Science and the Bible

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Carl Sagan remarked,

> 'How is it that hardly any major religion has looked at science and concluded, 'This is better than we thought! The Universe is much bigger than our prophets said, grander, more subtle, more elegant? Instead they say, 'No,no,no! My god is a little god and I want him to stay that way.' A religion, old or new, that stressed the magnificence of the Universe as revealed by modern science might be able to draw forth reserves of reverence and awe hardly tapped by the conventional faiths.' (Pale Blue Dot, 1995)

It is the aim of this paper to examine critically the role between Science and the Bible (or indeed, true Christianity). Sagan's quotation can be dissected into two parts, firstly, the assertion that 'hardly any major religion has looked at science' and secondly, that 'modern science might be able to draw forth reserves of reverence and awe hardly tapped by conventional faiths'. Both of these are assertions but, ones that are quoted (with approval) by Dr. Richard Dawkins (Charles Simonyi Professor of the Public Understanding of Science at Oxford University) and a well known proponent of atheistical evolutionary theory.

Assertion 1.

'Hardly any major religion has looked at science', perhaps I am being unfair to Carl Sagan, perhaps I am truncating his quotation to suit my own ends, perhaps it should read 'Hardly any major religion has looked at science and concluded that they ought to change their views on the basis of it.' If this is so then it is the same assertion that is embodied in the second section of this paper.

I share with Dr. Dawkins his profound sadness at the mystical thinking that pervades much of our modern Western Society. He cites with ill-disguised disgust the horoscopes, star signs and astrological seers who peddle their nonsense under the guise supposed science. Science is a vital part of the intellectual culture of this society. It has a poetry and a beauty that is the equally of music, art and fine literature. To illustrate this point allow me to quote the distinguished theoretical physicist Richard Feynmann who was told by a friend that a scientist misses the beauty of a flower by studying it. Feynmann responded,

> 'The beauty that is there for you is also available to me, too. But I see a deeper beauty that isn't so readily available to others. I can see the complicated interactions of the flower. The colour of the flower is red. Does the fact that the plant has colour mean that it evolved to attract insects? This adds a further question. Can insects see colour? Do they have an aesthetic sense? And so on. I don't see how studying a flower ever detracts from its beauty. It only adds.' (from remembering Richard Feynmann, The Skeptical Enquirer, 1988)

This quotation and the one from Carl Sagan are both taken from a book by Dr. Dawkins entitled ‘unweaving the rainbow’, where in his usual entertaining and illuminating style he educates the reader on a popular level.
All this takes us back to the fundamental reason for Science, which is simply to discover, explore and understand a little more about this wonderful universe that we inhabit. Science is designed at improving our grasp of the wonder and majesty of creation and in this role it should not be viewed as a natural adversary of Christianity. If the Christianity, and therefore the Bible, is true then Science should give it nothing to fear. Science, in its true form, is a simple examination. The relationship between Science and the Bible should be mutually advantageous. When science ‘discovers’ a new thing, that is at variance with the Bible then we are in a truly unique position. It is our responsibility to examine the accepted Biblical position and the new Scientific position and to see if they both ‘fit’ the text – and if science is not, on closer examination, at variance then it is not the Bible that is wrong merely its human exposition to that point (an oft cited example is the scholar Galileo who found that the Earth encircled the Sun and no vice-versa, unfortunately, the Romanist clerics of his day could not see that this established scientific fact posed no problem to the Bible). However, at other times the supposed scientific account does not fit with Scripture and it is at these times that Christians are forced to conclude that, as yet, scientific discovery on that point has not reached its conclusion (an example of this is the Darwinian theory of Human Evolution).
When Darwin published his seminal work, ‘The origin of species’, it marked a seed change in the popular view of the relationship between science and scripture. Up to that point, the relationship in the public consciousness was one of a brother and sister confidently stepping forward in the quest for a greater understanding of the universe in which we live. It is a matter of great sadness to me, that there is an assumed dichotomy that has developed, quite simply for many it does not and should not exist. Let me take you through a brief tour of a scientific hall of fame that spans the great and good from the past few hundred years.
Beginning with the comment from Alfred Lord Whitehead, that modern science was born because it was surrounded by a Christian frame of reference. Galileo, Copernicus, Frances Bacon, Kepler and scientists up to and including Newton believed that the world was created by a reasonable God and that we could therefore find out the order of the universe by reason. Lets run through a list of fervent Christians and true scientists:

Robert Boyle (Pioneer of modern chemistry)
Carl Linnaeus (botanist)
Leonhard Euler (mathematician)
Georges Cuvier (biologist)
Samuel Morse (inventor of the telegraph)
Charles Babbage (computing)
Matthew Maury (pioneer of oceanography)
James Joule (physicist)
Louis Pasteur (immunology)
Gregor Mendel (father of genetics)
Joseph Lister (father of modern surgery)

George Washington Carver (agricultural chemistry)
Wilbur and Orville Wright (aviation)
Werner von Braun (space exploration)
Louis Agassiz (glacial geology and ichthyology)
David Brewster (optical mineralogy)
Leonardo da Vinci (hydraulics)
John Dalton (atomic theory, partial pressures, colour blindness)
Humphrey Davy (miner safety lamp and thermo kinetics)
Henry Fabre (entomology)
Joseph Henry (electric motor and galvanometer)
John Herschel (stars and nebula catalogue)
William Herschel (double stars, Uranus and galactic astronomy)
William Huggins (spectroscopy in astronomy)
Richard Kirwan (mineral logy)
Blasé Pascal (barometer)
William Prout (food chemistry)
William Ramsay (inert gases, isotopic chemistry and chance mutation of elements)
John Ray (natural historian)
Berhard Riemann (Euclidean geometry)
Nicholaus Steno (stratigraphy)
George Stokes (fluid mechanics)
George Strutt 'Lord Rayleigh' (inert gases, model analysis)
Percy Tate (vector analysis)
Rudolph Virchow (pathology)
John Woodward (palaeontology)
Charles Drew (Blood banks)
Fritz Haber (nitrogen fixation)

Sir James Simpson, who at the age of 24 was Senior President of the Royal Medical Society of Edinburgh, by 27 was a university lecturer in obstetrics and then later professor in midwifery. He discovered 'chloroform' which revolutionised anaesthetics and was responsible for the modern basis for gynaecology. Despite all this, when asked at a great public meeting what his greatest discovery had been, he replied without hesitation, 'That I have a Saviour'.

Jean Henri Dunant was born to a wealthy Swiss family. He became highly influential in European banking and was a guest of Napoleon at Solferino. He was personally responsible for the creation of the Red Cross Relief Organisation and the formulation of the Geneva convention. At the end of his life he was the recipient of the first Nobel Prize. In his own words his achievements were nothing in comparison to his rediscovery of Christ and the prize of knowing him.

Michael Faraday was an extraordinary scientific genius. While in his early teens he was made personal assistant to Sir Humphrey Davy at the Royal Institution. In 1831, Faraday eclipsed his mentor as the great living scientist with his discovery of the dynamo. Awarded a Doctorate from Oxford and a lucrative government grant Faraday proceeded to lay the foundations for the

understand of both electricity and light. A man who at his death in 1867 held no less than 97 distinctions from international academies of science-all unsought. Yet he wrote, that his understanding of life and its purpose was from study and belief in the Bible and by a personal experience of the Lord Jesus Christ. The gateway to which is a realisation of sinfulness before God and the need to repent. Without conviction of sin there is no ground of hope.

Henry Heinz, a botanist and founder of a food empire insisted that his obituaries were in the following order of priority. 'Henry J. Heinz, churchman, philanthropist, manufacturer.'

Sir John Ambrose Fleming at the age of 16 studied for his Bachelor of Science degree (composed of Mathematics, Chemistry, Physics, Botany, Zoology, Geology, Physiology and Mental Philosophy) and after a spell at Cambridge was appointed Professor at Nottingham. He became advisor to Marconi and was the brains behind the first atlantic radio transmission. In 1904 he invented the radio valve which has made television and radio technology possible. Fleming is referred to as the father of modern electronics. In the early 1900s he was but, one more scientific voice against the atheistical theory of evolution. At his death in 1945 his inquisitive mind was translated into the realms of infinite wonder.

William Thomson, Lord Kelvin, has his own name branded on the concepts of the First and Second Laws of Thermodynamics and the Absolute Temperature Scale. His name is also linked to submarine cable and the shipping compass – just to mention two more of the seventy patented brainwaves. A Cambridge graduate, at the age of 22, he became Professor of Natural Philosophy at Glasgow University (the youngest Professor ever appointed!). His lecture experiments won national acclaim with stunts like calculating the velocity of a bullet. By the age of 50 his numerous inventions had earned him a knighthood and a personal fortune, by his death he held 21 honorary degrees, an order of merit and a companion of honour. His work on magnets, heat, thermodynamics and electricity had altered the world. Yet, he never missed a Sabbath in Church and said that 'God was only to be found by the route he himself had revealed in the Bible'.

James Clerk Maxwell a man, who at 13, had his first scientific paper published by the Royal Society of Edinburgh. It was his intuitive thinking that developed electrical currents and the discovery of radio waves. He laid the base for colour photography and calculated the properties of gases that remain fundamental to modern physics. He created the mathematical basis for the kinetic theory of gases and developed and applied the whole spectrum of electro-magnetic radiation. A man who for light relief would lampoon the theory of evolution and daily to pray to his God for constant guidance. A thinker who Einstein described as 'the most profound and fruitful that physics has experienced since the time of Newton'. Yet, one whose motivation for experimental research was the command in Genesis 2:28 to Replenish the Earth and subdue it.

I have only been quoting Christians in Science. Time would fail to detail the personal faith of others like Felix Mendelssohn, Fred Charrington (of Bass Breweries), Daniel Defoe, Birdie Bowers of the Antarctic and Lieutenant General Sir William Dobbie commander of British Forces in the Mediterreanean in WW2. In the words of Viscount Alexander of Hillsborough, Leader of the Lords in the 1960s, these were men who 'found personal Salvation through the Word of Life and what it says in the Bible… I am the way the truth and the life; no man cometh unto the Father, but by me.'

Modern Science is not bereft of its Christians, I could cite you numerous examples of faithful Christian men and women currently holding posts in academic and experimental scientific posts.

Assertion 2.

Sagan thinks that 'modern science might be able to draw forth reserves of reverence and awe hardly tapped by conventional faiths'. He has fundamentally misunderstood the relationship between Christianity and Science. Christianity has no quarrel with Science. Science is simply man's own feeble mind seeking to know more about the wonderful universe that God has given to us. Theology is man's own feeble mind seeking to formulate more clearly and systematically the divine truths contained within the scriptures. Science when its discoveries are correct proves the Bible to be the inspired and infallible Word of God.
Concluding with the words of James Clerk Maxwell – God has endowed human beings the power to investigate his handiwork, and to harness the power of his created world. God will surely bless and guide these efforts.