SPECIAL AGENDA IV DIOCESAN SYNOD MOTIONS COMPATIBILITY OF SCIENCE AND CHRISTIAN BELIEF

A background paper from the Diocese of Manchester

That this synod, concerned at the promotion of a perceived need to choose between the claims of science and belief in God:

- (a) affirm the compatibility of belief in God and an understanding of science: and
- (b) urge the House of Bishops and all dioceses robustly to promote a better public understanding of the compatibility of science and Christian belief

Manchester has a tradition of scientific and technological development and is proud of the part it has played at the forefront of the Industrial revolution. Two particular achievements highlight how recent is much of our scientific knowledge. In the early 20th century Ernest, Lord Rutherford split the atom and in less than 100 years our modern understanding of particle physics and the sub-atomic structure of matter has been developed. In the 1950s Sir Bernard Lovell constructed his Mark 1 radio telescope at Jodrell Bank and in 50 years we have seen the development of radio astronomy which is the cornerstone of our understanding of the immensity of the universe around us.

This motion arose from a concern expressed in the Manchester Diocesan Synod that science and religion are often presented as conflicting explanations of human existence and the world around us, particularly by atheistic scientists. Ordinary Christians often find themselves confused, put on the defensive, and uncertain how to respond, lacking the expertise for a robust apologetic. Last year, the 200th anniversary of Charles Darwin's birth, much was written and broadcast about Darwin, his theory of evolution and more generally about science and religion. This has done nothing to lessen the debate, with popular programmes such as David Attenborough's Darwin centenary programme 'Charles Darwin And The Tree of Life' on the BBC taking the opportunity to point out conflicts with a literal reading of the Genesis creation story and Colin Blakemore expressing the hope in his 'God and the Scientists' programme in the Channel 4 'Christianity a History' series that science will one day explain everything including the human need for religious belief².

Throughout the modern scientific era Christians have been at the forefront of scientific development and welcomed the understanding of all of God's creation that it brings and the many benefits to humankind. Such Christians are critically confident in the use of scientific method as one valid way of discovering truth about the created order, and deplore the evidence of recent splits between science and religion, while at the same time seeking to bring Christian insights to bear on the whole scientific enterprise. Members of this synod belong to organisations such as the Society of Ordained Scientists or Christians in Science. Groups such as the Faraday Institute for Science and Religion and journals such as Science and Christian Belief seek to research and promote a deeper understanding of the relationship between science and religion. Such Christians seek to bring their understanding to scientific and ethical issues of the day, such as climate change and genetic engineering, but they will only have the credibility to speak authoritatively if their science as well as their theology is accurate, up to date and well informed.

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¹ Broadcast on BBC1 on 1st February 2009 ² Broadcast on Channel 4 on 22nd February 2009

Questions of science and religion touch the deepest issues of human existence and purpose. Scientists and theologians approach these questions in very different ways. Who cannot be amazed at the beauty, the complexity, the vastness of the created order and wonder at how it came to be? Wonder at the very question of why it exists at all. Or wonder at the fine tuning of the physical constants that allow carbon based life to exist in this order. Or puzzle about how we came to have consciousness and purpose. Or ponder the deep philosophical and religious questions of human existence which, contrary to the views of some well-known atheist scientists, are quite beyond the explanatory power of science and the scientific method.

The rate of scientific development in recent years, which enables us to understand so much more about the world and the universe in which we live, is breathtaking. Within a generation great progress has been made in our understanding of for example, the nature of the universe, of atomic structure, of DNA and of the genome. These advances have resulted in overwhelming evidence for the truth of many scientific theories, such as the great age of the universe, measured in thousands of millions of years, or its vastness with billions of billions of stars. The discovery of DNA and recent work on genome sequencing is compelling evidence for the interrelatedness of all living things and the mechanisms of genetic mutation and evolution are now well understood. There is no evidence of any abating in such rapid advances, new discoveries will continue to be made in many areas not least genetics and neuroscience.

For the Christian trying to make sense of this new scientific knowledge, much hinges on how we read the scriptures and how we understand the truth of scripture. There is nothing new about this. When Galileo's observations supported the Copernican theory that the earth and planets orbit the sun this was considered to be in conflict with the literal reading of texts such as Psalm 93:1 'The world is firmly established it cannot be moved'. Before the development of modern scientific method and the Enlightenment, questions of whether such a text was literally true in a scientific sense seldom arose. Now we understand that text as absolutely true in a theological and in a poetic sense but not attempting to make a scientific statement. Few today would try to use that text to refute the movement of the planets. Similar questions of interpretation challenge us in other Psalms or in the Genesis accounts of creation, as was noted by Augustine as early as the fifth century. Some will want to read these in a literal way but if we attempt to read scripture as a literal scientific account then inevitably conflict with science results. We do not have to read it that way. If we understand it as complementary to scientific understanding we see a truth no less real, no less important, which gives a completely different level of description to the scientific one. How we do that is an ongoing hermeneutic challenge.

Conflicts between science and religion arise on the one hand when religious views appear to reject or deny the findings of mainstream science. This is particularly acute when views, such as the claim that the earth is at most a few tens of thousand years old, are justified with scientific explanations which few support. They also arise when widespread scepticism and ignorance of scientific evidence in the population at large is blamed by scientists on religious belief.

On the other hand conflict also arises when scientists make claims which appear to be beyond what science can determine or claim that science is the only legitimate discipline that can resolve issues of existence, or that all will finally be revealed by the elusive 'Theory of everything'. So when atheist scientists make claims about the existence or non-existence of God and step outside the scientific realm into that of philosophy or theology or metaphysics they inevitably clash with philosophers, theologians³ and many ordinary Christians affronted by their sweeping claims and reductionist agenda. This in turn also creates scepticism and undermines trust in well-established and well-founded scientific knowledge.

³ See for example Keith Ward: Why There Almost Certainly Is a God, Lion Oxford 2008.

Recent controversy has focussed heavily on human origins, Darwin and evolution. In 2008 Theos commissioned ComRes to conduct a survey of the opinions of 2000 UK respondents to questions of science and faith, focused on the perceived relationship between theistic belief and evolution. The results 'Faith and Darwin: Harmony, Conflict or Confusion' show considerable confusion. The next section of this paper includes some headline findings and comments on them but cannot possibly do justice to their detailed conclusions.

Theos define four commonly held views relating to the origin and development of life, namely Young Earth Creationism (YEC), Intelligent Design (ID), Theistic Evolution (TE) and Atheistic Evolution (AE), as follows:

- Young Earth Creationism is the idea that God created the world sometime in the last 10,000 years.
- Intelligent Design is the idea that evolution alone is not enough to explain the complex structures of some living things, so the intervention of a designer is needed at key stages.
- Theistic Evolution is the idea that evolution is the means that God used for the creation of all living things on earth.
- Atheistic Evolution is the idea that evolution makes belief in God unnecessary and absurd.

The Theos ComRes survey concluded that only half their respondents gave sufficiently clear answers to be firmly placed in one of these 4 categories in that they were convinced it was the best explanation and true, the remainder were either too inconsistent or gave no answer. This is shown in the first line of the table below. Respondents were also asked to choose the most likely explanation for human origins and this is shown in the second line.

	YEC	ID	TE	AE	Don't know
Convinced best explanation and true	11%	8%	18%	18%	45%
Likely to explain human origins	17%	11%	28%	37%	7%

A high proportion (32%) of self-declared practising Christians⁵ in the sample were Young Earth Creationists. 60% of the creationists say the Bible is the divinely inspired word of God so this position is closely associated with a desire to treat the Bible seriously. About 65-70% of the creationists think Theistic evolution is probably true, which suggests a lot of confusion and uncertainty about the whether creationism and evolution are compatible.

Some Christian creationists are undoubtedly reacting against atheistic evolution. If we believe that Richard Dawkins and others are telling us that atheism is an integral part of the evolutionary package then it is not surprising that Christian believers will reject the whole package. Most scientists consider the creationist position incompatible with mainstream science. Not only does it reject the findings of evolutionary biology but also much of earth sciences, astronomy and physics. Some creationists will be well aware of this, some may believe that there is science which supports their position, others that the scientific evidence is inconclusive, while others may not have considered the question at all. None of these positions will convince the mainstream scientist. For this reason alone, creationism will continue to be a controversial and potentially divisive topic among Christians.

meeting at least several times a month and who pray at least once a week.

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⁴ Caroline Lawes: Faith and Darwin: Harmony, Conflict or Confusion, Theos, London 2009. Available for free downloading from www.theosthinktank.co.uk

See also Nick Spencer and Denis Alexander: Rescuing Darwin, God and evolution in Britain today, and Dr Robin Pharoah et al: Doubting Darwin both Theos, London 2009. www.theosthinktank.co.uk ⁵ The report defines: The group called 'practising Christians' are those who identify themselves as Christians and who also read the Bible at least several times a month, attend a religious service or

In the survey Intelligent Design was the least understood and least supported option. The recent Intelligent Design movement in USA rejects neo-Darwinian macro evolution as an adequate explanation of the development of new species, regarding it at best as unproven. It controversially claims to be science, rather than philosophy, theology or metaphysics, using arguments from probability and the concept of irreducible complexity to claim that designer intervention is needed. Some biological artefacts are so complex they could not have evolved, they are irreducibly complex. This is strongly contested and genetic research has proceeded at such a pace that some of the examples of irreducible complexity proposed only a few years ago are seriously questioned. Intelligent design risks being a 'God of the gaps' theory, constantly retreating in the light of new scientific knowledge.

Most theistic evolutionists (82%) called themselves Christians and the vast majority in the survey has no difficulty holding science and religious belief together.

Theistic evolution sees the design intention of God in the laws of the universe and the process of evolution. It sees mainstream science and Christianity as being entirely compatible and rejects the atheistic interpretation of evolution and associated neo-Darwinian ideas that have no sound basis in scientific fact. It rejects the evils of social Darwinism. Views on the Bible vary but theistic evolutionists tend to regard the Genesis account as theological rather than literal. See Alexander⁶ for a recent defence of theistic evolution which also seeks to uphold the authority of Scripture as the inspired word of God.

The atheistic evolutionists were mostly people of no religion but confusingly 35% of them claimed to be non-practising Christians. Many but by no means all of them see human life as meaningless and without purpose. 22% of all atheistic evolutionists think that humans are uniquely different from other living things and so have a unique value and significance.

So not all atheistic evolutionists are hard-line atheists. Many would be better described as agnostic. But some, not least Dawkins, do try to extend Neo-Darwinism as a biological mechanism with profound consequences about how the world works into an all-encompassing worldview determining every aspect of human life and existence which renders religion superfluous.

A further finding of the Theos survey was that only 10% of people thought science completely undermined religious belief while 12% thought it positively supported it. 26% thought science was neutral while 47% thought science challenges religious beliefs but they can co-exist.

Meeting those challenges is part of what our motion is about. There is a pressing need for education which will give Christians confidence in both their faith and their understanding of science and enable them to hold both together.

The Manchester Diocese is grateful for the work done on these issues since the motion was first formulated. A number of Bishops have spoken publicly, in the House of Lords and elsewhere. The Theos Think Tank have produced their rescuing Darwin series and their informative survey. Many books have appeared and the Church of England website has carried its Darwin section⁷. But the often refined and technical arguments of philosophers and theologians seem to impact little on ordinary believers. As the confusion revealed by the Theos survey makes clear, there is much more to be done and the challenge of this motion is no less urgent if people are to understand God's purpose for His creation alongside the science which gives us so much understanding of its processes and structure. As the Bishop of Swindon comments, theology and science each have much to contribute in the assertion of the Psalmist that we are "fearfully and wonderfully made" (Psalm 139).

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⁶ Denis Alexander, Creation or Evolution – Do we have to choose? Monarch, Oxford 2008.

⁷ www.cofe.anglican.org/darwin/