

EVOLUTION AND THEOLOGY

THE YEAR 2009 has been a year for celebrating the achievements of the natural sciences. The United Nations declared it the International Year of Astronomy to mark the 400th anniversary of Galileo's telescopic observations—observations that supported the Copernican system of the universe. 2009 has also been the Year of Darwin as it is the 150th anniversary of the publication of *The Origin of Species* and the 200th anniversary of Darwin's birth.

Both these scientific developments—the switch from the Ptolemaic to the Copernican system of the universe and the abandonment of the biological theory of fixed species in favour of the theory of evolution—presented major challenges to theologians. The new scientific theories were so well supported by evidence and had such brilliant explanatory power that it was foolish for non-scientists to argue against them. Theologians were therefore forced to re-examine the bases of their own formulations of doctrine and develop presentations of doctrine that not only did not contradict the firm conclusions of the natural sciences but even incorporated those conclusions.

At this time I will by-pass the story of the impact of the Copernican revolution on theology and exegesis, and offer some reflections on the impact of Darwin's theory of evolution:

First of all theologians of the latter part of the nineteenth century, following the publication of *The Origin of Species* in November 1859, were forced to look again at the book of Genesis, especially Chapter 1 in which the sacred author narrates that creation was completed in seven days: on the third day God created plants and trees, on the fifth day the fish and the birds, on the sixth day all the animals and Adam and Eve.

Already before Darwin the historical accuracy of the Genesis account was under question because of developments in the earth sci-

ences, especially geology, which made it clear that the earth had a long history. Creation did not take place all at once a few thousand years ago. Hence the first chapter of Genesis could not be read as a literal historical account of the origins of the world.

One response from the theologians was to claim that the six days of creation were actually six ages spanning great periods of time—God rested on the seventh 'day', of course. That was a good try, but a better, and in the long run more acceptable, response was to examine the literary forms of the Genesis texts. The book of Genesis is not a text of science, and only in a special way is it to be taken as history, as Mark O'Brien explains in his article in this issue of *Compass*.

Fortunately, biblical archaeology was making progress in the latter half of the nineteenth century, enabling biblical scholars to arrive at a clearer understanding of the history of the biblical text. The Bible was not dictated by God to human scribes—rather it has its own history as a text or collection of texts that are nonetheless claimed to be inspired.

Thus theologians and biblical scholars learned to cope with evolution theory's landscape of an ancient earth and an emergence of biological species over great periods of geological time. After some resistance from philosophy they also came to terms with Darwin's explanation of how the vast variety of species emerged: Darwin's brilliantly simple theory of descent with modification in the context of competition for survival. From the most primitive life forms all the complexity and variety that we know today has evolved.

Having absorbed and eventually become comfortable with the account of a gradual evolution of sub-human species over vast tracts of time the next challenge for scripture scholars and theologians was the implications of evolution theory for the emergence (or crea-

tion) of humankind. Darwin did not, as was popularly believed, postulate the theory that humans were ‘descended from apes’. The theory of evolution postulated that present day primates and human beings have a common ancestry some time back in the evolutionary tree.

Nevertheless, theologians dug their heels in here, led by Pope Pius XII who declared in a speech to the Pontifical Academy of Sciences on 30th November, 1941 that humans are superior to animals because each human being possesses an immortal soul, and he reiterated his teaching in his encyclical *Humani Generis (Of the Human Race)* in 1950 where he taught that there could be no question of the evolution of the human soul. Theologians began to speak of ‘an ontological leap’ from the animal kingdom to the human that cannot be explained in purely scientific terms. Humankind may have evolved bodily from lower species, but each human being is constituted as a spiritual being by the direct creative action of God.

Theologians insist that they are talking theology when they talk of the spiritual dimension of human beings, of the human soul, of human beings as created ‘in the image and likeness of God’. They are insisting that natural science is not enough to explain the mystery of the human person, and that the theological teaching on the nature of humankind is not an interference with natural science.

Evolution science further required that humankind emerged as a population (the theory called ‘polygenism’) rather than as a single couple (‘monogenism’). This was a further challenge to theologians. In his encyclical *Humani Generis* Pius XII stated that polygenism could not be accepted because it was in no way apparent how such a theory could be reconciled with the doctrine of Original Sin. Effectively the pope set a challenge to

theologians and scripture scholars to *make* it apparent how they could be reconciled.

The sticking point was St Paul’s teaching in Romans 5:12-21, reiterated in the Council of Trent, that just as sin entered the world through one man, Adam, and death reigned over all the descendents of Adam, so grace and life entered the world through one man, Christ. Polygenism was incompatible with that vision of the Original Sin committed by a single pair of first parents and transmitted to all their descendants.

Scholars pointed out that Paul’s whole purpose was to teach the universality of Christ’s redemption. The Adam and Eve story provided a convenient framework for that teaching—it was a literary device to help him make his point, not a teaching that Adam and Eve were a single couple (monogenism) rather than a ‘crowd’ (polygenism). Romans 5 makes no difference to the acceptability of the fact that the early chapters of Genesis are not to be read as literal historical accounts. Similar conclusions are to be drawn concerning the repetition of Paul’s parallelism by the Council of Trent: the Council fathers were quoting Paul in order to make their teaching on Original Sin clear, but were not teaching that Adam and Eve were a single historical couple.

Thus theologians can defend their doctrines in the face of contemporary biological science. They can also express them in ways that integrate evolution theory. They certainly do not seek to interfere in any way with natural science (though the same cannot be said about the practice of Creation Scientists and proponents of Intelligent Design).

Would that the militant scientific atheists who appeal to evolution—Daniel Dennett and Richard Dawkins for example—would treat theology with the same courtesy.

—Barry Brundell MSC, Editor

The latest findings of the International Theological Commission on these matters are published under the title, *Communion and Stewardship: Human Persons Created in the Image of God*, July 2004, accessible on the Vatican website (<http://www.vatican.va/>).

Fr Barry Brundell MSC is a Visiting Fellow in the School of History and Philosophy at the University of New South Wales.