

Should Belief in Biblical Miracles be seen as creating an inconsistency with Modern Science?

Alfred North Whitehead was a mathematician who came to devote himself to philosophy. He once said “It is a safe rule to apply that when a mathematical or philosophical author writes with a misty profundity, he is talking nonsense.” He was in a position to know about that. I hope in this short article on a big subject I shall not be found writing nonsense. If like many a reader of novels you would like to know where how my reasoning ends you could start on page 5 but for many there are misunderstandings that need to be cleared up before my conclusion will, as I hope, be seen as acceptable.

In a previous file “Modern Science and Biblical Faith” on this website, I have pointed out that our “Modern Science” so far is less than 400 years in the making and there were other sciences that preceded it. Not long ago we used to talk about what “Every schoolboy knows” and one thing was that China had a science long ago and that the Chinese invented gunpowder. That science ceased to grow. It seems to me significant that **Joseph Needham**, who was a Marxist and for decades was the leading authority in the West on Chinese Science, wrote that Chinese science ceased to develop *because it lacked the concept of a Creator*. Prior to the 16th century the theology and science of the Christianised West was largely a sophisticated form of analogical reasoning that grew out of Aristotle’s philosophy and did little in the way of deliberate or systematic observation. The story is told how Aristotle’s followers tried to find out the number of teeth in a horse by pure reason and not by experiment - examining a horse’s mouth. **Bertrand Russell** made a parody of the story saying, “Aristotle maintained that women have fewer teeth than men. Although he was twice married it never occurred to him to verify this statement by examining his wives mouths.” The corresponding approach today might be called *rationalism* rather than science. Following developments of Modern Science in the 17th

century, that form of medieval science became known as a *Mosaic Philosophy* because it was so closely related to the then current theology. A characteristic of medieval science was a belief that all matter possessed life and it would have been appropriate for them to talk of “Mother Earth” as some of today’s New Agers do. At the time of the Reformation, when **Calvin** wrote his famous commentary on Genesis he warned against tying science to theology, writing, “*This book (the Bible) is to teach us how to go to heaven (God’s throne room) not to teach us how heaven goes*”. To find how heaven – the Sun, Moon, Planets and Stars – goes we should look elsewhere, by which he meant, do some Astronomy. Calvin struck a note for *observational science* and for the *freedom of science*. Other men of strong Biblical faith took his advice, men like Robert Hooke, Robert Boyle and Isaac Newton who were all founder members of **The Royal Society**. That was the beginning of our Modern Science and it is proving enormously successful.

In 1990, following the fall of the Berlin Wall, the EU supported a proposal for western academics to visit the former Communist countries of central and eastern Europe to teach in their universities. As my previous experience of teaching in third world lands was known I was approached with the request I go to the Technical University of Budapest (TUB), from where many eminent Hungarians had graduated, including Nobel Prize winners. I considered this was in line with previous jobs I had taken as a Field Partner of the International Fellowship of Evangelical Students (IFES), the purpose being to live out my faith before others, encourage the witness to faith of Christian students and establish Christian Unions. God had used me in that purpose and I was pleased to have an invitation to go again. As one of the first to be available I found that the EU were not willing to support me in an untried venture until their administrative formalities were completed, so

it was not until Easter 1991 that I received the go-ahead - too late for their chief purpose of lecturing to students but the TUB wanted me to go if only for a few months. On arrival, I volunteered to fit in with their wishes as best I could and was asked to attend an Annual International Conference on Engineering Mathematics, being held within ten days in Central Europe for the first time. I assented to write a paper on "Cross-Cultural Communication of Mathematics." Also the very next day two students arrived at my door saying they had been informed of my coming and had heard I was a Christian. "There are three of us here, can you help us?" "So began a new Christian Union. Later I was asked to give a lecture to advanced learners of English of the scientific and engineering staff of TUB organised by the British Council. I had freedom to choose a subject so chose the title "Concerning the Freedom and Limitations of Science" thinking I had matters relevant to say on this that could lead on to relatively easy discussion. So I wrote a 50-minute lecture for the conference to which my wife was also invited at an historic location near the Danube Bend. Thinking that as a Christian I should "nail my colours to the mast" I concluded with the statement,

Some of the founders of the Royal Society of London, including Isaac Newton, Robert Boyle and Robert Hooke, were men of Biblical faith who sought to apply the same standards of honesty and integrity to their daily living and to their scientific observations and theorising. No lesser standard is necessary today

A coffee break followed, after which we were to consider questions and observations on the discourse. The first question was, "I view of your concluding remarks, about the founders of Britain's Royal Society, does this mean you are a Christian believer and if so how do you reconcile such a faith to your scientific practice? That was a good opportunity but to my surprise the whole of the succeeding 50-minute discussion was in answer to questions about the content of Christian faith that related to scientific activity. There was obviously a considerable interest in a topic that they had not previously found opportunity to consider openly. Biblical Miracles were a major part of their concern and they are still a live subject

of debate in our own society.

My article on this web site, "Modern Science and Biblical Faith," was prepared because there is a lot of confusion about the nature of genuine Science and Bible Faith founded upon the Bible. A deal of confusion is caused by a few very vocal scientists who make claims for science that have little or no truly scientific support. We are exposed to assertions and generalisations in the name of science that are unscientific. It is what is called **Scientism**, to identify inappropriate claims for science. Perhaps the most notorious is the claim that science is all that is necessary for the determination of right understanding, and religion, including Biblical faith, is based on superstitions that lead to confusion and must be discarded. The miracles of the Old and New Testaments are included in this. The term *Scientism* was coined to identify a way of presenting science as if it is the only source of reliable explanation and no other way of looking at things is necessary or as a well-known journalist and writer on science and faith, Brian Appleyard, in a book highly critical of science, "Understanding the Present" in 1992, said something very similar, "*Scientism is the belief that science is or can be the complete and only explanation about any given (situation)*". So according to Scientism we would have to say goodbye to much that is eloquently expressed in poetry, love, romance, music and the visual arts as well as religious thought and history. Not a bad start in his understanding of the term but alas, in what followed he mischievously applied his definition of scientism to all science. He failed to distinguish between truth and error. We need to think clearly about what we hear and read.

What answer can the Christian give to the onslaught of falsity related to the domains of science and faith? In view of the prominence of the miraculous in the Bible, do the miracles mean there is a large area of conflict between Science and any Biblical faith, or is there a way of finding a true harmony between them as some leading scientists in our nation believe? As previously mentioned, we need to be clear about the limits of science and about the nature of the historic revelation that the Bible claims to be and to avoid

confusing the two. Miracles and Creation are two areas in which both Science and the Bible have much to offer with their different objectives. As a former mathematical physicist I firmly believe I have not been committing intellectual suicide in holding to and teaching a harmony between the practice of both these areas.

All our rational knowledge is based on presuppositions though we may not be aware of them. The presuppositions of those early modern scientists grew out of their Christian beliefs and what they read in the Bible. **Genesis 1 vv26 -28** is often referred to as *the Creation Mandate*. Please read them if they are not familiar to you because those verses carried great weight in the thinking of the early scientists. As **Robert Hooke** (635 - 703), wrote about the new scientific society he was helping to found: “The business of design of the Royal Society is to improve the knowledge of natural things . . . All to advance the glory of God, the honour of the King . . . the benefit of his kingdom and the general good of mankind.” Others including the theologian **Calvin** wrote of God's revelation being in two books – the **Book of Salvation** (Bible), and the **Book of Creation** (Natural world). God, they argued had caused both to be written so just as God has revealed himself in Scripture and we must read it. He has also expressed His invisible qualities, “eternal power and divine nature” (Romans 1v 20) in the world around and we must go see what He has put there and not be confined by what we think ought to be out there. God has given us five senses to use as well as a mind to reason! So it seemed obvious to such Christian men that mankind would be able to understand the natural world, which must be characterised by order.

Many of my former colleagues who are not Christian have a deep sense that the world is “Given.” At least older generations will recall in school geometry starting off proofs with a statement of what was “Given”, a statement of a conjecture “To Prove” and then following a watertight, logical argument called the “Proof”, so that the given and the conjecture could be entitled a “Theorem”. **Rev Dr John Polkinghorne** who converted to Christian faith while he was Professor

of Mathematical Physics at Cambridge, has described well how in research into nuclear physics one is “cramped” into what we find experimentally and it is useless forming a theory that doesn't fit major features of the physics we find in the lab. or observatory. Centuries before, **William Gilbert** (died 1703), who was the first to make a systematic study of magnetic phenomena wrote, “Look for knowledge not in books but in things themselves.” **Peter Fellgate**, an emeritus professor and FRS wrote a useful short letter to The Times in September 1997, “At its most basic, science is the humbleness to recognise that human thought alone is not a reliable guide to understanding the material Universe but needs to be corrected and guided by experience i.e. to say, by systematic observation and experiment.” The Christian who is a scientist will say “This is still God's World, He rejoices in it and the heavens declare His glory.” For some the problem of the miraculous may be an excuse, but I am sure that without an adequate consideration, it is a sincere hindrance to Christian faith for many in the West.

Paul believed in the power of prayer – so should we – and we should pray about the challenge and use our minds to study what has been found in the World and is taught in the Scriptures about Divine activity, past and present. Paul also believed in the need to preach Gospel truth and to seek the power of the Holy Spirit on his preaching. And when writing to the Corinthians in his second letter about misrepresentations of the truth, in Ch. 10 he said we are not to adopt worldly tactics of answering falsity in an arrogant or cynical way nor are we to back off. Paul said we have weapons to fight with that have divine power to demolish strongholds. What are the weapons the Christian is to use? Do please read **1 Cor 10 vv3 - 5**. Ours is a **reasonable faith** and we are to use godly reason and intelligence to answer our critics and so take captive every thought that is opposed to Christian truth. The context shows that Paul found false ideas and attitudes within the Church as well as outside it and his first concern was to put the Christian house in order. Peter likewise in his first letter Ch 3 v15 wrote “in your hearts (or as we would say, in your minds) set apart Christ as Lord. Always be prepared to give an answer to everyone

who asks you to give a reason for the hope that you have. But do it with gentleness and respect, keeping a clear conscience.” We are to use our minds to give appropriate answers, as far as God enables us, to non-believers.

Colin Russell, who is an Emeritus Professor of History of Science at the Open University has identified four currently held views about the relation of modern science to Christianity. We have already mentioned the first two. One is the view that was almost universal until the mid-19th century, namely *Harmony*. Since then three other views have gripped the majority of the population in the West. One is the notion of *Conflict* between true science and true Christianity. Another is an attitude of *Relegation*, which for many means that science has won, Christianity had been superseded and is a fossil not worth investigation. A fourth attitude that is popular among some New-Agers is an attitude of *Absorption* – both science and all religions can be absorbed into the greater entity of Mysticism. The Christian Church has lost ground that it needs to reclaim if attitudes of indifference to the Gospel are not to persist. Of course I am not suggesting this is the only cause for widespread apathy, but it is one that is apparent and that we need to stand against it.

A few years ago **Tony Blair** said he had been put off science at school by dull teaching. Some relevant surveys had been conducted among school pupils. It seems that a reasonably high proportion of pupils find science lessons hard but interesting. A lot has been done to make science more popular but some special surveys have probed pupils understanding of *what they believe science is* and *some things they understand Christians are required to believe that impinge on science*. In one survey **in Scotland**, of over 6000 pupils, aged 11-15yrs., more than a third, believed that true Christians believe the universe was made in 6 days of 24 hours. Nearly half thought that Christians accept the whole Bible has to be taken *literally* as being historically accurate. A quarter of the pupils believed that science will eventually give complete control over the world, nearly half believed that theories in science can be proved to be definitely true, and over a quarter believed nothing should be

believed unless it can be proved scientifically, though the percentage of these decreased a little from the 11 year-olds to the 15s. Something is clearly wrong with the understanding of the nature of true science but also with an understanding of basic Christian faith – and the Church has a clear responsibility here. For a similar survey **in England** of nearly 4000 kids (12 to 16 year-olds), the results were very similar. In their survey two questions were asked about whether the pupils saw *Conflict* between science and religion. In answer to the question “Do you think science has disproved religion”, 16% said Yes, and to the question “Do you believe scientific laws make miracles impossible” 20% said Yes. In this survey the children were asked not only about whether they understood Christians had to hold creationist views but were asked whether they held such views themselves, and 23% said Yes. There was an analysis of the results that showed the group who perceived Christians had to be creationist was not identical with those who admitted to such beliefs themselves. It would be wrong to assume that these surveys represent a good cross-section of all secondary school children, they probably don't, but there is clearly cause for much concern about what young people are taking on board, sometimes at school but also through the media – TV etc. An unfortunate proportion is the media's treatment of things scientific does propagate what we have already identified as *Scientism* and it was scientism that the questionnaires were probing: a kind of *triumphalist philosophy* that is built upon science but does not warrant the label of being true science. As mentioned, some *popularisers of science* are guilty of promoting scientism as science itself. **Werner Heisenberg**, an outstanding physicist of 20th century and one of the founders of Quantum Theory, gave his definition of the *scientific expert* as “someone who knows *some of the worst mistakes* that can be made in his subject *and how to avoid them*.” Scientists do not normally claim perfection and are willing to admit errors they have made as well as those made by colleagues! But sometimes journalists go too far in their rhetoric against the success of modern science. Persons in many walks of life can go too far in “cutting others down to size”. We need to beware of those who make dramatic claim to solve

difficult problems with “quick fixes”. Christians need to humility to play fair, listen to others and accept advise even from those who differ from us on major issues, like Christian belief.

There is well-known philosophical fallacy known as **Reductionism**. Donald Mackay coined the phrase “**Nothing- buttery**” which helps to identify when the error is being made. For example a chemist once listed the chemical constituents of the human body as so much carbon, sodium, calcium, oxygen, etc and gave the then current price of all the chemicals. He then jokingly added that man is ‘*nothing but*’ those chemicals. A biochemist can make up a similar list, and so can the physiologist and the psychologist. They are each in their way complete lists but no one with any sense will believe that any or all of those scientific descriptions is an adequate account of what it is to be a human being. To many scientific descriptions we want to add the descriptions of the historian and the poet and so on and anyone of any religious faith will want to add a religious or spiritual dimension to what it is to be human. To reduce human experience or truth to a scientific description alone is a colossal “nothing but,” reductionist error. **True science makes no such claim**. Science is a way of understanding many things and has been enormously successful in enabling mankind to control and use at least some to the world in which we live. Science makes no pretence to being complete now and if we ever were to attain to a complete scientific understanding it would not satisfy us with all the tools we need to live a fully human life. *Scientific methods have self-imposed limitations and it is these very limitations that have helped it to be so constructive within its own sphere of understanding.*

Now we must turn to the crucial question of Miracles recorded in the Christian Bible. The influential philosopher **David Hume** (1711-76) disposed of the possibility of any miracle by his way of defining them “Miracles are a violation of the laws of science and as the laws of science have been established by an incontrovertible experience, the proof against miracle is unchallengeable.” Not many scientists today would wish to defend that

statement, not even if they are atheists, like Richard Dawkins. Science is not complete and has long needed to be restated more carefully as new data and phenomena become known. The laws of science are certainly not “incontrovertible.” When Kepler in the early 17th century was seeking to express the way astronomers saw regularities of planetary motion, he wrote down in succession a total of 9 laws but in steps he replaced 6 of them in favour or three others that he found fitted the data on planets. Again, major changes to some of the Laws of Physics, for example, had to be introduced in the early part of the 20th century to make way for the requirements of Relativistic and Quantum phenomena, by confining the ranges over which they are believed to be applicable. More on this later, and what may be necessary when the Large Hadron Collider comes on line in 2008? As yet science has no satisfactory way of adequately describing all the phenomena known to High Energy (Elementary Particle) Physicists and we hope new observations with the new ‘machinery’ will help resolve current problems in science.

It is not necessary to labour with other reasons for rejecting Hume’s attempt to define miracles out of the realm of any reasonable discussion but we cannot ignore his definition entirely because many folk have picked up the idea that scientific knowledge is *a form of absolute truth* - the notion that the laws of science are necessarily correct and unchangeable. To quote from Peter Fellgett’s letter alluded to before, “Science has no dogmas and makes no claim to absolute truth, *it simply offers the best available systematic description of what has so far been observed to happen*” (my italics). In other words, *the laws of nature proposed in science are concise statements of regularities that appear so far to accord with a wide variety of experimental observations.*

Scientific laws are Descriptive. In contrast, the laws of Monopoly are **Prescriptive**. If you land on Chance and pick up the card “Go to Jail”, to play the game you have to go there. Likewise, the Highway Code states the limitations that governments have put on the way we may drive our cars. To be more positive, how does this open a way for the Christian to believe her/his Bible and not have hangups about science? We need a better

description of what we believe we should understand by the miracles reported in Holy Scripture.

In 1984 at a conference of the Research Scientists Christian Fellowship in London devoted to the topic of Miracles and Bible-based Christian faith, the description of miracles that was readily adopted was one I find most helpful,

A MIRACLE is an unusual event which is a wonder (teras) due to God's power (dunamis) intended as a sign (semeion).

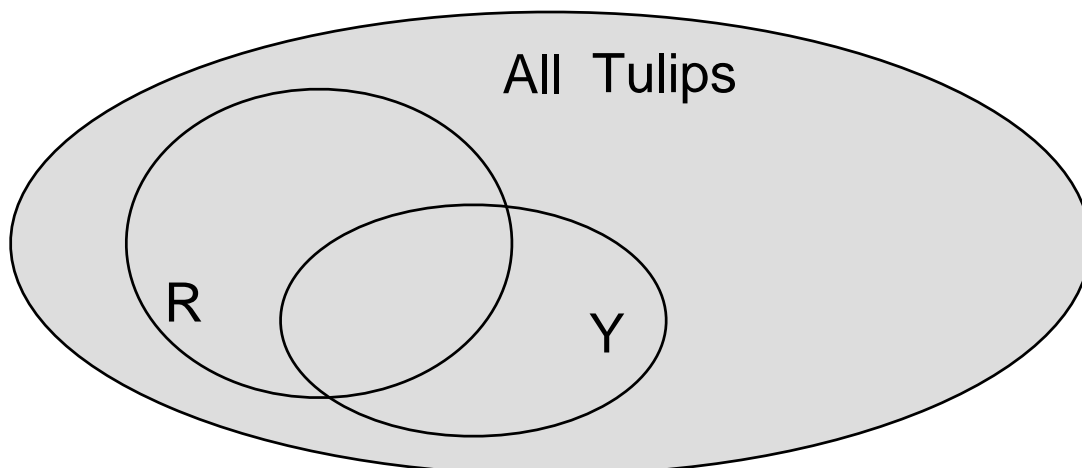
The words in brackets are the three distinct Greek words the Bible uses for the Divine activity we call miraculous. I for one believe Divine activity appropriately called miraculous still occurs and Christians who take the Bible to be God's authoritative book should base their thinking on the concepts they find in the Bible itself. So we need to consider the Miracles of the Bible and see how, as I believe is possible, we may legitimately relate miracles to the science that we believe is a way of finding out the truth of the natural world (- natural in contrast to the spiritual). For this we must introduce a longstanding theological term has largely been overlooked in recent decades. It is vital to our discussion. From the beginning of Genesis throughout both Old and New Testaments, we read that God is both Creator and Sustainer of all things in the universe. We must not get away from the emphasis that this is still God's precious universe. Miracles are to be seen as special – not everyday experience. But God is continually active in keeping the universe in regular being and cares for the whole of his creation – animate and

inanimate, the Earth, the solar system and all else 'seen' and may be yet to be 'seen'. He is a faithful God on whom we can rely for loving care. The whole area of God's regular care is embraced in the term of His Providence and its theological definition is:

PROVIDENCE is that relationship of God to events by which he rules all things

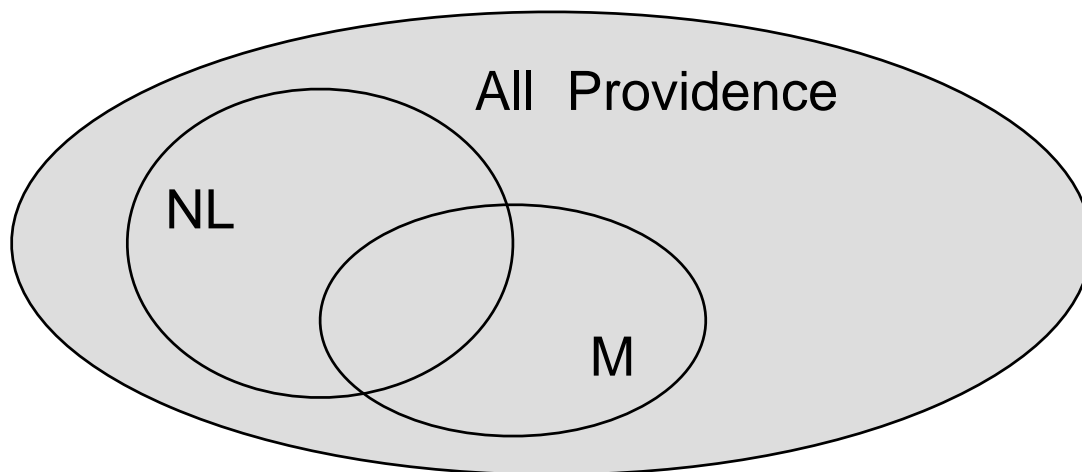
The Bible says that God is the Sustainer as well as the Creator of all things. It may sound unfamiliar to our ears but it is a term and definition that theologians have long used. But returning now to our question, is the notion of Miracles possible if we accept scientific findings and are not to commit intellectual schizophrenia?

I hope what follows is not too elementary but I find it helpful to use a device that is taught these days in school mathematics classes. It is called a *Venn Diagram*. Let us take a simple example: suppose we think about all the tulips in all gardens and let us imagine each tulip is associated with a point on this sheet of plastic lying within a large oval region shown here. Now let's move the tulips around so that all the tulips with red are close together, say in a region R, and all the tulips with yellow in their petals are pushed to be in a region Y. Why have we made the regions overlap? Because we know some tulips have petals that are both red and yellow and the overlap of the two ellipses allows for that. We can describe all sorts of sets of objects in this way. Statisticians use Venn diagrams to sort out difficult problems in statistics and explaining why some deductions from statistics are quite wrong – *the logic* is wrong!



Now apply this simple idea to Divine Providence i.e. all 'events' that have occurred since the Universe began. Each event is to be identified with a point in the plane. So all the points that go to make up this sheet of plane plastic, the Biblical Christian would say correspond to God's Providence. Now for some things that happen we can give a satisfying explanation in terms of >>

what we call the Laws of Science. Let's imagine we put all the points for these events in a region we call NL (Natural law). You may note that there is a substantial part of the Providential area that is not included in the NL region, which is appropriate as there is much that science and subjective experience cannot yet account, neither would it be appropriate to call them Biblical miracles but



In the Bible we find events that are called Miracles so we need to put these together in another region, we will call M. Where should we locate that region? We show it as a region that has an overlap with NL. **Why?** Because the Bible itself suggests this is appropriate. The points in the overlap correspond to events for which there are two relevant descriptions given in the Bible – an NL-type description and an identification as a Miracle. I believe the clearest example of such events is the miraculous event that is referred to very frequently in the Old Testament. It is the parting of the Red Sea. If you look up Deuteronomy 29 vv2-3 we read “Moses summoned all Israel and said to them, ‘your eyes have seen all the Lord did in Egypt to Pharaoh, to all his officials and to all his land. With your own eyes you saw those great trials, those miraculous signs and great wonders.’” Repeatedly in the O.T. the parting of the Red Sea is referred to as due to God’s miraculous activity. But if we turn to Exodus 14 v 21 we are there told how God operated: “all that night the Lord drove the sea back with a strong east wind and turned it into dry ground.” The sequence of plagues can also be given a natural explanation that corresponds to similar plague experiences in more recent times – what we call a causal chain. And in

the story of the crossing of the Jordan, in Jos 3 v15 we read “the Jordan is in flood all during harvest. Yet as soon as the priests who carried the ark reached the Jordan and their feet touched the water's edge, the water from upstream stopped flowing. It piled up in a heap a great distance away at a town called Adam in the vicinity of Zarethan, while the water flowing down to the Sea of the Arabel (the Salt Sea) was completely cut off.” A footnote in one of my Bibles mentions, “as recently as 1927 a blockage of the water in this same area was recorded to have lasted over 20 hours. But this does not diminish the miraculous element in the story.” Some commentators consider that we may well be able to give a satisfactory explanation of the fire that fell on Elijah’s sacrifice in Mount Carmel. So it is possible that as science and Biblical research progresses we may be able to find possible natural explanations of a few more Bible miracles – the overlap in our diagram could get larger.

So I believe the Christian who believes the Bible is reliable and is the inspired Word of God, does no discredit to God by accepting that what the Bible calls divine miracles are not inconsistent with God's ordering of His Universe that we record as

“natural law behaviour”. I am not suggesting that all Miracles can or will have a NL description just as not all red tulips have yellow in their petals. What we are saying is that *neither science nor the Bible requires us to make a choice between a valid scientific description of what we see around us and an ascription of praise to God for what He has done/is doing.*

To sum up. I have sought to show that there is no need to see Modern Science and Holy Scripture as in conflict, or irrelevant. There is no sufficient reason for believing Science and acceptance of Bible Miracles are incompatible and that we are naive or gullible in accepting what God has had recorded in Scripture. As we pointed out earlier, a scientific account of an event in life is rarely adequate for a full and satisfying understanding. Science is a discipline of knowledge that puts a premium on objective truth and subjective personal knowledge is essential for human drama. Human relationships only thrive on mutual trust and

evidences of kindness, etc. that we ‘see’ with our senses, act as complementary data to warrant a continuance of trust. Science is not Prescriptive but it does provide valuable Descriptions of the Natural World about us. God Himself is the only rightful person to be prescriptive about how we may become right with him and be permitted into his glorious presence. As Paul wrote in Ephesians 2 v8-9 “It is by Grace we may be saved . . . not of works (good deeds)”. And Hebrews 11 v 6 expresses clearly God’s requirement of us: “without faith it is impossible to please God, because anyone who comes to him must believe that he exists and that he rewards those who earnestly seek him.” The Psalms are full of expressions of thanks to God for his faithfulness and tender care. We rejoice in Him and His provision for us in all types of circumstance.

David M HUM, Oct 2007