

Christianity and the Problem of Origins

BY THE EDITOR

IN principle the philosophers of antiquity do not after all appear to have been so wrong-headed in postulating some single universal element as the essence of all things, even though they were mistaken in the substances to which they variously assigned this dignity. Of the presocratic Ionian philosophers, for example, Thales believed that water was the elementary substance of the material order, for since it was known to exist under different conditions not only in fluid but also in gaseous and solid forms it therefore seemed to be qualified to play the part of the universal material. Anaximenes, however, judged air to be the primordial substance, explaining the different densities of things, from wind and fire to stones, as the result of the differing degrees of rarefaction or condensation of the air from which they were supposedly formed. Anaximander, another early Ionian, also maintained that there is a primitive stuff of things, but that it was "neither water nor any other of the so-called elements, but a nature different from them and infinite, from which arise all the heavens and the worlds within them", and which he called "the limitless" (τὸ ἄπειρον). The Ephesian sage Heraclitus thought that he had discovered the primary substance in fire, which consumes all things and appears to change them into itself. Then Empedocles of Sicily propounded the view that there are four distinct elements, namely, earth, air, fire, and water, which by their intermixture give rise to all that is in the world. This view met with the approval of Aristotle.

I say that these ancient seekers after wisdom would seem not to have been *in principle* mistaken in believing that there was some elemental substance of which all things that exist in our world are compounded, for the amazing advances in scientific knowledge of our day appear to have put an end to the atomistic and monadic speculations of all the past centuries, and we may accept the confident assurance of contemporary physicists that the basic element of the physical world is in fact hydrogen.

But though this discovery may be regarded as the end of a chapter in the history of science (in the fundamental sense of the term), it is very far from being the end of this particular book. Indeed, it has brought us to the threshold of a completely new chapter, replete with fresh mysteries to be investigated, which is opening up before us a vista of the structure of our physical universe full of hitherto unimagined wonder. For a considerable time now it has been known that the uncountable variety of entities, both animate and inanimate, with which we are surrounded may be simplified to the extent that they are composed in varying degrees of complexity of a comparatively small

number of chemically irreducible elements or "atoms" (as they were hopefully but mistakenly called), and that these atoms in combination with each other form molecules. More recent research, however, has shown that atoms themselves have a structure of energy which is described in terms of a central nucleus and its encircling electrons, and that in the binding together of atoms to form molecules, and again of different molecules to each other, electro-magnetic forces play a decisive part. Each atomic nucleus in turn is composed of one or more protons and neutrons, of which each proton is in fact the hydrogen nucleus. We have, indeed, as Werner Heisenberg, the distinguished Director of the Max Planck Institute for Atomic Physics in Göttingen, has pointed out, "reached a description of matter in which, instead of the many different chemical elements, only three fundamental units occur: the proton, the neutron, and the electron. All matter consists of atoms and therefore is constructed from these three fundamental building stones" (*Physics and Philosophy*, London, 1959, p. 137).

But there remains what Heisenberg calls "the final problem", namely, the question of the unity of matter. "Are these fundamental building stones—proton, neutron, and electron—final indestructible units of matter, atoms in the sense of Democritus, without any relation except for the forces that act between them or are they just different forms of the same kind of matter?" he asks. "Can they again be transmuted into each other and possibly into other forms of matter as well?" The answer to this question is being sought through experiments in the field of cosmic radiation and by means of the big accelerating machines (cyclitrons) which are now being built. These experiments have already resulted in the discovery of new elementary particles which are so unstable they that have an existence of only an infinitesimal fraction of time, but which otherwise are similar in their properties to the old stable particles. According to O. R. Frisch, the Jacksonian Professor of Natural Philosophy in the University of Cambridge, today we recognize no less than thirty fundamental particles. At least half of these displayed such unexpected and complex properties when they were first discovered that they came to be nicknamed "the strange particles". Frisch anticipates that there are yet more particles awaiting discovery: "perhaps . . . still stranger particles, with properties undreamt of so far". He is convinced that these subatomic particles are truly fundamental and that the very idea of compositeness must be left behind if we wish to understand them. "There are various indications," he says, "that the laws of geometry itself are breaking down when we come to those sub-microscopic dimensions, and I think that some radically new way of thinking will be needed before those fundamental particles can be really understood" (*The Listener*, London, Vol. LXIII, January 21st, 1960, pp. 119ff, *Exploring the Sub-Atomic World*; January 28th, 1960 pp. 173ff, *The Strange Particles*; February 4th, 1960, pp. 217ff, *Strangeness and Parity*).

"These results," as Heisenberg says, "seem at first sight to lead away from the idea of the unity of matter, since the number of fundamental units of matter seems to have again increased to values com-

parable to the number of different chemical elements. But this would not be a proper interpretation. The experiments have at the same time shown that the particles can be created from other particles or simply from the kinetic energy of such particles, and they can again disintegrate into other particles. Actually the experiments have shown the complete mutability of matter. All the elementary particles can, at sufficiently high energies, be transmuted into other particles, or they can simply be created from kinetic energy and can be annihilated into energy, for instance, into radiation. Therefore we have here actually the final proof for the unity of matter. All the elementary particles are made of the same substance, which we may call energy or universal matter; they are just different forms in which matter can appear" (*Op. cit.*, p. 139).

While, therefore, it is legitimate to describe the hydrogen atom as the universal element or substance of the sensible world, it is illegitimate to conceive of it in terms of the static, concrete materialism of the physics of yesterday—which was true as far as it went, but which, as we now know, was inadequate and superficial, and no more than preliminary to our present understanding of reality. The hydrogen atom itself is a complex, not a simple, entity. The old idea of "inert matter" must (except in the naïve sense of everyday experience) be abandoned. The very concept of matter has had to be radically revised, so much so that the new understanding of things may perhaps best be conveyed by saying that our material world has an immaterial substructure, that it is immaterial at heart.

The modern answer to the age-old inquiry, then, is that *energy* is the substance (in the exact sense of the word: *substantia*) of the universe. Moreover (if we may avail ourselves of the Aristotelian mode of thought) it is apparent that this *substantia* is also in the fullest sense *potentia*. But this fascinating and exciting picture of the structure of the cosmos still presents us with questions which are as yet unresolved. Whence does this immensely potent but apparently insubstantial substance of energy come? What is its origin? Or again, how it is that its potential is so generally latent, so much so that, from the phenomenal aspect of most things, it does not seem inaccurate to speak of *inert* matter? Why is not all matter, like this table at which I am writing or this house in which I am living, visible in a *kinetic* state, like the effervescence of soda-water? That so-called inert matter has potencies, which are other than quiescent becomes apparent, for example, in the phenomenon of combustion, whereby this house and all the things in it visibly can undergo a drastic transformation. Combustion, indeed, may be said to be synonymous with the release of energy, the actualization of the *potentia*, whether it be the neuro-muscular activity which leads to the kicking of a football, the disintegration of magnesium in water, or the propulsion of an aeroplane. These things, when witnessed, are indications even to the naïve observer without any scientific knowledge that matter, in its potencies at least, is not inert.

The more man comes to learn of the nature of things, the more he comes face to face with the stupendous, "scientifically" inexplicable question-mark which stands over all his discoveries; for, just when he

thinks that he has within his reach the key to unlock the enigma of the universe, he finds that the (as he believes it to be) simple fundamental unit which he has isolated is itself an astonishing complex, a veritable microcosm, a universe of its own. Thus the atom of the chemist is not after all an indivisible ultimate (ἄτομος) but a microscopic solar system whose sun (or nucleus) contains the potential energy of a universe—an energy, moreover, which so far from being microscopic is in its fantastic possibilities revolutionary for the good or ill of mankind. Likewise the biologist finds that the structural cells of living tissue, whose discovery at first had seemed to promise so much, disappoint his hopes of displaying the simple secret of life, since they prove to be themselves highly complicated entities, strongly individual in character and possessing, minute though they may be, an astonishing variety of chemical, physical, electrical, and other properties, and selective mechanisms which are directed towards the preservation of their own well-being.

The biologist has developed methods of analysing the chemical, physical, and other properties of living tissue, and is able to tell us a great deal both qualitatively and quantitatively about its functions. But life is not the sum of the chemical and physical elements involved. As Herman Dooyeweerd, Professor of the Philosophy of Law in the Free University of Amsterdam, has said: "The complicated and in large measure unstable associations of proteins as displayed in the internal sphere of a living organism *nowhere occur*, as far as our experience goes, *outside of the living organism*. Their building-up and breaking-down take place in so-called *bio-chemical* and *bio-physical* processes in which it is the organic life-function which plays the leading and controlling part. These processes take place, in other words, within the typical total-structure of this organism and thus can never serve to make plain the *origin* of the organic life-function. . . . Indeed, the physical and chemical substances which go to make up a cell-body are no part of the actually living organism, but have only an *enkaptic function* in the latter, and likewise in the specific processes of assimilation and dissimulation. Even the most complex protein molecule lacks the typical hylocentric, kinocentric and morphocentric structure of a living cell. It lacks the typical totality-structure of a living cell-body which maintains its identity in all the processes of the building-up and breaking-down of its physical and chemical substances" (*Schepping en Evolutie*, in *Philosophia Reformata*, Kampen, 3e en 4e kwartaal, 1959, p. 128).

What is to be said about these *imperia in imperio*, the atomic solar system and the living cell-unit, except that the knowledge of the secret of life and matter cometh not by observation? Whether we are talking of the energy potential that informs the elements of lifeless matter or of the intangible something which we call life that uses and organizes these elements for its own purpose, we are always left with the all-embracing mystery, namely, the mystery of *origins*. Whence came this fundamental pervasive substratum of energy in the first place? Whence this phenomenon of life?

This question concerning the origin of things has, of course, occupied the thought of men in every age. The speculations of those early Greek philosophers at which we have already glanced were, apart from other considerations, unsatisfactory because they failed to grapple with the problem of the origin of the primordial element or elements which they variously proposed. The postulation of the eternity of matter on the presupposition that *nihil ex nihilo fit* was little better than a cutting of the Gordian knot. Anaxagoras, indeed, another of the presocratics, seemed to approach nearer to a solution with his doctrine that Mind or *Nous* is the principle of all things, while, like Empedocles, he held that indestructible elementary particles are the *substantia* of matter, which by processes of combination and separation explain the formation and dissolution of things. Socrates, when once he heard someone reading from a book written by Anaxagoras, was so delighted because it appeared that he held that Mind was the cause of all things that, expecting to find in Anaxagoras a congenial preceptor, he eagerly procured his writings and read them. He describes, however, how his hopes were soon dashed when he found that Anaxagoras made no satisfactory use of Mind, assigning the cause for the ordering of all things not to it, but to "airs and ethers and waters and many other absurd things" (Plato, *Phaedo*, 97Bff.).

Aristotle also criticized the early etiologists on the grounds that they were nothing more than materialists—including Anaxagoras, whom he accuses of employing mind, like the dramatic authors, as a *deus ex machina* whenever he was at a loss to explain the necessary being of anything, whereas otherwise he ascribed the cause of things to anything other than Mind (*Metaphys.*, 985a, 18ff.). In Aristotle's judgment, the principle which these philosophers had failed to investigate was the principle of the origin of motion (*op.cit.*, 984a, 15ff.). Pythagoras and his followers had already, it is true, propounded the doctrine that it is *numbers* which constitute the first principle of all things and the key to the understanding of the universe, and in doing so they certainly assigned to the objective world a basis of rationality. But their teaching, such as we know of it, was the consequence of intellectual abstraction rather than what we should call today scientific investigation, and is dismissed by Aristotle as superficially conceived (*op. cit.*, 987a, 22; also 990a, 18ff.; but see the whole of this interesting section beginning at 985b, 23).

Aristotle, moreover, rejected the transcendental theory of *ideas* which his former master Plato had elaborated. Plato's idealism was a distinctively *noumenal*, as opposed to materialistic, concept; but it should be remembered that it was in no sense intended to explain the origin of matter, which was regarded by him as an eternal principle. It was intended rather to portray a heavenly *civitas* free from the supposedly inherent evil of the material world. In Plato's physical doctrine, which is set forth in the *Timæus*, not only is there an endless dualism of the spiritual and intelligible, the realm of the ideas, on the one hand, and the sensible and corruptible, the realm of matter, on the other hand, but the *force* behind things, the cause of the *cosmos*, is the Demiurge, the divine Reason, by whose agency the material world, which is the product of the blind necessity of nature and chance,

was fashioned into a semblance of form and orderliness. Thus, for Plato, matter in all its manifestations, including that of the body, is the irreducible surd, which clogs and corrupts the spirit, and from which the soul of the wise man longs to be liberated. In this as in other respects, the thought of Plato is characteristically Pythagorean. This radical dualism not only persisted in the sphere of humanistic thought, but even invaded the Christian Church in the early centuries of our era under the various guises of docetism, gnosticism, and neoplatonism, and was also implicit in the mystical theology of later times.

In criticizing Plato's theory of ideas, Aristotle complained, among other things, that the ideas or forms postulated by Plato, being motionless, fail to explain the motion and change of sensible objects, which themselves were supposed to be images of the ideas (*Metaphys.*, 991a). This criticism, however, appears to be somewhat less than just because it fails to take into account Plato's postulation of the Demiurge as the principle of function and organization. Aristotle, in his turn, assigned four first causes of things: (i) the being and specific nature of a thing, which is the formal cause; (ii) the matter (*hylē*) and substance of which it is made, which is the material cause; (iii) the source of its motion, whereby matter is reduced to form, which is the efficient cause; and (iv) the purpose or good end on account of which the efficient cause acts, which is the final or teleological cause (*Metaphys.*, 983a; see also the first two books of the *Physics*). *Hylē* is the substratum of the sensible world, the *materia prima* of pure potentiality from which all things are formed. The ultimate efficient cause, the *fons et origo* of all motion, whereby potentiality is translated into actuality, is attributed to the unmoved First Mover, which also brings a thing to the realization of its final end, being itself the Good in an absolute sense (*Metaphys.*, 1049b). This Prime Mover, moreover, must be pure act, without any degree of potentiality, and therefore incapable of being acted upon and changed, and therefore immaterial. It is concluded, further, that the Prime Mover's activity is entirely spiritual and intellectual. The God of Aristotle is the *νόησις νοήσεως* (*Metaphys.*, 1074b)—not, however, personal in any Christian sense, for any concept of creation and providence, and indeed of contact with the world of men, and thus of worship, is missing.

The Aristotelian philosophy has been of particular significance in the history of Christianity because of its incorporation into the Church's system of thought, particularly through the works of Thomas Aquinas in the thirteenth century. The pagan philosopher who refused to be exorized stayed on to be canonized, and his influence continues unabated in the Roman Catholic Church up to the present day. Thus in the new codex of Canon Law issued by Pope Benedict XV in 1917 it is decreed that "the study of philosophy and theology and the teaching of these sciences to their students must be accurately carried out by professors according to the arguments, doctrine, and principles of St. Thomas which they are inviolately to hold". This decree has committed the Roman Catholic Church to the dominance of the Aristotelian-Thomistic synthesis, in which the scriptural ground-motive is illicitly combined with the Greek form-matter ground-motive

—though in fact the two stand in radical antithesis to each other—to form a new dialectical ground-motive of nature and grace. This dialectical synthesis of nature and grace becomes a possibility only when the scriptural doctrines of the Fall and its effects and of salvation by grace alone on God's part through faith alone on man's part are abandoned or distorted. As Herman Dooyeweerd has observed, "so long as this ground-motive of philosophy was dominant it led constantly to the manifestation of typical dialectical tensions in Christian thinking, which at one time was being driven dangerously in the direction of paganism with its emphasis on the primacy of 'nature' (in its typical scholastic sense), and at another time in the no less dangerous direction of mysticism with its disregard of the creation motive of 'nature' and 'sin' and its desire to escape from 'nature' through the mystical experience, and then again in an open dualism which permits 'nature' to be evaluated in complete independence and wishes to enforce a radical divorce between 'nature' and 'grace'" (*Reformatie en Scholastiek in de Wijsbegeerte*, Vol. I: *Het Grieksche Voorspel*, Kampen, 1950, p. 36).

The influence of Aristotle on the mind of Thomas Aquinas is clearly seen, for example, in the famous "five ways" by which the latter seeks to prove the existence of God. The first way is that of the argument from motion (which is defined in Aristotelian terms as "nothing else than the reduction of something from potentiality to actuality") whereby Aquinas finds it "necessary to arrive at a first mover, put in motion by no other". Secondly, there is the argument from the nature of the efficient cause, according to which if there were no first cause, itself uncaused, among efficient causes there would be neither an ultimate cause nor any intermediate causes. Thirdly, there is the argument from possibility and necessity, which is designed to show that, to explain the contingency of all things in the world, "there must exist something the existence of which is necessary". Fourthly, there is the argument from gradation, according to which the concepts of "more" and "less" imply the existence of a "maximum", so that "there must be something which is to all beings the cause of their being, goodness, and every other perfection". And, fifthly, there is the argument from the governance of the world for a particular end, that is, the teleological cause of things, which implies the existence of an intelligent governor "by whom all natural things are directed to their end" (*Summa Theol.*, Pt. I, Q. ii, art. 3).

One comment must suffice: though the Prime Mover of Thomas Aquinas is definitely a personal God who is both Creator and Governor of the world, yet it is noticeable that he makes no reference to the specifically Christian doctrine of creation according to which the *eternal power and godhead* of the Creator are unmistakably attested, not only by the cosmic order of the sensible world which confronts man on all sides (and which is the essential presupposition for all rational and scientific activity) but also by the very constitution of man himself, both as part of that created order, and even more particularly as a creature *formed in the image of God*. This, above all else, is the inescapable and ever-present "argument" which surrounds and is within every single man (Psa. viii; xix. 1ff.; Rom. i. 18ff).

Inextricably linked with this truth is, of course, the doctrine of the Fall, the effect of which may not be explained merely negatively, as Roman Catholicism both medieval and modern has sought to explain it, as the loss of a subsequently added extra to creation (*donum superadditum*) defined as "original righteousness", with the consequence that fallen man is still man-as-created, *in puris naturalibus*, possessing pelagian or at the very least semipelagian capabilities; but rather as the positive depravation of human nature as created, with the result that man sinfully sets his face against God, wishing himself to be as God, wilfully suppresses the truth concerning the eternal power and godhead of the Creator—a truth which he *knows* perfectly well, and cannot help knowing, since it is manifest within and around himself. No man who writes or speaks *as a Christian*, subject to the scriptural revelation, should ever leave these cardinal facts out of account, for it is precisely here, at the very root of man's existence as created and fallen and in need of redemption, that the point-of-contact for Christian apologetics is located.

* * * *

The Reformation of the sixteenth century was fundamentally a return to the biblical creation-fall-redemption ground-motive. But the revolt against the authoritarian enslavement of the human mind which provided the impulse of the Renaissance-movement of the preceding century, and which in so many respects had prepared the stage for the drama of the Reformation, gave rise to yet another governing concept or ground-motive, defined by Herman Dooyeweerd as the ground-motive of "nature" and "freedom". The Reformation was indeed a great spiritual and therefore a great intellectual and social liberation of man's being, for with its threefold emphasis of *sola gratia*, *sola fide*, and *sola Scriptura* it penetrated, evangelically, to the very centre of man's being and basic need as a fallen and sinful creature severed from the meaning of his existence. The liberation it brought, however, was not the fruit of any theory of the independence of man; far from it, for above and through all it stressed the *absolute and inviolable sovereignty of Almighty God*, on whose goodness and decree man is entirely dependent not only for creation, the origin of his being, and providence, the continuance of his being, but also for redemption, the salvage of his being. It stressed the authority of God over man in and through the Bible as the Word of God addressed to the mind and will of man and revealing clearly to him both his true nature and destiny and also the sovereign acts of God in creation, redemption, and judgment.

Thus the watchword of the Reformation was *solī Deo gloria*, and man's true liberty was rightly placed in the setting of his willing *obedience* to the all-wise and loving will of God—"whose service", as the Anglican collect puts it, "is perfect freedom". (The collect was derived from the Sacramentary of Gregory the Great, which reads : *cui servire regnare est.*)

The essentially humanistic nature-freedom ground-motive, on the other hand, proclaims the independence of man and the sovereignty of the human spirit. Man is regarded as *creative* of the world in which he

is placed—not, of course, in an originating sense, but in the sense that his mind and personality, which are heralded as the world-forces of ultimate value, impress their character upon the universe and give it its distinctive character, especially in the realms of intellectual, artistic, and scientific activity.

This attitude is in reality a sinful perversion of God's creation-mandate to man to subdue the earth and have dominion over it—a mandate which throws into relief the image of God in which man was created, and which, within the framework of an ordered universe (cosmos), explains the very possibility of all intellectual, artistic, and scientific activity. In subduing the earth, however, (for man, though fallen, is still man : the divine image is marred, but not lost) fallen man, as all history testifies and not least contemporary history, fails to subdue his own dislocated nature. In harnessing the forces and energies of the universe he shows himself incapable of harnessing the wild beast of his own selfish will. Thus the stupendous advances in human knowledge and invention of our time—such as the conquest of the air, the development of radio and television, and the manipulation of nuclear energy—instead of being means of unmixed good to the human race have been also means of destruction, falsehood, and fear. Instead of serving the noble ideals of beauty, truth and goodness, literature and art are all too frequently debased and debasing. All merely human systems of philosophy, however massive they may be, are as finite and fallible as those who manufacture them because, so far from being directed to the glory of God, they work outwards from man as though he were the centre and key of reality, and inevitably end in the darkness of vain speculation. Yet man cannot live without philosophy : knowing as he does that the universe cannot be without meaning, that it is a coherent unity, he longs to discover the meaning of things—and the meaning of his own life.

These considerations serve starkly to underline the unresolvable *contradiction* that lies at the core of fallen human nature, which, being turned away from God in whom alone the true meaning and purpose of existence are to be found, is dogged down the ages with frustration and futility. Mere humanism, which, because it repudiates the essential Creator-creature relationship, perverts man's true humanity, is only a single step from inhumanity ; and mere rationalism is constructed upon the quicksand of irrationality, for nothing is more irrational than to leave God out of the picture. How bitterly conscious man should be that, in rebelling against the sovereign word of God, he has eaten of the tree of the knowledge of good *and evil* !

The unprecedented setbacks which humanism has suffered through the global wars and hatreds of the last two generations, though giving rise to uncertainty and disillusionment, have not, however, been followed by the eclipse of humanism. This may seem surprising, because inconsistent ; but is it not really so, because, whatever the circumstances, the outlook of unregenerate man is and will always be thoroughly humanistic. The Fall itself is precisely the affirmation of humanism. Accordingly, our day of insecurity has seen a new passionate and indeed desperate assertion of the humanistic nature-freedom ground-motive under the guise of existentialism. This modern philosophy is addressed

to man who finds himself adrift in a world of hostility and meaninglessness. It assures him that there is no significance in history apart from the significance of his own history, and that there is no meaning in life apart from the meaning of his own circumscribed existence. He is invited to discover the authenticity of his existence in the isolation of his own individual experience and in the face of anguish, helplessness, and the blank inevitability of death. He must leap with hopeless arrogance into the dark abyss of chance and nothingness. He must choose for himself, self-assertively, that inexorable destiny over which he has no choice. He must declare himself master of a futile fate over which he can have no control. It is a subjectivism of despair and yet of defiance, a vestige, pathetic and inverted, of the noble spirit of man who was created to rule and have dominion over the works of God's hands in humble and joyful obedience to the will of his Creator.

* * * *

But in no sphere has the nature-freedom ground-motive become more pronounced and more widely accepted than in the evolutionism of the past hundred years. For a long time, of course, the evolutionary philosophy was one of boundless optimism. Its keynote was that of irresistible progress. Its grand perspective covered the development of life over unimaginable periods of time, from the original primordial slime (a concept of evolutionary faith, or myth, not of scientific observation) through an almost infinite series of imperceptible and undemonstrable gradations to the crowning achievement of modern scientific man. Man could now rejoice in the uninhilbing assurance that he was a risen, not a fallen, being. In general as well as in principle evolutionism was a comprehensive affirmation of the freedom of nature and the dignity of man who, not now in need of redemption or intervention "from above", was moving gloriously forward on the way to ever greater achievements.

This confident philosophy of evolutionism embraced the concept of the universe as self-sufficient, as a closed system impervious to interference from without. All that was necessary for the upward march of nature was inherent within itself. Nature was praised as an absolutely independent and self-adequate system, manifesting a consistent pattern of fixed laws in accordance with which, as man discovered them, every single fact and phenomenon of the world would ultimately be explained. "Science" was the new oracle at whose lips man could and would learn the truth.

Yet in more recent times the now classical doctrines of evolutionary progress have been subjected to revision and modernization which can hardly be described as other than revolutionary. The same dark clouds, hanging threateningly over all the achievements of man's civilization, which encouraged the growth of the philosophy of existentialism have caused evolutionary faith in the inevitable progress of humanity, and of nature as a whole, to ever new heights of conquest to seem like a fanciful legend or an unsubstantial pipe-dream. Thus so ardent an advocate of evolutionary optimism as H. G. Wells ended his days in the gloom of disillusionment, convinced that nature had become tired of man and was abandoning him and his civilization to self-destruction ;

Julian Huxley, no less fervent a worshipper at the shrine of evolutionism, has declared that progress is no longer inevitable, and indeed that evolution, that erstwhile irrepressible force, is now at a standstill, with the single exception of the human germ plasm, which is the one slender thread on which all hope of future advancement hangs; and so intractable a humanist as Bertrand Russell has felt constrained to bow before "omnipotent matter" and "omnipotent death".

Evolutionary faith, moreover, has encountered a further major stumbling-block in the impressive development of the science of genetics, which is concerned with the very field, that of heredity, in which evolution has claimed to speak with sacrosanct authority. With the precision of genuine experimental science, the study of genetics has demonstrated not only that life does not come from lifeless matter (as the ignorant once believed) but also that all life comes from previous life of the same kind. The attempt has been made to circumvent this awkward fact by the invention of the now fashionable theory of evolution by means of mutation—a mutation being an accidental change in the normal chromosome structure by which the particular characters inherited by an organism are determined. Professor Theodosius Dobzhansky of Columbia University, for example, has recently affirmed that "evolution occurs because the conservatism of heredity is counteracted by forces of change", and that "these forces are mutation on the gene level, and sexual reproduction and natural selection on the population level". He adds that "if the assumption is made that life arose from inanimate matter only once, then the entire diversity of genes must have resulted from sequences of mutational changes in the progeny of the same primordial gene or genes" (*Species after Darwin*, in *A Century of Darwin*, London, 1958, p. 22. See also his book *Evolution, Genetics, and Man*, New York, 1955.) It will be observed that, in a manner typical of evolutionists today, Dobzhansky turns a blind eye to the established findings of the science of genetics so that he may posit the assumption that life originally arose from lifeless matter and then on that assumption construct the further assumption that life in all its variety as we know it today is to be explained as the result of a fortuitous sequence of mutations.

Biological species are defined by Dobzhansky as "mating communities", as "genetically closed systems", or as "genetically closed Mendelian populations" (*loc. cit.*, pp. 25ff.). This implies that "the seemingly endless diversity of living creatures" is none the less "everywhere combined with discontinuity". It is this factor of discontinuity—evident, for example, in the fact that dogs mate only with dogs and not with jackals—that makes classification into species possible. Between different species, in other words, mating does not take place. Species, however, are viewed by Dobzhansky as "not static but dynamic entities"—dynamic in the sense that new species may develop from them by the process of what is called "speciation". This process of speciation is defined as "the stage of evolutionary divergence at which a Mendelian population becomes split into two or several Mendelian populations the gene exchange between which is impeded or prevented by one or by a combination of several reproductive isolating mechanisms". Dobzhansky,

in fact, describes speciation as "a critical phase of the evolutionary process" (*loc. cit.*, pp. 37ff.). To the question, whether there are any observable examples of "uncompleted speciation", that is, of speciation in process of taking place, in mid course, so to speak, Dobzhansky answers in the affirmative, and the example he offers is that of the salamander *Ensatina Eschscholtzi* found in California, certain populations of which in the south appear to be reproductively isolated from each other, whereas in the north "these species are connected by an unbroken series of intermediate population", which are able to exchange genes. The latter, then, provide an instance of speciation in process (*loc. cit.*, pp. 46ff.).

Dobzhansky, further, makes the declaration that "it is no exaggeration to say that if no instances of uncompleted speciation were discovered the whole theory of evolution would be in doubt", and thus that "what is a difficulty to the cataloguing systematist is a blessing to the evolutionist" (p. 48). Species, according to him, "consolidate the evolutionary gains of the past and thus facilitate further evolutionary progress" (p. 55).

It is necessary to offer some critical observations, not concerning the natural phenomena to which Dobzhansky draws our attention but concerning the interpretation which he imposes on these phenomena. No evidence whatever is adduced to prove that speciation of the Californian salamander cited consolidates any "gains", evolutionary or otherwise. Indeed, how even the most ingenious scientist could possibly demonstrate that one species of salamander is better or more advanced than another it is impossible to imagine, all the more so when account is taken of the fact that the different species are so similar in appearance that it is difficult to distinguish one from another. But, even more important, whatever speciation as defined may effect, it is clear that the resultant genetically closed Mendelian populations do not cease to belong to the genus Salamander. In actual fact, they may be said, if anything, to belong even more narrowly to their own genus; for speciation as defined by Dobzhansky is not a splaying out, a crossing over to form new genera, let alone families, orders, classes, and phyla, but a sharpening or pointing within the limits of the genus concerned. So far from supplying some of the "missing links" to bridge the gaps between the different genera, it is a movement in the opposite direction creating ever more gaps which, *ex hypothesi* and by definition, are not bridgeable. This can only be described as extraordinary in a volume which is devoted to the praise of Darwin. Dobzhansky would be far more logical were he to conclude that his doctrine of speciation indicates that the whole theory of evolution must be in doubt and that the mysterious gains which species are supposed to consolidate are the result not of scientific investigation but of wishful thinking.

* * * *

We confess that we prefer the good sense of the comments which another scientist, Dr. W. R. Thompson, offers concerning the evolutionary hypothesis in his Introduction to the Everyman edition of Darwin's *Origin of Species* (London, 1956). "I am not satisfied," he says, "that Darwin proved his point or that his influence in

scientific and public thinking has been beneficial." He rightly points out that the manner in which evolutionists present their arguments makes discussion of their ideas extremely difficult. "Personal convictions, simple possibilities, are presented as if they were proofs, or at least valid arguments in favour of the theory." There is an elusive character about the arguments employed, and this, coupled with a certain plausibility, seems to eliminate the need for proof and even to render them immune to disproof. "Darwin did not show in the *Origin* that species had originated by natural selection; he merely showed, on the basis of certain facts and assumptions, how this might have happened, and as he had convinced himself he was able to convince others." But "the long-continued investigations on heredity and variation have undermined the Darwinian position. We now know that the variations determined by environmental changes—the individual differences regarded by Darwin as the material on which natural selection acts—are not hereditary."

The variations known as mutations come within a different category for they are due, not to environmental influences, but to some sudden change in chromosome structure. So far from being adaptive, they are, in general, "useless, detrimental, and lethal". The attempt of modern evolutionists to explain evolution as the result of mutations is a confession that evolution can no longer be regarded as a process of steady and progressive inevitability, but as dependent on the chance appearance of genetical "freaks", on which natural selection, that undefined and undemonstrable omnipotent, omnipresent, and omniscient Something, must then seize in the cause of organic advancement. This hypothesis, however, is unsatisfactory not simply because it irrationally offers an explanation of the whole ordered system of the biological world in terms of random and disordered occurrences, but also because it entirely fails to take into account the fact of organic correlation, that is, the fact that the life of an organism in all its aspects and at every stage of its development is related to its functional organization as an integrated whole. "Darwin himself," writes Thompson, "considered that the idea of evolution is unsatisfactory unless its mechanism can be explained. I agree, but since no one has explained to my satisfaction how evolution could happen I do not feel impelled to say that it has happened."

Another problem for the evolutionist (*pace* Dobzhansky!) is seen in the fact that the biological realm in all its diversity is open to classification, or taxonomy. "Taking the taxonomic system as a whole," says Thompson, "it appears as an orderly arrangement of clear-cut entities which are clear-cut because they are separated by gaps." Though Darwin sought to circumvent this problem by devising the theory that the intermediate entities which should have filled these gaps were constantly eliminated by natural selection, yet if his doctrine of evolution as constantly and tirelessly taking place were true we should reasonably have expected there to be no gaps at all, or at least to find these gaps constantly being crossed by entities in different stages of intermediacy; and certainly we should have expected clear evidence of this in the fossil remains of the comparatively remote past. But, as Dooyeweerd points out, "here also, after the

intensive investigation of the last hundred years, no fossil intermediate-forms have been found". (*Schepping en Evolutie, ut supra*, p. 138). To quote Thompson again: "What the available data indicated was a remarkable absence of the many intermediate forms required by the theory; the absence of the primitive types that should have existed in the strata regarded as the most ancient; and the sudden appearance of the principal taxonomic groups." Moreover, even the chronological succession of the fossils is open to doubt, for "it appears, generally speaking, that the age of the rocks is not determined by their intrinsic characteristics but by the fossils they contain; while the succession of the fossils is determined by the succession of the strata".

Sir Arnold Lunn has drawn attention to the fact that "both Darwin and (Thomas) Huxley realized that the observed uniformity of Nature raises serious difficulties for the evolutionist. For, if evolution be a fact, evolution must still be taking place. Life, as Huxley pointed out, should still be emerging from lifeless matter, whereas he was forced, as he admitted, to accept that this had happened by an act of faith. Again, if evolution is still occurring we should expect, as Darwin pointed out, to find all Nature 'in confusion', nascent forms everywhere, and types clearly evolving into other types, but instead we are struck, as Darwin admitted, by clear lines of demarcation between the species, and no evidence whatever of nascent types such as the first embryo feather" (Letter in *The Tablet*, London, April 23rd, 1955. See also Lunn's book, *The Revolt against Reason*, London, 1956).

Thompson expresses the judgment that the success of Darwinism was accompanied both by a decline in scientific integrity and also by a decline of belief in the supernatural and of Christianity itself. "It is clear," he writes, "that in the *Origin* evolution is presented as an essentially undirected process. For the majority of its readers, therefore, the *Origin* effectively dissipated the evidence of providential control."

While it is true that the propounder of evolutionary teaching is largely concerned with the concept of development and with the problem of origins mainly within the perspective of his theory of development (such as the origins of different species), yet it is impossible for him to disregard the problem of origins in its ultimate sense. The thorough-going evolutionist may regard evolution as a process entirely independent of any outside control and expound it as being subject to the random occurrence of mutational variations, but he still regards it as a *purposeful* process. Were it not so, his whole hypothesis would fall apart. And in order for evolution to be purposeful there must be some directive agent which enables an organism to grasp what is advantageous and to turn aside from what is harmful. Furthermore, since this agent is not permitted to be external, it must be internal. For the evolutionist today, as of last century, this agent is called by the name of *Natural Selection*. But let it be clearly understood that natural selection is not an experimental objectivity of genuine science. It is a *mysterium*, an animistic refinement of contemporary culture, a supposition which has been rushed into the role of a presupposition, so that now it is accepted uncritically as a *datum* on the basis of which

the whole hypothetical process is explained and justified. Thus Dobzhansky describes it as "the great force", the force which "allows only adaptively coherent gene combinations to perpetuate themselves" (*loc. cit.*, pp. 24, 38). But such an assertion, however categorical it may be and however convenient to the dogmatics of evolutionism, belongs literally and strictly to the realm of the imagination. To postulate natural selection, albeit with the best of intentions, is not the same thing as to bring it into being. Apparently it has not occurred to the evolutionist that he ought to tell us what natural selection is before he tells us what it *does*. What is this mysterious unseen force? Whence did it originate? On what genuinely scientific grounds may it be accepted as an object of faith if not of sight?

If these are questions which are still left without an answer, the case is different (though hardly less unsatisfactory) where the problem of the origin of life is concerned. It is, of course, obvious that the original appearance of life in the distant past is not something which the scientist of today can investigate in his laboratory. But, should he propose a hypothesis concerning the origin of life in our world, the least we can expect is that any such hypothesis should be recognizably scientific in the sense that it is not repugnant to the exact and undisputed scientific knowledge which we now possess. This expectation, however, is gratuitously disappointed; for it is a common doctrine of evolutionists that life, when it first appeared, originated from lifeless matter by some enigmatic process of spontaneous generation. Such a hypothesis, however, is completely incompatible with the scientific facts as we know them today. Scientifically, the once popular notion of spontaneous generation is altogether discredited. It has been demonstrated beyond a peradventure that (as we have already observed above) all life comes from previous life of the same kind. To postulate the occurrence of spontaneous generation in some remote and unobservable past can only be deprecated as the opposite of scientific and a disservice to sound reason. It is a clear case of a hypothesis being formulated to justify a hypothesis. "To establish the continuity required by theory," says Thompson, "historical arguments are invoked, even though historical evidence is lacking. Thus are engendered those fragile towers of hypotheses based on hypotheses, where fact and fiction intermingle in an inextricable confusion."

Philosophically, too, this theory of the origin of life is disreputable; for it is universally acknowledged that what is prior and originates is superior to that which it originates. The engineer is superior to the machine he has devised, the bird to the nest it has made. For life to have originated from lifeless matter implies that lifeless matter is superior to life, which contradicts all knowledge and experience. Far more respectable is the ancient Greek concept of an eternal dualism of matter and spirit. But the only satisfactory and logical answer to the question of the origin of life is the Christian answer which proclaims God, Himself eternally and perfectly Life and Spirit, as the Originator of all things, both animate and inanimate, in accordance with the purpose of His will and wisdom, thereby confirming man's innate assurance that life and spirit are original and supreme.

The book of Genesis may not be a scientific text-book, but it is

scientifically unimpeachable when it declares not only that all things owe their existence to God, but also that all things living were so ordered by Him as to exist and reproduce themselves *after their kind* (Gen. i. 11, 21, 25). Genesis and genetics are in harmony with each other. That variation and adaption take place is an indisputable fact, but they take place always within the "kind", never in such a way as to cause one "kind" to pass over to another or to originate a new "kind". It remains a scientific constant that all life comes from previous life of the same kind. Propagation of the species is always *specific*. It is precisely this fact which makes it possible for Dobzhansky to define species as "genetically closed systems".

* * * *

Another problem with which the science of our day is concerning itself is that of the origin of the material universe—and this is a question which goes far back beyond the question of the origin of life on our planet. The present situation, from the scientific point of view, has been well described in the Reith Lectures for 1959 on *The Individual and the Universe* by A. C. B. Lovell, Professor of Radio Astronomy at Manchester University and Director of Jodrell Bank Experimental Station. To look into outer space is to look into the past, because of the time it takes for light from other bodies in space to reach us here on earth. Accordingly, Lovell bids us remember "that at any moment we see the sun as it existed eight minutes ago, the nearest star as it existed four years ago, and that for our nearer neighbours in extragalactic space the light and radio waves by which we study them have been travelling for millions of years and our information is that much out of date". It is precisely the possibility of studying through our modern telescopes the conditions which existed so long ago that he regards as being "of crucial importance to the inquiry into the origin of the universe and to speculation about its future history". Although Lovell computes that by means of a giant telescope such as that on Mount Palomar it is possible for an observer to penetrate to a distance of about two thousand million light years, yet he is of the opinion that "there is no indication that we are seeing anything but a small part of the total universe". There are depths beyond, which he avidly wishes to penetrate, if only because the farther out into space man gazes the farther back into the past he is moving, and the greater his hope of viewing things at an early stage of their development. It may be, as Lovell thinks, that the limits of man's visual penetration of the universe from this earth have practically been achieved. The earth's surrounding atmosphere forms a tiresome visual barrier. But it is a barrier which he expects soon to be surmounted, by the setting up of new observation posts on a man-made satellite or on the surface of the moon, where there will be freedom from atmospheric obscuration and the possibility consequently of seeing much greater distances into space and into the past.

There is, however, another obstacle of a more intractable nature which results from the modern concept of the universe as a constantly expanding system of galaxies. "Unfortunately," says Lovell, "there are fundamental difficulties introduced by the recession of the

galaxies which no device of man will ever surmount. At the present observable limit of the large telescopes the galaxies are receding with a speed of about one-fifth of the velocity of light. From this aspect alone we face a limit to future progress. Even if no other effects intervened we could never obtain information about those further regions of space where the velocities of recession of the galaxies reach the speed of light. The light from the more distant galaxies will never reach us".

As things are, two rival theories as to the origin of the universe are in fashion with scientists. The one, which Lovell favours, supposes that all has developed from a huge "primeval atom", or "gigantic neutron", which "contained the entire material of the universe" and whose density "must have been inconceivably high—at least a hundred million tons per cubic centimetre". The other theory is that of the continuous creation of matter in the form of atoms of hydrogen which constitute the basic stuff of all matter. According to this view, the universe is in a steady state, since it is supposed that as distant galaxies recede beyond the limits of our vision their place is continuously being filled by others which are coming into being. According as a telescope situated, for example, on the moon was able to determine whether ulterior space is less densely populated with galaxies than nearer space, or whether the density does not vary, it might be possible to decide which of these rival views is to be discarded. On the other hand, it might well show that both theories are erroneous. "New difficulties will certainly appear," confesses Lovell, "and these might make my present description of the universe as out of date as the static egocentric description which was in vogue in the first twenty years of this century". Indeed, he speaks of "deep apprehension, born of bitter experience, that the decisive experiment nearly always extends one's horizons into regions of new doubt and difficulties".

But, whether true or false, neither of these theories provides an answer to the ultimate question of the origin of matter. Lovell frankly admits that as the modern watcher of the skies seeks through his observations to arrive at an explanation of the origin of our universe he must pass "from physics to metaphysics, from astronomy to theology", and that it is "when we inquire what the primeval atom was like, how it disintegrated, and by what means and at what time it was created" that we "begin to cross the boundaries of physics into the realm of philosophy and theology". Similar question-marks stand alongside the theory of the continuous creation of hydrogen particles: whence do they come? how or by what agency are they brought into being? It is a theory which makes use of the distinctively *theological* concept of creation, and which might even be regarded as introducing in an intellectual sense the classical Greek device of a *deus ex machina*; yet, ironically enough, Professor Fred Hoyle of the University of Cambridge, whose name is closely associated with it (see, for example, his book *Frontiers of Astronomy*, London, 1955), is a professed atheist and will not allow God or theology to be brought on to the scene at any price!

In the face of these ultimate questions it is humility before God and not humanistic arrogance that is demanded. The following wise words spoken by Max Planck, one of the outstanding scientific thinkers of

modern times, deserve to be carefully weighed: "That we do not construct the external world to suit our own ends in the pursuit of science, but that *vice versa* the external world forces itself upon our recognition with its own elementary power, is a point which ought to be categorically asserted again and again in these positivistic times. From the fact that in studying the happenings of nature we strive to eliminate the contingent and accidental and to come finally to what is essential and necessary, it is clear that we always look for the basic thing behind the dependent thing, for what is absolute behind what is relative, for the reality behind the appearance, and for what abides behind what is transitory. In my opinion, this is characteristic not only of physical science but of all science. . . . After all I have said, and in view of the experiences through which scientific progress has passed, we must admit that in no case can we rest assured that what is absolute in science today will remain absolute for all time. Not only that, but we must admit as certain the truth that the absolute can never finally be grasped by the researcher. The absolute represents an ideal goal which is always ahead of us and which we can never reach. . . . Science cannot solve the ultimate mystery of nature. And that is because, in the last analysis, we ourselves are part of nature and therefore part of the mystery that we are trying to solve" (*Where is Science Going?*; London, 1933, pp. 198f., 217).

The humility and good sense of scientists so eminent as Planck and Lovell befit men who are probing the secrets of the universe, and one could wish that these virtues were characteristic to the same degree of all men of science. It is important, however, that we who are Christians should insist on a further universal truth which has been much too commonly overlooked. Man is not only surrounded by the mystery of the absolute: he also possesses certain definite *knowledge* concerning the world of nature and its origin. This fact is emphasized by St. Paul in Rom. i. 18ff., where he explains that the truth that there is a supreme Creator, to whose everlasting power and godhead the visible order of the universe bears clear testimony, is known to all men; but that it is a truth which fallen man in his ungodliness and unrighteousness suppresses. It is a truth, moreover, which is manifest *in* man, for man himself is both a part of the created order and also and especially that crowning part created in the image of God.

Every man finds himself face to face with these two related facts: firstly, that the ordered system of the natural realm is itself a revelation of the truth that all has been made in accordance with the design and purpose of a sovereign Creator—a fact which carries the further inevitable implication that man, since he belongs to this same system, is himself a creature and therefore dependent upon and answerable to his Creator; and secondly, and even more crucial for man, is the fact that he has been created in the divine image, that he, in a particular sense, bears the stamp of his Maker. This means, quite simply, that every man, by his very constitution as well as because of the surrounding witness of the natural order, knows, inescapably, the truth behind all truth, namely, that God exists, and that He is the Creator and Originator of the universe in which man is placed. In a word, every man knows beyond all peradventure the ultimate answer to the pro-

blem of origins. To deny the existence of God, to discredit the sovereignty of the Creator, to assert the self-adequacy of man, or merely to leave God out of the reckoning, is typical of man as a fallen creature in rebellion against his Supreme Maker, and the man who does so is (as St. Paul says) without excuse because he is suppressing the known truth.

Now, this means, further, that he is not only acting untruthfully but also unscientifically, for *science* is precisely *knowledge*, and to suppress knowledge is anti-scientific. But it is more than the suppression of knowledge in a general sense: it is the suppression of that very knowledge which is fundamental to all knowledge and without which there could be no scientific activity. As Sir Edmund Whittaker has said, "in a world that was not the expression of intelligence, science could never have come into being" (*Space and Spirit*, London, 1946, p. 130). The scientist's tacit and indeed innate presupposition that the world he is investigating is a coherent whole, that facts have meaning, and that one fact leads on to another, is an expression of the great fact, however unwelcome, that he is created in the image of God whose universe he is investigating by means of the God-given and God-reflecting faculties with which he has been entrusted.

* * * *

It is precisely this suppression of the known truth which is inextricably bound up with the history of religions. Indeed, in discussing the problem of origins we must not neglect to give some consideration to the question of the origin of religion. The ultimate origin of religion lies in man's very constitution as a creature of God, stamped with the image of his Creator. As such, man can never be self-sufficient; his true existence is one of obedient dependence on God and his proper attitude is one of worship—summed up in the acknowledgment of his creatureliness by prayer, praise, and gratitude to his Creator. In short, man is essentially, by his very constitution, a *religious* being. His finitude can have meaning and purpose only as he willingly accepts his proper place and fulfils his allotted task within the scheme of things ordained by his infinite Maker.

There should be no cause for surprise that in our day the origin and development of religion have come to be viewed and explained in terms of evolutionism. The evolutionary principle, if it is correct, must be applied to every aspect of life, since, *ex hypothesi*, it is responsible not only for morphological structures and biological processes, but also for the appearance of the higher capacities of emotion and thought. It has accordingly become a fashionable doctrine today that religion had its origin in the dawning realization of primeval man that there were forces, elemental, seasonal, and mysterious, surrounding him and acting on him, but which he was unable to explain. This element of mystery was, we are told, the seed of religion. The nameless powers, sometimes hostile (as in sickness, death, and disaster), sometimes favourable (as in marriage, birth, and prosperity), were powers with which he felt it necessary to come to terms, to propitiate with some sacrifice, to ingratiate with some gift. As these forces came to be

personalized, so particular objects which had become associated with their special activities or manifestations were venerated, and representations of them were fashioned and worshipped. In this way the concept of superhuman entities or gods was given expression; and as man evolved so his religious faculty evolved also, ever becoming less gross and more refined, until today it finds its noblest expression in Christian ethical monotheism.

According to this evolutionary perspective, of course, the distinction between the different religions in the world, for example, between fetishism and Buddhism and Christianity, is purely relative and not in any sense absolute: all tend in the same direction, expressing, some more adequately, some less, man's consciousness of the numinous, according to the particular stage which his development has reached. All is a matter of relativity. Thus Edward Caird, in his Gifford Lectures on *The Evolution of Religion* (2 volumes, Glasgow, 1893), welcomed "the great reconciling principle of Development". This principle, he says, "has made it possible for us to understand the errors of man in the past as partial and germinating truths; and to detect how ideas grow up under forms which are inadequate to them, and which finally they throw off when they have reached maturity. It has made it possible for us to give a more satisfactory, because a more discriminating answer to many questions which a previous generation settled with a simple 'yes' or 'no'; to stop the strife of warring dogmatisms by showing that the question is not one of absolute verity and absolute untruth, but between more or less of each. . . . The idea of development thus enables us to maintain a critical spirit without agnosticism, and a reasonable faith without dogmatism; for it teaches us to distinguish the one spiritual principle which is continually working in man's life from the changing forms through which it passes in the course of its history. It teaches us to do justice to the past without enslaving the present, and to give freedom to the thought of the present without forgetting that it, in its turn, must be criticized and transcended by the widening consciousness of the future" (Vol I, pp. ix f.). In defining religion, what we have to look for, according to Caird, "is a principle which is bound up with the nature of man, and which, therefore, manifests itself in all stages of his development. A definition of religion in this sense . . . will express an idea which is fully realized only in the final form of religion, while in the earlier stages it can be seen only obscurely, and in the lowest and earliest it might escape us altogether but for the light thrown back upon it by that which has arisen out of it. It will thus enable us to cast the light of the present upon the past, and to explain man's first uncertain efforts to name and to realize the divine, in the light of the clearer consciousness and more distinct utterance of a later age" (*Ibid.*, pp. 46 f.).

Now, it is important to recognize that this whole evolutionary concept of the origin and development of religion, whether it has our approval or not, is diametrically opposed to the scriptural doctrine of the history of religion—a doctrine which can be discussed only very briefly here. The picture which the Bible presents is, firstly, that of man as originally created enjoying perfect and unclouded communion

with God, and therefore religiously fully integrated and in this respect in no need of development or progress ; secondly, that of man as fallen away from God because of the mutiny of sin, and therefore religiously disintegrated and estranged at the very soul of his being ; and, thirdly, that of man redeemed through the atonement of Christ and thereby religiously reintegrated, the wholeness of his being restored, and the harmony of communion with his Maker recovered. This is the grand perspective of Holy Scripture. Mankind is divided into two radical categories : the fallen and the restored, the lost and the saved, man-in-Christ and man-apart-from-Christ. And the history of religion, which is inevitably *human* history, is placed within this same setting. Man, in falling, has dragged down his religion with him. The religions of heathenism and paganism, so far from being on the road which leads from original darkness to ever fuller light, are degenerate and debased. They are symptomatic, in fact, of man's fallenness.

There is no more graphic passage in the New Testament than that in the opening section of the Epistle to the Romans (to which we have already had occasion to refer and to which we must now turn again) in which St. Paul surveys this very subject of the history of religion (Rom. i. 18-32). The Apostle starts, as we have seen, by insisting that no man is in the dark concerning the fact of the eternal power and godhead of the Creator, but that, on the contrary, all men enjoy the light of the knowledge of this truth. It is a truth, however, which fallen man, who himself wishes to be as God, suppresses in unrighteousness (verse 19). His religious darkness, therefore, is self-induced, and so he is without excuse (verse 20). He cannot plead, for example, that he is only at an early and primitive stage of religion, or that his error is merely relative to an obverse side of truth. The rebelliousness of sin is seen in the fact that man, although he *knows* God to be the Maker and Giver of all, yet fails to glorify Him as God ; although he *knows* that he owes all he is and has to God, yet his response is one of ingratitude. This is fundamental folly. It is a reversal of reality. But man in revolt humanistically chooses this folly as his wisdom, and in professing himself to be wise (in his own right and independently of God) he has become a fool (verses 21f.).

This, however, is only the start of the declension of religion. Fallen man, in a typical state of humanistic contradiction, wishes to be as God, as not-man ; but, being by constitution a creature, and fundamentally a religious being, he must have some object of worship. And so perforce he manufactures a substitute god : he changes " the glory of the incorruptible God for the likeness of an image of corruptible man, and of birds, and four-footed beasts, and creeping things " (verse 23)—the very order in which these categories are mentioned suggests a history of increasing degradation. By way of illustration, it is sufficient to mention the numberless idolatries, modern no less than ancient, mental as well as material, the anthropomorphic Olympian deities of Hellenic religion possessed of the unbridled lusts and passions of sinful man, the worship of mortal emperors, and sacred cows and fish-gods and deified serpents, personality-cults, and so on and on. All this is not a matter of relative truth, but of " exchanging the

truth of God for a lie and worshipping and serving the creature rather than the Creator" (verse 25). And it involves not merely the degeneration of religion but also the degeneration of man, leading to the appalling catalogue of vices, violences, wickednesses, and unnatural sins with which the chapter ends.

Nor is all this something remote from our much vaunted twentieth-century civilization, applicable only to so-called primitive and undeveloped savage peoples. The very enormities which the Apostle lists all flourish within our modern civilization, and to an alarming degree. What could be more contemporary and relevant to our social and international problems at the present time than the following recital? "For this cause God gave them up unto vile passions: for their women changed the natural use into that which is against nature: and likewise also the men, leaving the natural use of the women, burned in their lust one toward another, men with men working indecency, and receiving in themselves that recompense of their error which was due. And even as they refused to have God in their knowledge, God gave them up unto a reprobate mind, to do those things which are not fitting; being filled with all unrighteousness, wickedness, covetousness, maliciousness; full of envy, murder, strife, deceit, malignity; whisperers, backbiters, haters of God, insolent, haughty, boastful, inventors of evil things, disobedient to parents, without understanding covenant-breakers, without natural affection, unmerciful; who, knowing the ordinance of God, that they that practise such things are worthy of death, not only do the same, but also approve of those who practise them" (verses 26-32). Though outwardly so different, our Western civilization is potentially as heathen, pagan, idolatrous, and abandoned as any culturally backward society of the jungle; and in those places where it is not actually so it is the salt of Christianity which preserves it from complete corruption. Nothing is more dehumanizing in its effects than the rebellious self-centredness of mere humanism.

Let us also see quite clearly that the religious relativism which is inseparable from the evolutionary perspective discountenances the biblical doctrine of the uniqueness of Christianity, and accordingly cuts at the very root of the Church's missionary enterprise. On the evolutionistic premisses it is no longer possible to proclaim that Christ alone is the Way, the Truth, and the Life, and that no man can come to the Father except by Him (John xiv. 6). No longer is it permissible to announce that there is salvation in none other than Christ, since there is no other name under heaven, that is given among men, whereby we must be saved (Acts iv. 12). The dominical commission to open the eyes of the nations, "that they may turn from darkness to light and from the power of Satan unto God, that they may receive remission of sins and an inheritance among them that are sanctified by faith in Christ" (Acts xxvi. 18), must be dismissed as nugatory and misconceived. Indeed, without the religious absolutism of the Gospel the Church has lost her *raison d'être* as the community of the redeemed whose specific task is to proclaim the good news of reconciliation to God through Christ as the divinely appointed way of salvation. In fact, if anything is plain, it is that the New Testa-

ment presents man with an either/or, not, as evolutionism would have it, a both/and.

And it is, finally, axiomatic that if we are in error about the origins of things, whether of the universe, or life, or religion, or salvation, we shall be in error about all that follows. That is why the questions discussed, all too inadequately, in this contribution are of crucial importance for the Christian no less than for mankind in general.

INCOME TAX AND THE PURCHASE OF THEOLOGICAL BOOKS

The following extract from a letter to Mr. Kenneth Lewis, Member of Parliament for Rutland and Stamford (to whom we are indebted for this information), from the Financial Secretary to the Treasury, Sir Edward Boyle, will be of interest to many of our clerical readers who have long desired some ruling concerning the question of tax relief in connection with expenditure on theological books :

“ If the church authorities buy a clergyman theological books which he needs to fulfil his duties or, where he buys such books himself, they bear the expense, the Inland Revenue would not normally regard their value as an emolument of his office. If, however, the church simply gives him a cash allowance for books without regard to his actual expenditure, the Inland Revenue would regard it as part of his emoluments.”

Readers are asked to note that the Editor cannot entertain correspondence on this matter.