

Science and Faith

-the questions 'how' and 'why' are both essential to find the truth

The challenge

'Science has removed the basis for any belief in God and his miraculous power in the world.'

Beginning a response

A statement like this is the ground of intellectual and emotional security for agnostics who want to protect themselves from the spiritual implications of life. Christians wanting to dialogue on the issue should raise questions, not confront; looking for approaches that create an interest in new ways of understanding.

The key to engaging the challenge lies in understanding the word 'science'; it is being used here as though it began with a capital 'S'. This popular misuse of the word demonstrates a frequent misunderstanding of science and its essential nature. As we shall see, science is not a complete or closed philosophical system. It has immense value but within clear limitations. It can deal speculatively but not ethically or metaphysically.

For many Christians a statement like this can be a disturbing challenge. The mystique that has grown up around the word 'science' suggests an authority and certainty that intimidate. There are also many negative attitudes among Christians about science, creating fear and hostility, which is irrational and unfounded. So the subject of 'science and faith' has the potential to divide Christian and agnostic, and Christian from Christian. It also holds the promise of creative debate.

'How?' and 'Why?'

Which one of us has not wondered at the majestic yet intricate beauty of the natural world; from the fragile forms of snowflake and spider's web to the grandeur of valleys, oceans and mountains? Then in the evening light it appears as if the sky is drawn back like a curtain to reveal stars, planets and galaxies in numbers beyond counting. We are left awe-struck. The questions spinning in our minds are 'How?' and 'Why?'

These questions, springing from our experience of nature and existence, touch the very heart of science and faith. The question 'How?' is to do with 'mechanism' and as such touches the subject of science. The question 'Why?' is to do with 'meaning' and as such touches the subject of faith. Because they are both concerned with 'truth', we will discover the full truth about the universe only if the two questions are continually held together, however strong the temptation to separate them. This is a warning to the scientist and the theologian.

A final point about the questions 'How?' and 'Why?': the answer to 'How?' can be found by exploration and experiment. The answer to 'Why?' is completely dependent upon revelation, without which there is only meaninglessness.



Science and Scripture

Christians and agnostics are often equally mistaken in believing that the Bible claims to present us with scientific statements about the universe. It does not. The purpose of Scripture is not to answer the question 'How?', but rather the vital question 'Why?'. As Galileo said, the Scriptures 'teach us how one goes to heaven, not how heaven goes'.

It is not that God could not have answered the question 'How?' about nature in Scripture, but it is not the key question. It would also present some problems:

- The scientific ideas that would have to be used to communicate the facts would be incomprehensible even to today's scientists, let alone common people;
- The significance of humanity in the whole scheme of nature would be reduced to near vanishing point, a mere decimal factor in the equation of the universe.

So details about the mechanisms would communicate nothing and create despair. Instead God focuses on 'meaning'. Everything that exists comes from him. Human beings are created in his image and likeness and have the role of being his agents within nature, living according to the principles of his character. Answers to the question 'How?' could never communicate this.

It is popular for agnostics to pour scorn on what is perceived to be a biblical understanding of the natural order as a primitive pre-scientific view of the universe. What we have in fact is a masterpiece in communication that can be understood by child or adult in any society, because it springs out of our personal experience of the world. The biblical world is anthropocentric; the earth appears flat with the sky like a tent above it. While we know that the earth is a sphere and circles the sun, our actual experience matches the descriptions of Scripture. Herein lies God's genius.

Freedom and dogma

For the Christian it is clear is that science cannot be built upon particular texts from the Bible. Scientific study will be conditioned by the spirit of truth within Scripture, but not by particular biblical statements. Yet we shall see that Christians have continually tried to turn Scripture into a scientific handbook to the detriment of both Scripture and science. They have also tried to restrain science within their dogmatic view of Scripture.

The freedom of science is something that must be safeguarded at all costs. It has been challenged by totalitarian regimes like Russian communism (Lamarckian biology) and Hitler's National Socialism (Aryan anthropology). Sadly the dogmatic traditions and attitudes of the Christian church have been one of the greatest offenders against the freedom of science. It is also one of the main reasons why people mistakenly believe a conflict between science and faith exists. Two classic cases in the history of science illustrate the point:

- **Galileo Galilei** (1564–1642) reported his telescope observations in 1610, which confirmed that the earth moved around the sun. His observations were said to challenge:



- **Scripture:** which said, 'The earth is firmly established it cannot be moved' (Ps 93:1), and that Joshua commanded the sun to stand still (Josh 10:12), which is quite impossible if it is motionless at the centre of the universe;
- **Theology:** which argued that it was impossible to think of God sending his son to earth if it was not the centre of the universe.

Galileo and his fellow astronomers were mocked by the Florentine preacher Caccini in the words, 'Ye men of Galilee, why stand ye gazing into heaven?' (Acts 1:11!). On 12 April 1633 Galileo was humiliated, forced publicly to renounce his ideas, and imprisoned. Dogma attempted to silence truth in the name of truth and has been shown to be wrong.

- **Charles Darwin** (1809–82) published his book *On the Origin of Species* in 1859, in which he presented his ideas about evolution. His ideas were said to challenge:
 - **Scripture:** which said, 'God made the beasts of the earth according to their kind' (Gen 1:24), and 'All flesh is not the same flesh' (1Cor 15:39);
 - **Morality:** if people are merely evolved animals, there can be no place for God, and society will be shaped by the principles of 'survival the fittest', which will lead to degradation.

Thomas Huxley became a staunch defender of Darwin's views and in June 1860 engaged in debate with Samuel Wilberforce, Bishop of Oxford. 'Soapy Sam' spoke first in the packed Oxford Museum library; he was not a master of the facts and he was also insulting, concluding with a question to Huxley as to whether it was through his grandfather or his grandmother he claimed descent from a monkey. Huxley won the day.

Both stories show the ignorance and arrogance of key members of the church over the subject of science; creating conflict and hostility where there needed to be none. It should also be borne in mind that, although both these cases are often used to illustrate conflict between science and Christianity, in each instance the story is not so straightforward. Politics and lack of tact on Galileo's part played a role in the Church's response to him. Christians and non-believers alike were found on both sides of the debate on evolution.

God and universe

Sadly Scripture has often been misused in a bigoted fear of science but, rightly interpreted, Scripture creates an environment of freedom and inspiration in which science can develop. The nature of God and the universe presented through the pages of the Bible makes it clear that all things exist:

- **By a creator:** giving uniformity and predictability;
- **By a person:** making it rational and comprehensible;
- **By a free act:** requiring an objective open mind.

The study of science and faith presents us with the exciting fact that God has revealed everything that is essential for meaning and salvation, but he has concealed the mechanisms and structures of the universe for us to discover. God is not keeping us in ignorance but stimulating our desire for enquiry, with the joy and the maturing involved. The truth is that the innermost secrets of creation are waiting for human investigation (cf. Ps 104; Job 36:24–37:22), encouragement to do so is found throughout Scripture:



- 'It is the glory of God to conceal a matter; to search out a matter is the glory of kings' (Prov 25:2);
- 'When I look at the heavens, the work of your fingers' (Ps 8:3);
- 'To search out by wisdom all that is done under heaven' (Eccles 1:13);
- 'He spoke of trees ... and of beasts, and of birds, and of reptiles and of fish' (1Kgs 4:33).

The fact that 'the earth is the Lord's' (Ps 24:1) means that it is to be studied with reverence (cf. Ps 8:3-4; Job 37:23; 42:1-4); but there is not the slightest suggestion that there are any limits to the areas of enquiry. This means that science is the human methodical approach to divine 'revelation' in nature. Down the centuries Christians who learned to read the book of Scripture for themselves began to take the same liberty with the book of nature. They began to challenge ancient and medieval ideas. They saw themselves as 'priests to the book of nature', studying it truthfully and faithfully, altering nothing that God had chosen to write down in it.

Discovery and truth

The story of human efforts to unlock and understand the secret structures and functions of the material universe is fascinating. Its origins will never be fully known; its narrative already runs into volumes and has probably only just begun. Here we take but a few examples as illustrations of the remarkable quest.

- **Aristotle (384-322 BC): geocentric.** The roots of Western scientific enquiry can be traced to Greek thinkers in Athens about 400 years BC. There were many ideas, but it was to be those of Aristotle that were to dominate and shape the inquiring minds of medieval Europe. Aristotle saw the universe divided into two parts, separated by the sphere of the moon. Central, stationary and immovable was the earth around which moved the heavenly bodies on circular, crystalline, concentric spheres. Between earth and the moon all matter was made up of the four elements: earth, air, fire and water. Above the moon only one element existed, the 'aether'. All properties of the external world were believed to be made up of unobservable and irreducible 'atoms'. While a geocentric view of the universe was to go, the Greeks gave us a concept of scientific explanation that remains at the heart of modern science.
- **Copernicus (1473-1543): heliocentric.** Scholars of the Renaissance began to discover that Greek scientific thinking was more diverse than Aristotle. Observations of the planets demanded increasingly complicated and less commonsense theories to fit their movements into a geocentric framework. About 1529 the Polish scholar Nicholas Copernicus completed his famous *De Revolutionibus* suggesting that the earth, along with the other planets, moved around the sun. This simple thesis brought a revolution to science, resisted by the church, but confirmed by the telescope of Galileo and the observations of other astronomers. Refined by Kepler (1571-1630) who showed that the orbits of the planets were elliptical and not circular, as Copernicus had imagined. So the small, geocentric, anthropocentric universe of the ancients was gone; the earth was no longer the centre of the universe but a peripheral planet spinning in a universe that extended without frontiers into the unknown.
- **Newton (1642-1727): mechanistic.** Isaac Newton was born the year Galileo died. Galileo not only confirmed the theories of Copernicus with his telescope, but his studies of falling bodies laid the foundations for Newton's own epoch-making laws of motion.



Central to the great achievements of this Cambridge mathematician was his discovery of the law of gravitation – nature’s most pervasive force. Could the same force that brings down a falling apple also restrain the moon in its orbit? Newton’s formula, for gravitational attraction between two masses being inversely proportional to the square of the distance between them, along with his three laws of motion became the basis of celestial mechanics into the 20th century. Newton’s universe was mechanical, awesomely simple and very empty. Gone was the ancient belief that the universe was a great organism filled with cosmic intelligences. Now only the mysterious forces of gravity acting over huge distances held things together. The cyclical cosmos was seen to function like clockwork with cause and effect at its heart.

- **Einstein (1879–1955): photocentric.** In 1905 Albert Einstein, a 26-year-old patent clerk in the Swiss city of Berne, published ideas which were destined to change forever the way we think about time and space. This was the ‘special theory of relativity’. The speed of light is absolutely constant irrespective of its source or direction. However, an observer is able to detect only relative motion [‘Is it the train or the platform that is moving?’]. He went on to abolish previous notions of time and space, which he showed were linked and dependent upon the motion of the observer. He then went further and showed that ‘mass and energy were not separate and distinct; for if an object emits energy in the form of light its mass will be reduced by the amount of energy divided by the velocity of light squared’, the ideas behind $E=mc^2$. Mass and energy are interchangeable and even a small portion of matter under the right conditions could be converted into awesome energy. The mechanistic ideas of Newton, which appear to work in the environment of earth, are engulfed by the photo-centric world of relativity.

As the doorways to the subatomic world have opened so has our realisation that this God-created universe is built upon fathomless mysteries we are just beginning to touch. The ‘quantum theory’ shows that energy is not emitted continuously but in ‘quanta’ (bundles); that light and electrons behave both as particles and as waves, so what on earth are they? In 1927 Heisenberg put forward his famous principle, which stated that you could determine either the position or momentum of sub-atomic particles but you could not do both at the same time. Here is uncertainty at the heart of causality! And so it goes on.

Nature of science

‘What is science?’ appears a simple question, but there is no universally accepted answer. However, majority opinion would say that science is ‘a comprehensive and disciplined study of the nature and behaviour of the physical universe’. The key characteristics of science are that it is:

- **Empirical:** its data is obtained by observation and experiment in the material world of our senses;
- **Systematic:** its approach is methodical and consistent; its findings must be able to be reproduced by others;
- **Objective:** its analysis is not selective or biased, it does not ignore awkward or embarrassing data;
- **Rational:** its evaluation of data is governed by logic, and aims to produce reliable generalisations; laws and theories.



So scientists have respect for the natural world. They insist on the test of experience and openness to fresh evidence unconditioned by dogmatic authority. The key presuppositions of science are:

- **Nature is understandable:** it is believed that what is observed can be made sense of, that reality is in fact intelligible;
- **Nature is uniform:** it is believed that observations which hold true on a limited scale also hold true universally; nature is predictable and experiments reproducible;
- **Nature is integrated:** it is believed that what we can observe provides a key to what we cannot observe; whether the 'macro' of galaxies or the 'micro' of particles.

Understanding the nature these presuppositions is vital because science is built on them. But scientists cannot 'prove' them; they are axioms that are accepted *a priori*. Experience suggests that these presuppositions are true; if this is so the question is, 'Why?' Is this mere chance or an indication of a presence of mind? This question will recur.

Science and scientists

We have seen science to be a systematic, objective and rational exploration of the empirical world. From the 16th century, men such as Francis Bacon (1561–1626) argued that the accumulation of scientifically tested data would inevitably provide sound knowledge. A misunderstanding of this 'inductive' approach to science has led many people to believe that the only true knowledge is scientific knowledge and has inspired almost blind confidence in science as the ultimate answer to all questions.

- **The fact is that science is a very human pursuit.** Data has to be selected if it is to tell you anything; it has to be organised into principles and theories that again have to be tested and evaluated. Only the human mind can do this. So, central to science is the ability, the humanity and the frailty of the scientist. The theories of relativity and quantum mechanics illustrate the deep connections there are between the observer and the observed. Do human mental facets affect both what we see and what is being seen?
- **The fact that science is both an objective enquiry and a subjective reflection.** This will be clearly seen below in the way it forms generalisations and builds patterns of understanding. The authority of science must always be tempered by recognising its human dimension.

Principles and paradigms

Frequent reference is made to 'the laws of science', which raises the question as to exactly how scientists carry out their work. Observations lead the scientist to:

- Propose a hypothesis;
- Deduce its consequences;
- Test by experiment;
- Modify as necessary.

This process leads scientists to refine their ideas into generalisations which appear to be dependable having been tested in different circumstances; they are commonly called



'laws'. But the progress of science often demands these 'laws' be reformed or reinterpreted, so they are better referred to as 'principles' as the word 'law' gives them a false sense of absoluteness.

Having established key principles in an area of enquiry, the scientist goes on to construct a 'paradigm' that interprets them. This is a theory; a picture or framework of thought which attempts to provide an understanding of the world into which the principles fit. This then becomes a standard by which other observations are measured; unless and until so many anomalies occur that a crisis results in a 'paradigm shift' and a new way of understanding being constructed. In practice a paradigm is usually made up of:

- **Maxi theories:** broad frameworks of ideas against which day-to-day science takes place, moved only under great empirical pressure; they are a synthesising, simplifying, unifying factor in science;
- **Mini theories:** specific ideas about particular practical phenomena; they work under the umbrella of the maxi theory but have a greater possibility of change.

The stronger the mini theory, the greater the strength of the maxi theory and the whole paradigm it seeks to uphold.

Scientific 'laws and theories' are spoken about with great authority, and many have stood the test of numerous experiments and appear very secure. However, there is no such thing as 'proof' in any absolute sense. At any time an accepted theory could be overthrown by fresh data. All principles and paradigms must be seen as tentative, vulnerable and falsifiable. These characteristics are at the very heart of science and should safeguard against false claims being made for it.

Ability of science

While science must be tentative it can discover real truths – not simply about empirical matters but also about objective matters, which are beyond the scope of observation. Theoretical science, which reaches out from observation and experiment, has produced remarkable results in predicting entirely new phenomena that were not linked by observation to anything already known.

How to confirm the truth of theoretical ideas is of course a critical issue for science. This is done by drawing together as many different observations – some direct, others indirect – which relate to a specific scientific theory. The stronger the harmony between the results, the greater the likelihood of the theoretical ideas being correct, especially as the results have not been built in or preplanned.

So science can produce empirical and theoretical knowledge that appears to be true, while recognising it is not foolproof and is open to human subjectivity.

Limits of science

Science is not limited in its territory, but it is limited by its methods. This is not a problem unless you insist that only scientific knowledge is true knowledge. Science touches a dimension of reality but it cannot embrace all reality. Science can analyse a flower down to a chemical equation or biological function, but it can say nothing about its purpose or



beauty. A poster, or a sign made up of electric light bulbs, could be explained by a scientist in terms of ink and paper, current and filament. The explanation would be true but incomplete. Both the poster and the sign carry a message; science cannot comment on this, but this is the essential purpose of their existence. Science can reveal truth about reality in particular ways but some of the most important dimensions of reality are beyond its boundaries. Some of the areas about which science cannot speak are:

- **Foundations:** it cannot validate its own method, it has to take its own axioms / presuppositions on trust; science rests upon a base science itself cannot affirm;
- **Origins:** it cannot give a final / mechanistic explanation for the universe with which it deals; it can only speculate; to say science alone is the only basis for legitimacy makes science itself illegitimate;
- **Purpose:** it cannot give any reason for the purpose of the universe; the question 'Why?' is to do with meaning and the human personality; science has no means of answering it, but it is still a vital question.

Misuse of science

It takes a great deal of integrity not to apply science and scientific approaches to areas of life in which they are unable to speak. A failure to see the limitations of science, a desire to find answers to every question, an attempt to rebuff unwelcome challenges, are among the many motives – conscious or unconscious – for misusing science. The Christian faith is often attacked with arguments based on a false application of science. Two main attacks on the Christian faith, falsely argued to be scientific, are:

- **Positivism:** This argues that science can deal only with the empirical; so reality can be nothing more than the material. In its extreme form it even challenges theoretical science with its paradigms dealing with the unobserved. Of course positivism dismisses God, faith and spiritual experience as unscientific because they are 'non-sense'; and therefore 'nonsense'. But the claims of positivism are misusing the idea of science; in fact they are a philosophy and not science, and do not do justice to our experience of living. Trying to apply a scientific approach to the spiritual, moral and aesthetic dimensions of life does not discover a conflict – it creates one.
- **Reductionism:** This argues that science can give complete explanations for phenomena, which removes the need for any non-scientific dimension to those explanations. Its technical term is 'ontological reductionism'; it claims that everything can be understood in physical or psychological terms, and 'nothing but' those terms. So reductionism challenges essential Christian belief:
 - A person is 'nothing but' a fortuitous concourse of atoms;
 - A prayer answered is 'nothing but' a psychological experience.

This recurring phrase 'nothing but' appears to carry so much authority but it is a misuse of science. Even when science may appear to give a complete explanation it will not be a full explanation. As with the poster and the neon sign a full explanation must include both the mechanism and the message. Many scientists, not just those speaking from a position of faith, reject the reductionist position, expressed most cogently in recent years by Richard Dawkins.



Belief and science

While many secular scientists recognise the spurious nature of 'positivism' and 'reductionism' they have other objections to faith in the face of science:

- **No proof:** What do you mean by 'proof'? We have seen earlier that there is strictly no such thing as 'proof' in any absolute sense in science. So the demand for 'proof' for faith of a kind unavailable for science seems unfair. The fundamentals of life, whether scientific or spiritual, have to be taken on trust. However, both provide reasons for belief and the test of experience gives confidence in both.
- **No evidence:** What do you mean by 'evidence'? There is plenty of evidence for faith, the question is whether or not it is recognised. This can equally be a problem for science. Atoms were once believed to be indestructible; any questioning of this view would have been rejected through lack of evidence. However, evidence for the mutability of atoms was constantly present in the sun, but it simply wasn't recognised or understood. What evidence does the atheist have? All evidence must have evidence for its evidence [*a priori*]. Ultimately evidence must either provide its own evidence, or it can rationally be believed without evidence; faith can fit into either of these categories.
- **No necessity:** What do you mean by 'necessity'? It assumes that in the past religion was mainly used to provide an explanation for phenomena that appeared to have no natural explanation; from eclipses to earthquakes. God was the 'God of the gaps'. Science is now seen to have filled most of those gaps with its new understanding, and it believes it will soon fill those that remain; so faith is unnecessary. This is built upon a completely false view as to God's relationship with the world. He is working constantly at the heart of the complex structures of the physical world; he is not confined to the apparently ever-shrinking areas of human ignorance. He is creator and sustainer, not a theory or proposition. Scientifically nothing is certain; paradigm shifts and new revolutions may open many gaps now thought to be closed, there are no guarantees.

Scientific criticisms of belief are usually general not specific, philosophical not actual, prejudiced and often misconstruing what science can and cannot do. Science is never beyond question or error; even if all its arguments seem watertight they can never be conclusive. The final question is simply this, 'Is the scientific objector really prepared to accept solutions which have spiritual / divine implications along with its naturalistic explanations?' This is the acid test.

God and nature

The 'God of the gaps' idea is such a popular misconception among both Christians and unbelievers that it is vital we examine God's relationship to the world more clearly. Scripture states that God not only created, but also sustains nature. God's activity in the world is not 'here and there' but 'everywhere' (cf. Heb 1:3). If God is active in any part it is in the 'all', otherwise the notion of divine involvement in the world is meaningless. When Paul speaks to pagans at Lystra (Acts 14:17) he says God 'did not leave himself without witness'. He illustrates this, not by referring to strange natural phenomena, but by everyday things such as rain, seasons and harvest – the very things science says it has a complete explanation for.



Science conditions our minds to explain happenings in relation to causes. If a chain of causes behind an event can be traced it believes the event is fully explained. It is on this basis that reliable predictions are made. Such an approach seems to exclude the possibility of God being at the heart of all events. While science may appear to present us with a closed system within which there must be a natural explanation for everything, this poses no threat to a biblical view of God and his relationship to the world.

We have seen that science is only one way of looking at reality, which it does well within its limitations. Scripture says that God is both immanent and transcendent (cf. Eph 4:6), so even a complete naturalistic explanation for everything leaves plenty of room for God, whose presence and influence cannot be assessed by science. If God created everything, we can immediately understand that the laws of nature are not alternatives to divine activity, but simply the way in which we understand or 'code' God's activity in its normal form. The ordered pattern of our universe is not simply the result of clockwork mechanisms but the interplay of the spiritual and material in a dependable yet inscrutable way.

Laws and miracles

The issues involved in the relationship between God and nature are clearly illustrated by the subject of miracles. Miracles are popularly described as 'sovereign acts of God that contravene the laws of nature'. Here is the idea of a God outside the system of nature breaking in at will and whim to disrupt the status quo. Such a view is a delight to many Christians, beyond the belief of humanist minds, and completely unbiblical.

The secular scientific mind says that miracles cannot happen because they contravene natural law. But we have seen that the notion of 'law' in science has no absolute sense; it is simply a working principle, our understanding of which may have to change in the future. We have also seen that God is constantly working through and within the texture of nature. Miracles may at times appear to tear the fabric of the world, as we understand it; but this is just the point. A biblical worldview teaches that reality – the laws of the universe in an absolute sense – is found in God. If miracles appear to contravene natural laws they are only natural laws as we understand them, not as they really are in their foundations in God. The close link between miracles and our experience of the natural world is seen in the fact that they are always open to another interpretation; they have to be believed, they can be dismissed. The characteristic of a miracle is not that it contravenes natural law but that it confronts people with God and demonstrates divine power and presence; the timing and the place, the speed and the coincidences all coming together are what make the miracle. In some cases we may be able to explain the mechanism behind the miracle, in other cases we may not; it does not matter.

The secular scientific mind says that miracles simply cannot happen because they cannot be repeated, tested and verified. But there is nothing inconsistent in believing in one-off unique events within the natural world. In a world that God sustains the question is not, 'How can miracles happen?' but 'Why should the pattern of events be as dependable as they are?' This is because of God's faithfulness. So if it is his will to do something out of the ordinary it presents no problem. True miracles will be well attested and this separates them from mere spurious reports of the paranormal. Events such as the 'resurrection' have a firm basis for belief. Denying miracles is as much an act of faith as believing them; a



reductionist decision that they cannot exist. Miracles are not impossible or unbelievable, they do not demand naiveté, but they do involve recognising that science has limits.

Christians and science

Christians do not need to fear science. The damage that science is said to have caused the Christian faith is not science but its misuse. Many great Christians have been, and are, scientists. In fact the belief in God as creator did much to provoke the rise of modern science; the belief in cosmos not chaos, patterns not coincidences. The belief that sense and reason, rightly used, are somehow congruent with reality. Our stewardship of the earth is why we do science; healing the sick, feeding the hungry, discovering God's glory. The Christian scientist will have:

- Respect for nature: source and destiny in God;
- Recognition of values: making good judgments;
- Real perspective: recognising possibilities and limitations.

Faith and science should be seen as related, not separate realms that never touch, nor so connected that Christians end up doing science differently from unbelievers. The Christian scientist deals with the same categories in the same way as their secular colleague, but faith will rule out certain interpretations of empirical evidence. Faith will influence moral decisions. Faith will have its greatest influence in 'maxi theories' while 'mini theories' will be areas of continuing debate.

Science is to do with truth, but truth is concerned with both 'facts' and 'meaning', and science focuses primarily on facts. But scientific theories cannot be complete in the natural realm alone; there is demand for choice in interpreting and using the facts. There is the 'conduct' as well as the 'content' of science. The work of the Christian scientist will overlap identically with the work of the agnostic. They will not necessarily be better scientists, their findings will not differ from those of the agnostic, but the Christian will bring a unique context and perspective. It has been well said, 'The agnostic will hear the notes of science but the theist will hear the song.'

Questions

1. What do you believe are the central and essential issues when it comes to the debate about science and faith?
2. How does the science and faith issue challenge our use and understanding of the Bible?
3. In what ways does the science and faith debate increase your understanding and faith in God?

Reflection

If science were able to give us a complete explanation of the origins of creation, would this affect your belief in God as creator? Please explain your reasons, whatever answer you give. Why do you think 21st-century Christians believe the Bible creation stories are



important? What questions continue to fascinate or concern you most about the discussion concerning God and creation?

Reading and Resources

- D Alexander ***Rebuilding the Matrix***, Lion, 2001
R Bube, ***The Human Quest***, Word, 1971
D Dye, ***Faith and the Physical World***, Eerdmans, 1966
D MacKay, ***The Clockwork Image: A Christian Perspective on Science***, IVP, 1974
D MacKay, ***Science and the Quest for Meaning***, Eerdmans, 1982
A McGrath & JC McGrath, ***The Dawkins Delusion? Atheist Fundamentalism and the Denial of the Divine*** SPCK 2007
H Morris, ***Studies in the Bible and Science***, Presbyterian & Reformed, 1966
M Polanyi, ***Science, Faith and Society***, University of Chicago Press, 1946
J Polkinghorne ***Science and Theology*** SPCK/Fortress, 1998
M W Poole, ***User's Guide to Science and Belief***, Lion Hudson, 2007
B Ramm, ***The Christian View of Science and Scripture***, Paternoster, 1964
D Ratzsch, ***Philosophy of Science: Natural Sciences in Christian Perspective***, IVP, 1986
C Russell, ***Cross-currents: Interactions between Science and Faith***, IVP, 1985

