

Creation, Evolution, or both ?



By Rex Morgan

Charles Darwin, the celebrated British naturalist of the 1800s, has been back in the headlines this year. February 12 marked the 200th anniversary of his birth, and November 24 commemorates the 150th anniversary of the publication of his most famous work, *On the Origin of Species by Means of Natural Selection*. This book promptly gave rise to vigorous debate between scientists and Christians, a debate that has

Darwin himself presented his theory of evolution as a concept compatible with belief in God.

continued to rage ever since.

Darwin proposed that life on earth began hundreds of millions of years ago and developed by evolution through natural selection. This contrasts with the view held by some Christians that God created all life just a few thousand years ago, in six days. Which view is right? And what about humankind? Does an evolutionary origin of life and humanity necessarily exclude a Creator?

Christians and scientists haven't always been in conflict. In fact the Christian faith was instrumental in

the early development of scientific observation from the 1200s onward, particularly in mediaeval Europe. People like Copernicus, Galileo, Kepler, Newton, Bacon, Pasteur and many other leading early scientists were men of deep Christian faith and conviction. Galileo believed that he was revealing the laws of God in his work.

Darwin and the Creator

Darwin himself presented his theory of evolution as a concept compatible with belief in God. In the frontispiece to the first edition of *The Origin of Species*, he included a quote from the Anglican clergyman and philosopher William Whewell proclaiming that God doesn't act by constant miracles but "by the establishment of general laws". This was followed by a quote from Sir Francis Bacon stating that true understanding must be sought both "in the book of God's word and in the book of God's works", referring to scripture and nature.

The Origin of Species itself contains several references to the Creator, and the final sentence states "There is grandeur in this view of life, with its several powers, having been originally breathed by the Creator into a few forms or into one..."

In the sermon at Darwin's funeral, in Westminster Abbey, the Reverend Frederick Farrar said that Darwin's theory posed no threat to belief in

God, and that Darwin had enabled people to read "many hitherto undeciphered lines in God's great epic of the universe".

Darwin's American botanist friend Asa Gray, a devoted Christian who helped produce the first US edition of *The Origin*, argued that "evolution is the secondary effect or *modus operandi* of the first cause, design". Darwin imported and distributed Gray's pamphlet on theistic evolution, *Natural Selection is not Inconsistent with Natural Theology*.

The novelist Charles Kingsley, a Christian clergyman, was one of the first to praise Darwin's book, writing to him that it was "just as noble a conception of the Deity to believe that he created a few original forms capable of self-development into other and needful forms, as to believe that he required a fresh act of creation to supply the voids caused by the action of his laws." Darwin added those words in the next edition, attributing them to "a celebrated author and divine".

Later, Kingsley wrote "Even better than making the world, God makes the world make itself". In 1860, a year after *The Origin* came out, the Archbishop of Canterbury, Frederick Temple, preached that "Darwin has simply shown us how God moves by natural processes over unimaginably long distances of

time”.

Another religious leader of the time, the Reverend Baden Powell, wrote an essay in support of evolution, commending “Mr. Darwin’s masterly volume” for substantiating “the grand principle of the self-evolving powers of nature”.

150 years after publication of *The Origin of Species*, many Christians still see both evolution and creation as being valid, according to a study by the US National Academy of Sciences.

Their book *Science, Evolution, and Creationism* states “Today, many religious denominations accept that biological evolution has produced the diversity of living things over billions of years of Earth’s history. Many have issued statements observing that evolution and the tenets of their faiths are compatible. Scientists and theologians have written eloquently about their awe and wonder at the history of the universe and of life on this planet, explaining that they see no conflict between their faith in God and the evidence for evolution.”

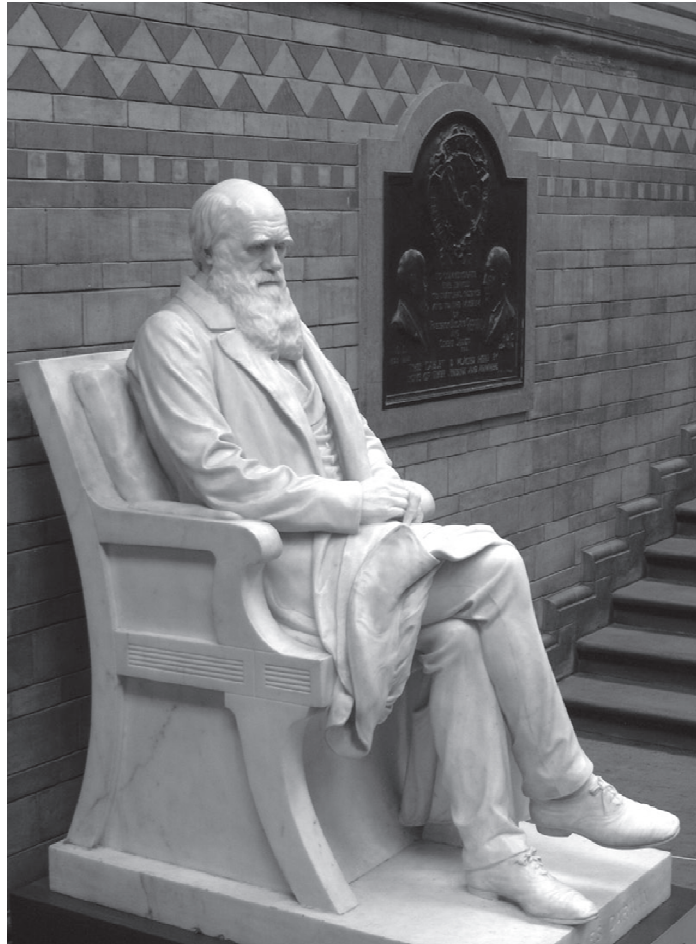
The Clergy Letter Project, “an endeavour designed to demonstrate that religion and science can be compatible and to elevate the quality of the debate of this issue”, was established in 2004 by Michael Zimmerman of Butler University, Indianapolis. It has the support of 12,000 US clergy, who affirm the following: “We the undersigned, Christian clergy from many different traditions, believe that the timeless truths of the Bible and the discoveries of modern science may comfortably coexist.

“Science without religion is lame; religion without science is blind.”
— Albert Einstein

We believe that the theory of evolution is a foundational scientific truth, one that has stood up to rigorous scrutiny and upon which much of human knowledge and achievement rests.”¹

Creationism

But what about the Bible record that God created the world in six days?



Statue of Charles Darwin in the Natural History Museum, London

Thousands of Christians worldwide firmly reject evolution in favour of an explanation based on a literal interpretation of the account in the biblical book of Genesis, chapter 1. These Christians, known as “creationists”, are divided into two major groups, “young earth” and “old earth” creationists.

Young earth creationists believe Genesis 1 describes God creating the universe and all forms of life in six days, around 6000 years ago. This includes the dinosaurs, which they maintain “were created on the sixth day and went on the ark and came off the ark,” before dying out.²

This conclusion flies so dramatically in the face of more than 150 years and millions of pages of scientific research that most scientists treat it as laughable.

Old earth creationists also deny the theory of evolution, but they agree with the scientific findings on the age of the universe and earth.

Creationists generally cite two or three major objections in their rebuttal of evolution.

One is to point out that the fossil record should contain millions of “transitional forms” as life gradually evolved from one species to another. This was something Darwin himself wrestled with, writing in *The Origin*: “Why, if species have descended from other species by fine gradations, do we not everywhere see innumerable transitional forms?”

Evolutionists respond that in fact abundant transitional forms have been discovered.

Creationists also dispute the evidence that mutations actually do cross species boundaries. They suggest that simple, minor modifications show microevolution occurs within species, but they argue a lack of evidence of

macro evolutionary mutations bringing about the formation of new species.

Scientists respond that all change at the species level is micro, and successive micro evolutionary changes bring about macro evolution.

In his popular *A Short History of Nearly Everything*, Bill Bryson notes, “Ironically, considering that Darwin called his book *On the Origin of Species*, the one thing he couldn’t explain was how species originated. Darwin’s theory suggested a mechanism for how a species might become stronger or better or faster – in a word, fitter – but gave no

indication of how it might throw up a new species.”

Scientists point out that the mechanisms for evolution have been discovered since Darwin’s time.

Another major argument of creationists is that some anatomical structures seem too complex to have evolved through natural processes. Structures such as a bacterium’s flagellum (the hair-like part that gives the bacterium motion), the human eye, or the immune system are “irreducibly complex”. Such systems are composed of multiple parts, all of which are necessary for the system to function.

Creationists point to Darwin’s confession that “If it could be demonstrated that any complex organ existed which could not possibly have been formed by numerous, successive, slight modifications, my theory would absolutely break down”.

Darwin also stated “To suppose that the eye with all its inimitable contrivances for adjusting the focus to different distances, for admitting different amounts of light, and for the correction of spherical and chromatic aberration, could have been formed by natural selection seems, I freely confess, absurd in the highest degree.”

Comprehensive scientific answers to these and other objections are outlined on various websites, including <http://nsceweb.org/>; [www.talkorigins.org.](http://www.talkorigins.org/); <http://nationalacademies.org/evolution/> and www.bioLogos.org.

Another approach is called “Intelligent Design” (ID). This view came to prominence in the 1990s, largely in an effort to overcome the ban on teaching creation in American classrooms. It has been described as “an intellectually presentable creationism”.

While it attempts to skirt the ban on teaching religion as science in public schools by avoiding using the term “God”, a court in the USA ruled recently that ID is not a scientific option, but another form of creationism.

The “Missing Link” FOUND?



Ida — the missing link between animals and humans?

In May 2009 the fossil of a small lemur-like animal was unveiled at New York’s American Museum of Natural History. The fossil, discovered in Messel, Germany in 1983, was named “Ida” after the daughter of the researcher who assembled a team of scientists that spent two years studying her in secret before she was revealed to the world. Her formal scientific name is *Darwinius masillae* in honour of Charles Darwin’s 200th anniversary year.

Ida is believed to be the most complete primate fossil ever discovered. She is 95% intact and so well preserved that her tissues, hair and even her stomach contents are visible.

A great deal of hype surrounded the revealing of the fossil, with claims that she was the missing link between man and the rest of the animal kingdom, and a “rosetta stone” for understanding early branches in the human evolutionary tree. Dr John Hurum, the scientist at the heart of the project, variously described the fossil as the “Holy Grail of palaeontology” and the “lost ark of archaeology”. The History Channel reported “This groundbreaking discovery fills in a critical gap in human and primate evolution.”¹

But just a couple of months later an American palaeontologist, Chris Beard, came up with a 38-million-year-old fossil he touted as a much better candidate for the “missing link”.

“Ida is an oddity at the far end of the primate family tree, about as far away from man’s ancestors as you can get, Dr Beard said. “Ida is a good-looking fossil, but it was the victim of incredible marketing”.² Writing in *New Scientist* magazine, Dr Beard, who is curator of vertebrate palaeontology at the Carnegie Museum of Natural History in Pittsburgh, said “So Ida is not a missing link — at least not between anthropoids and more primitive primates. Further study may reveal her to be a missing link between other species of Eocene adapiforms, but this hardly solidifies her status as the “eighth wonder of the world”.³

In an article entitled *Ida Fossil Hype Went Too Far*, Robert Roy Britt, Editorial Director of *Imaginova*, commented: “Ida’s unveiling was highly scripted (with some “Barnum and Bailey aspects”, said palaeontologist Richard Kay of Duke University). More important, it can now be said the findings may well have been significantly overstated. We won’t know for sure until further research is done. But if this event causes the public to distrust science and media, that distrust is well placed”.⁴

The *New Zealand Herald* reported that the discovery of Ida had been “carefully choreographed by the publicity machine of the film company behind a television documentary sold to the BBC and the publishers of a book to sell on the subject”.⁵

Exaggerated claims of this nature that are later overturned give rise to scepticism from literal creationists, and have prompted cynical questions such as “How many times will palaeontologists find the missing link?”⁶

1. <http://www.history.com/content/the-link/about-the-link/the-link>

2. *The New Zealand Herald*, July 4, 2009

3. <http://www.newscientist.com/article/dn17173-why-ida-fossil-is-not-the-missing-link.html>

4. <http://www.livescience.com/culture/090520-ida-fossil-hype.html>

5. *The New Zealand Herald*, July 4, 2009

6. <http://www.slate.com/id/2218838/?from=rss>

The major denominations of Anglicanism and Catholicism reject these forms of creationism and ID on theological grounds. Instead, many Christian scholars espouse an approach known as “Theistic Evolution” (TE) or “Evolutionary Creation”. They accept the findings of science, and see no contradiction between the theory of evolution and a proper understanding of the biblical account in Genesis 1. They point out that Genesis declares that God is Creator, but it says nothing about *how* he created.

Genesis 1 – Science or Theology?

The ancient writers described the world in concepts and language they and their audiences could understand, employing the simple narrative and poetic style of a non-scientific culture, rather than the standards of modern science.

Specialists in the study of the early chapters of the Bible, whether Jewish or Christian, understand Genesis 1 not as a literal day-by-day account of the mechanics of the creation. Rather, they point out that the chapter has a carefully sculpted literary structure, with use of repetitive phrases and numerical symbolism. (See box.)

Proponents of TE point out that Genesis was written at a time when creation epics were the standard approach to explaining the origin of the cosmos. These epics generally referred to various types of gods begetting other gods, and clashes between them. Genesis 1 uses the standard genre and style of the contemporaneous creation epics, but dramatically surmounts them all by declaring that the God of Israel was far above all other gods in creating everything out of nothing simply by the power of his spoken word. Each of the things revered by the nations as gods is systematically presented as having been created, and declared “good” by this God, demonstrating his utter power over

them.

The ancient writers described the world in concepts and language they and their audiences could understand, employing the simple narrative and poetic style of a non-scientific culture, rather than the standards of modern science. The burning issues of their day were theological rather than scientific. Who made the world? Who is in charge of it? Who is to be worshipped?

The nature, structure and size of the universe are not explained in the book of Genesis. That is simply not its purpose.

Genesis 2 is clearly written in story form, referring to the tree of life and the tree of the knowledge of good and evil, which may or may not have been literal trees, but certainly were symbolic of spiritual concepts. Whether the serpent of Genesis 3 was literal and spoke is not nearly as important as what (or who) it symbolised.

Genesis 1 matches the scientific scenario in that it describes a beginning point followed by the

development of life in stages, with animals and then humans appearing in the last stage. When the chapter is viewed in this way, there is no need for any conflict between creation and evolution.

Proponents of TE explain that a great God has built into the creation many ongoing systems and processes — the transpiration cycle, photosynthesis, the formation and destruction of stars and nebulae, and so on. After putting these into operation, God allows them to continue without overt divine intervention to create new things. It is posited that he began the creation of life in the same way, by putting into place laws that enabled it to freely evolve over billions of years.

The idea is that God imbued the universe in the early moments of creation with the potentiality to produce the fruitful outcomes we see today. This doesn't mean that God is divorced from the unfolding process, however. As the first-century apostle Paul explained, nothing can exist without God and, since he sustains the universe on a moment-by-moment basis, anything

The Symmetry of Genesis 1

Problem	Preparation	Population
Verse 2	Days 1–3	Days 4–6
darkness	1(a) creation of light (day) 1(b) separation from darkness (night)	4(a) creation of sun 4(b) creation of moon and stars
watery abyss	2(a) creation of firmament (sky) 2(b) separation of waters above from waters below	5(a) creation of birds 5(b) creation of fish
formless earth	3(a) separation of earth from sea 3(b) creation of vegetation	6(a) creation of land animals 6(b) creation of humans
“without form and void” (Heb: <i>tohu vabohu</i>)	<i>tohu</i> is formed	<i>bohu</i> is filled

As early as Augustine in his “City of God” (c. 400 AD), commentators have noted the schematic structural arrangement in the Genesis 1 account of the creation. The first six days are presented in two sets of three, describing the filling of the conditions of formlessness and emptiness found in verse 2. This symmetry indicates that form is as important as content, giving good reason for Genesis 1 not to be taken literally as a 7-day historical account.

that happens in nature from the subatomic to the macro level can be seen to reflect his over-arching purpose.³ This purpose can accommodate what appears to us as nature's processes operating freely.

Theologians have worthwhile questions for evolutionists, who in turn have searching questions for Bible believers. It is important that both sides of the debate are willing to respect and listen to each other as experts in their respective fields.

This "hands-off" process is mirrored in the way God has acted in human affairs. He has chosen to interact with specific individuals down through history, once with a group of slaves who became the nation of Israel, and today with willing individuals who are being shaped into a spiritual "nation". But these, and humanity as a whole, have always been free to make choices and follow their own paths, even when urged by God to choose the better way.

Even though in God's eyes spiritual creation, or salvation, is much more important than any physical components of the universe, people can freely choose to respond, or not, to his call to become new, spiritual, creations. For those who do respond, rather than perfecting them immediately, God allows such individuals to gradually mature as a new creation by a process which could be called "spiritual evolution".

Theism or Atheism — Which?

A final approach we should mention is that of "Naturalistic Evolution", the atheistic idea that an evolutionary process necessarily precludes the existence of a God who may have ordained it and sustained it.

One problem with this viewpoint is that closing the door to the possibility of the existence of God means refusing to explore any

evidence of that, which is a contradiction of the principles of objective scientific investigation.

The theory of evolution may explain the process of how the universe and life developed, but it is still left with the fundamental question of "Why is there something rather than nothing?" This is a profound question that science cannot answer.

Theologians have challenging questions for evolutionists, who in turn have searching questions for Bible believers. It is important that both sides of the debate are willing to respect and listen to each other as experts in their respective fields.

Christians benefit from scientific discoveries and research helping them better understand the awesome creation God has designed. Scientists benefit from the spiritual aspects of purpose, ethics and values that Christians can bring to the table.

Learning from One Another

We all have so much to learn from science. It boggles the mind how astronomers can calculate the exact location where a planet hundreds of millions of kilometres away will be on a certain day in several years' time. But we know they can do it, because we've seen the photos they send back when they successfully launch a spacecraft to rendezvous with a distant heavenly body.

Similarly, it stretches the mind how science can calculate that the big bang took place some 15 billion years ago and that, for instance, fossils of the Cambrian period are over 500 million years old, but surely it is sensible to defer to the experts who have spent their working lives researching and refining these calculations.

And we all have so much to learn from biblical theology. The Bible doesn't claim to be an authoritative book of science or technology, but a charter of salvation, authoritative in telling us about God and how he has provided for the eternal salvation of mankind.

As far as Christian theology is concerned, whether or not God

chose to make the world through the big bang and evolution, this doesn't detract in the slightest from his offer of spiritual salvation to those who seek him. The biblical promise of spiritual "new creation" is far more momentous to humanity than the physical creation, important though that is.

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Science and theology can complement one another in the quest for truth and understanding. Albert Einstein said that "Science without religion is lame; religion without science is blind". Pope John Paul II expressed it this way: "Science can purify religion from error and superstition; religion can purify science from idolatry and false absolutes. Each can draw the other into a wider world, a world in which both can flourish."

None of the scientific discoveries and the theories that explain them stands in conflict with what the Bible reveals about God's relationship to the creation. Where the Bible and science appear to conflict, one or the other has been misunderstood. Both science and religion have a part to play in plumbing the depths and heights of understanding the awesome universe we are privileged to call our home.

1. www.butler.edu/clergyproject.
2. Adrian Bates, NZ CEO of 'Creation Ministries International' quoted in the NZ Herald, February 8, 2009, page 32.
3. Colossians 1:16-17.

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