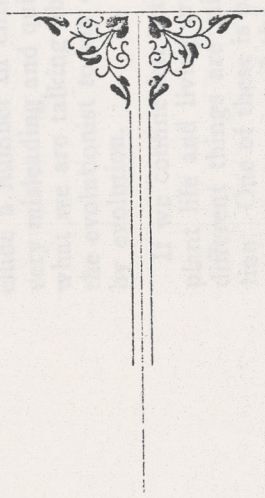


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**THE TEACHING
OF EVOLUTION**



— By —
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About the Author

The text of this pamphlet first appeared in "The Globe," of Toronto, at the end of November, 1929, and was republished in "The Gospel Witness," Toronto, December 26th, 1929. The author, Dr. W. Bell Dawson, is the distinguished son of a distinguished father, the late Sir J. Wm. Dawson. Another son of Sir J. Wm. Dawson was the famous Dr. George Mercer Dawson. Dr. W. Bell Dawson's degrees are from McGill University. To give our non-Canadian readers some idea of Dr. Dawson's rank as a man of science, it may be added, that he is a gold medalist in Geology and Natural Science at McGill University; Fellow, Royal Society of Canada; Member, Institution of Civil Engineers, London, with gold medal; Member, Canadian Institute of Civil Engineers; Laureate, Academy of Sciences, Paris, with two prizes from it; organizer and director for thirty years of the Survey of Tides and Currents throughout waters of Eastern Canada, Pacific Coast, and Hudson Bay, under the Marine Department.

(This note is written by the Editor of "The Gospel Witness.")

It is often said that we cannot deny evolution, because it is all around us on every side. Do we not see the budding leaf, the egg that hatches into a chicken, and so on, everywhere? So "evolution" is made to include almost everything that happens in nature, as well as all the developments and progress in human inventions; and we are asked to accept the whole without question. At this rate, it is truly well said that "evolution is the most overworked word in the English language." Now, when we look into all this, we find that the word Evolution is made to include a number of entirely different things. This is very misleading and quite illogical, if we wish to know what we are talking about. We must, therefore, ask the evolutionist to say definitely what he really means by evolution.

If we confine our attention to living things, that is, plant life and living creatures, we find that two very different things are mixed up under the term evolution. One of these is properly called the "life history" of a creature; and the other is the change of a plant or animal into something else of an entirely different kind, which is the proper meaning of evolution. To take a simple example: a hen lays an egg which hatches into a chick, and the chicken becomes a hen, and this hen lays an egg. This is its circle of life or its life history. At some stages there is development, but there is no evolution as there would be if the hen turned into an eagle. This, indeed, would only be a very small step; for in evolution, we have to suppose that a sea snail turned into a fish, the fish became a crocodile with legs, and the crocodile or some other reptile developed into a bird; because this is the order in geology. We must be careful, therefore, to distinguish clearly between the life history of any one kind of creature, and the supposed change of a crea-

ture into another of an entirely different kind, which evolution properly means. Otherwise, we cannot expect to understand the question at all.

In regard to Darwin's writings, it is only fair to explain that he put forward evolution as a theory. He also recognized that if any theory is to hold good, there must be some adequate causes which make it operate. He gave three causes which he maintained to be sufficient to change one species into another. These were: Natural Selection, the Struggle for Existence, and the Survival of the Fittest. This theory and these causes for its operation, which were first published in 1859, at once gave rise to discussion and investigation among scientists; as well as the search for a "missing link" to connect the animals with man; a search which has now been carried on over the face of the whole earth.

Failure of Darwin's Theory.

It would, of course, be impossible even to outline here the discussion and the research during the seventy years since Darwin's time; but the outcome is that the causes which he put forward have proved inadequate to produce the result. It has been ascertained, for example, that "Natural Selection" follows a definite law in the results which it produces (in accord with Mendel's Law) and that it does not give rise to new species. Again, a large amount of experimentation has shown that the "Struggle for Existence" does not conduce to improvement. Plants or animals need favorable surroundings for their development; and when subjected to the most severe disadvantages, such as want of moisture and scanty food, they do not improve by struggling against these; they deteriorate. The theory of evolution, as Darwin propounded it, has, therefore, failed; as the change of a plant or an animal into another of a different kind cannot be effected by the causes which he relied upon. Leading evolutionists admit, accordingly, that Darwinism is a thing of the past. Dr. H. F. Osborn, a most staunch advocate of evolution, puts the matter thus: "Between the appearance of the *Origin of Species* in 1859 and the present time, there have been great waves of

faith in one explanation and then in another; each of these waves of confidence has ended in disappointment until finally, we have reached a stage of very general skepticism."

We find then, as things are at present, that evolution is confronted with two difficulties: (1) The difficulty to prove that evolution actually took place, either in the records of past ages or by any means that can be used in the present world, and (2) the difficulty to find any cause which can be considered at all adequate to produce the change of one creature into another. To say, for example, that everything has an inherent tendency within itself to improve is pretty near to the edge of nonsense; for it is not only an unsupported statement, but it is not even plausible because it runs counter to all the physical laws. In regard to this question of a cause, we find that evolutionists differ most fundamentally among themselves, and they have reached no conclusion about it which is generally accepted. In these circumstances, evolution can only be regarded as a theory which is still under discussion. The question of evidence is in an equally unsatisfactory position, for throughout geology nearly all the great classes of animals which still exist in the world have deteriorated from their magnificence in the past, and many species continue to the present day exactly as they were long ages ago without any development whatever. There are thus great outstanding groups of facts which are quite out of line with any evolutionary hypothesis and which it does not serve to explain.

Evolutionists admit Failure.

The most candid evolutionists who take a wide outlook admit that so far they have failed to find any conclusive evidence for their theory or to discover any causes adequate to bring it about. Dr. William Bateson, the eminent biologist, made this very clear at the meeting of the British Association at Toronto a few years ago. He stated that "the origin and nature of species remains utterly mysterious." Yet he does not abandon the idea of evolution because of this, although he may be constrained to say frankly that

"he holds it only as an act of faith." If evolution has thus become a creed or dogma, the Christian believer is surely quite as much entitled to his faith in what the Scriptures declare—that the Almighty Creator "made the beast of the earth after his kind, and every thing that creepeth upon the earth after his kind," and that He "created man in His own image"; for it is "through faith that we understand" these things. Many well-meaning attempts have been made to reconcile this belief with evolution, but the wide discussion upon this has made it clear that a choice must be made between the one belief and the other. Professor Huxley himself, whose mind was trained in logical reasoning, saw that this choice is essential, for he said: "The doctrine of evolution is directly antagonistic to that of creation. Evolution, if consistently accepted, makes it impossible to believe the Bible."

When evolutionists have come to abandon the Darwinian views and are now at variance among themselves in regard to the very foundations on which evolution is based, it is surely quite unfair to teach evolution to our young people as firmly established. Many of our school text-books on plants and animal life take evolution for granted as though there could be no dispute about it. Yet Dr. Osborn of the Museum of Natural History in New York, who is a most ardent advocate of evolution, makes this remark in a recent book of his: "It is best frankly to acknowledge that the chief causes (of evolution) are still entirely unknown, and that our search must take an entirely new start. . . . The old paths of research have led nowhere, and the question arises: What lines shall new researches and experiments follow?" In regard to man, evolutionists have been obliged to change their ground entirely, and instead of the former opinion of descent from some ape or monkey, their present view is that man and the monkey are related as cousins with a common ancestor. But this supposed ancestor can no more be found than the missing link which was required under the former supposition, for which a world-wide search has been made without success. In these circumstances, the remark of Lord Kelvin, the eminent physicist, is as forceful and applicable as

when it was first made many years ago: "I marvel at the undue haste with which teachers in our universities and preachers in our pulpits are restating truth in terms of evolution, while evolution itself remains an unproved hypothesis in the laboratories of science."

We cannot here enter upon a discussion of the evidence which is proffered in support of evolution, and the reasons against it; as these reasons carry us forward to moral and religious questions of the highest importance. But keeping to a purely scientific and common-sense standpoint, we protest against the teaching of evolution in any of our school grades, as well as in the earlier years of a university course. For evolution professes to explain how things came to be as they are, throughout the whole domain of what is broadly known as Natural Science. Indeed, if the explanations which it gives are to hold good, it should include the more foundational realms of nature as well; for an eminent scientist, though himself a biologist, has said with reason: "Every theory of evolution must be such as to accord with the facts of physics and chemistry, a primary necessity to which our predecessors paid small heed."

Not an "Elementary" Subject.

We find, then, that evolution as an explanation borders closely upon philosophy; and many thinkers consider that it should rank as philosophy rather than as science, for it is very similar to the ancient Greek philosophies, and even older ones. Is it not rational, therefore, to hold that young people should first have a thorough grounding in the facts, before they enter upon theoretical explanations to account for them? To be able to grasp any intelligent discussion of evolution, they must first have a good knowledge of chemistry, botany and zoology (or else a combination of these in biology) and some acquaintance with geology. It is plain, therefore, that from the standpoint of progressive instruction, evolution is entirely out of place in elementary text-books. An "elementary" book is, properly speaking, one which begins at the beginning of a subject, however rapidly it may advance; for it does not take for granted that the

learner has any previous knowledge of the subject. If, then, a pupil who is beginning zoology, for example, finds it stated that some creature is a development from another type which is lower, this evolutionary teaching comes to him merely as a dogma, backed by authority; which he is forced to learn and repeat to pass his examinations. Let the pupil first be taught what this creature is, what it does, and what purpose it serves in the realms of nature, before theoretical explanations are thrust upon him. His mind should at least be left free at this primary stage to decide later whether he will regard this creature as the design of the Creator or as a product of evolution.

The next objection to the introduction of evolution into elementary text-books is the one-sided and unfair way in which it is taught. Of all the sciences, astronomy is probably better taught than any other; for astronomers make so clear a distinction between, firstly, what we definitely know; next, what we can infer from this knowledge regarding the size and distance of the stars, and can be reasonably sure of; and thirdly, what as yet we do not know. With such teaching the student grasps the situation; and his ambition is stimulated to decrease by further research the wide region of our ignorance. But when teaching has the evolutionary bias, the darkest corners where we know least are continually pointed out as the places where evolution most probably occurred. In geology, which is the best testing ground for evolution, all the features are emphasized which the evolutionist considers to be a support for his theory, and other features which are directly against it and cannot be explained on any evolutionary hypothesis, are passed over or ignored. It is surely quite unfair to present any subject in such a way to a beginner before he has some comprehensive grasp of the facts as they stand. For the subject is treated as though the whole object in teaching it was to find support for an advanced philosophical theory. The learner has as yet no adequate knowledge to enable him to judge of such matters; and he has no choice but to accept the theoretical explanations which are passed on to him.

Deterioration of Creatures.

We may give very briefly a few illustrations to make our meaning clear. In the case of nearly all the great groups of creatures, there was a time in the geological ages when they were more highly developed than they are in the present world. Take the wide group of the sea shells (the mollusca), which includes as its highest types the nautilus and the cuttlefish. These upper-class types were far more numerous in proportion away back in the Silurian than they are to-day; as the humbler mollusca, the sea-snails, mussels and clams, are now very largely in the majority. Why, then, did the higher types die down, and the lower-class mollusca gain upon them, till the present? This does not look like the survival of the fittest. Probably the best answer is that the place in nature occupied by these more active mollusca was taken later on by the fishes, which had not then come into existence. This same deterioration, in the sense of the dying out of the highest types in a large group, is also true of the class of trees which formed the forests of the coal formation, now represented in their class by the lowly mosses and rushes. It is the same with the early insects, and very conspicuously so with the great group of reptiles that were once the lords of creation.

We have also the wondrous persistence of many forms, without change. Two little snail shells will exemplify this. There is a land snail (a pupa) and a common water snail (a limnea), that are found about the middle of the geological ages, which are quite indistinguishable from species now living. Why then have they not developed into something better during these ages? There can hardly be "an inherent tendency in everything" to develop. Other examples of this could readily be given, among plants as well as animals. When we turn again to the organs of the body, we find examples of the same want of development. The multiple eye, such as the house-fly has, is well preserved in fossils; and the very ancient crabs and lobsters, in one of the earliest geological ages, had this type of eye. It is precisely the same in its

structure, among modern crabs and insects, as it was at the first. Why then has there been no improvement in all these long ages? The only answer is, it was perfect from the beginning; perfectly adapted to the creatures that use it.

Unfair to Students.

These considerations strengthen the conclusion that evolution is entirely out of place in elementary textbooks, whether in schools or in the earlier years of the university course. From the point of view of a proper sequence in education, and the stage reached by the mind of the pupil in relation to any branch of Natural Science that he is beginning to learn, it is not right that evolutionary teaching should be mixed in with the facts of the subject. It is also specially unfair to give the impression to the uninformed student, that evolution is an established principle in science, and to teach it accordingly in the very one-sided way that is usually followed; in view of the continual change of attitude toward it, and the inconclusive discussions regarding it, which are still going on among evolutionists themselves.

If evolution must be taught, it should be put in the place where it properly belongs, in the most advanced classes in the university. The student will then be in a position for its discussion, with an unbiased mind, when he is already well grounded in the various branches of Natural Science as a basis. This is the only rational procedure from a purely educational standpoint. Evolution can then be discussed in its relation to Greek philosophy, which it closely resembles; and the student will then make his choice between accepting the views of a pagan philosophy, or believing the revelation from God which the Scriptures give us, where the relation of man to his Creator and to nature around him is so impressively explained.