that of Sir Isaac Newton, who famously declared: "As to myself, I seem to have been only like a boy playing on the sea-shore and diverting myself in now and then finding a smoother pebble or a prettier shell than ordinary, whilst the great ocean of truth lay all undiscovered before me". As a believer in the Word of God, his view of science was much more in tune with God's declaration in Isaiah.

## "Things that don't make sense"

There are in fact a great number of mysteries in the living world and in the universe in general which are beyond current scientific description. Recently, *New Scientist* magazine, perhaps surprisingly, published a series of short articles under the general title, "13 things that don't make sense".<sup>2</sup> Various topics were dealt with, none of which can be explained by current understanding of the laws of physics and chemistry, and some of which potentially call in question our fundamental understanding of the universe. A selection of these is briefly reviewed below.

- **The placebo effect**

Doctors have known for decades that a substance with no physiological effect can

nevertheless have a therapeutic effect when administered as a drug, if the patient *thinks* it is a genuine treatment. This is known as the *placebo effect*. It is in fact used as a control in clinical trials; a new drug under test has to prove more effective as a treatment than a placebo in order to be considered effective.

Recently, Italian researchers carried out an experiment in which morphine was used to control artificially induced pain for several days. Then, unknown to the patient, the morphine was substituted by a simple saline solution, and this still controlled the pain. This was not unexpected. However, when they then added another drug, naloxone, which blocks the action of morphine, it was found to block the pain-relieving effect of the saline placebo as well!

Researchers have no idea what causes this placebo effect, beyond the obvious conclusion that the mind can affect the body's biochemistry. A patient's expectation that a treatment will be therapeutic in some way can lead to it being effective. But no one knows why.

- **The horizon problem**

The universe is filled with a low-temperature radiation, known as the microwave background radiation. Scientists believe that this is the remains of the 'Big Bang' that, according to current theory, began the universe. Indeed, it is one of the main evidences for it, having been predicted before it was discovered.

The mystery is that this radiation is far too uniform, being at the same temperature in every direction.<sup>3</sup> The problem is that the two edges of the observable universe are said to be

---

1. *A Brief History of Time*, 1988, p. 174.

2. 19 Mar. 2005, pp. 30-37.

3. Minute variations in temperature of the background radiation, discovered in 1993 by the COBE (Cosmic Background Explorer) satellite, are taken to show that the early universe was not entirely uniform, so that matter could concentrate, forming stars and galaxies.

28 billion light years apart,<sup>4</sup> whereas the universe is only 14 billion years old. Since nothing can travel faster than the speed of light, there has not been time for heat radiation to travel between the two horizons to even out the hot and cold spots created by the Big Bang.

The current solution is to suppose that the universe expanded at an enormous rate just after the Big Bang, a process referred to as inflation. But no one knows what could have caused that, so it merely replaces one problem with another. This demonstrates the shifting sands upon which theories of the universe's history are based; yet they are consistently presented to the public as fact.

- **Homeopathy**

This well-known alternative therapy uses very dilute solutions of normally toxic substances to treat diseases. Scientists, however, have been highly sceptical of their effectiveness because, at the dilutions used, there should be no molecules of the original substance left at all; homeopathic tinctures are effectively pure water.

One of the chief critics of homeopathy, Madeleine Ennis, a pharmacologist at Queen's University, Belfast, set out to disprove its claims. She treated human white blood cells, of a type involved in inflammation, using solutions of histamine so dilute that no histamine should have been left in them. She found, however, that they had the same effect on the white cells as histamine itself. The results were replicated in four different labs.

No homeopathic remedy has been found to work in a large, randomised, controlled clinical trial. But this study suggests that some real effect exists. Ennis is unable to explain her results. If they turn out to be authentic, the laws of chemistry and physics may have to be rewritten.

- **Dark matter**

Astronomy has revealed that there are millions of galaxies beyond our own Milky Way, and all of them are observed to be spinning around their centres. However, it was realised in the 1970s that there is not enough mass in the stars comprising the galaxies to account for their spin. The best suggestion then was that they contained large amounts of 'dark matter' to account for the missing mass. However, no one knew what the dark matter was.



NASA/JPL-Caltech/STScI

**Spiral galaxy known as NGC 7331 located fifty million light years away—near for a galaxy. Two other galaxies can be picked out below the main one. These are about ten times further away.**

And the position is unchanged. Even though this 'dark matter' may comprise as much as ninety per cent of the mass of the universe, its nature remains completely mysterious. It may even be that Newton's laws of gravity have to be modified to explain the rotation of the galaxies. Consequently, it might be thought somewhat premature of scientists to claim even a basic understanding of the workings of the universe, with such profound uncertainties remaining.

- **Dark energy**

Another recent finding is that, contrary to expectation, the expansion of the universe appears to be speeding up, not slowing down under the influence of gravity, as was supposed. Cosmologists are at a loss to explain this result. Some unknown force seems to be acting against the pull of gravity, and the suggestion currently being considered is that empty space has some property that has been called 'dark energy'. But attempts to identify it have so far met with no success.

Other scientists consider that Einstein's theory of general relativity, which describes the operation of gravity, may have to be modified when applied to the largest scales

4. This is based upon the observation that light from distant galaxies is shifted towards the red end of the spectrum, an effect which is assumed to be due to expansion of the universe; the further the distance the greater is the redshift and hence the speed at which the galaxies are receding. The horizon is set by that distance at which the recession reaches the speed of light.

of the universe. Once again man's current understanding of the cosmos is found to be acutely deficient.

### Amazing complexity

Other mysteries listed in the article that are still baffling scientists include the appearance of very high-energy cosmic rays with no obvious source; the presence of methane in the atmosphere of Mars; the detection of atomic particles, consisting of four neutrons bound together, which should not exist; and the renewed interest in 'cold fusion', the supposed ability of atoms to fuse together in palladium metal at room temperature, releasing energy—something which is deemed impossible by current scientific theory. We could ourselves add many examples of amazing complexity in the living world which are glibly described by

scientists as being the results of evolution but which in fact deny any logical explanation other than design by an intelligent Mind.

Of course, all science proceeds by seeking explanations for facts that are not encompassed by current theories. And no doubt many of the above mysteries will eventually give way to satisfactory explanations. But the present state of uncertainty in these areas demonstrates that many of the confident stories about science that are presented to the public as fact are really no more than guesswork. To those scientists who believe wholly naturalistic explanations can account for all things in the cosmos, and in effect "cast away" the Divine hand of the Creator, the words of the Second Psalm seem highly appropriate: "He That sitteth in the heavens shall laugh: the Lord shall have them in derision" (vv. 3,4).

## Bread and wine as symbols of the old and new covenants (2)

Sam Alexander

*In the first article we suggested that the emblem of bread can be taken as a symbol of the old covenant in the same way that wine is a symbol of the new covenant. Breaking bread is thus symbolic of breaking our former way of life under the old covenant; drinking wine reminds us of our new life under the new covenant. This article will present further evidence that adds weight to these ideas.*

THE LONGEVITY of the two emblems of bread and wine stand in stark contrast; bread goes mouldy within several days, but wine actually gets better with age. This is just like the old and new covenants; the old covenant, like bread, passed away, but the new covenant, like wine, lasts (*cf.* Heb. 1:11; 8:13).

### The manna

During the wilderness wanderings, when God made the old covenant with Israel, the Israelites ate manna that God provided for them. It is noteworthy that Israel received bread from heaven, not wine.

However, when the manna ceased, Israel ate the fruit of the Promised Land, notably represented by a branch with one cluster of grapes

so big that it was carried on a staff between two (Num. 13:23). We can only enter our promised land through the new covenant (*cf.* Heb. 4:8), which we remember in the emblem of the "fruit of the vine" (Mt. 26:29). Like Israel's manna in the wilderness, our bread—our flesh under the old covenant—must pass away, to be superseded by grapes. The grapes were a symbol of the fruitfulness of their promised life in the Land.

The former inhabitants of the Land, like the manna, represent our former way of life under the old covenant, which must be completely replaced by a new way of life under the new covenant; thus the Canaanites were to be completely destroyed by Israel. How appropriate, then, was the faithful spies' choice of metaphor: "rebel not ye against the LORD, neither fear ye the people of the land; for they are *bread* for us" (Num. 14:9)!

If the two spies carrying the finest trophy of the Promised Land were also the two spies who believed in God's power to give them the Land according to His promise, then one was Joshua and the other Caleb. If Caleb, a Gentile who had joined Israel, bore one end of the staff after Joshua, a clear type of Christ, then Caleb would be a very appropriate type of Simon of Cyrene, who helped Jesus bear the staff that literally carried the "blood of the covenant" that we remember