

# The Blind Scientist and other Speculations by Nigel Glassborow July 2015 [thestoahotmail.co.uk](mailto:thestoahotmail.co.uk)

So to something different.

Is it the watchmaker or the scientist that is blind?

Just how much can we trust the proselytizing atheists' scientism that skews the actual output of science in a manner designed to denigrate the common wisdom of the real faiths of the world?

## Wisdom and Science

From the Socratic claim that the truly wise man is the man who is aware of his own ignorance it also follows that wisdom requires that one is also aware, as Socrates was, of the ignorance of those that claim to be knowledgeable.

What is written in a book is not to be taken at face value, but is to be tested against other opinions.

Seneca (4BC – 65AD) takes this up and says,

*'I know what your master says, now tell me what you think.'*

Basically, to quote others and what one has read in books as the only truth is to add other people's ignorance to one's own. If a so called expert writes a book saying one thing, one can be certain that an equally qualified expert has written another book that offers a contrary or varied view.

Chuang Tsu (4th Century BC Taoist philosopher) wrote,

*'Suppose you and I argue. If you win and I lose, are you indeed right and I wrong? And if I win and you lose, am I right and you wrong? Are we both partly right and partly wrong? Are we both all right or all wrong? If you and I cannot see the truth, other people will find it even harder.'*

The words of an individual, spoken or written, do not reveal 'the truth' - only their viewpoint at a particular time. One more scientific observation may force them to retract all that they have written. Unfortunately, there will always be those who will stick to the 'book' even though the author has moved on – just look at the number of groups that still profess a belief that the earth is flat.

(All of which applies to all that I personally write – what I write about Stoicism is my opinion about the nature and implications of Stoicism. It is for others to decide as to if and to what extent they agree with my views.)

Reading books is not knowledge. Knowledge involves being aware of the wisdom that has existed throughout the ages, while also being aware of the actual (rather than theoretical) advances in the natural sciences that have been arrived at through observation, experimentation and discovery.

## Why?

In his book 'A Brief History of Time' (Page 174), Professor Stephen Hawking concluded:

*"Up to now, most scientists have been too occupied with the development of theories that describe what the universe is to ask the question why. On the other hand, the people whose business it is to ask why, the philosophers, have not been able to keep up with the advance of scientific theories."*

It is not the case that true philosophers have not kept up with the science but rather that, by force of false argument and intellectual egotism, some 'scientists' have managed to sell the academic philosophers and the world a set of 'Emperor's New Clothes', claiming that their theories demonstrate how the Universe was magicked up out of nothing while deriding the traditional faiths for believing in 'myths' that claim that the Universe was magicked up out of nothing.

As it is, science is beginning to move on from its 'Creation Myth' – the Big Bang - while the academic philosophers and many laypeople are still marvelling at 'the Emperor's New Clothes' and have not seen that they are free to see the Cosmos for what it is and not as the outdated nineteenth to early twentieth century science claimed it was.

The scientists are seeking the 'holy grail' of a 'theory of everything'.

The wisdom of the ages that is common to all the traditional faiths and philosophies has always had a 'theory of everything', and now the scientists are beginning to confirm much that has been known for millennia while not recognising the significance of their 'discoveries'.

All too often commentators on scientific issues claim that if something cannot be subjected to scientific testing and examination then it cannot be accepted as fact.

However, there is much that is 'known' or experienced that science cannot examine or that cannot be easily replicated to allow independent observation. The true philosophers who Hawking says are responsible for asking the question 'Why?' have been doing so for thousands of years and have been coming up with consistent answers that are as valid today as they were when the question was first asked.

In fact the repeatability that the scientists look for is to be found in the constancy of the answers from the real philosophers - the many wise people throughout history and across religious, racial and national boundaries who see an 'organising principle' involved in the manifestation of Existence.

No matter what mythologies abound, regardless of any enforced orthodoxy of faith, no matter how great or how limited scientific awareness is, having asked the question 'Why?' rather than the question 'How?', the wise have always seen past the fluid nature of 'knowledge' and have come to consistent conclusions about Existence and how it is manifested.

Consistently throughout the ages 'Existence' is seen as being both real and illusionary depending on context, just as science sees that a subatomic particle can be both a physical object and also 'a superposition wave of possibilities' depending on how it is viewed.

Sir James Jeans (1877 – 1946), an English physicist, astronomer and mathematician, said:

*"The universe begins to look more like a great thought than a great machine."*

And when it comes to the 'great thought' one needs to step away from the limited view of science towards the outlook of those who ask 'Why'. And those that ask 'Why' are the real philosophers, the lovers of wisdom, for they look not just to the transient knowledge of science but to the consistent awareness of the nature of Existence that is to be found as a common thread through all the teachings of the wise throughout the ages, cultures and beliefs.

There is a consistent awareness that answers the 'Why' question, and that is the awareness that there has to be a *"universal governor and manager of all things"* that permeates the whole Cosmos.

If this is the 'gods' or 'forces' of the world religions or if it is just a 'self-learning master program' is not to be answered by science and may never be definitively answered by philosophical debate. On the other hand, knowledge of *"the universal governor and manager of all things"* leads to answers to many other questions that science is not equipped to answer on its own – that is, ethical questions.

## **The Blind Scientist**

Always assuming one has started with the right proportion of ingredients and has heated the oven to the right temperature etcetera, if one takes some flour, yeast, salt, water and other ingredients, mix into a dough, allow it to rise, put it in a tin and bake it in an oven one will end up with a loaf of bread.

Without knowledge of baking, and not being able to study anything but one particular loaf, science could take it and examine it, experiment on it and eventually be able to work out what its ingredients are, how it was possibly mixed and how it was possibly cooked.

Much less likely is as to if they could say where its ingredients came from, the date the wheat was harvested and ground, if the loaf was baked in a bakery by machines controlled by a computer or if it was hand made by an individual. Certainly, based on just the loaf, it would not be possible to describe the farm, the bakery or any of the workers.

Science has its limitations.

Science has, in general, become wedded to the idea that the Cosmos is just a vast complicated machine that has evolved from 'nothing' through some form of 'natural selection' to become 'something', which in accordance with various laws of science has become the visible Universe that science observes today.

Science in its purest form works with observation, measurement and experimentation which together with its system of peer review is seen to be the 'scientific method'. The supposed unbiased nature of the 'scientific method' is what much of the modern and more theoretical sciences claim to base their authority on when it comes to understanding the nature of the Cosmos.

However, as more and more disciplines claim to come under the umbrella of 'science' so the nature of the 'scientific method' gets ever more fluid. The claim to being a science has become a badge of authority, but where so called sciences step beyond observation, measurement and experimentation into theory, if one is not careful, there is a risk of the theories becoming little more than Scientism – an almost religious belief in the supposed infallibility of science and the rather flexible 'scientific method.'

What many do not realise is that the 'scientific method' was developed to study the 'mechanics' of Nature. Science was evolved to look at 'what is' – not why it is. And while there is an overlap in the study of these two areas of understanding, as with the loaf of bread, science may in time be able to explain much of how the Cosmos is 'engineered', but it will not be able to explain why it is as it is.

And this is why science is blind. Left to its own devices science has only one viewpoint of the Cosmos and when it comes to the study of the large and the small, such as cosmology and the subatomic world, this viewpoint is often skewed due to various historic biases and visualisation misconceptions.

To add to this, sciences that rely heavily on complicated 'standard models' which are a collection of theories, and where observation, measurement and experimentation is a long way from catching up, are offering little more than a 'belief' - especially where science is now asking the layperson to forgo traditional logic and reason in order to 'understand' some of the 'scientific theories' on offer.

Science needs some searching questions asked of its interpretation of its 'discoveries' and its theoretical branches especially when scientists wander away from the area of asking how things are as they are, into the area of metaphysics and speculation.

Those who believe that science can offer the answers to all of the 'big questions' in life are being drawn into the Blind Scientist's false faith of Scientism – a false belief that science is the ultimate and only purveyor of 'Truth'.

## **Blind Science**

It is to be appreciated that since science separated from philosophy, out of which it was born, it has done much to improve humanity's knowledge base. But when it comes to understanding what has been achieved and what has actually been discovered, science is not necessarily the best system to address the implications of such.

This is not an attack on all scientists – some are quite reasonable, rational and open minded and do not blind themselves to other viewpoints. Unfortunately the blinkered way that many scientists and their ‘disciples’ view their discipline in isolation from other disciplines often leads to ‘conclusions’ that are questionable.

Which leads to the question inherent in the title of this essay, why is science blind?

The first scientific blind spot is that many scientists see the ‘scientific method’ that they profess to work to as the ultimate in methods for getting at ‘the truth’, to the point of denying that there is any other method of ‘knowing’ anything to be true or real. Any other method of trying to gain understanding is liable to be asked to prove its conclusions scientifically even where it is known that science itself is limited in its ability to investigate such areas.

As it is, the ‘scientific method’ is not all that it is cracked up to be, thanks to the involvement of human beings. The ‘scientific method’ is often described as *‘a method or practice used by the natural sciences that uses systematic observation, measurement and experiment, and the formulation, testing and modification of hypotheses’*. However, there is no way of defining exactly what the scientific *‘method or practice’* is.

The principles are sort of known but at the same time are a bit like trying to grasp quicksilver - there is no understanding exactly what it is as there is no clear and accepted ‘scientific method’. It varies from discipline to discipline. It varies from experiment to experiment. It is often no more than a claim to authority used by some ‘scientists’ when they want to claim superiority for their theories over that of the common sense and wisdom of the lay person.

Scientists are as human as the rest of us. They are just as liable to misinterpret what is before them as is anyone else. They are also just as liable to turn their work into ‘self-fulfilling prophecies’ – unintentionally skewing their ‘scientific method’ to ‘prove’ what they set out to prove, even if the results are inconclusive, insufficient or just plain wrong.

Their jobs, their funding, even their reputation may rely on their backers feeling that they are getting value for money. It must be all too tempting, intentionally or unintentionally, to ensure that the money keeps rolling in by over egging ‘results’ and ‘theories’, while believing that the real evidence will follow. Self-delusion is all too common a problem within the human race – which also includes the scientific community.

When they are being truly unbiased, the more theoretical based sciences explain that the strength of their version of the scientific method is in the fact that it never actually 100% proves anything, but rather provides working theories that produce testable predictions, and that all of their theories are continually being tested with the intent of disproving them, both to test their robustness and also to see if a better understanding or a better theory can be found.

However, when a layperson says ‘But it’s only a theory’, more often than not, they are treated as an idiot or a heretic for daring to question scientific theories – even though the scientific method requires such challenges. And if the theory has become part of what the scientists call a ‘standard model’, that is a collection of theories to arrive at some ‘super

theory', then the level of insults questioning your motive, intelligence and even your parentage, will go through the roof.

Even scientists will face being ostracised for daring to challenge the orthodoxy of the day. It is reported that Einstein was described by fellow scientists as a heretic when he questioned aspects of Quantum Mechanics and the developing theories around it.

In order to work, the scientific method requires physical phenomena to examine and work with that will allow much observation and testing – as it is often described, 'repeatability'. The scientific method is less efficient, or even useless, when dealing with irregular or fleeting events or subjects that defy measurement. When it comes to the very large, the very small and the subjective, science can only go so far.

The second reason that science is blind is its preconceptions and methods of visualisation.

Up until Quantum Mechanics came along modern science had become absolutely deterministic, believing in the total dominance of 'cause and effect'. However Quantum Mechanics demonstrated that Existence is not the totally mechanistic 'watch movement' that science in the nineteenth century had come to believe it to be.

The Universe is not a totally pre-programmed machine following a fixed path into the future but rather one that is based on natural laws, an element of probability and possibility and some form of universe wide instantaneous system of coordination. Advances in science are now showing that the future is not preordained.

The Universe was not 'wound up' at some point so creating a system of 'time' whereby every 'tock' has to follow the previous 'tick' and every 'tick' has to follow the previous 'tock'. Yet much that the new sciences are telling us today is still interpreted through this outdated, irrational, solely mechanistic view of the Universe.

What does not help is that science's visualisations of such things as 'time' lead to scientific theoretical error, as does the scientific community's need to provide a 'Creation story' for the whole Universe – a need which really stems from the origins of much of modern science as a branch of Western religious philosophy.

Einstein warned of the risks of setting up experiments to prove a theory, the risk being that the process of observation and the nature of the experiment may actually have a built in bias that would influence the nature of any results achieved. He was aware that in the eagerness to prove one's preconceived theories it would be all too easy to take new observational and experimental results and interpret the information in a way that would be to try to force it to 'fit'.

If the theory predicts an observation or event, one could be tempted to take any observation or event that is close in nature to that which was predicted and to seek ways to 'prove' that the new information 'confirms' one's theory – and so, in repeating this questionable line of thought, end up with a very complex theory that has few, and not necessarily linked, observations that supposedly support it.

Certainly from what I have read of some supposed scientific claims regards the nature of the Universe, theory is no longer being based on what can be reasonably deduced from that which the observational and experimental scientists can support through their work. Some theoretical scientists and theoretical mathematicians are getting lost in an imaginary mythical Universe of their own making – moving away from what is rational and logical.

The blind spots in the scientific method and the misunderstandings caused by science's preconceptions and its methods of visualisation have led to claims that as 'science can explain how everything came into existence' there is no need, indeed no place, for some form of consciousness (God) to be involved in the manifestation of the Cosmos.

Which leads on to the third reason why many 'scientists' are blind - their 'religious' beliefs. Despite the fact that science is neither able to prove nor deny the existence of a 'particular' deity, over the centuries many scientists have coloured their theoretical interpretation of the results of observational and experimental science according to their faith – their faith in a god, or their faith that there is no god.

In the West, prior to about 1700AD most 'scientists' were biased in favour of there being a deity, admittedly in part for fear of being locked up or killed if they took any other view. Since about 1900AD the scientific community has become heavily biased towards atheism, albeit that there is no scientific proof for such a stance. In fact the position has now so reversed that an avowed theistic belief could even debar a scientist from many academic posts.

It is becoming clear that where observation and experimentation is demonstrating that the Cosmos is not totally materialistic or mechanistic that some scientists are going out of their way to skew their descriptions of what they are addressing in order to try to avoid any suggestion of any form of 'consciousness' being involved. They appear fearful of opening the door to giving succour to the many religions that believe in some form of 'higher state of consciousness'.

The position for many in the scientific and academic worlds has become one of anything that science cannot examine, dissect, measure, experiment on, etcetera does not exist as far as they are concerned – even the concept of 'wisdom' is given little or no credence.

Fortunately there are still some scientists who are willing to own up to the limitations of the scientific method and admit that there exist such things as un-provable truths. Many scientists even recognise that the implications of some scientific observations and the like are leading us into 'the study of being', the metaphysic's arena of philosophy, and so believe that methods other than the scientific method may be better able to progress humanity to a higher level of understanding – especially when it comes to the understanding of how 'consciousness' fits with the scientific mechanistic view.

## **Tricks that Scientists Use**

Just how much can we trust when being told that science is telling us this or that? Just how much of what we are being told is 'fact' actually is fact and how much is speculation and opinion? Science fiction and fantasy writers and film makers can construct whole imagined

universes that are logical within their context. Scientists have also 'constructed' in their minds a theoretical universe based on limited observation and experimentation – that is mainly supported by the imagination of various scientists and mathematicians. And just like story tellers and film makers they use tricks to make their theories appear more real. They use 'computer enhanced images', 'artist impressions' and 'computer programs to enable raw data to be presented to the user interface'

And when it comes to science not being able to tie something down, science is all too happy to alter the 'rules'. For instance:

### **The standardisation of the speed of light.**

The speed of light had been measured by scientists in 1926 as being 299,796,000 metres per second to an accuracy of plus or minus 4,000 metres. This came down to 299,792,456.2 metres per second to an accuracy of plus or minus 1.1 metres in 1972. A fairly accurate figure, but still with a degree of inaccuracy.

Apparently the latest experimental measurements of the speed of light are 299792457.4 meters per second to an accuracy of plus or minus 1.1 meters as measured by the US National Bureau of Standards AND 299792459 meters per second to an accuracy of plus or minus 0.8 meters as measured by The British National Physical Laboratory.

It would appear that scientists got fed up with their 'constant' for the speed of light being so 'vague' and have now decided that the speed of light should be set as an 'accurate' whole figure of 299,792,458 metres a second. This figure was adopted at the General Conference of Weights and Measures, on the 21<sup>st</sup> Oct 1983.

The trick was that in order to get this 'accurate' whole figure 'constant' they had to alter the length of a metre!

In 1793 the metre was set as being one ten-millionth of the distance from the equator to the North Pole. In 1799, it was set by reference to a physical prototype metre bar. In 1960, the metre was reset as being equivalent to a certain number of wavelengths of a certain emission line of krypton-86.

And then in 1983, also at the 17th General Conference on Weights and Measures, the length of one metre was set as being the distance that light travels in 1/299,792,458th of a second.

See what they have done!!

**The speed of light is measured using the length of the metre and the length of the metre is measured using the speed of light.**

This is a nonsensicality.

Basically, by definition, even if the speed of light is measured more accurately at some time in the future, it cannot be perceived as being more accurate because the method of measurement, the metre, will be altered by any new observation of the speed of light. Likewise, even if it is discovered that in deep space, between galaxies, that light travels at a different speed than light in the vicinity of stars as a result of the differences in gravity, it will not be possible to measure such difference in speed in that the length of the metre in the same area of deep space would alter to stay in sync with the distance light travels in  $1/299,792,458$ th of a second in that area of deep space.

The calculations will always show the speed of light as being the same when measured in metres. If the distance travelled by light in one second was found to have increased by 10% then the length of a metre would, by its definition, have to also be increased by 10%!

Regards the speed of light, we have three aspects to consider.

1. The human construct of a fixed distance between two points defined as one metre. This is, or ought to be, unalterable. Once settled on, the metre should be a measurement that will not alter wherever it is in the Cosmos. This human construct states that the distance of one metre is a constant and may be seen as a particular spatial similarity between two points placed in exactly the same position relative to each and that such will provide the identical standard of one metre anywhere in the Cosmos. But now the length of the metre, the only accurate measurement regards the speed of light that we had, has been altered from the physical standard held in some vault in France, to that of the distance that light travels in  $1/299,792,458$ th of a second.
2. There is the period of one second, being approximately  $1/86,400$ th of a day. This measurement is only approximate in so far as there are variations in the rate at which the planet turns on its axis etcetera so affecting the time period of each individual day. Again, for accuracy, the second has been standardised by way of the atomic clock. Even so, this standardisation is variable, for all clocks and means of measuring 'time' are apparently affected by motion and/or gravity. This does not necessarily mean that 'time' is altered by motion or gravity – only that our method of measuring it is affected.
3. And then there is the distance in metres that light travels in one second. As stated, despite never achieving total accuracy, the speed of light has 'officially' been set at an exact figure of 299,792,458 metres per second. It is to be noted that this is outside of the plus or minus 1.1 metres range as set in 1972.

To use distance to define the speed of light and to use the speed of light to define the method of measuring distance is a nonsensical circular process.

The following are figures that highlight the problem:

At present one metre equals approximately 1.0936 yards.

So according to the scientific establishment the distance travelled by light in one second is exactly 299,794,458 metres or approximately 327,859,206 yards

By definition, one metre is now the distance travelled by light in  $1/299,794,458$ th of a second.

Imagine that due to some colossal error in the past that it is found that measurements are wrong and light travels twice as far in one second than had originally been thought.

By definition, one metre is still the distance travelled by light in  $1/299,794,458$ th of a second so despite it being discovered that light is traveling twice as fast, by using the metre as defined by the speed of light to measure the speed of light itself, light will still be shown as travelling at 299,794,458 metres per second.

So how will any scientist be able to prove that there is an error in the speed of light?

The scientist will have to resort to measuring the speed of light in yards, for in yards it will be possible to point out that light is now travelling at a rate of approximately 655,718,412 yards per second as against the original figure of approximately 327,659,205 yards per second.

And that would result in 1 metre being equal to approximately 2.1872 yards – double the 1.0936 yards that it is now.

Although it is unlikely that such a vast error will be found, it is beyond belief that there will be no improvement regards measuring the speed of light, or need to redefine the definition of the period of a 'second'. It was the length of a 'metre' that was the only accurate 'constant'. Now the scientists and mathematicians have taken this away in order to maintain their claim that the speed of light is a fixed 'constant'.

This is but one example of how scientists 'get around' some of the problems that their ideas are facing. Ignore what is obvious, change the rules of logic, be 'creative' with mathematics – all these are ways scientists overcome what may prove inconvenient to their theories. Such methods may at times produce results that work in real life, but this does not mean that they have got their science right – especially where they ignore principles laid down by Occam's razor.

## **The Broken Cup**

Take a cup and break it with a hammer and you will end up with a number of different pieces, some of which will be recognisable as bits of handle, bits of rim, side bits and bits of the base of the cup. Repeat this with a number of other cups and one might begin to see a pattern of similar shaped shards occurring in such destruction.

Hit a cup repeatedly with a big sledge hammer and one will be left with grains, some of which will be of glaze of different colours and the rest will be grains of the fired clay that was

used to make the cup. Without knowledge of where the grains had come from it would be difficult to identify these bits as being part of a cup. One would have so 'dismantled' the cup that all one would be left with would be a pile of dust.

Do the same but with a cup and a saucer at the same time and it would not be possible to identify whether the grains of pottery came from the cup or the saucer, let alone what pattern decorated the surface of each.

With some cups, in the process of pulverising them, a spark will be seen as the hammer hits the bits of cup. This is in no way informative about the nature of the cup. It is just something that happens when you smash some things to bits with a big hammer. The spark is not an 'ingredient' that went to make up the cup. It is the result of the interaction of the cup and the hammer.

From such 'dismantled' remains of a cup one cannot learn about the shape or purpose of the cup.

Smashing sub-atomic particles to pieces may produce some discernible 'pieces' of that which is being broken apart, but at a point all that the scientist will be left with is 'dust'.

Other than for the creation of energy there is little purpose in destruction, and even then the 'cost' of such destruction often outweighs the value of the energy produced.

The scientific way ought to be observation, experimentation and engineering – so building from what nature has presented us with. Destruction generally leads to environmental and other problems.

We need to have a care as to what we take from nature and how we use it. As Seneca said, there is much that has been hidden from us by Mother Nature for our own good. Better to be the potter who takes what nature provides and turns it into something useful, rather than to try to force Mother Nature to divulge all of her secrets.

Our dependence on oil, coal, gas and wood to burn is a major problem. Our scientists ought to be looking to engineer energy from water, air and solar power. Nuclear power may eventually have a use for space travel, but its use on Planet Earth is only building up troubles for the future. If ever mankind has to leave this planet it will be a shame if earlier generations have used up the only really useful fuels for space travel.

Science as an end in itself is dangerous. Science needs practical purpose, with limitations that prevent it trying to usurp Mother Nature's role of managing the planet. Just because mankind can do something, does not mean that mankind ought to do it. For example, as the world population grows there needs to be controls, yet there are risks in many of the methods of control that mankind chooses to use – the risk of fatal damage to the gene pool, or damage to the immune system. A simple snip is probably the best answer.

However, if controls are not put in place, the population will in time need to be culled, and who if anyone would any of us trust to carry out the cull. So maybe science ought not to be trying to overcome every method that Mother Nature uses to control our numbers at present.

Death for an individual and their friends and family may be tragic, but for the species it is a blessing.

Life of itself is not 'sacred'.

But now I am wandering off the subject – or am I.

The scientists may be very clever, but are they wise? Do they really understand what they are observing? Is it necessary to follow every line of enquiry? Is it not better to let Mother Nature manage the planet – something she has been doing successfully for millions of years – rather than for man to tinker and risk a disaster?

In our delving into the sub-atomic world trying to smash matter and particles to bits in order to try to create particles that have supposedly not existed since the mythical Big Bang are we not risking starting some unknown chain reaction that may destroy our planet?

The scientist cannot say there is no risk for they do not know what they will find, or what the effects of their experiments will be.

## **The Speed of Light**

Some speculation.

What is the fastest anything can travel?

The quandary is that in talking of speed one is into the question of 'time'. But time of its own does not exist. So take a step back and consider the subject as an example of change.

Possibly nothing in the material Existence we experience can move faster than the speed of light, or similar particles, because there is a limit to the rate at which 'events' can change. Could it be that light travels at the speed it does because the flow of change is unable to alter the manifestation of the Cosmos at a faster rate? The 'distance' travelled in any given 'moment' would not be the limiting factor – this will depend on all sorts of factors such as gravity, systems of movement, etc. The limiting factor would be the rate at which change can be achieved – the rate at which the Cosmos changes from the Now into a new Now. The rate at which the Present becomes the Past.

For the purposes of conceptualisation, we are not taking about a 'flicker book' whereby one page after the other is flicked over to give the impression of movement, but more probably we are looking at a 'stream' where there is a constant smooth movement/flow of change

without there being the equivalent of a 'still frame' that the 'film' can be stopped at and examined. The Present is not a 'knife edge' between Past and Future. The Present is not an ever changing series of 'events'. It is a flow.

The Present is an on-going happening, and nothing can happen faster than the overall happening.

At least that is when it comes to the material Cosmos. What the rules are for the 'stagehands' at the level of that which helps the Cosmos to manifest is a whole different question. In the world of quantum science, or sciences yet to be discovered, a whole different ballgame may prevail.

## **The Everlasting Broom**

Scientists have used the 2nd law of thermodynamics to argue that the Cosmos will die.

It is apparently true that left to its own devices, matter tends to degrade into the simplest form. Through the effect of wind and rain, hot and cold, a mountain will erode into nothing but dust.

However the popular belief that this applies to everything and that entropy will always win out over organisation is flawed. The belief in a mechanistic universe, operating like an unthinking windup toy that will eventually run-down and stop is irrational.

After all, such a simple object as a broom may remain functional and last for ever! True one may have to replace the head of the broom on numerous occasions. One may also have to replace the handle on numerous occasions. But at all stages throughout its existence one always has a broom.

Who would ever have thought that such a silly joke would have something profound to say about the nature of the Cosmos?

Left to its own devices, stuck in a corner of a shed a broom will rot and disintegrate and be lost to Existence. However provided someone cares for the broom, repairing it and replacing parts as and when needed, the broom can last for ever.

A human being lives as long as they do because individual cells within their body die and are replaced with new ones. Parts die and are replaced but the whole continues. At a point the information being passed on by cells to the new cells builds up a level of 'error in data' that affects aspects of the 'individual' and so the whole person dies. But within the lifetime of some individuals some of their cells will have been renewed and reprogrammed through the birth of children, and so life continues. Through death and renewal the cooperative cells that make up the human species continue to survive. Their combined 'consciousness' is maintained.

So when it comes to the whole Cosmos why should things be different?

Galaxies crash into each other and there is destruction. Stars die and blow up forming vast clouds of star dust. These clouds bring fresh matter to other star systems, mix with other clouds of star dust, and eventually form into new stars and galactic bodies. The Cosmos is self-renewing.

While there are laws that say organisation will tend to move towards decay, science has shown that there are also laws that lead towards organisation.

What the first law of thermodynamics shows is that without constant input to counter the ravages of change nothing complex can survive. The fact that so many complex systems not only survive, but have evolved to survive through death and renewal demonstrates that there is an organising principle at work – that which the scientists only glimpse through the laws of science and nature that they have discovered.

With the laws that state that energy cannot be created or destroyed the scientists also state that the Cosmos as a whole cannot be destroyed or created – it can only evolve and change. The cycle of life and death applies to all within the Cosmos, but not to the Cosmos itself.

By the scientists own findings the Cosmos cannot be created, nor can it die. So it is strange that they talk of it being created and talk about its demise.

Their problem is that they are unable to bring themselves to accept that the Cosmos is not a machine, but is a living Oneness – in Stoic terms, it is the body of God.

## **Dark Matter and Dark Energy**

### **Some speculation.**

Scientists talk of 'dark matter' because their theories do not account for much that they observe, and they have calculated that the 'mass' of the Universe must be greater than that which their observations suggest.

The first question has to be, are their observations correct? The second is, are their calculations correct? But allowing for the possibility that they are correct to some degree, what is causing the effects they say are happening?

Looking at the scientists' attempts to describe what they are 'seeing' (or rather what they are not seeing) and their descriptions of the effects that lead them into believing in what they call 'dark matter' and 'dark energy', there could be simple explanations as to what is going on.

1. Science talks of 'waves of possibility' that manifest as 'particles' when observed. It also talks of 'particles popping in and out of existence'. And we are told of the strange

gravitational effects affecting whole galactic bodies that cannot be explained by the 'known masses' of the galactic bodies involved.

Looking at the Cosmos as something akin to a three dimensional hologram where every point in Space is active and ready to manifest whatever is liable to happen, one is left with the potential for matter etcetera to come into existence at any point within space – so increasing the 'activity' in the locality where there is a probability of the need to manifest matter as it moves.

So, on top of the 'matter' that 'exists' in the Experiential Moment, there will also be an element of 'matter' Existing as a 'shadow with mass' as it comes into and out of 'focus' within Existence as the Cosmos prepares itself for the ongoing flow of change. This would possibly explain why science is seeing what appears to be an unseen gravitational effect when looking out at the stars. Not only is there the mass of the particles that are manifested, but there is also an additional mass of the 'waves of possibility' preparing to manifest the changes to particles etcetera.

Just as a screen on a computer has a potential for a picture to be shown, even when the picture is not being shown the screen is needing energy just to stay active and at the ready. So it should come as no surprise if there is an unseen element of energy needed in order for the Cosmos to exist as it does – a different sort of energy to what is known as being directly associated with matter and forces etcetera. An energy that is not technically part of Existence, rather energy that is part of the 'domain' that causes Existence to exist.

2. There is a further area within 'Existence' that could be producing some of the effects – an area that science is unable to observe at this time. If the expansion of the Universe is not the result of an 'explosion' from a singularity, but is caused by a Cosmic weather system, the extra 'dark' energy may in part be due to a Cosmic weather pattern that is affecting the area of space that we know of as the Universe. Science is only able to observe the processes within the area they call the observable Universe and which they claim is expanding. They are unable to consider any effects that may happen as a result of the 'volume' into which the Universe is expanding. Nor are they able to comment on the 'energy' that such Cosmic weather systems may impart to the Universe.

3. Some of the discrepancy between the observed Universe and the theoretical Universe may be that they are not considering the effect of 'consciousness' as an aspect of the manifestation of the Cosmos as we see it. The effect of the Stoic 'organising principle' on that which is being observed is something that needs to be considered. This could explain some of the differences between the observations and the solely mechanistic theories as to how the Cosmos is put together.

So to look at the matters slightly differently:

There needs to be consideration of the 'stagehands' that help manifest Existence. When it comes to a play, the stage may seem large, but it occupies only a small part of that which is

needed to put on the play. There is the area behind the scenery, the area above the stage where backdrops for future scenes and the like are ready to come into play, the wings where actors are waiting to come onto the stage together with scene changers. There are the changing rooms, the store rooms, the lighting cubicles, the work rooms, office space, etcetera.

So much that is not seen as part of the stage on which the play is acted out, but that is needed behind the scenes in order for the play to happen. While on stage, the actors only experience about twenty per cent of what is needed for them to perform. There is so much more than just their costumes and the scenery needed for them to be able to perfect their roles.

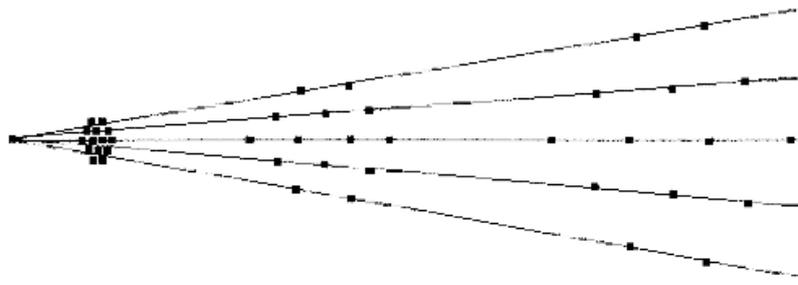
So why is it surprising that what mankind is observing through our sciences does not explain all that is happening in the Cosmos? We 'peek behind the curtains' and see a world of subatomic particles etcetera, some of which appear to make sense, while much acts in ways we cannot understand. Unless we acknowledge the existence of the 'Playwright' much of what we see, and much of what we do not see, will never make sense.

What effect does the 'behind scenes' have on the 'play'? The speed with which light travels (or any other very fast particle) may be restricted because the 'stagehands' can't work any faster. The 'dark matter', as scientists see it, may in fact affect light as it travels over distances so causing a 'red shift' effect that may be misinterpreted as the source of the light moving away from us so leading to a belief in an expanding universe. The work of the 'back stage workers' may cause a 'background noise' to seep onto the 'stage' that may be seen as background radiation that may be interpreted as evidence of some fictional point of 'Creation' being brought about by an imagined explosion (the Big Bang) – all simple ideas that would pass the Occam's razor test.

## **On 'The Big Rumble' – a Mental Exercise**

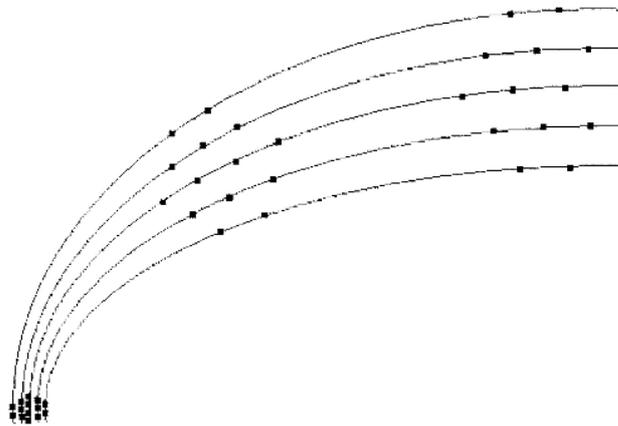
Let us first consider some Standard Model myths.

The Big Bang Theory reflects an interpretation of other theories - Einstein's theories and the theory of an expanding Universe, etcetera. Apparently, mathematically, Einstein's theories predict that the shape of the Universe is one of nine shapes. One of the simplest is the sphere. Added to this, when it was observed that the majority of galactic bodies around us appear to be moving away from our galaxy so suggesting that the Universe is expanding, it was theorised that by tracing back the past progress of the expansion one came to a single point – now known as 'the singularity'. This was achieved yet again by assuming a simple geometric path of expansion – that is that the expansion was effectively in straight lines, and it was from this that much of the scientific dogma of today stems.

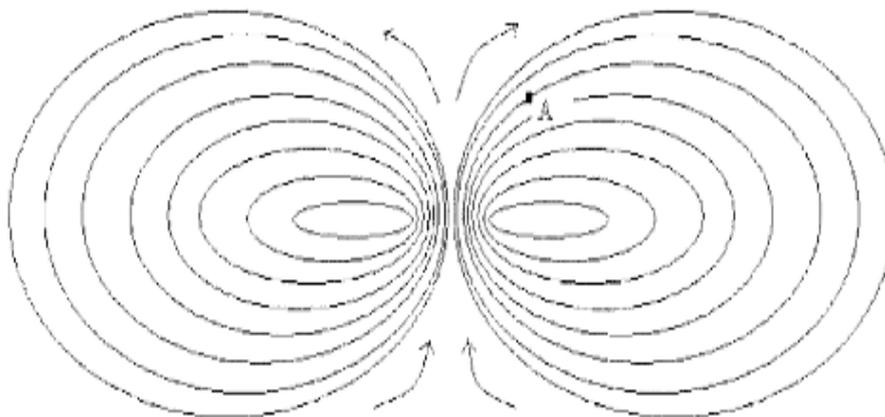


So, in its simplest form, the Big Bang Theory suggests that, starting from 'a point' the universe expanded out in all directions, and so its shape is a sphere of ever increasing size – a bubble.

By making an alternative yet reasonable assumption a different concept as to the overall nature of the Universe can be arrived at, and that is that the expansion is in arcs from a restricted space into a more open space. (This was suggested by some scientific observations back in the 1980's.)



And so a whole new theoretical model can be imagined. For instance, the Universe could be in the shape of a torus – that is, it is like a doughnut with a hole in the middle. The torus is one of the nine possible shapes of the Universe predicted by Einstein's theories.



The hole in the middle of the 'doughnut' would be the Eye of the Universe. The expansion of the Universe out from the 'Eye of the Universe' would come about from vast amounts of energy/matter being spewed out from the restricted area of space in the centre into a less restricted area of space – as such it would expand out in arcs.

So we have it. A vast whirlpool in space on the other side of the 'Eye of the Universe' sucking in all that is around it, and what comes out of our side expands out again in a mirror image of the whirlpool and everything then spirals around the torus eventually re-enter the whirlpool. Gravity and other forces counterbalance each other to create a spiralling flow of all the galactic bodies, which on a cyclical basis pass through the Eye of the Universe.

The total breakdown of all matter etcetera into its constituent parts due to gravitational forces as it passes through the Eye seems to fit most present scientific theories as to the growth described in the Standard Model of the Universe.

By passing through the 'Eye of the Universe' this model of the Universe has it being created out of its own self-destruction – it does not magically appear out of nothing. Based on the present interpretation of available evidence, all that exists within the influence of the torus Universe completes its cycle of the Universe, and it 'dies' when it passes into the Eye, only to be 'reborn' on the other side. Most of the studies of the Big Bang still apply – they describe the rebirth.

This Torus Universe theory takes the 'Big Bang' to being a 'Big Rumble', for there would not be a single momentary 'explosion'. The Universe would be continually recreated on this side of the Eye of the Universe. What the scientists describe as happening in a flash, could be a 'stream' that is still going on today. We just happen to be too far away to see it. The Torus Universe would be far larger than the Bubble Universe envisaged in the Big Bang Theory. Our Galaxy would probably still be less than a quarter of the way round the torus from the centre.

There is no need for a one off 'creation' or for the Universe to die in some way or other –in this model, the Universe is self-rejuvenating. The Torus Universe is eternal. There is no Creation moment – only the evolutionary creation of individual bodies within the Universe.

This continuous creation also explains the concept that the rate of expansion of the Universe is accelerating – our area of the Universe is not just expanding into the space around us, it is being pushed forward by the Big Rumble behind us as yet more of the Universe is reborn and expands into 'open space' behind our area of the Universe thus propelling us forward at a faster rate.

It's fun to speculate - even if this Taurus Universe is as unlikely as is the Big Bang Universe.

The Taurus Universe can answer some of the problems encountered in the theories that surround the Big Bang Universe, but in all probability some new observation in the near future will shoot both such theories down in flames.

## The Manifestation of Existence

The word 'manifestation', as used here, relates to all that is in the Cosmos being materialised out of the base processes that are in operation within the whole of Existence.

Some areas of science deal with what is believed to be the history of the evolution of the area of the Cosmos we live in. However, throughout our history there have been those who have looked for the 'base' material out of which all that exists is composed – or at least the simplest elements that combine to form everything. In ancient times, in many parts of the world, it was believed that there were four basic elements – Earth, Water, Air and Fire. Or as we would call such today, the states of solid, liquid, gas and energy. The ancient Stoics took these four and proposed that they were all made out of 'Divine Fire' – a single 'state' that was of a finer consistency than the 'regular' four 'states'. It was proposed that this ultimate 'state' out of which all else was made had two 'principles' or characters – the 'passive' and the 'active', and that the 'active principle' was a 'reasoning faculty'. This 'Divine Fire' was seen as being a whole singular sea of 'passive matter' that manifested as the individualised aspects of the Cosmos around us, including us human beings; the manifestation being enabled by the 'intelligence' that is the 'active principle' that permeates the whole of the Cosmos. The Cosmos is a oneness without division where the laws of nature enabled parts of the whole to appear as individualities. One and many at the same time.

This concept was not far from many other such ideas abounding in the ancient world. And today science is offering observation and ideas regarding the nature of the Cosmos that can only lead to a similar concept.

Scientists and mathematicians are not only investigating the nature of the larger Cosmic structures around us, but also the smallest, and it is natural to turn to the smallest for it seems logical that the smallest subatomic particles ought to be what the larger objects are constructed out of. However, as the scientists look ever deeper into the structure of the Cosmos, in the minutest of detail, at a point all sign of solid matter disappears. It turns out that not even the subatomic particles are 'solid' in nature. Look too deeply and all sign of 'material' Existence vanishes. A bit like looking at net curtains – focus at one point and you see the net curtains; focus further afield and one sees right through the curtains and they appear to vanish; bring the focus of attention back and one sees the actual threads that form the net fabric of the curtains.

And when looking at the Cosmos, at a point of focus all one is faced with is vibrations – a bit like the vibration on a guitar string, but without the strings. All matter, energy and forces are nothing more than combinations of these sub-subatomic vibrations working in harmony to manifest as everything from subatomic particles to structures of galactic proportions. The Cosmos is a sea of Movement – with every point in space being a pulse of vibration. For example, one particular combination of vibrations will always manifest a hydrogen atom, but

many vibrations may vibrate in such a way as to create a group overtone possibly manifesting as gravity.

Within this sea of vibrations, groups of vibrations manifest as larger structures and movement (various flows and eddies). Atoms are in constant motion; our planet spins while it circles the Sun; the Sun is in an arm of a rotating Galaxy; and the Galaxy is moving in relationship to all the other galactic bodies around it. Nowhere is there stillness – all is in motion. For instance the computer that this item is being typed on is sat on a table on the surface of the planet. As the planet spins so the computer travels at thousands of miles a day in a circle around the axis of the planet; on top of this, the planet circles the Sun and the Sun is moving as the Galaxy spins. Spirals within spirals of movement. At the same time, while the computer appears to be made of solid material, it is actually made up of atoms which are in turn made up of ‘electrons’ etcetera which ‘move’ around the ‘nuclei’ of the atom with mostly ‘emptiness’ filling in between this ‘matter’. And as stated, within the nuclei and electrons is more ‘emptiness’, subatomic particles, forces, etc. And all of these, including the ‘emptiness’, are nothing more than manifestations of minute vibrations – that is movements.

Stillness is non-existence. Everything is made up of, and subjected to, various combinations of multiple movements. Movement is Existence.

When all matter, energy and forces are seen as nothing more than vibrations it is seen that the orchestration of these vibrations is akin to orchestral music. Out of individual sounds music is formed, and music is a structure that is greater than its parts. Pythagoras was on the right track in his belief that the whole of Existence is a ‘musical symphony’ where ‘mathematics’ forms the individual notes.

Music and mathematics have a very close relationship. Basically music is various vibrations complying with mathematical rules.

So here we are faced with the Cosmos being a sea of vibrations. Yet to vibrate the string of a guitar, to get a ‘note’, someone or something has to pluck the string, and if the vibration is to continue it has to be plucked over and over again. But with the Cosmos, the vibrations have no string to pluck. Something has to cause each vibration to vibrate, and to vibrate in the exact way it does. This ‘cause’ is the ‘active principle’ of the Stoics. It is seen as having a ‘mathematical’ nature that permeates every ‘point’ within the Cosmos and so defines the nature of each vibration and movement. It is the composer, the conductor and the individual musicians, all rolled into one, creating the overall symphony that manifests the material Cosmos through the musical mathematics that govern the various vibrations.

We are looking at a form of ‘consciousness’. Without some form of coordinating reasoning faculty the flow of change that is Existence would produce nothing but a chaotic sea of meaningless vibrations. It requires a process of ‘logic’ and ‘reasoning’ to maintain the manifestation of a structure such as a tree through all the flow of change that happens during its lifetime. It requires a law maker and a law enforcer to ensure that every hydrogen

atom throughout the Cosmos is identically constructed out of the apparent 'chaos' that is to be found at the quantum level of Existence.

(The words 'mathematics', 'music', 'consciousness', 'logic' and 'reasoning' are not used as being exactly the same as that which we intend when they are applied to human centric activities, but as analogies for something that it is not possible for us to fully comprehend. Through the use of the words, and the understanding of the concepts behind them, the intent is for them to give us some glimmering view of that which causes the Cosmos to manifest as it does.)

This world around us is not the chance effect of a sea of vibrations. It requires laws and consistency in the sea of change for us to be able to experience the Cosmos. The fact that we can experience the world about us, and that we maintain an existence within the Experiential Moment for so long (three score years and ten as the traditional standard for a human being) demonstrates that something more than mere chance is in operation. 'I think, therefore I am' misses the point. 'I am, therefore there is something that causes me to be' is the true starting point for understanding the Cosmos.

Something maintains the on-going state of Existence within which our part of the Cosmos has existed for thousands, if not billions of years. This 'principle' in the nature of the Cosmos ensures that the sea of vibrations manifests all that we see around us in a logical state that allows for continuity despite the totality of the effect of change that is such a fundamental aspect of Existence.

The 'consciousness' that is the 'active principle' is sustaining the manifestation of Existence from moment to moment, maintaining the vibrations and movements that manifest the individualised aspects of the oneness that is the Cosmos. This 'Consciousness' is, at the very least, an aspect of the process that manifests all that is within the Cosmos throughout the active flow of change that is the Experiential Moment.

## **A View of Modern Science**

There were no 'gods' who magically snapped their fingers and made everything suddenly appear out of 'thin air' – not even the god of the scientists that is called 'Big Bang'.

What exists now was made out of what already existed. The development of the Cosmos is a feat of engineering – we call aspects of this 'evolution'. Evolution does not just apply to animals and plants. Everything we see about us has been created through evolutionary change – including our Galaxy and our Solar system on which our existence is dependent.

In deep space, within sight of our planet's telescopes, we see vast clouds of 'dust' within which stars are being born. At the same time we are also seeing stars dying and becoming nothing more than star dust. The Cosmos is a self-perpetuating process with no need of a beginning or an end.

Theoretical mathematicians and scientists have come up with what is often called the 'Standard Model' of the Universe that they claim came about as a result of 'the Big Bang'. This describes, in theoretical terms, an imaginary Universe whose appearance at a particular stage would be similar to what we at present see about us - if it existed. A belief in the 'existence' of this theoretical Universe has evolved from the 'Big Bang Theory', the 'expanding universe theory' and many other ideas arrived at by trying to interpret actual observations. One of the problems with the 'Standard Model' is that many scientific experiments have for some time now been aimed at trying to 'prove' it rather than to test it. On top of this every effort is made to try to fit any inconvenient discoveries by observational science into the 'jigsaw' of ideas - regardless of whether they really fit or not.

Of course, the main failing of the 'Standard Model' is that it evolved from a concept of a point of Creation where it is theorised that 'everything', including time, came into existence. This is rather ironic seeing as how many modern scientists have derided religions for believing in a god type magician creating everything out of nothing at a point of Creation. But the scientists' point of Creation is also a magic trick whereby the Universe is pulled out of an empty hat like a 'magician's rabbit' but without the 'magician'.

There was a 'happening' within the Cosmos whereby our star, the Sun, and all the planets around it came into being. This 'happening' was a process of 'construction' - that is, it was based on gravitation, evolution and growth. And it is this process that the many faiths of the World have tried to explain - often using myths and allegories that would be understood by the people that lived when the faiths first came into being with these myths being designed to convey some of the awe as to the achievement of the 'Constructor'. But none of these creation myths are attempts to explain the origins of the Cosmos as we now know it, for it is only in the last few thousand years that it has been recognised that the Cosmos comprises more than Mother Earth, the Sun, the Moon and the numerous other 'small lights' in the sky.

Science's 'Standard Model' is so full of problems that the Universe it describes is now more of a myth than the early creation myths of the various religions. Even more worrying, rather than being uplifting as the Creation myths of the religions were meant to be, the 'religion' of the 'Standard Model' is demoralising, for many people see the 'Standard Model' as suggesting that there is no purpose to Existence because of its claim that life on Earth is just an 'accidental blip of organisation within a sea of chaos'.

Despite scientists spending years studying the laws of science and nature that help govern and create what we see about us, many do not have the understanding to fully realise the implications of the fact that the whole of the material Cosmos exists because of organisation and that chaos is just another aspect of organisation.

Practical science has tried to grope its way through superstition to a reasoned understanding of what is around us. However theoretical science has for the most part dragged us back into superstition and, through the 'Standard Model', has become a religion of materialism

and human egotism based on a formal belief system supported by its myths and 'scriptural writings', even to the point whereby all dissenters are treated as heretics.

Unfortunately the authority with which the 'Standard Model' has been anointed by academics has led to many philosophers feeling the need to conform to the overly complicated myths of theoretical science and to turn away from their true aim – that is being the 'lover of wisdom'.

Would-be philosophers ought to remember that the philosopher's original and true role is to gradually try to come to a better understanding of 'the gods' and 'the God' (the Consciousness), their works (the Cosmos and all within it that we see manifested around us) and humanity's relationship to the whole and how as humans we may best live our lives. And this means it is for the philosopher to challenge the scientists who make pronouncement on the nature of the Cosmos where such is beyond the scope of 'the scientific method', and then to try to answer the 'big questions' as best as possible in light of the wisdom of the ages and actual present knowledge.

The Standard Model is based on a particular interpretation of actual observational science. Based on observation, it theorises that as the majority of galactic bodies around us appear to be moving away from our galaxy and each other then this suggests that the Universe is expanding. It theorised that by backtracking the progress of this apparent expansion one came to a single point – now known as 'the singularity'. So the 'Big Bang' Theory was born, the theory from which the 'Standard Model' evolved.

In its simplest form, the Universe described by the Standard Model may be visualised as starting from a point of nothingness and exploding/expanding out in all directions, and so its shape is a sphere of ever increasing size. That is, the progression of the expansion can be seen as straight lines that revert to a single point where the Universe expanded out from, and it was from this that much of the scientific dogma of today stems. This is despite the fact that many discoveries since have forced science to deny that there is actually a singularity.

While the scientists' theoretical model Universe can try to explain what we see around us and is fun to play with, it does not exclude the concept that the 'Universe' that we see is just part of an infinite Cosmos. If the 'Universe' exists as a 'localised' phenomena floating in space it is probably just another level of bodies in a hierarchy that includes atoms, solar systems, galaxies etcetera. There needs to be no beginning and no end to the Cosmos either in direction or evolution in order to explain what we see.

While there was a 'Creation' of our solar system that supports some of the various religious Creation ideas and to some degree the old Stoic idea of cycles of creation and conflagration, the idea of a point where our Universe was created out of nothingness is mere mythology.

In truth, we will probably never be able to prove if we are part of a 'finite Universe' or an 'infinite Universe'. The speed of light and the movement of the galactic bodies restrict what

we can observe. However, as more observations are taken, many of the theories of today will be shown to be based on errors in observation and so will be shown to be invalid. Even down to realising that the 'Universe' as a whole is not expanding – possibly all we see in our neck of the woods are simply eddies within the Cosmos – Cosmic 'wind' as part of a Cosmic 'weather system'. The Galactic bodies we can see could be moving away from each other because they are transiting between a 'low pressure system' and a 'high pressure system' – simply a gust of 'wind' blowing the galactic bodies about.

As I have said, within our sphere of observation we are aware of many forms of self-destruction within the Universe such as the destruction of stars and galaxies. We are also aware of vast galactic clouds that appear to be areas giving birth to stars. So we are already aware that all that exists around us can have been 'created' from within the Cosmos without the need for a supposed 'Universe' created in one 'blink of an eye'. There is no need for the magical trick of producing something out of nothing. There is no need for the 'Big Bang' theory.

There is no real scientific reason to believe in a 'beginning' to the Cosmos for any theory of a 'beginning' throws up the question as to what came before that 'beginning'. Continuous, ongoing, steady change and evolution with the odd cataclysmic destruction of whole galaxies and the like, giving us a Cosmos with no beginning is a far more reasoned explanation of what we see around us, than a 'Universe' that magically appears out of nowhere.

Better to see that where we are is just a development from where things were, and that where we are is in fact part of a vast evolving infinite eternal living Cosmos.

God is not a magician. God is an engineer.

All of which is why science needs to pay more attention to the principles laid down by Occam's razor – the simplest answers to any 'problem' are more likely to be the correct answers.

## **Looking to the Future**

Cosmology has always been about gaining an understanding of what is around us according to the current level of knowledge. However we never have, and we never will fully understand the nature of the Cosmos.

At one time 'the World' was seen as little more than a tribe's hunting grounds and the night sky overhead. In time this took on more and more size as trade started, and trade routes were opened up. Gradually civilisations began to see ever more of the World. While some societies maintained some fanciful myths as to the creation of the World, well over two thousand years ago various people were putting forward the idea of a round world in the middle of an outer sphere of small lights. It was seen that 'the sky' turned around the World once every day.

Of course as time went on science showed that we were part of a solar system together with many other distant lights – this became the new extent of the Universe. Then it was discovered that our solar system was part of a spiral group of billions of stars and that there were other such groups. At first these groups were called ‘island universes’. But eventually they were called ‘galaxies’, and the word ‘Universe’ was retained to describe all of known Existence.

At present scientifically accepted cosmology predicts a number of events that will probably affect this tiny part of the Universe where we live.

1. A large object from space will crash into the Earth, either smashing it to bits or causing so much damage that mankind is unlikely to survive if we are still on the planet. There is evidence of mass extinctions happening in the past as a result of such collisions, but there is no way of knowing if such will happen again and, if it does, if it will be tomorrow or in 100 million years. However the laws of probability suggest that this should be our most immediate concern.

2. The Sun will die, and naturally in the process our world will die. This may be considered a certainty but is extremely unlikely to happen for many millions of years to come, unless of course some unbelievably large object should impact with the Sun.

3. And then there is the possible destruction of the Universe. Science tends to suggest that the Universe had a beginning – the BIG BANG. And based on this false assertion they predict that it will have an end.

Ok, so humanity may have many years left to live, but such a scenario seems pretty bleak. It suggests that if one thing does not wipe us out, the eventual destruction of the Universe will get us anyway. So what if it is millions of years after our own individual deaths – there is apparently no future for the human race other than survival and reproduction while we can. How demoralising!

Science claims its purpose is to gain knowledge and make for a better life. But the pessimism of the above has contributed to the many ills of the World today. To add to this some scientists claim that there is no need for a ‘god’ because they can explain everything as nothing more than mechanics. Some of them do condescend to allow ‘god’ to exist in the gaps in their knowledge – at least until they can fill those gaps. The psychology of such is that step by step they take away any real concept of purpose to life. And to cap it all they seem determined that the Universe will die. And all this is based on mere theories and next to no fact.

Science may have great knowledge but it does not know it all and it does not necessarily understand what it knows – science has some knowledge, but knowledge is not wisdom.

For this we need to turn to philosophy for any true philosophy will recognise the wisdom of the ages, and it is though this that we know that the visible Universe is an aspect of the living eternal Cosmos. Any wise philosophy will recognise “the universal governor and manager of all things” that manifests the Cosmos. Any wise philosophy will recognise that we are part of the whole and that how we act will affect the whole – the concept of a butterfly flapping its wings eventually leading to a change in the wind on the other side of the World. Any wise philosophy will recognise that we are a part of a vast Oneness.

So where does all this take us in relation to the eventual destruction of this planet?

What does matter is that we recognise the true cosmology as best as possible. The Cosmos is eternal. Our planet is not. We as a species may have time regards our Sun dying to develop the means to travel to other solar systems, and possibly eventually to other galaxies. Regards being wiped out by a comet or suchlike, we probably already have the means to defend the planet against all but a planet sized object – all we need is the collective will.

War has served its purpose – it has helped mankind to develop weapons of great power and the means to deliver them. All we need now is to stop declaring war on each other and to declare war on any object liable to crash into Mother Earth from space. We need to turn the defence industries from being war machines into truly defensive operations working towards defending this planet and to achieving interstellar flight.

And we need to think long term. In the short term we need to plan an ongoing defence system for the planet, but also to recognise that the journey to the stars may take many thousands of years of work. In doing so the human race will see that it has a purpose and we can start enjoying our lives while laying down the foundations for the future of our descendants.

And why in the light of such a vast eternal Cosmos should we even bother? After all the chances are that there are other life forms and even humans spread around the Cosmos. If there is a purpose to life let them work at maintaining it – we can simply enjoy life for the now for there is no guarantee that we as a species will succeed in getting off this planet. All the commitment and hard work could possibly go to waste. Or so the selfish, lazy, depressed, pessimist might say

A good friend once pointed out how ‘wasteful’ Nature is. A single oak tree produces a thousand acorns a year for a thousand years, yet the chances are that only one of those acorns will make it to become a fully grown oak tree. This may be true of the path we are on – we may be destined to be one of the thousands of ‘acorns’ that do not make it. On the other hand we may have the capability of being the one species that does make it – in which case if we do not try now, whatever it is that we are meant to evolve into may never happen.

An acceptance of a cosmology of an eternal living Cosmos, where we have a long term purpose gives purpose to our own individual lives here and now – what and how we do it has meaning! And purpose leads to contentment with one's life!

It is in our own selfish interest, here and now, to find optimism in cosmology.