

Faith and Thought

A Journal devoted to the study of the inter-relation
of the Christian revelation and modern research

Vol. 95

Number 2

Summer, 1966

BRIAN S. MAWHINNEY, B.SC., M.S.

Man – His Origin, His Nature and His God¹

My purpose in this paper is not to reveal my own personal beliefs and opinions. Rather, we will consider the various theories which have been propounded as men have sought to consider the origin and nature of man and his initial relationship with God, as described in the first three chapters of Genesis, in the light of modern scientific knowledge and speculation.

I want to commence by laying down some guiding principles for our study. First of all, on what basis are we to consider the contents of Genesis? Genesis imparts to us the main motives for the existence of this world and for the life of man in a concrete form; but we may not consider biblical language as language designed to convey contemporary scientific concepts and hence we cannot exact from it precise scientific knowledge.

The Christian doctrine of creation is an exposition of the first article of the Creed which says 'I believe in God, the Father Almighty, Maker of heaven and earth . . . ' It is, therefore, to be distinguished from any attempt to describe how the Universe began, nor is it any kind of argument for the existence of God. No inferences from design in nature can enable us to determine if the mind (if any) behind creation was omnipotent or limited, but with a sufficient supply of free energy. Between these two, there is an infinite qualitative difference for one is God and the other is not. The words 'I believe' are significant when we remember that 'science is a partial activity of man limited by the observer-attitude, while faith is an activity in which man must be a partaker as a totality.' (Mark xii. 30)². The doctrine also guards against two misunderstandings; one that the world was co-existing eternally with God and secondly, that the world is

¹ A paper read to the London Christian Graduate Society, 6 December, 1965.

² G. E. Barnes, *Faith and Thought*, 90 (1958).

some kind of emanation of God. Finally, it seeks to affirm the transcendency of God and dependence of the creature, and God's continuous preserving, sustaining and directing power.

I want, at the beginning, to state my belief quite clearly that in Christian theology the notion of creation is not primarily concerned with a hypothetical act by which God brought the world into being at some past time, but with the incessant act by which He preserves the world in existence so long as He wills it shall exist. In this respect I stand with St. Thomas Aquinas³ who said 'As it depends on the will of God that he produces things into being, so it depends on his will that he preserves them in being, for he does not preserve them in any other way than by always giving them being, hence if he withdrew his action from them, all things would be reduced to nothing'. Creation then is not the bridge between God and his creatures. They are two distinct beings, God, who is self-existent, and his creatures, who exist because he wills it so. This view stands in opposition to the deistic one which states the belief that God initially ordained and 'wound up' his perfect creation which he now allows to function by set rules. He can 'intervene' from outside but this implies a change in a perfect creation. This view to me seems contrary to the scriptural facts that 'he upholdeth all things by the Word of his power' and 'he maketh his sun to rise on the just and on the unjust'.

The other main point I wish to make in this introduction is one concerning the concept of, and terminology associated with evolution. Barclay⁴ has made a comprehensive survey of the confusion arising with the use of the word "evolution" and has categorized its use in literature to mean three different things, (1) descent with modification (2) the extent of descent with modification and (3) the mechanism of descent with modification. We shall attribute the first meaning to it in this paper.

Unfortunately over the years, too many people have forgotten that the theory of evolution is purely a scientific hypothesis and that 'the theory of man's evolution wholly by natural means is a philosophical and not a scientific claim' as stressed by Lack⁵.

³ Aquinas, *Summa Theol.* I (ii), 3c.

⁴ O. R. Barclay, *Faith and Thought*, 78 (1946).

⁵ D. Lack, *Evolutionary Theory and Christian Belief*.

He continues 'if an essential part of human nature, for example, responsibility, morality or truth, lies outside the terms of reference of science, then since all natural phenomena can be studied scientifically, it would appear to follow that man has not evolved wholly by natural means'. To me, therefore, the doctrine of evolution is amoral or in the words of Huxley 'neither anti-theistic nor theistic⁶.'

Ramm in his excellent book *The Christian View of Science and Scripture* lists four main views with regard to the origin of life to which I should like to add a fifth. They are (1) fiat creation (2) progressive creationism (3) theistic evolution (4) naturalistic evolution, and my fifth, that life may have originated on some other planet and been carried here by a meteor.

About the first position, little can be said. It's philosophy was summed up by Higley⁷ who wrote 'No true servant of God would knowingly rob the Creator of His glory by regarding creation as a mere process instead of a miracle'. The illogicality of such a stand stems from his many "a priorisms" and such thinking is representative of an extreme fundamentalist position. Belief in fiat creation is a possibility, in my view, remote, but it certainly does not warrant the imperative standing attributed to it by its advocates.

We will also spend little time on the latter two beliefs. On the grounds of what has already been said, I reject naturalistic evolution which, as we shall see later, also fails to account for man's sense of ethics. The extra-terrestrial origin of life has its scientific adherents. Bernal⁸ has suggested evidence to the effect that carbonaceous compounds may have been formed by the interaction of ice, ammonia and methane radicals on catalytic metallic iron and silicate dust. However as this just removes the origin of life one step, it is of little help to us.

The differences between theistic evolution and progressive creationism are fundamental. Buswell⁹ has summarized them as follows: The evolutionary origin of the major taxonomic groups

⁶ J. S. Huxley, *Evolution: the Modern Synthesis*.

⁷ A. A. Higley, *Science and Truth*, 1940.

⁸ J. D. Bernal, *Origins of Pre-Biological Systems* (Ed. S. Fox).

⁹ J. O. Buswell, *Evolution and Christian Thought Today* (Ed. R. L. Mixer).

or of paleontological series, between which there is only inferential evidence of connection, sometimes referred to as “quantum” or macro-evolution, is accepted implicitly by theistic evolution and rejected by progressive creationism. Similar acceptance and rejection respectively is afforded to the concept of the origin of man from some pre-human form. Progressive creationism taught from the time of Augustine, believes in two types of creation, one, “creation potential” which is the evidence of the *ex nihilo* creative will of God, and two, “creation actual” which is subject to the secondary laws of causation and thereby, in the process of time, realizes the pre-ordained forms of nature. The theistic evolutionist, however, believes that the evolutionary process was the *modus operandi* which God used to make man and part of man’s glory in his relationship with God before the Fall lay in his position as the supreme being of the evolutionary process.

Unfortunately the emotional antagonism engendered between the Church and the adherents of naturalistic evolution has left a legacy of bitterness in the Church which has tended to cloud the issues involved. As evolution is only a scientific hypothesis the stand of the theistic evolutionary case, providing it postulates nothing contrary to Scripture, depends to a great extent on the soundness of its scientific basis. J. S. Huxley¹⁰ has described the evolution as follows, ‘the capacity of living substances for reproduction is the expansive driving force, mutation provides its raw material but natural selection determines its direction’. Professor L. T. More¹¹ believed that in the final analysis, belief in evolution was based on faith, ‘exactly the same sort of faith which it is necessary to have when one encounters the great mysteries of religion’ while Barnes² has pointed out that there are many scriptures which teach that God is the master of physical randomness. (Prov. xvi.33; Acts i. 24–26; Is.lv. 8–9; Rom.xi.33.) Alfred Wallace¹² the co-originator, with Darwin, of the evolutionary theory, felt it necessary to believe that God creatively ‘intervened’ three times in history – on the occasions of the creation of matter, life and man. This

¹⁰ J. S. Huxley, *Evolution as a Process* (Ed. J. S. Huxley and others).

¹¹ L. T. More, quoted by N. Watts in *Why I Believe in Creation*.

¹² A. R. Wallace, *Darwinism* (1889).

corresponds to the three times the Hebrew word *bara* (to create *ex nihilo*) is used in Genesis one.

Two major criticisms of evolution have been (1) the adaptations are too complex and interlocking to have been brought about by so random an agent as natural selection, and (2) the necessary intermediate steps in the gradual evolution of such adaptations could not be advantageous. The only alternative to natural selection, however, is a "good genius" or "life-force" which influences the direction of the mutations. This is neither scientific nor factual for mutations are essentially random with respect to the needs of the animal. On a long-term view, the best evidence that evolution is not random is provided by convergent adaptation; for example,⁵ the Galapagos Islands have been so isolated that most of the American land song birds have not colonized them. In their absence one of the few forms which did become established has evolved into a group of species which, in their habits and appearance, resemble the seed-eating finches, insect-eating warblers and tits and tree-climbing woodpeckers of the American mainland.

R. E. D. Clark¹³ warns us in his consideration of design in nature, not to rush to any conclusions about the improbability of evolution taking place 'over its whole realm' for 'chemistry has revealed a quite fantastic correlation between the properties of matter and the needs of life. It is conceivable that the entire creative activity of God went into bringing this correlation about rather than in subsequently arranging the atoms to form organisms'. Henry Drummond¹⁴ has said, with regard to this problem of the discontinuities in human knowledge, 'There are reverent minds who ceaselessly scan the fields of nature and books of science in search of gaps – gaps which they fill up with God, as if God lived in gaps', and Professor Coulson¹⁵ has said 'when we come to the scientifically unknown our correct policy is not to rejoice because we have found God'. Let us sum up by restressing the three main points of Genesis I, none of which are involved with scientific mechanism. First, God made the

¹³ R. E. D. Clark, *Faith and Thought*, 92 (1962).

¹⁴ H. Drummond, Quoted by D. Lack op. cit.

¹⁵ C. A. Coulson, *Science and Religion – A Changing Relationship*.

universe and all in it. Secondly, he saw that it was good and thirdly, he placed man in a special relationship to himself.

As the physical universe was created before biological life according to Genesis and commonsense, it is not necessarily true to say that biological life was created out of nothing. We must, therefore, briefly consider how effective science has been in creating life in conditions supposedly similar to those pertaining at that time. First, however, as Keosin¹⁶ has pointed out, the definition of life is variable due to the different levels of organization in biological structure, and it is this difference which is the important thing to realize rather than the need for an all embracing definition. Present-day scientists are fairly unanimous in the view that the earth, about 1.5×10^9 years ago, when they first postulate life, was much more covered with water than today. Also the atmosphere was a combination of ammonium ions, carbon-dioxide, water vapour and methane. Note there was no free oxygen. There were four potential sources of energy, heat from the earth's core, the sun's ultra-violet rays which penetrated the atmosphere due to the absence of the present ozone layer, atmospheric electricity and radioactivity.

The first men to experiment with these conditions, *i.e.* an electric arc across the above postulated atmosphere were Professors Miller and Urey¹⁷. They found that the main compounds formed were amino acids, the building blocks of life! Since then this type of experiment has demonstrated the synthesis of purines, pyrimidines, sugars, ribose and dioxynbose, adenosine and nucleotides AMP, ADP and ATP, as well as aromatic hydrocarbons. Miller¹⁸ also showed that any free hydrogen needed was made in the experiment. As carbon, nitrogen, oxygen and hydrogen are the most abundant elements in our earth and universe, it would seem permissible to postulate their use. So man has found himself able to synthesize all the basic requirements to produce a living system. Also Berkner and Marshall¹⁹ have demonstrated, from the existing evidence, the subsequent processes of photosynthesis to give free oxygen. This

¹⁶ J. Keosin, *The Origin of Life*.

¹⁷ S. L. Miller and H. C. Urey, *Science*, 1959, vol. 130.

¹⁸ S. L. Miller, *Science*, 1953, vol. 117.

¹⁹ L. V. Berkner and L. C. Marshall, *New Scientist*, 1965 (November).

much is fact. It was given added impetus this year by Professor Spiegelman²⁰ who was able to produce a virus RNA off an RNA primer which is a step forward in the attempt to synthesize test-tube life.

The mechanism used to cover the steps from amino acids to living cells is still a matter of scientific conjecture. Some questions to be answered include the effect of the environment on the protein and was there a feed-back mechanism involved?

Did the protein serve its own template or did it link up with a DNA molecule?

If so, how was the DNA molecule formed? By chance?

Or was there no such thing as DNA, only a primitive RNA from which our present DNA has 'evolved'?

How did the control of the cell pass from outside the cell to inside and what caused a membrane to enclose the cell?

Could all this have happened on a statistical basis?

Did life originate in the oceans, as commonly believed, or on dry land as recently postulated by Professors Hinton and Blum²¹, by virtue of the almost universal ability of primitive plants and animals to survive total suspension of metabolism due to dehydration?

My object here is to show that what was once fantasy has become possibility, and that if God has been postulated to fill this gap in scientific knowledge, He is already beginning to suffer the same humiliation as on previous and similar occasions. Science here is not proceeding as an enemy of Christianity and standing in opposition to it, rather it is demonstrating the difference between the realms and again stressing the necessity for believing in the continuous creative activity of God. It should also be noted that the above conclusions rule out neither of our considered ideas on the mechanism of creation, though the theistic evolutionist is at a disadvantage in that there is a large gap here in his theory which he can only postulate will be bridged eventually with scientific knowledge. It should also be realized that we have assumed in this discussion that there is such a thing as chemical evolution and that it follows the same pattern as the biological.

²⁰ S. Spiegelman, *New Scientist*, 1965 (October).

²¹ H. E. Hinton and M. S. Blum, *New Scientist*, 1965 (October).

Once we have propagation, metabolism and then respiration instituted, how, as yet, we can only surmise, we are at the threshold of the evolutionary theory as it is commonly understood.

It is not the purpose of this paper to hold a brief for evolution, but we must consider it in general. Darwin's theory of evolution was based on three observable facts from nature and two deductions based on them.

FACT I More offspring are produced than are necessary for the reproduction of the species.

FACT II The number in any species is approximately constant in each generation; therefore, there is a struggle for existence.

FACT III There is much variation shown among offspring therefore, some variations will have survival value and this explains the multiplicity of forms. Note he never claimed to explain the origin of life.

We conclude, therefore, that biological deployment is a two dimensional movement, sideways due to different aspects of environment producing specialization and forwards due to further adaptive change. Julian Huxley¹⁹ had this to say about it, 'natural selection automatically results from the basic biological property common to all living matter of slightly incomplete self-copying, and it in turn automatically results in biological improvement which can be of any extent from a minor adaptation in one property of a single species to a large-scale advance in genetical organization. One result of specialized improvement is an eventual restriction of any further improvement. In addition, high specialization for one mode of life restricts the possibility of switching to another'. Haldane²² lists what he believes are the three main conditions on which natural selection acts as rare mutants, changes in gene frequency and disease. The big, and as yet unanswered, question is, are these enough?

The main evidence for evolution is based on (1) the similarity in the structures and biochemistry of all higher animals (especially in the case of apes and men) (2) the gradual changes in structure seen in fossils, (3) rudimentary organs; for example, whales contain relics of hind legs and moles have eyes under

²² J. B. S. Haldane, *Culture and the Evolution of Man*.

their skin, (4) facts of geographic distribution, (5) hereditary changes known in domestic animals, and (6) the nearness of relationships between groups of animals which can be established by immunological means. Let me give two examples, which I realize can be matched by two queries from those who do not believe the evolutionary theory. When two forms of a Californian species of fruit fly are reared together in competition, one predominates at low temperatures and the other at high. This accords with the finding that in the wild, one predominates from March to October and the other from October to March. Secondly, in a Hawaiian Archipelago, birds called sicklebills, found nowhere else, have radiated into 18 different genera.

The evidence for evolution is by no means conclusive. There are serious and large doubts in the fossil record, interspecies transformations have not yet been demonstrated, and hybrid animals are conceived sterile if at all (for example, the mule). There also remain unexplained phenomena such as the similarity of the foetuses of vertebrates at an early stage in development, or the so called redundant organs in man, for example, ear lobes or male nipples, though these may just be the by-product of normal biological mechanisms. There is also the big difficulty of whether each step leading to a highly specialized result would have been advantageous. Darwin himself considered the case of the eye and drew the distinction between the impossibility of something happening and the impossibility of our being able to conceive that it happened. These doubts have led some to the viewpoints of Kuhn²³ 'The fact of descent remains, only descent beyond the typologically circumscribed boundaries is nowhere demonstrable. Therefore we can indeed speak of a descent within the types but not about a descent of the types', or Davis²⁴ 'practically all students of evolution agree in recognizing an element of real or apparent discontinuity in the origin of a major adaptation', with which statement, many biologists disagree! Schindewolf²⁵ has summarized it thus, 'in the first period, the development is

²³ O. Kuhn, *Acta Biotheoretica*, 1942, vol. 6.

²⁴ D. D. Davis, *Genetics, Paleontology and Evolution* (1949).

²⁵ D. Schindewolf, *Acta Biotheoretica*, 1937, vol. 3.

discontinuous, sportive and without transition. There originate fundamentally, that is, qualitatively, new organizations. During the second phase, in contrast, the progress of phylogenetic development is continuous. It shows here an ontogenetic change of characters of a quantitative kind, documented by numerous transitional forms upon the basis and in the framework of the organization-texture, formed during this first period. Only this second phase corresponds to what, till now generally has been considered the essence of phylogenetic development' - significantly he proposes no mechanism to explain the discontinuities! These quantum evolutionary jumps may be explained in acceptable micro-evolutionary terms if we postulate during the transitions that the number of individuals was small and the tempo of evolution fast. Therefore there is a very small chance of fossils - which is at least possible.

Let us make two other points. The order of fossil discoveries *i.e.* vegetable, invertebrates, fish, amphibiae, reptiles, mammals and man agree with the accounts of the third, fifth and sixth days in Genesis 1. Secondly, the references in Genesis 1 to 'after their kinds' has been equated with fixity of species, which incidentally is a seventeenth century concept. The more correct translation of the Hebrew is 'according to their varieties' which, if anything, argues against fixity of species.

Many fossil finds have been made covering the last step in the evolutionary process, from apes to men, and they provide powerful evidence for a physical link. In this paper we will avoid anthropological names dwelling rather on the findings. Man is basically different from the apes in three respects, those of posture, the power of abstract thought and the making of tools. Napier²⁶ in a 1964 publication started with the fossil finds dated at 12×10^6 years ago and has traced the evolution of the pelvis, teeth, hands and jaw from apes to present-day man. The brain capacity of man is noticeably greater than that of the ape, and this has been associated with greater mental ability though it need not be an accurate reflection of it. Increasing brain capacity has been found in more recent fossils but Le Gros Clark²⁷

²⁶ J. Napier, *Discovery*, 1964.

²⁷ W. E. Le G. Clarke *History of the Primates*, (6th edition, 1958).

is probably right when he says 'the definition of "man" will ultimately have to rest on a functional rather than anatomical basis, the criteria of humanity being the ability to speak and make tools'.

One must distinguish between the use and the making of tools. Animals are often known to do the former but never the latter. An ape, given a broken box, will pull up a slat of wood and use it as a weapon but he cannot see in an intact box the possibility of a weapon. Tools have been found and dated at 5×10^5 years ago, whilst man's first use of fire is dated 2.5×10^5 years. About one hundred thousand years ago, the Neanderthals showed a slight increase in skill with tools, but the real cultural explosion came with glacial man 2×10^4 years ago. Among the finds from this period are needles (with eyes), flutes, lamps and ornaments. They also buried their dead with tools, etc. indicating that they had a concept of life after death but that this life was to be lived somewhere on earth rather than being spiritual.

Speech is believed also to have evolved. Darwin²⁸ concluded that facial expressions in apes are very similar in kind to those performed by a baby in giving an open-mouthed kiss. The grunt of communication by a baboon can be modulated as human vowels can. Animals can learn by conditioned reflex, specialization or imitation; though instinct is hereditary and therefore not a learned process. Both apes and parrots have been taught to say a few words but these are without biological significance in as much as they are not associated with any thought processes. We quote Kohler²⁹ who said 'The time in which the chimpanzee lives is limited in past and future . . . it is in the extremely narrow limits in this direction that the chief difference is to be found between the anthropoids and the most primitive human beings. The lack of an invaluable technical aid (speech) and a great limitation of those very important components of thought "images" would thus constitute the causes that prevent the chimpanzee from attaining even the smallest beginnings of cultural development'. Professor Zuckerman³⁰ is on record as

²⁸ C. Darwin, *The Origin of Species*.

²⁹ W. Kohler, *The Mentality of Apes*.

³⁰ S. Zuckerman, *The Physical Basis of Mind*.

agreeing with this viewpoint. The peculiar attributes of mind are that it can translate quantitative differences in electrical pattern into qualitative differences of sensation. The second is however restricted only to the minds of men. As Kierkegaard has said 'the endlessness of its reflexion belongs to the essence of its consciousness.'

Enthusiasm is no substitute for scientific facts and it must be stressed here that interpretations from fossils tend to vary depending on the observer. There is no clear unequivocally demonstrated line of fossil evidence linking apes and men, neither is there unanimity as to which of the various sub-groups is the progenitor of *Homo Sapiens*. This, of course, means the very existence of the link is unproven despite the many similarities, and this is an important matter, from the Christian point of view, as we shall shortly see.

Naturalistic evolutionists are divided and confused as to the purpose of evolution. Sir Arthur Keith³¹ says its laws are opposed to the laws of Christ and as man is incapable of glorifying God, the Westminster divines were wrong! He explains man's dual nature as having evolved, the good for his friends and the bad for his enemies, which is again contrary to Christ's teaching outlined in the Sermon on the Mount. Julian Huxley³² sees only apparent purpose in evolution, purpose which man has injected, 'purposes', he says, 'in life are made not found'. Aristotle, Dante, Kant and Herbert Spencer all believed that the development of personality was the purpose of existence, though Spencer and Sir Francis Galton saw it as possibly being part of a vast unknown plan. Julian and Thomas Huxley, Waddington, Leake and Romanell have all tried unsuccessfully to formulate evolutionary ethics. Haldane³³ once wrote, 'Science cannot answer . . . why I should be good' and this view was echoed by Levy³⁴ 'science can offer no finality'.

We have now reached the frontier between scientific mechanism and religious belief and experience. Modern upholders of

³¹ A. Keith, *Essays of Human Evolution*.

³² J. S. Huxley, *Evolution*.

³³ J. B. S. Haldane, *Science and Ethics*.

³⁴ H. Levy, *The Universe of Science*.

evolutionary ethics accept the theory of natural selection and hence postulate that high moral standards have been evolved by man because they increase the chances of survival of himself and his offspring. These theories fail to account for man's possession of moral standards and ethical ideas, the nature of those standards, man's self-awareness, apparent free will, capacity to reason truth, sense of the holy and beautiful, knowledge of and his preference for good, and why, knowing good, he so often does evil. Professor Coulson³⁵ has said 'man lives in two (or more) worlds . . . there is a world of science in which questions posed in scientific terms get scientific answers, and another world where words like belief, love, splendour and majesty have meaning. The other world refuses to be shut out of our experience'. H. J. Paton³⁶ gives this summary, 'if as seems probable, the scientific point of view is incompatible with freedom . . . then as moral agents we have to maintain that the scientific point of view is not enough. There are two points of view, the moral and the scientific and while each may be valid within its sphere, it is from the moral point of view that we get the fullest insight into human action'.

Fully developed awareness is diagnostic of humanity. This is illustrated by Descartes' famous phrase 'cogito ergo sum' – 'I think, hence I am', and Teilhard de Chardin's³⁷ remark, 'the animal knows, of course, but certainly it does not know what it knows'. The possession of a soul and the ability to think logically and abstractly and to examine and understand truth are definitely linked, but are not synonymous. Mascall's³⁸ summary is excellent and I reproduce it here. 'It thus seems to me to be thoroughly congruous with the evidence of biology, to hold with the tradition of Christendom that the human soul is a spiritually subsistent entity which for its full and normal functioning needs to be united to a body but which even while it is united to the body, is capable of a certain undiscursive contemplation of spiritual realities and which, even when it is performing discursive

³⁵ C. A. Coulson, *Science and Christian Belief*.

³⁶ H. J. Paton, *The Modern Predicament*.

³⁷ T. De Chardin, *Le Phénomène Humain*.

³⁸ E. L. Mascall, *Christian Theology and Natural Science*.

sive ratiocinations in reciprocal partnership with the body, infuses into that discursive ratiocination a certain supra-sensory contemplative character. I believe each soul is a fresh creation of God infused into the humanly derived body and not derived by generation from the parents (can each parent give a fragment of a soul?) for the soul is transcendent too, as well as immanent in the body and it is a subsistent entity round which the life of the physical structure is organised.⁷ In the light of this, the deistic view, would then require a direct divine intervention from outside, but not so in our view of creation. The first moment of the existence of a creature is no different from any other moment except to the creature. So in saying God creates the soul we learn something concerning the nature of the soul rather than of the creative activity of God - for there is no difference in God's creation of the biological and in the originating of a soul.

Let us now consider our conclusions in the light of Genesis. I must first state my position with regard to these Chapters. I do not consider Chapters one and two to be separate accounts of the creation story. Rather, when one remembers that the Bible is the story of man's relations with God, it seems quite logical to me that Chapter one should sketch in the background, and Chapter two becoming more specific, should consider man, centrally, with respect to this background. I also believe that the many New Testament references to Adam and Eve, especially in relation to the marriage bond, argue for two historical people rather than a totally allegorical story. So while I consider the passage as factual, and ignoring mechanisms, I also realize some of the phrases may not be literal interpretations but descriptive - non-scientific, but inspired prose.

The Old Testament genealogies place Adam between $6-10 \times 10^3$ years ago and this immediately faces us with a major problem to which I foresee four possible solutions. The first is to accept this as literally true. This position then affirms (1) that Adam was the first *Homo Sapiens* (2) the traditional belief in the universal fatherhood of Adam. The problem here then is to explain away all the contrary scientific data with relation to man's culture and the evidence that pygmies, eskimos and bushmen have been in their environment much longer than 10,000 years.

Secondly, we can say the genealogies are wrong and place man,

with science 5×10^5 years ago. This I reject for I believe it contravenes scripture.³⁹ Thirdly, we can postulate pre-Adamic men, all of whom were in Eden. This however appears contrary to Genesis, also Romans 5 which seems to indicate that only two people were in Eden.

Finally, one can postulate that God created man *i.e.* made him qualitatively different from the animals by giving him a soul and a capacity to have fellowship with his creator pre-Adam, and that Adam and Eve were the Representatives of this group in Eden.

Let us consider our two possible theories, first in the light of Genesis. It says (i:27) that man was made in 'the image and likeness of God'. This is understood to mean that man was given his rational and moral characteristics as well as his capacity for holiness – this put him in a state of original righteousness and is definitely associated with his pre-fall existence. However, there is nothing to suggest whether this was done in a special act of creation in Eden together with a special creation of this new species, man, or whether it occurred when God, at a certain time in his progressive creation, gave man his Soul. One thing, however, is certain, it did not evolve. It would seem acceptable to interpret 'from the dust of the ground' (ii:7) as either literal and instantaneous or as descriptive of what man's body is in essence. The 'breathing of life' appears from (ii:7f.) to have occurred pre-Eden but acquires the same meaning in either system. Finally, the same Hebrew word is translated 'man' and 'Adam' in Gen. i – iii and competent Christian scholars are divided as to whether the Hebrew rules out pre-Adamic man.

To suggest that the traditionally held view of the universal fatherhood of Adam may be based not on Scripture, but on the mistaken idea that sin is transmitted genetically is highly contro-

³⁹ Professor D. J. Wiseman has kindly indicated in a personal letter, subsequent to the reading of this paper, that my comment here may not be accurate. He points out that 'in common with early Sumerian genealogies (c. 2,000 BC) the time-scale is not the essential element in this form of historiography. Indeed, it can be argued, as in the case of Our Lord's genealogies, that there are omissions and overlaps, and that there is nothing in the text against dating Adam 5×10^5 years ago'. I am grateful to Professor Wiseman for this helpful information.

versial. The main two New Testament passages cited in favour of universal descent from Adam are Romans 5 and 1 Corinthians 15. Romans 5 does stress that sin is transmitted and that this transmission originates in Adam – however the mechanism *i.e.* genetics is neither mentioned nor postulated. It does affirm that the effect of Adam's sin reaches the whole human race, both those who received the law and those who did not. I like the idea of J. M. Clark⁴⁰ who suggests that as the grace of Our Lord Jesus Christ is operative retrospectively, for God knows no time limitations, why not also the sin of Adam? In 1 Corinthians, Our Lord is pictured as the 'last Adam' and the 'second man' – here the references are in a purely spiritual and not physical sense. If we must reject the literal interpretation for Our Lord, why are we forced to accept it for Adam? Note Adam's contemporaries would also have been sinners as well as being guilty in Adam's sin when they broke God's requirements as related to them by Adam and which requirements were passed on by word of mouth until the time of Moses.

Whichever theory is right, we have in Eden man's initial and unsullied knowledge of, and fellowship with, God. Man is there faced with a moral choice and exercises for the only time in the history of mankind "free will" which is unbiased. By their choice against God, the communion is broken, though man still remains man, and sin is introduced along with the hope of a future Redeemer. We are seemingly taught here that the basic sin which man commits against God is one of disobedience based on a desire for independence. Man thereby at the expense of his original righteousness gained self-consciousness and spiritual death. Whichever theory one holds on the appearance of Man in Eden, these facts constitute the basic lesson of Genesis three. Whether you believe in Adam as your father or your representative, all men are born in a state of original sin, with no chord of fellowship with God and seeking their fulfillment which can only be found when they are re-created in Christ Jesus, new men.

We must here answer one more question. What is the relationship in the Bible between the genealogical origin of a creature and the value of that creature in the sight of God? Is the signifi-

⁴⁰ J. M. Clark, *Faith and Thought*, 93 (1964).

cance of a creature in the sight of God dependent on its ancestry? From John the Baptist's teaching (Luke iii:8) to the Pharisees who claimed Abraham as their father and Paul's teaching in Romans nine in relation to the Jews, it seems clear that physical ancestry is not the criterion God uses in dealing with his creatures.

In conclusion let us cast aside, for a moment, our strivings after mechanisms and take a look at man himself. Immediately behind the objective realm we see a subjective "I" and this to me, is me. With all the techniques of natural science open to me I can find no clue to the existence of this "I" in the objective world nor of the knowing and willing "I" which I conclude from outward appearances belongs to my fellow man's body. With Professor Karl Heim⁴¹ we are forced to two very basic considerations. First, either I am fettered to this body by blind and frivolous chance, in which case life is arbitrary and meaningless, or I have been specifically placed here by an eternal "Thou" for I certainly did not place myself here, and therefore I have the possibility of a life of faith.

The second consideration is of my solitude – I can only see into myself and, being bound to this body, am unable to explore another. This failure to penetrate the "I" of another is the root cause of all misunderstanding. Again either there is no escape from this solitude and I live a futile life of silence and misunderstanding till I sink into the void at death or there is an omnipresent "Thou" who sees, knows and understands, before whom all things are open (Heb. iv:13) and in whose presence our thoughts and deeds are not misunderstood for he does not heed to try and deduce from outward appearance.

The question we then must answer is, which philosophy do I find acceptable? If this eternal "Thou" does exist, and we believe he does, then there are four inescapable conclusions as listed by Heim. There is a personal God who rules all things and in whose omnipresence all things stand. He gives personal existence and position and his divine sanction for our actions stems from his authority to be the way, truth and life for all those who put their trust upon him. (John xiv:6.) Finally, behind the whole

⁴¹ K. Heim, *Christian Faith and Natural Science*.

course of the world and the process of nature, there is a plan which derives from a universal mind or spirit.

The whole creation stands in contrast to God for it is subject to decay unlike God (Eccles. iii 19-, Ps. xlix: 12,20, John iii: 7-, Rom. vii 21,22 Isa. xi 6-8) and it is temporal in contradistinction to the eternal being of God. So in the objective sphere the forces at work have a limited field of operation in space and time and are in conflict or co-operation with other temporal factors. God's authority issues from a point beyond time and space. This authority cannot therefore, be in competition with any factors in the objective world. For the one who is here at work sets aside as powerless the whole system of cause and effect although the system goes on working without interference in its own sphere. This is the invincible authority of Psalm xxx: 9 'For he spoke and it came to be, he commanded and it stood forth'.

How then is man different from the animals? As in Psalm viii: 3-8 so in Gen. i:26-, God elevates man, this little creature, and makes him his companion - he brings him into His personal society. So man's prominent position in relation to creation rests, not on a higher birth but solely on the unique relationship which God has established with him. Man rules the animals not as a biological superior, but on a commission based in his relationship with God. In sin, man sank down again to the level of the beasts and salvation is then seen as restoring the former relationship. The crucial event of the "calling of man" stands in the centre of world history. The grace of a sovereign God is seen in his desire to exalt a lowly creature to his side and to commune with him. God's unfathomable mercy is seen in that he refused to abandon man but issued instead a second call in the person of Jesus Christ. Our eternal destiny depends not in any way on the physical or spiritual qualities which we carry in ourselves but solely on a decision of God to exalt us from creaturely humility and give us an eternal purpose in the promised Redeemer.