

understood, and was used at that period in official documents. But the Anatolian element in the population of those cities continued to use the native languages. In the story in Acts a fast distinction is implied, and in fact existed, between the ideas and practices of the Greeks and the Roman colonists and those of the natives. This distinction would naturally maintain itself most vigorously in so conservative an institution as religious ritual and legend. We should therefore expect to find that the association between Zeus and Hermes indicated in Acts belonged rather to the religious system of the natives than to that of the educated society of the colony. And this is precisely the character of the cult illustrated in our two inscriptions. It is essentially a native cult, under a thin Greek disguise. It has been shown in another place¹ that all the names in these inscriptions can only have been the names of natives. The miracle performed by Paul, and his companionship with Barnabas, would naturally suggest to the uneducated natives, who used the "speech of Lycaonia," a pair of gods commonly associated by them in a local cult. The two gods chosen by them are now known to have been associated by the dedication of a statue of one in a temple of the other in the neighbourhood of Lystra.

W. M. CALDER.

SIN AS A PROBLEM OF TO-DAY.

VI. SIN AND EVOLUTIONARY THEORY—THE ORIGINS.

THE contention of the preceding paper has been that sin, as Scripture and experience represent it, is irreconcilable, not indeed with evolutionary theory within the limits in which science can justly claim to have established it, but with an evolutionary theory which, like Darwin's, pictures

¹ *Classical Review*, loc. cit.

man as having arisen, bodily and mentally, by slow gradations from the animal, and as subsisting through uncounted millenniums in a state of semi-brutishness and savagery. Sin implies relation to God, but here there is no knowledge of God, or possibility of right relation to Him. Sin implies the possibility of sinless development; here such possibility is precluded. Sin implies voluntary departure from rectitude; here it is made a necessity. Sin implies possession of enough knowledge of moral law to enable the moral being to act rightly. Here the glimmer of light in reason and conscience, if present at all, is of the faintest. Sin postulates freedom; here man is a slave to animal impulse and passion from the first.

Assume, however, what Darwinism will not grant, that evolution is not from without, but is from within; that it is purposeful, or directed to ends, not blind; that it is not necessarily slow, but often sudden—advancing by “mutations,” and exhibiting “lifts,” which imply the entrance of new factors—and the problem is essentially changed. Even in this form of evolution it may not be possible to prove that man was pure in origin, but there is now room for such an origin, if the law of moral and religious life can be shown to demand it. It may not prove that man is comparatively recent, but it removes the chief ground for the assumption that he *cannot* be, but must be traced back to an immense antiquity. The question becomes one, not of theory, but of evidence.

The general attitude taken to the *Genesis narrative* of man's creation, temptation, and fall, has already been indicated. While, as was stated, it is not on the basis of this narrative solely, but rather on the whole Scriptural doctrine of sin, regarded as apostasy from God, and transgression of His law, that the present argument proceeds, the importance of the deep truths involved in the *Genesis*

narrative cannot easily be overestimated. Without this narrative the entire Biblical representation would be truncated—would lack its appropriate beginning. This is quite compatible with a free recognition of the allegorical or figurative dress in which the narrative may be clothed. There are, in truth, and always will be, two ways in which these ancient narratives may be approached. Approach them in one way, and they are readily made out to be a bundle of fables, legends, myths, without historical basis of any kind. Approach them in another, and they are the oldest and most precious traditions of our race, worthy in their intrinsic merit of standing where they do at the commencement of the Word of God, and capable of vindicating their right to be there: not merely, as most would allow, vehicles of great ideas, but presenting in their own archaic way the memory of great historic truths. The story of the Fall, thus regarded, is not a myth, but enshrines the shuddering memory of an actual moral catastrophe in the beginning of the race, which brought death into the world and all our woe.

Modern thought, however, especially as represented by the evolutionary theory, definitely contradicts, it is affirmed, the truths embodied in this old-world chronicle of man's origin, nature, and defection from his allegiance to his Creator.¹ This affirmation, in the light of what has already been advanced, may now be brought to the test. Such questions arise as the following. Is man, in his physical genesis, a slow development from the animal, or is he, in a true sense, a higher creation? Is man, in his mental and spiritual nature, simply an evolution from lower psychical forms, or is he, in a sense true of no other, a spiritual personality—a rational and moral Self? Is man, as existing,

¹ The difficulties and objections are very fully summarized by Dr. Driver in his *Genesis*, Introduction and Notes on early chapters.

an advance on an original brutishness or savagery, and does his past extend through, perhaps, hundreds of millenniums of pre-civilised existence? Or is his origin more recent, and did he stand from the first in conscious moral relations with his Creator? Was man in his origin subject to mortality, or is death an abnormal fact in his history? It will be felt that the answers to these questions cut deeply into the form to be assumed by a doctrine of sin.

1. As helping to place the subject in its true light, a few words may be said, first, on the antithesis so constantly urged between *creation* and *evolution*.¹ Such antithesis is plainly only valid, if by creation is meant a *de novo* act of the Creator in the production of each separate form. Creative activity, on this view, is excluded as much by generation as by evolution. But no one supposes that man is less a creature of God because he owes his existence, mediately, to a long line of ancestors. Creation, however, in the more special sense, denotes not simply the reproduction of existing forms, but the origination of something new, for the production of which powers or factors are required of a higher order than those previously operating. A familiar instance is the first appearance of life, which certainly cannot be explained as the effect of merely physical and chemical forces.² It matters little, from the stand-

¹ Thus we read in the art. "Evolution" in *Encycl. Brit.*, viii. p. 752: "It is clear that the doctrine of evolution is directly antagonistic to that of creation. . . . The theory of evolution, by assuming one intelligible and adequate principle of change, simply eliminates the notion of creation from those regions of existence to which it is applied." The Duke of Argyll states the matter more truly in his *Unity of Nature*, p. 272: "Creation and evolution, therefore, when these terms have been cleared from intellectual confusion, are not antagonistic conceptions mutually exclusive. They are harmonious and complementary."

² For careful statements of the precise condition of the evidence on this question, see Prof. J. A. Thomson, *Bible of Nature*, Lect. iii., "Organisms and their Origin," and R. Otto, *Naturalism and Religion*, chap. viii., "The Mechanical Theory of Life."

point of Theism, whether the powers in question are viewed as latent in Nature from the beginning, only waiting the proper time and conditions for their manifestation, or are regarded as fresh drafts on the creative energy implicit in the whole process. The essential point is that they are *new* powers, higher in kind, and representing intrinsically a rise on the previously existing order. Such advances or "upliftings" are essential if there is to be "ascent" in nature, and they form no antithesis to evolution but are included in the very idea of that process, as science reveals it.

How closely allied the ideas of creation and evolution are at this point may be shown by two brief quotations. One is from A. Sabatier, whose mind latterly was dominated by the conception of evolution. "At each step," he says, "nature surpasses itself by a mysterious creation that resembles a true miracle in relation to an inferior stage. What, then, shall we conclude from these observations, except that in nature there is a hidden force, an immeasurable 'potential energy,' an ever-open, never exhausted fount of apparitions, at once magnificent and unexpected."¹ On this view, it is plain, the antithesis between "evolution" and "special creation" tends to disappear except in name; what are virtually special creations—new apparitions—are taken up into evolution as phases of it. The second quotation is from Darwin himself, and is adduced by Professor D. H. Scott in the Cambridge volume on Darwin to show that if Zeiller's opinion on the sudden appearance of new forms should be confirmed, "it would no doubt be a serious blow to the Darwinian theory." Darwin wrote: "Under a scientific point of view, and as leading to further investigation, but little advantage is gained by believing that new forms are suddenly developed in an inexplicable

¹ *Outlines of a Philosophy of Religion* (E. T.), p. 84.

manner from old and widely different forms, over the old belief in the creation of species from the dust of the earth.”¹ Yet the trend of modern evolution is unquestionably to admit that new forms *do* suddenly appear, and *have* appeared on a much grander scale in the past. This leads directly to the questions above proposed.

2. A primary question is, Is man, in body and mind, a *slow development* from the animal, or is he not, in the sense just described, a true *creation*? The relation to preceding forms, on which evolution justly insists, is not denied, but is this the whole? Is there not, also, to be recognised in man a *rise* upon the preceding animal world, which involves the entrance, at least the action, of new powers, operating in a manner more or less sudden, and founding, as happened in the change from the inorganic to the organic, a new order or kingdom in the world? Consider first the *physical* aspect.

Darwin, it has been seen, was wedded to the idea of infinitesimal gradations in the production of species: Weismann contends, against Bateson and others, for the same view.² It will, however, be admitted that there is a very considerable consensus of recent evolutionary opinion in favour of the opposite contention. This was one of the points on which Professor Huxley was always disposed to disagree with Darwin. “We have always thought,” he said, “that Mr. Darwin has unnecessarily hampered himself by adhering so strictly to his favourite *natura non facit saltum*. We greatly suspect that she does make considerable jumps in way of variation now and then, and that these saltations give rise to some of the gaps which appear to exist in the series of new forms.”³ Obviously,

¹ *Origin of Species*, p. 424; quoted in *Dar. and Mod. Science*, p. 221. Cf. J. A. Thomson, *Bible of Nature*, p. 163.

² Cf. *Darwin and Mod. Science*, pp. 22 ff.

³ *Lay Sermons*, p. 342. Cf. p. 326: “We believe, as we have said above,

with the admission of "jumps," "saltations," "leaps" in nature, the whole problem of man's origin assumes a new character. Now, the facts of evolution itself seem fast compelling scientific writers to adopt just some such view.¹ Professor J. A. Thomson, e.g., finds "increasing warrant for postulating the occurrence of mutations of considerable magnitude, and holds that "it is very difficult to give a concrete selectionist interpretation of what may be called the 'big lifts' in evolution."² He thinks that "man probably arose by a *mutation*, that is, by a discontinuous variation of considerable magnitude."³ R. Otto likewise favours the idea of the origin of man by "*sprungweise*" development, and remarks: "There is nothing against the assumption, and there is much to be said in its favour, that the last step [*Sprung*, leap] was such an immense one that it brought with it a freedom and richness of psychical life incomparable with anything that had gone before."⁴

that nature does make jumps now and then, and a recognition of the fact is of no small importance in disposing of many minor objections to the doctrine of transformation." Lyell, similarly, was disposed to postulate "occasional strides" in evolution, "constituting breaks in an otherwise continuous series of psychical changes," and thinks that "such leaps may have successively introduced not only higher and higher forms and grades of intellect, but at a much remoter period may have cleared at one bound the space which separated the highest stage of the unprogressive intelligence of the inferior animals from the first and lowest form [why only this ?] of improvable reason in man" (*Antiquity of Man*, p. 504).

¹ See references on last paper.

² *Darwinism and Human Life*, p. 203. "It is likely," he says, "that man had his starting-point as a prepotent anthropoid genius." If, however, there is "genius," one seems to have got beyond the "anthropoid" altogether.

³ *Ibid.* p. 123.

⁴ *Naturalism and Religion*, p. 133 (E. T.). It is interesting to observe that Darwin was himself induced to travel a good way on this road. "An unexplained residuum of change, perhaps a large one," he says, "must be left to the assumed action of those unknown agencies which occasionally induce marked and abrupt deviations of structure in our domestic productions" (*Descent of Man*, i. p. 154). Darwin to the end, however, looked with disfavour on abrupt variations as entering to any appreciable extent into the origin of species. Cf. *Origin of Species*, 8th Edit., chaps. vi. and viii.; *Plants and Animals under Domestication*, ii. pp. 414.

Certainly, if such a "big lift" took place in the origin of man, it is not on the physical side only it is to be looked for; the psychical must be included. Since, indeed, it is the psychical which determines the characters of the organism, rather than *vice versa*, it may be held that it is primarily with a rise on the psychical side that the bodily rise must be connected.

In favour of such an origin for man may be urged, in addition to the difficulties already adverted to attending the idea of development by infinitesimal gradations on the principle of natural selection, the standing difficulty of establishing *actual links* of connection between man and anthropoid ancestors, or even in constructing a plausible "phylogeny" for man of any kind. Plenty of dogmatism on this subject, indeed, is often to be met with. But the more cautious writers treat the phylogenies with scant respect.¹ With Schwalbe and Haeckel the ape-ancestry of man is an article of faith: they will hear of no other hypothesis.² But Haeckel himself quotes the dictum of Virchow that science cannot teach that man is descended from the ape³; and Schwalbe bears witness that an influential group of anthropologists reject this line of descent, and seek for the roots of the human race in other directions,⁴ very much

¹ Cf. Bateson, *Dar. and Mod. Science*, pp. 188-9. Otto quotes Du Bois-Reymond as declaring "that if he must read romances, he would prefer to read them in some other form than that of genealogical trees" (*Nat. and Rel.*, p. 102).

² *Dar. and Mod. Science*, pp. 135 ff.; 146 ff. Darwin is uncompromisingly claimed for the view that "man was descended from the ape" (pp. 135, 147).

³ *Ibid.* p. 146.

⁴ *Ibid.* pp. 132-4. Schwalbe instances Cope, Adloff, Klaatsch, etc. Cope derives from the Lemurs. The Dutch zoologist Hubrecht rejects the Lemurs, and argues for derivation from a Tarsiad form (*Descent of the Primates*, pp. 39, 40). Thus, as Schwalbe truly says, "the line of descent disappears in the darkness of the ancestry of the mammals." He thinks we might as well admit at once that "man has arisen independently"! (*Ut supra*, p. 134.)

further back. Even the famous Javan *Pithecanthropus erectus*, if we go by the judgment of experts, is far from establishing the connection of ape with man.¹ The great gulf between man and lower forms stands still unbridged. There may well, indeed, have existed ape-forms much nearer man than any existing species, but even the Javan specimen stands far beneath the most degraded human skulls.²

3. The physical development of man cannot, as has been hinted, be dissociated from the consideration of his *mental* and *spiritual* equipment, and here the next question of interest arises—Are man's mental and moral powers simply a development from the mind of the animal, or do they likewise represent a *rise*—in this case, not in *degree* only, but in *kind*—upon the forms of intelligence below him? Evolutionary theory is wont to answer this question, as the preceding discussion would lead us to expect, by assuming that the same causes which are held adequate to explain the bodily development suffice also to explain the higher mental powers which the developed being (*homo sapiens*) manifests. Mind and body, it is granted, go together, not in the sense that mind is an entity distinct from the body—this it would be thought highly “unscientific” to admit³—but as implying that any rise on one

¹ Cf. Otto, *op. cit.*, p. 110. At the Anthropological Congress at Lindau, Sept. 1899, Dr. Bumiller read a paper in which he contended that the supposed *pithecanthropus erectus* was “nothing but a gibbon, as Virchow surmised from the first.” There is, however, little unanimity.

² Huxley doubted whether the human adult brain ever weighed less than 31 or 32 ounces (*Man's Place in Nature*, p. 102). The average human brain is 48 or 49 ounces. The brain of the *pithecanthropus* may have been 26 ounces. The heaviest gorilla brain is 18 or 20 ounces. Prof. Huxley, in *Nineteenth Century*, xxviii. pp. 750 ff., endorsed the words of M. Fraipont: “Between the man of Spy [one of the poorest skulls] and an existing anthropoid ape there lies an abyss.”

³ Haeckel writes: “In strict contradiction to this mystical dualism, which is generally connected with teleology and vitalism, Darwin always maintained the complete unity of human nature, and showed convincingly that the psychological side of man was developed, in the same way as the

side must necessarily be accompanied by a rise on the other. Mind cannot develop in advance of body. A human mind could not be put into a Simian brain, any more than body can develop high brain capacity without mental activity to utilise it. The question is : Is the ordinary evolutionary theory an adequate account of the mental endowment which we know man to possess in distinction from the animals ?

Naturally, if there is reason to doubt whether man, *physically*, is a product of slow continuous development, this doubt must attach far more strongly to his mental development, in which the contrast to the merely animal stage is so much greater. It was the distinctiveness of man's mental powers, above all, which suggested to Lyall the idea of a "leap" which "may have cleared at one bound"¹ the space between animal and man; which forced on A. R. Wallace, with others, the conviction of a "break" at this point, implying the interposition of a creative Cause.² The conclusion is more directly reached by concentrating attention on the fact itself that in man mental and spiritual powers are revealed which place him in a different category from the mere animal—which cannot, therefore, by any process of slow accumulation of variations be developed from animal intelligence, but speak to the introduction of something original and higher in *kind*.

That there *is* a distinction between animal and human intelligence amounting to a distinction *in principle* is, in

body, from the less advanced soul of the anthropoid ape, and, at a still more remote period from the cerebral functions of the older vertebrates" (*Dar. and Mod. Science*, p. 150). Cf. Schwalbe, *Ibid.* p. 116.

¹ *Antiq. of Man*, p. 504.

² Wallace, *Darwinism*, pp. 474-5. So Mivart, the Duke of Argyll, Calderwood, J. Young, etc., with some American and Continental evolutionists. "Break," possibly, is an unfortunate word in this connexion, for the rise may be, as above argued, from within, yet may none the less imply the entrance, or manifestation, of new powers.

fact, conceded by most writers, though, in theory, efforts may be made to effect a passage from one to the other. Round man, as self-conscious, spiritual personality, capable of rising to universal ideas, of conceptions of law and order, of rational speech, of self-directed moral life, of education, progress and religion, a circle is drawn, investing his life with a sacredness which belongs to that of no mere animal. Law, practice and common speech, equally with the language of science, recognise the distinction. Lyall justly contrasts the "unprogressive" intelligence of the inferior animals with the "improvable" reason of man¹; even Haeckel distinguishes "the power of conceptual thought and abstraction" in man from "the non-conceptual stages of thought and ideation in the nearest related animals."² Darwin, Haeckel, and others endeavour to bridge over the immensity of the distinction,³ and it is urged that the difference between animal and human intelligence is not greater than that between the baby and the full-grown man, between the savage and the philosopher.⁴ The argument is palpably fallacious, for in the baby and the savage there resides the *capacity* for development, which is wholly absent in the animal. The essence of the distinction seems to lie in the fact that in man there is the faculty of apprehending the *universal*—of grasping *principles* and *general ideas*—and of giving expression to these in *speech*. Man has "Logos"—reason—and the differ-

¹ *Antiq. of Man*, p. 504.

² *Riddle of Universe* (Pop. Edit.), pp. 38, 45.

³ Cf. Schwalbe, *Dar. and Mod. Science*, p. 120.

⁴ This Haeckel, *Riddle*, p. 65, etc. Mr Mallock plays with the same argument (*Rel. as a Credible Doctrine*, pp. 52, 54). Otto justly remarks: "I can *train* a young ape or elephant, can teach it to open wine-bottles and perform tricks. But I can *educate* the child of the savage, can develop in him a mental life equal in fineness, depth, and energy, frequently, more than equal, to that of the average European, as the mission to the Eskimos and the Fuegians proves, and as Darwin frankly admitted" (*Op. cit.* p. 333). Cf. the writer's *God's Image in Man*, pp. 162 ff.

ence which this constitutes between him and his animal predecessors is practically infinite.¹

In this same principle of self-conscious rationality the ground is to be sought of man's *ethical* distinction from the animals. As conscious of moral law, as capable of setting before himself moral ends, as recognising moral obligations, as exercising freedom in the choice between moral alternatives, man holds a unique position as, not simply a child of nature, but (in Kant's phrase) a member of a "realm of ends"—citizen of a Kingdom of God.² The inability of naturalism to explain these ethical conceptions peculiar to man was before commented on. Evolution may show how a basis was prepared for moral life in the social and parental instincts of the lower creation; but moral life itself is something different and higher, and evolutionary theory reaches it only by surreptitiously importing the ethical notions as its exposition advances.³ On this point Höffding remarks in the Darwin volume: "To every consequent ethical consciousness there is a standard of nature, a primordial value which determines the single ethical judgments as their last presupposition, and the 'rightness' of this basis, the 'value' of this value can as little be discussed as the 'rationality' of our logical

¹ This, too, is generally admitted, however to be accounted for. Haeckel says: "Reason is man's highest gift, the only prerogative that essentially distinguishes him from the lower animals" (*Riddle*, p. 6). Mr. J. Fiske describes the gulf between the human and animal mind as "immeasurable," and says that "for psychological man you must erect a distinct kingdom; nay, you must even dichotomise the universe, putting man on one side, and all things else on the other" (*Through Nature to God*, p. 82). Huxley recognises "an immeasurable and practically infinite divergence of the human form the Simian stirps." (*Man's Place in Nature*, p. 103). The image of God, Dr. Driver says, "can be nothing but the gift of *self-conscious reason* which is possessed by man but by no other animal" (*Genesis*, p. 15).

² Cf. J. A. Thomson, *Bible of Nature*, p. 206, "The Man arose, an organism at length rational; to him all things became new—he spoke, and he was moral."

³ Cf. *God's Image in Man*, pp. 141 ff.

principles.”¹ It is here the doctrine of sin is effectively touched, for on every pure evolutionary theory there is a flattening down and changing of moral conception in a naturalistic or utilitarian interest. Freedom, as a rule, goes by the board.² Where, on the other hand, these distinctive attributes of man are firmly upheld, the need of a higher explanation becomes manifest. Selfhood, personality, moral freedom, the supreme value of moral ends, require a spiritual basis, and mean, not simply development, but the setting up of a new order or kingdom of being in the universe.

Even the ethical life, however, with its implication of social life, is not the highest thing in man. It is in *religion*, specially in the Christian religion, that the spiritual ground of man's being becomes most clearly manifest.³ Here evolution altogether fails in furnishing an organ for such conceptions as infinity, eternity, spirituality, applied to the highest object of worship—God. Man is made to know, serve, and have fellowship, in the freedom of sonship, with his Creator; and this is possible only through the possession of a kinship with God, and of those attributes of rationality and freedom which stamp him as bearing the *image* of God. This again is essential as a presupposition for the right conception of sin. The conclusion is that, with every wish to give evolution its fullest rights, it cannot be pronounced adequate to explain the moral and spiritual dignity of man.

4. The question next arising—a hardly less vital one for our doctrine—relates to the *manner* in which man began his career as a moral being—whether, uncounted millen-

¹ *Dar. and Mod. Science*, p. 460.

² Cf. Haeckel's attack on freedom, *Riddle*, p. 47, etc.

³ “Man,” says Max Müller, “alone employs language, he alone comprehends himself, alone has the power of general ideas—he alone believes in God” (*Chips from a German Workshop*, iv. p. 458).

niums ago, far down the scale in *brutishness* and *savagery*, or, more recently, in a condition *conformable to his mental nature and destination*, and holding in it the possibility of *sinless development*. On this subject, in inversion of the opinion held in Christendom till almost the present day, evolutionary theory speaks with no bated breath. The positions are coming to be regarded as well-nigh axiomatic : (1) that man is of enormously remote antiquity ; and (2) that, as befits his animal ancestry, he is to be thought of as only slowly emerging from the brute condition, and as existing for untold periods—probably hundreds of thousands of years—in the state commonly known as savagery. There has been no fall of man, but a wonderful *ascent*. As Professor Thomson puts it : “ We are no longer as those who look back to a paradise in which man fell ; we are rather as those ‘ who rowing hard against the stream, see distant gates of Eden gleam, and do not dream it is a dream.’ ”¹ The objection felt to this view is sometimes described as simple prejudice, arising from repugnance to the idea of an ape-ancestry. It goes, however, much deeper. What really staggers one is not a genetic relation to lower forms, but the brute *state* which this is supposed to imply as the starting-point of human development, and the long, revolting history that follows before man attains even the rudiments of moral and civilised existence. The collision here is unmistakable, not simply with Church “ dogmas,” but, as already seen, with the truest, purest, ideas we are enabled to form of God, man, sin, and of the normal relations of man to God.

Is this collision inevitable ? In itself it can hardly be declared to be so, if the theory of man’s origin by insensibly slow gradations (however man arose, it may be very confidently affirmed it was not *thus*) is abandoned, and a different

¹ *Bible of Nature*, p. 226.

mode of origin—call it by “mutation,” “leap,” “break,” or what one will—is substituted for it. No necessity exists, on this hypothesis, for picturing man, on his first appearance, as a semi-animal, the subject of brute passions and unregulated impulses. His nature, as became a moral being, may have been internally harmonious, with possibilities of pure development, which only his own free act annulled. It is not, therefore, in the nature of evolution, but in the mass of evidence which, it is believed, has been accumulated for man’s long antiquity and primitive low and rude condition (palaeolithic and neolithic man),¹ that the negation of this higher view of man’s origin must be sought. Great caution of assertion, however, is needed even here, and it may be doubted how far the fixed assumption of slow development borrowed from evolution is not itself a leading factor in the reasonings about age.

It would be out of place to attempt to discuss at length a subject on most points regarding which scientific experts are themselves widely at variance. But one or two general remarks may be made. It is granted by nearly every one that the old Ussherian chronology, supposed to be based on the Bible, needs extension by many millenniums. On the other hand, the tendency has been greatly to retrench the exaggerated computations of the older geologists, resting on the rate of deposits, human remains, flints, other evidences of man’s handywork. As early as 1888, Professor Boyd Dawkins entered a caveat against such computations, and declared that all, as it seemed to him, had ended in failure.²

¹ Prof. Thomson says: “From the situations in which palaeolithic implements are found, it is inferred that these must have dropped from their makers’ hands at least 150,000 years ago. . . . But ever so much older than those palaeoliths are the eoliths. They probably take us back to 300,000 years ago” (*Bible of Nature*, p. 191.) He would go back to Miocene times (p. 192). We take leave to be sceptical.

² Address to Brit. Association, Sept., 1888.

A well-known case was the deposit of stalagmite in Kent's Cavern. Mr. Pengelly had allowed for this 5,000 years for one inch, or 300,000 years for 5 feet. Professor Dawkins declared that it might have been formed at the rate of a quarter of an inch per annum, "at which rate 20 feet of stalagmite might be formed in 1,000 years."¹ The reasonings of this same high authority against the presence of man in Tertiary times seem conclusive.² A fragment of bone, believed to be human, which Professor Dawkins had at first accepted as evidence of pre-glacial man, he afterwards declared to be not human, but ursine, and doubted whether the clay in which it was found was glacial.³ American geology has tended to bring down the close of the Glacial Age, when undeniably man appears, to a much later date than was earlier supposed,⁴ while the relation of man to "interglacial" periods is still involved in much obscurity.⁵ The oldest skulls, too, do not support the theory of the slow ascent of man from the ape.⁶ There is, one is entitled to say, as little room for

¹ *Cave Hunting*, pp. 39-41.

² *Early Man in Britain*, pp. 36, 67-9, 93, etc. Apart from supposed ape-like ancestors, the evidence for Tertiary Man, as at Castenedolo, in Italy, or Calaveras, in California, seems now to be pretty generally discredited (Cf. Engerrand, *Six Leçons de Préhistoire*, 1905, pp. 41-2). On the Miocene *Dryopithecus*, which Gaudry thought might be a flint-chipping ape in the line of man's ancestry, Engerrand writes: "Gaudry at first considered *Dryopithecus* as approaching man, but now he places it among the inferior anthropoids."

³ *Nature*, June 7, 1877, pp. 97-8.

⁴ Leading American geologists date the close of the Glacial Age on that continent from 7,000 to 10,000 years ago. Cf. *God's Image in Man*, pp. 173 ff., 305-6.

⁵ In his work, *North America* (1904), I. C. Russell, prof. of Geology in the University of Michigan, states: "We find no authentic or well-attested evidence of the presence of man in America either in or during the Glacial period." (p. 362). Certain "finds" at Trenton, N.J., on which some stress was laid, have been very effectively challenged by Mr. W. H. Holmes, of the American Geological Survey (*Science*, Nov. 1892, etc.).

⁶ Prof. Thomson says: "Man's enormous brain, which does not seem to have increased greatly in bulk since Palaeolithic times, marked a new departure" (*Bible of Nature*, p. 194). It is interesting to read that the palaeontologist Zittel "excludes from serious consideration the fossil

dogmatism in this region on the side of science as there is on the side of the theologian. "Primitive Man" is still an enigma.

It must, indeed, to any one who reflects calmly on the matter, appear extraordinary that man should have existed on the earth in a practically unprogressive state for 200,000 or 300,000 years,¹ then suddenly have blossomed out a few thousand years ago into the mighty civilisations excavation has been bringing to light, with hardly any trace of barbarism behind! These civilisations, assuredly, sprang from brains capable of better things than chipping rude flints, and making trifling ornaments, though it is to be owned that some of the palaeolithic men had powerful brains also.² The Duke of Argyll properly drew attention to the fact that the rude and degraded races are not found, as a rule, in the original centres of the distribution of mankind, but in outlying parts.³

5. There remains, in connexion with man's origin, the solemn question of *immortality*—of man's relation to *death*. Is man, in his spiritual being, capable of withstanding the shock of death? Would he, had sin not entered, have died—as we understand death—at all? The questions are not the same, but it is important to observe that the difficulty which arises here for evolutionary theory is hardly greater on the supposition that the *soul* survives death, than on the view that bodily death is not normal for man. Few will doubt that the animal is mortal. It is constituted for earth.

skeleton of the Neanderthal [one of the more degraded skulls] on the ground that it is of comparatively recent date" (Duckworth, *Morphol. and Anthropol.*, p. 523). Cf. Huxley's verdict, *Man's Place in Nature*, p. 157.

¹ Prof. G. Henslow speaks of man as "on a uniformly low level of barbarism for an incalculable length of time" (*Liberal Churchman*, June, 1905, pp. 222-3).

² Cf. on this point the remarks of Dr. Oswald Dykes in his *Divine Worker in Creation and Providence*, pp. 141 ff.

³ *Unity of Nature*, p. 426.

Nothing in its aptitudes or desires points to anything beyond. Assume it to be different with man, as manifestly it is different, and how difficult is the problem that arises! Grant that in man we have a being constituted for immortality, capable of surviving death, we are beyond the question of degrees. A being is mortal *or* immortal; an infinity divides the two conditions. It is with immortality as with sonship to God, insensible gradations afford no clue to the magnitude of the change. It is the *kind* of being that is different. The logic of evolutionary theory, therefore, frequently asserts itself in the denial of a separate spiritual nature in man to which immortality can attach.¹ The question is one which presses hard on those who wish to rescue man from the grasp of naturalism, and secure for him the possession of the Christian hope.

It is a mistake, however, to suppose that immortality, in the Scriptural or Christian sense, is to be identified simply with the survival of the *spiritual* part of man, or an immortality of the *soul*. As truly as in science, man is regarded in Scripture as a *unity*. Body as well as soul is essential to his complete personality.² Existence in separation from the body is never regarded as true or perfect existence (Sheol, Hades). Redemption, on the other hand, is never conceived of as redemption of the soul only, but as redemption of the whole personality—body and soul together.³ "Now hath Christ been raised from the dead, the firstfruits of them that are asleep. For since by man came death, by man came also the resurrection of the dead."⁴ Accordingly, in the funda-

¹ *Dar. and Mod. Science*, pp. 116, 150. Cf. Haeckel, *Riddle*, p. 87.

² Cf. more fully the writer's *Christian View of God*, pp. 136 ff., 150 ff., 196 ff.; *God's Image in Man*, pp. 46 ff., 249 ff. See also Salmond's Cunningham Lectures on *Immortality*, and Laidlaw's *Bible Doct. of Man*.

³ See *Christian View*, etc., as above.

⁴ 1 Cor. xv. 20, 21; cf. Rom. viii. 23. So far as the hope of immortality is found in the O.T., it takes the form of translation (Enoch, Elijah), deliverance from Sheol, resurrection. In this, in the view of the present

mental Biblical view, death, or separation of soul from body in physical dissolution, is not the natural or normal fate of man; the instinct of mankind, indeed, in its bewailing of the dead, has ever protested against its being regarded as such. With this cohere the testimonies already cited to the connexion of death with human sin.¹

Against such teaching evolutionary theory, and not it only, raises a violent protest. Death, it is categorically laid down, is a natural law to which all organisms are subject. Man, therefore, must share the fate of other living beings: must grow, decay, die. The opposite view is absurd. But this again raises the question—What is Man? Is he a mere animal among others? Concede to man a rational and ethical nature constituting him a free, spiritual personality; a religious nature, uniting him in kinship to God; an *immortal* nature, with capacities destined to unfold themselves through eternal ages; is it so manifest that what applies to mere animal existence applies to him also? Does not man found rather a new kingdom and order of existence to which a new law must apply? Death is not the same thing to him as to the animal. To the animal death is the natural termination of its time-limited existence; to man, if the spirit survives, it is a rupture, a mutilation, a separation of parts of himself which were never designed to go asunder.² Suppose, moreover, that man began, *not*, as evolution assumes, at the low brute stage, but with capacities of moral obedience, and relations to his maker suitable to these, is not the subject lifted out of the region in which

writer, is probably to be found the key to such passages in Job, the Psalms and the prophets, as Job xiv. 13-15; xix. 25-27; Pss. xvi. 8-11; xvii. 15; xlix. 14, 15; lxxiii. 24; Hos. vi. 2; xiii. 14; Isa. xxv. 6, 8; xxvi. 19; Dan. xii. 2 (cf. Cheyne, *Origin of Psalter*).

¹ Gen. ii. 17; iii. 19; Rom. v. 12, etc.

² See as above, *Christian View*, etc.

physiology and the other natural sciences have any longer a voice ?

There is yet another question, however, which recent scientific utterances force on the attention—*Is death a universal and necessary law of living organisms ?* It is customary to assume that it is, but the question assumes a new aspect when a biologist of the rank of Weismann is found challenging it, and declaring that “the origin of death” is “one of the most difficult problems in the whole range of physiology” ;¹ that there is no ascertainable reason, apart from what he considers the “utility” of it, why organisms should ever die.² In point of fact, he thinks, “an immense number of the lower organisms” do not die.³ He has coined the phrase, “the immortality of the Protozoa.” Even as regards the higher organisms, in which the conditions of longevity so surprisingly vary,⁴ he considers “that death is not a primary necessity, but that it has been secondarily acquired as an adaptation.”⁵ It is not necessary to enter into the discussion here : meanwhile it is plain that, if Weismann’s reasonings stand unrefuted, death is *not* an inherent law of organisms, but may well depend on conditions which would not have affected sinless man.

In fine, it is not to be denied that evolutionary theory, great as may be its services, leaves us with the main problems as regards origins as yet unsolved. It is so with regard to man’s own origin. It might be shown that it is so with regard to the origin of sex, the origin of language⁶—if Weismann is right, also with the origin of death. The time has clearly not yet come for dogmatically ruling out the Christian presuppositions of a doctrine of sin.

JAMES ORR.

¹ *Essays upon Heredity*, i. p. 20.

² *Ibid.* pp. 21, 23, etc.

³ *Ibid.* p. 26.

⁴ *Ibid.* pp. 6 ff., 36 ff.

⁵ *Ibid.* p. 25.

⁶ Cf. *Dar. and Mod. Science*, p. 518.