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EVOLUTION.

BY
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EVOLUTION.

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It may appear a very rash thing for any person who does not claim to be a man of science to presume to give an opinion on any of the theories of scientific men. But there is a vast difference between the facts of science and the theories suggested for their explanation. The facts are, as it were, the property of the investigators. The investigators have a power of investigation which we outsiders have not, and it would be folly for us who have not that power to presume to call in question their information. But it is a very different matter with the theories either founded on these facts or invented to explain them. When science has given us the facts common-sense can discuss the theories founded on them; and, without presuming to call in question the ascertained results of scientific investigation, any person of ordinary intelligence may form his own opinion as to the conclusions derived from the known facts. The scientific men know the facts, and we do not; but, when they have told us the facts, we can think as well as they. This point was exceedingly well put by Canon Garbett at the Norwich Church Congress in 1865. He said: "Beyond a certain point the conclusions and arguments of the man of science cease to be exclusively his own, and become the common property of all men. All argument rests on common principles, and when once the facts of the case are clearly ascertained, any man who is trained to reason correctly is competent to judge of them." Again: "Let the man of science," said Canon Garbett, "reign supreme within his own sphere, and let none but those trained in the same school and learned in the same craft venture to dispute with him as he gathers his facts and generalizes his rules. But when all this is done, and he proceeds to reason, then it is different. He steps out of his special department into a sphere open to all men alike. Tell me what your facts are, and if I sufficiently master them I am as competent to judge of the validity of the conclusions drawn from them as the man of science himself."

There is scarcely any subject to which this principle applies more completely than it does to Evolution; for what is called "the doctrine of Evolution" is only a theory. It is not a collection of facts, but a theory which some of its warmest advocates—as, *e.g.*, Professor Drummond—declare to be "still unproved." ^[3] While, therefore, we fully recognise that it would be the utmost folly "to debate a point of natural history with Darwin, or a question of comparative anatomy with Owen," we may, by the aid of common-sense, form an opinion possibly as sound as theirs on the unproved theory which has been founded on the ascertained facts which those great investigators have placed within our reach. This is all that I would attempt to do in the present paper. I do not propose to call in question a single fact ascertained by men of science. All that I would venture to do is to exercise the ordinary powers of thought in considering one of the theories which some scientific men have suggested as an explanation of those facts. I say "some scientific men," for there is a very great difference of opinion amongst scientific men, and no one can read the admirable papers produced by the Victoria Institute without perceiving how much accurate observation, how wide a scientific knowledge, and how great a force of Baconian philosophy is arrayed against the theory just now in the fashion.

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Let us begin, then, with a few facts respecting which we are all agreed, and which as they are sometimes called by the name of Evolution, are supposed to supply evidence of the correctness of the theory.

(1) We all believe in *growth*. It is a matter of fact that the world is full of growth. And this growth is not limited to gradual, or continuous, enlargement or development; but consists sometimes in most remarkable sudden changes, as when the egg becomes a chicken, the caterpillar a chrysalis, and the chrysalis a butterfly. Every living creature, whether plant or animal, has its own mode of growth; and no living creature is born into the world in the fulness of its stature. The man was once in his cradle, the eagle in its egg, the oak in its

acorn; and no one can point to any living thing, either in the animal or vegetable kingdom, that began life with the full development of all the powers or properties of its species. Whatever men may think of any theory, as a matter of fact there is invariably growth as the first, and most certain, accompaniment of life.

(2) Within certain limits we all believe in *variations*. Both plants and animals of the same species vary according to circumstances, and are all more or less affected by country, by climate, and by culture. Amongst dogs, *e.g.*, there are countless varieties of breed, to say nothing of all the mongrels. Just so amongst flowers; there are countless varieties of the rose, and these varieties may be multiplied to any extent by culture. There is, moreover, a power of adaptation to climate and other circumstances. In colder climates animals of the same species have thicker coats than they have under the tropics. There cannot be a question that both plants and animals will begin at once, if placed in a new position, to adapt themselves to it; and, as a general rule, if they fail in such adaptation, they die. Beyond all doubt, as a matter of fact, there are variations resulting both from parentage and environment. We are told by naturalists that some of these variations are not of a permanent character, as, *e.g.*, in the case of pigeons, of which it is stated by Darwin that any number of breeds, if left to themselves, will in time revert to the common Rock. But still the fact remains, that within certain limits there are numberless variations, and that these variations may be transmitted to posterity. Some of these appear to have been produced in one way, and some in another; but, however produced, there they are; and no one, whether scientific or unscientific, can for one moment call in question the fact.

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(3.) We all believe in *progression*. We see progression all around us. It appears to be a universal law that there should be perpetual movement. Sometimes there is advance, and sometimes retrogression—but always movement; for when there is no advance, there is invariably decline. Then, again, as far as observation is concerned, we find this progression gradual and continuous. Characters are gradually formed; learning is gradually acquired; power is gradually gained; and the whole world advances by the gradual attainment of increasing knowledge. Such progression is seen both in creation and revelation.

In Creation, for no one supposes that the world was created and peopled by one instantaneous act of the Creator. There may be difficulties in some of the commonly received interpretations of some of the statements of that most wonderful narrative contained in Gen. i.; but there can be no doubt whatever that it teaches progression. It begins with chaos, and leads us step by step to a perfected cosmos. At the outset; “the earth was waste, or without form, and void, and darkness was upon the face of the deep.” And at the end we see a fertile world covered with vegetation, peopled by countless living creatures, with man, in the image of God, at their head, all enjoying the bright light of the sun in heaven; and all in so perfect a condition that “God saw everything that He had made, and behold it was very good.” But this change did not take place by one solitary act. The world did not leap by one bound from one condition to the other. There were, according to Scripture no less than six successive steps in the process. Let people explain the six days as they please, and I fully acknowledge that there may be legitimate differences in their explanations. But no one can doubt that the narrative teaches progression; and that, according to that narrative, it pleased God by a series of successive acts to complete the work which He pronounced to be very good. No one, therefore, who believes in the Book of Genesis can for one moment doubt progression in the work of the creation.

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Nor can there be the slightest doubt as to progression in Revelation. Some people seem to speak of this as if it were a new discovery connected with the theory of Evolution. Such persons ought to read an admirable book called “The Philosophy of the Plan of Salvation,” written many years ago, and new published by the Religious Tract Society. It is perfectly impossible to read through the Old and New Testaments as a complete book without seeing progression. It is deeply to be deplored that such a man as Professor Drummond should

have said, as he is reported to have said in his Sunday lectures, at Grosvenor House, ^[5a] “The Book of Genesis must be regarded as presenting truth to children’s minds;” and should have illustrated this by George Macdonald’s poem, “The Baby,” adding, “not literally true, but true for the child. So Moses gave truth in the form of a poem. If you say it is a scientific book, I give it up; but if you regard it as a poem, then I can deal with it.” This appears to teach that the Book of Genesis is regarded by him as something like a nursery rhyme. But the report ^[5b] is evidently abridged; and I hope it is incorrect. We know that there are sixty-six books in the Bible; but we also believe that it is “a Book” complete in itself, and with all its parts so beautifully proportioned that it forms one perfect whole for the gradual development of the whole counsel of God. Thus we believe that the one verse (Gen. iii 15), “I will put enmity between thee and the woman, and between thy seed and her seed; it shall bruise thy head, and thou shalt bruise his heel,” is the seed, or germ, of the whole Gospel; and that just as the oak is in the acorn, so in these few words is contained the whole covenant of God. The first twelve chapters of the Book of Genesis trace the pedigree of that seed of the woman till the call of the chosen family in Abraham; the historical books record the varied history of that family, and show how sorely the heel of the woman’s seed first bruised by the serpent; while the prophecies enlarge, and expand the blessed hope of final victory in the promised One. At length the Gospels reveal the long-expected Christ; and the Acts and the Epistles unfold the principles and progress of His kingdom, till the whole is complete in the Apocalypse, where we read of “the new heavens and the new earth,” with the curse of sin gone for ever, with Satan cast into the lake of fire, and with the seed of the woman triumphant over death and hell. As the acorn to the oak, so is that first promise to the Apocalypse. It is no poem, no myth, no nursery rhyme, but the germ of the whole counsel of God—a germ containing the whole Gospel, and requiring no less than four thousand years for its development.

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Let no one suppose, therefore, for a moment that we do not believe in progression, for we see it throughout nature; and we find it distinctly taught in Scripture as a matter of historical fact, both in creation and revelation. But the fact of progression is a totally different thing from the theory of Evolution; and it is extremely important that the distinction should be carefully borne in mind; for there are many, and some of them clear-headed men, who, because they see the three things—growth, variation, and progression, avow themselves believers in Evolution, though all the while they really reject what should be strictly termed “the Evolution theory.”

What then is the theory of Evolution? What is it which Bishop Temple describes as “just at present the leading scientific doctrine,” ^[6a] and for which he says the evidence “is enormously great, and increasing daily”? ^[6b] It is extremely difficult to answer the question; for evolutionists themselves, although they are perpetually trumpeting forth the superiority of their scientific accuracy, very seldom take the trouble to tell us what they mean. In a defence of Mr. Drummond’s book, in the *Expositor*, the defender states, with reference to an article of my own in the *Churchman* of February last, that there are at least four theories of Evolution; and he also informs us which of the four it is that Mr. Drummond teaches. It is a pity that Mr. Drummond did not tell us this in his book, instead of leaving us to conclude, as some of us have concluded that it was the doctrine of Mr. Herbert Spencer that appeared to call forth his enthusiastic admiration.

Bishop Temple speaks of “the two theories of Evolution;” and what he does with the other two I do not know. He describes the one as that of La Place, and the other as that of Darwin; the former being a theory for the construction of the universe, and therefore by some called “Cosmical Evolution;” the other for the development of vegetable and animal life, and therefore termed “Biological Evolution.”

To begin with the *Biological*. This is briefly stated by Bishop Temple ^[7a] in the words: “It cannot be denied that Darwin’s investigations have made it extremely probable that the vast

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variety of plants and animals have sprung from a much smaller number of original forms.” So Darwin, in his summary, ^[7b] writes: “The several classes of facts which have been considered in this chapter seem to me to proclaim so plainly that the innumerable species, genera, and families with which this world is peopled, are all descended, each within its own class or group, from common parents, and have all been modified in the course of descent, that I should without hesitation adopt this view, even if it were unsupported by other facts or arguments.” I presume that there are very few amongst us who would differ materially from either of these statements; for both of them fully admit the original existence of a variety of common parents, which is, in fact, a complete surrender of the whole position; and Darwin limits the modifications in the course of descent to changes, “each within its own class or group.” Now this is all for which the anti-evolutionist contends; for all admit most freely the existence of most marked variations within the circles of the various groups.

But, although in this passage there is this limitation, as a matter of fact there is a great deal more claimed by both writers for Evolution; for the title of Darwin’s book, “The Origin of Species,” shows very clearly that he applies his theory not merely to variations within species, but to the formation of the species within which these variations take place. I do not gather from his book that his theory goes so far as to suppose that either plants or animals have passed over from one species to another, both species being already in existence; but rather that through the power of “the struggle for existence,” “natural selection,” and “survival of the fittest,” existing races have been so changed and modified that new species have been evolved out of them, and that in every such evolution there has been what evolutionists consider to be improvement.

The arguments which Bishop Temple adduces for this theory are—

- (1) “The unity of plan which can be found pervading any great class of animals seems to point to unity of ancestry.” ^[7c] He illustrates this by remarking that vertebrate animals are formed on a common plan.
- (2) “Slight variations are perpetually being produced.” ^[7d]
- (3) “The frequent occurrence both in plants or animals of useless parts which still remain as indications of organs that once were useful, and have long become useless.” ^[7e]

But is this scientific evidence? As to the 1st, the Bishop only claims for it that it “*seems to point.*” As to the 2nd, it quietly assumes the whole point at issue, for no one denies that there are variations “within each class or group,” and the fact that such variations exist within a certain class or group is no proof that they can extend beyond it. And as for the 3rd who knows that those that are called “useless parts” are really useless, though their use may not be known? And if they are useless now, what evidence is there that they were once useful, or were ever used? There is not the slightest scientific evidence in any one of these three points for the theory which they are adduced to support. There is not a single fact to prove the theory, and all that can be said by the most ardent advocate is that the conjecture seems to be probable. But how different is the evidence on the other side of the controversy! There we find certain clearly-defined and indisputable facts which cannot be doubted, and which cannot be reconciled with this new theory.

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(1) *Biological Evolution.*

There cannot be a doubt that there are certain great classes of plants and animals found in the world, which have certain distinct characteristics, and which, as a matter of fact, do not merge into each other. There seems to be considerable variation in the names given to them, and they appear to be distinguished by the name sometimes of “species,” sometimes of “genus,” sometimes of “class or group,” and sometimes of “kind.” In the sentence

quoted from Darwin on p. 6, he speaks of species, genera, and families; and describes them as being all descended each within its own class or group. This confusion of terms is difficult to reconcile with the boasted claim to scientific accuracy. That I may not be entangled by any questionable name I will distinguish these groups as A, B, C, D, etc., and our question is whether they have been evolved from each other or through each other, from a common stock; or whether they are separate creations. For the answer to this question let three facts be carefully considered.

(i.) There is the remarkable and clearly-established law of the sterility of all hybrids between any two of these great divisions. Both A and B may contain a great number of varieties, and all the varieties of A can breed freely with each other. In such case there is no failure of fertility in the progeny. The same is true of B and all the varieties that spring from it. If these varieties be expressed by the figures 1, 2, 3, etc., A1 may breed with A2, A3, or any other number, and so may introduce a fresh variety in the race A. But if A, or any variation of A, should breed with B, or any variation of B, there may be in the first instance a progeny; but there is a fixed and invariable law of nature that there should be no perpetuation of that progeny, for every individual so born is barren. Mules e.g., can never give birth to mules, and the mule race has no power of self-propagation. Now see how this bears on the subject of Evolution. If B were evolved out of A, there would, of course, be countless intermediate variations, and these variations would all have the power of perpetuating their kind. A would produce A1, A1 would produce A2, and so on, till A98 would produce A99, and, finally, to complete the series, A99 would produce A100, or B. But at this point, if the Evolution theory is to be reconciled with facts, a new and most strange law must be suddenly evolved; and the continuity of law must be broken. A98 may breed with A99, and their offspring may perpetuate their race; but if A99 should breed with A100, which is B, it is true there may be offspring, but that offspring will have no power of self-perpetuation. How can evolutionism explain such a fracture in the continuity of law? And is not the scientific fact dead against the Evolution theory? p. 9

(ii.) As a matter of fact we do not find that continuous chain of intermediate links which the theory requires. The theory is, that as there are to be no sudden jumps in nature, the various numbers are evolved from each other in a vast series of almost imperceptible improvement; and it follows of necessity that, if the theory were true, instead of finding distinct classes, we should find various lines of progress stealing into each other in steps so minute that it would be very difficult to detect their differences. If, e.g., man has been evolved from monkey there ought not to be a yawning chasm, as there now is, between the two, but there ought to be a vast series of connecting links bridging the chasm between monkeyism and manhood; and there ought to be a race of monkeys still existing so near to man in physical structure and mental power that the birth of man from such a parentage should be within the range of natural probability. Let A be monkey, and B man, then there ought to be a continuous line of intermediate numbers, and A99 ought to approximate so closely to B that it would be perfectly natural for B to be its child.

But where are these links to be found? and what naturalist can discover them? If the theory be true, the process must still be going on, and the world must be teeming with these intermediate races. But where are they? Bishop Temple as attempted to answer this question thus:

If it be asked why this variety does not range by imperceptible degrees from extreme forms in one direction to extreme forms in the other, the answer is to be found in the enormous prodigality, and the equally enormous waste of life and living creatures . . . Eggs, and seeds, and germs are destroyed by millions, and so in a less but still enormous proportion are the young that come from those that have not been destroyed. There is no waste like the waste of life that is to be seen in nature . . . The inevitable operation of this waste, as Darwin's

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investigation showed, has been to destroy all those varieties which were not well fitted to their surroundings, and to keep those that were. (P. 165.)

But if this be the solution of the difficulty, how is it that those at the bottom of the scale remain? One of the great principle employed to explain the theory is “the survival of the fittest.” The result therefore must be continuous progress, and the *raison d'être* of each successive formation is its superior fitness above the form from which it sprang. A1 survives because it is superior in fitness to A, and A2 because it is superior to A1, and so forth. The effect therefore of the Bishop’s principle would be that the inferior forms at the bottom of the scale would perish, while the superior that have risen out of them, by reason of their greater adaptation to their environment, would survive. But this is not the fact. As a matter of fact, A, at the bottom of the scale, survives, though A99, at the top, is gone. The countless multitude of intermediate formations has disappeared, but the parent stock remains. If ever there was a race of animals so near man as to render it nothing more than natural that it should give birth to man, that race has wholly disappeared, while animals vastly inferior still exist in all their strength. Such a fact appears to me to be fatal to the theory.

(iii.) But the geological evidence is stronger still. If all these creatures have arisen in succession, and perished, we may well ask, “Where are their bones?” Each successive race, according to the theory, has been sufficiently powerful to overpower its predecessors, and to reproduce its own kind. It is clear, therefore, that we should naturally look for the geological remains of those once-powerful animals. But here we are met by the hard, stubborn, rocky fact, that there is no trace of them in the geological record. We find the remains of A, B, C, D, etc., but between them there is a complete hiatus; and if there were 1000 links between A and B, the geologist cannot show you one of them. He can show you A, and he can show you B; but as for A 20, 30, and 40, he can only tell you that they are not yet discovered. I know that some good Christian people are afraid of geology, and in that I believe they make a great mistake; for though I grant there may be danger in shallow, superficial, theoretical geology, I never can doubt that the real record of the rocks is in perfect harmony with the real record of Scripture. So, in this instance, it has furnished us with an unanswerable proof that the evolutionist theory is not founded in fact, and that nothing has yet been discovered in the geological record to shake our confidence in the grand, old, Scriptural statement, “God made the beast of the earth after its kind, and the cattle after their kind, and everything that creepeth upon the ground after its kind: and God saw that it was good.” We all know that it is not the object of the Book of Genesis to teach science; and some, I grieve to think, are not afraid of calling it a myth, or even a poem for the childhood of the world; but I venture to affirm that the statement of the Inspired Book which describes each kind as a separate creation is more in accordance with well-known geological facts, and is therefore more scientifically accurate than the theories of those who adopt the conjecture that the various kinds, species, or groups evolved themselves either from each other or from a common stock.

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(2) *Cosmical Evolution.*

But if this be the case with Biological Evolution, how is it with Cosmical Evolution, or the evolution of inanimate matter? Bishop Temple describes it as “that which begins with Laplace, and explains the way in which the earth was fitted to be the habitation of living creatures;” ^[11a] and again he says: ^[11b]

It cannot, then, be well denied that the astronomers and geologists here made it exceedingly probable that this earth on which we live has been brought to its present condition by passing through a succession of changes from an original state of great heat and fluidity, perhaps even from a mixture mainly consisting

of gases; that such a body as the planet Jupiter represents one of the stages through which it has passed; that such a body as the moon represents a stage toward which it is tending; that it has shrank as it cooled, and as it shrank formed the elevations which we call mountains, and the depressions which contain the seas and oceans; that it has been worn by the action of heat from within and water from without, and in consequence of this action presents the appearance when examined below the surface of successive strata or layers; that different kinds of animal and vegetable life have followed one another on the surface, and that some of their remains are found in these strata now: and that all this has taken enormous periods of time. All this is exceedingly probable, because it is the way in which, as Laplace first pointed out, under well established scientific laws of matter, particularly the law of gravitation and the law of the radiation of heat, a great fluid mass would naturally change.

There is nothing in that explanation to militate against the Scriptural accounts of the formation of the present world; and it may have pleased God to make use of the laws of gravitation and radiation of heat in order to bring our world into its present form. But the structure of the earth is not all, or nearly all.

There is found on the earth, and within it, an infinite variety of substances. There are metals; such as gold, silver, lead, iron, etc. There are precious stones of gorgeous beauty, diamonds, rubies, etc., etc. There is vegetable matter of every description, from the tenderest blade of grass to the hard wood of the forest oak. And there are animals of all classes and all characters, from the lowest mollusk to the most perfect and elaborate vertebrate. And the question is, What made them? Were they produced by the cooling of the earth? Was it gravitation or radiation that made the gold, the ruby, the fern, the oak, the animal, and the water?

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But in addition to these various substances, the world abounds with what we call "Laws." There are the laws of electricity, of heat, of chemistry, of force, of motion, etc.; besides those to which all these great changes are ascribed, the laws of heat and gravitation—and, What made them? Are they all the result of the cooling of the earth? Was one mass of fluid matter cooled into iron, one into gold, one into wood, and one into flesh? and did they all evolve from themselves by some mysterious power, those wonderful laws of nature to which they are all subject and which they all obey? In their case there was no "struggle for existence," no "survival of the fittest," and no "natural selection"—no thought, no mind, no design, and no plan in themselves; and it is indeed hard to suppose that they not only evolved themselves, but also evolved laws of such marvellous subtlety and power, that their discovery and use form the greatest achievement of modern science.

It may perhaps interest some to know how it is all supposed to have been done, and as Mr. Herbert Spencer appears to be the great apostle of the theory, I will give, in his own words, the conclusion of his elaborate argument. In "First Principles" (p. 396) he gives his great conclusion, and prints it in italics that there may be no mistake as to its vast importance: "Evolution," he says, "is an integration of matter and concomitant dissipation of motion, during which the matter passes from an indefinite, incoherent homogeneity to a definite, coherent heterogeneity, and during which the retained motion undergoes a parallel transformation." Is it for such as that that we are to give up our faith in the creation of God?

But this is not all, for not merely is the earth filled with various substances, and governed by various laws; but there is a third element for which even Mr. Spencer's definition fails to account, and that is life. There is life abounding everywhere; but what science can tell us either what it is or whence it came? Was it produced either by gravitation or radiation? Did the cooling of the earth produce life on its surface? I know no greater evidence of the utter failure of the evolutionist theory than the suggestion made on one occasion (I think in an

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inaugural address to the British Association), that life came in a meteoric stone from some already formed habitable world. With reference to such an idea it is enough to ask four questions. How did it get into that other world? How did it attach itself to the meteoric stone? How did it survive the awful blow which it must have experienced when it struck the earth? and how did it spread itself when it found itself alone in the utter loneliness of an uninhabited world? Such is the theory of those who would struggle to create a world without a God; and I venture to affirm that there is infinitely more true science in the words, "All things were made by Him, and without Him was not anything made that was made. In Him was life, and the life was the light of men."

But, though I have thus followed Bishop Temple in his twofold division of the theory of Evolution, there is another twofold division which I regard as of incomparably greater importance. I refer to the Theistic and Atheistic theory.

I. There is a Theistic theory, for there can be no doubt whatever that many of those who accept the Evolution theory hold it in the firm belief in the creative power of a self-existing Creator. Bishop Temple, *e.g.*, states the question thus:

In the one case the Creator made the animals at once such as they now are; in the other case He impressed on certain particles of matter, which either at the beginning or at some point in the history of His creation He endowed with life, such inherent powers that in the ordinary course of time living creatures such as the present were developed. The creative power remains the same in either case. ^[13]

For my own part, I should be almost disposed to consider that the creative power was the greater on the theory of Evolution; for to make a germ which should evolve itself into all the countless varieties, both of animate and inanimate existence, is, if possible, a greater miracle than the creation of each separate species. There is great skill shown in the manufacture both of a railway train and a steamboat, but the skill would be of a much higher order if a person were to construct a train with its engine and all its carriages, and impart to it the remarkable property that when it arrived at the sea-coast it should of itself without the action of man, turn itself into a steamboat.

Thus a person may hold the Evolution theory to its fullest extent without entertaining the slightest doubt as to the creative power of our God. Indeed, Bishop Temple says:

The doctrine of Evolution leaves the argument for an intelligent Creator and Governor of the world stronger than it was before. There is still as much as ever the proof of an intelligent purpose pervading all creation. The difference is that the execution of that purpose belongs more to the original act of creation, less to acts of government since. There is more Divine foresight, there is less Divine interposition; and whatever has been taken from the latter has been added to the former. (P. 122.)

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There is such a joy in the blessed assurance of Divine interposition, and it seems so clearly taught in Scripture, that it is impossible to regard without the utmost jealousy the suggestion of even such a transfer as that described in these words. But still, however greatly we may regret the theory, we are bound in justice to recognise the fact that those who hold it may believe in a Creator God with a faith as firm and unshaken as that which brings peace to our own souls.

I cannot refrain from adding that this was the view of Darwin himself. He has been claimed as an ally by those who deny the creation of God; so that it is most satisfactory to read such a passage as that with which his book concludes:

There is grandeur in this view of life, with its several powers, having been originally breathed BY THE CREATOR into a few forms or into one; and that whilst this planet has gone cycling on according to the fixed law of gravity, from so simple a beginning endless forms, most beautiful and most wonderful, have been and are being evolved. (P. 429.)

We may wholly differ from him in his theory of Evolution, but we rejoice to agree with him in the conviction that life, was originally breathed forth by the Creator.

2. But there is also an Atheistic theory of Evolution, which does, in fact, substitute Evolution for God. The doctrine of Evolution is used, according to Bishop Temple, “to prove that no intelligence planned the world.” The theory seems to be that through the power of certain laws the original atoms have gradually evolved themselves into all the beauties and endless varieties of this thickly-peopled world. It is pitiable to see the hopeless shifts to which intelligent men are driven in order to maintain such a theory. They are compelled to face the questions, “Whence came the atoms? and now did the laws originate?” And Mr. Herbert Spencer for an answer to such questions is compelled to resort to what he terms “The Persistence of Force.” We might push the inquiry one step farther, and inquire what was the origin of this Persistence of Force? and we cannot but wonder that a man who is considered one of the great thinkers of the age should not be compelled, when thus driven into a corner, to acknowledge with candour that his persistent force is nothing less than the omnipotence of God. But no, he cannot admit the existence of a God, and in a note on p. 192 of his “First Principles,” he actually tells us that he and Professor Huxley invented the term “Persistence of Force,” instead of what used to be the term employed, “Conservation of Force,” because “Conservation implies a Conserver,” and that he denies. Thus his theory of Evolution is employed to show how the world evolved itself without the interference of a Creator, or even a Conserver of Force. The whole thing is supposed to have been done without design, without plan, without intelligence, without skill, and in fact without any action of mind or intelligent power. The whole is supposed to be the result of certain unintelligent laws, not ordained by any Lawgiver, or carried out by any Conserver. In other words, the Evolution theory is the Atheist’s substitute for God.

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Now surely, if this be the case, those who write and speak in favour of the Evolution theory ought to be much more careful than some of them have been in defining what they are speaking of. Some of them speak of “the doctrine of Evolution,” as if there was only one doctrine, and some speak in most rapturous terms of its most extraordinary value—as, *e.g.*, when Mr. Drummond said in Grosvenor House that “It was the Great thought of the century, perhaps the greatest the world has ever found out;” but surely when they do so they are bound to tell us what they mean. Do they mean simply growth? or progression? or variation within species? Or do they mean evolution from species to species? or the evolution of the inanimate world? On such points there ought to be a clear and unmistakable definition. Above all, do they mean an evolution by God, or without Him? An evolution by the design of a divine Person, or by “Persistence of Force,” whatever that may be? “Evolution,” in the vocabulary of Mr. Spencer and his followers, means nothing less than a theory for the formation of the world and all things therein, without the action or design of a personal Creator; and surely it is to be deeply deplored that Christian advocates should employ exactly the same term without the slightest caution or protest. I do not say that in their writings there are no passages which, if carefully collected and spliced together, may indicate what they mean. But what I maintain is, that as the word “Evolution” is employed by them to express the mode according to which our Heavenly Father has formed the whole creation, both animate and inanimate, and by Atheists to express the mode by which the world is supposed to have formed itself, they ought not to use the word without making it as clear as the sun in heaven in what sense they employ it. They may speak of “Evolution” as the great scientific theory of the day, or as the greatest achievement of the age, and unless they are much more careful than some have been, their authority may be quoted as

endorsing the theory invented by Atheists and maintained by them in support of their Atheism. Men's minds are governed by words, and surely we have a right to ask of those who glory in scientific accuracy that they should clearly define what they mean, and not leave their unscientific readers to discover, as best they may, whether they wish us to believe in self-evolution or Divine formation; in a self-evolution by Persistence of Force, or in a marvellous creation by the design, the skill, and the omnipotence of God. If they write about Evolution in the loose way in which some have done lately while they appear to speak with admiration of Mr. Herbert Spencer's philosophy, they cannot be surprised if they are regarded as teaching his Evolution theory, and if the effect of their writing is to weaken faith and strengthen Atheism.

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But let no one suppose for one moment that, because we deplore the loose, inaccurate, and unscientific manner in which some of those who glory in their scientific accuracy appear to confound fact and theory, on that account we undervalue scientific investigations, or think lightly of scientific facts. In proof of this I would conclude this paper by an extract from the writings of a truly scientific investigator, the late Mr. F. Buckland, who writes:

Of late years, the doctrines of so-called Evolution and Development have seemingly gained ground among those interested in natural history; but to put matters very straight, I steadfastly believe that the Great Creator, as indeed we are directly told, made all things perfect and "very good" from the beginning; perfect and very good every created thing is now found to be, and will so continue to the end. I am very willing to prove my case, by holding a court at any time or place, before any number of people of any class. I would impanel a jury of the most eminent and skilful railway and mechanical engineers, while the only witnesses I should call would be the fish fresh from the deep-sea trawler, the city fish market, or the fishmonger's slab: I would adduce from them evidence of "design, beauty, and order," as evinced in such as the electric organs of the torpedo, the gun-lock spine of the file-fish, the water-reservoir and spectacles of the eel, the teeth of the gilt-head bream, the anchor of the lump-sucker and remora, the colouring of the perch and bleak, the ichthyophagous teeth of the pike, shark, and silvery hair-tail; the tail of the fox shark, the prehensile lips of the dory and sprat, the nose of the barbel and dogfish, the resplendence of the arctic gymnetrus and scabbard-fish, the dagger in the tail of the sting-ray, the nest of the stickleback, the armour-plates of the sturgeon, the nostril-breathing powers and store of fat in the salmon; migrations of the salmon, herring, pilchard, sprat, and mackerel; and, above all, the enormous fertility of fishes useful as food to the human race. I am satisfied that I should obtain a verdict in favour of my view of the case, namely, that in all these wonderful contrivances there exists evidence of design and forethought, and a wondrous adaptation of means to an end. (*Life*, p. 424.)

FOOTNOTES.

[3] Address in Grosvenor House, May 3, 1885.

[5a] May 3, 1885.

[5b] In the *Christian Commonwealth*.

[6a] "Bampton Lectures," p. 162.

[6b] *Ibid.* p. 167.

[7a] "Bampton Lectures," p. 164.

[7b] "Origin of Species," p. 403.

[7c] "Bampton Lectures," p. 164.

[7d] *Ibid.* p. 164.

[7e] *Ibid.*, p. 166.

[11a] P. 167.

[11b] P. 162.

[13] "Lectures," p. 114.

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