

**EVOLUTION: AN ADDRESS
DELIVERED MAY 7TH, 1884,
BEFORE THE ALUMNI
ASSOCIATION OF THE COLUMBIA
THEOLOGICAL SEMINARY**

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Evolution: An Address Delivered May 7th, 1884, Before the Alumni Association of the
Columbia Theological Seminary by James Woodrow

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JAMES WOODROW

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EVOLUTION,

AN ADDRESS

DELIVERED MAY 7TH, 1884, BEFORE THE ALUMNI ASSOCIATION
OF THE COLUMBIA THEOLOGICAL SEMINARY,

BY

JAMES WOODROW,

PERKINS PROFESSOR OF NATURAL SCIENCE IN CONNEXION WITH
REVELATION, IN THE THEOLOGICAL SEMINARY
AT COLUMBIA, S. C.

COLUMBIA, S. C.

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1884.

EVOLUTION.

ADDRESS.

Gentlemen of the Alumni Association:

At the same time that you honored me with an invitation to deliver an address before you on this occasion, the Board of Directors of the Theological Seminary, in view of the fact that "Scepticism in the world is using alleged discoveries in science to impugn the word of God," requested me "to give fully my views, as taught in this institution, upon Evolution, as it respects the world, the lower animals, and man." Inasmuch as several members of the Board are also members of this Association, and both Board and Association feel the same interest in the Seminary, I have supposed that I could not select a subject more likely to meet with your approval than the one suggested to me by the Directors.

I am all the more inclined to make this choice, as it will afford me the opportunity of showing you that additional study has, in some respects, to a certain extent modified my views since I expressed them to many of you in the class-room.

As is intimated in the Board's request, I may assume that your chief interest in the topic is not in its scientific aspects, but in relations it may bear to the word of God; and therefore I will speak mainly of these relations. Not that I regard you as indifferent to science; from my past acquaintance with you, I have too high an appreciation of your intelligence to regard that as possible; for no intelligent person can be indifferent to knowledge, and especially can no intelligent child of God be indifferent to a knowledge of his Father's handiwork, or of the methods by which he controls the course of his universe. Still, on the present occasion it is doubtless the relations between science, or that which claims to be science, and the Bible, and not science itself, that should receive our attention.

Before entering on the discussion of the specific subject of Evolution in itself and in its relations to the Sacred Scriptures, it may be well to consider the relations subsisting between the teachings of the Scriptures and the teachings of natural science generally. We hear much of the harmony of science and Scripture, of their reconciliation, and the like. Now, is it antecedently probable that there is room for either agreement or disagreement? We do not speak of the harmony of mathematics and chemistry, or of zoology and astronomy, or the reconciliation of physics and metaphysics. Why? Because the subject-matter of each of these branches of knowledge is so different from the rest. It is true we may say that some assertions made by astronomy cannot be correct, because it contradicts some known truth of mathematics or of physics. But yet, in such a case, we would not proceed to look for harmony or reconciliation; we would confine ourselves to the task of removing the contradiction by seeking the error which caused it, and which it proved to exist; for we know that, as truth is one, two contradictories cannot both be true.

May it not be that we have here a representation of the probable relations between the Bible and science—that their contents are so entirely different that it is vain and misleading to be searching for harmonies; and that we should confine our efforts to the examination of real or seeming contradictions which may emerge, and rest satisfied, without attempting to go farther, when we have discovered that there is no contradiction, if it was only seeming, or have pointed out the error that caused it, if real?

Let us test this point by examining special cases which have arisen, and with regard to which conclusions satisfactory to all believers in the Bible have now been reached.

In Genesis i. 16, the Bible speaks of the two great lights, the sun and the moon, and of the stars as if these were of comparatively insignificant size and importance. It says further, Joshua x. 13, that "the sun stood still, and the moon stayed"; "the sun stood still in the midst of the heaven, and hastened not to go down about a whole day." In these and other passages the Bible has been thought to teach that the sun and the moon are larger than any of the stars, and that sun, moon, and stars, having been

created for the benefit of man, revolve around the earth as a centre. On the scientific side, two forms of astronomy have been presented: the Ptolemaic, teaching that the earth is the centre of the universe; the Copernican, teaching that the sun is the centre of our planetary system. Those who asked for harmony between science and the Bible found wonderful confirmation of the Bible in the Ptolemaic astronomy, and of the Copernican astronomy in the Bible. But gradually it came to be seen and admitted that, whatever might be its teachings on other subjects, the Bible was at least not intended to teach astronomy; and for centuries general assent has been given to the words of Calvin: "Moses does not speak with philosophical acuteness on occult mysteries, but relates those things which are everywhere observed, even by the uncultivated." . . . "He who would learn astronomy, and other recondite arts, let him go elsewhere." Thus it has come to be believed that all we are entitled to ask, as regards the relations between astronomy and the Bible, is that they shall not contradict each other; not that they shall agree with each other. Believers in the Bible as such are indifferent as to what form of astronomy may prevail. Calvin's belief in the geocentric system no more interfered with his confidence in the Bible than does our belief in the heliocentric system interfere with our confidence in the same sure word.

Geography furnishes another illustration of this same kind of harmony between the Bible and science, which is not less instructive. For centuries geographers taught as science that which was claimed to be in perfect accord with the Bible in such passages as these: "They shall gather together his elect from the four winds, from one end of heaven to the other"; "I saw four angels standing on the four corners of the earth, holding the four winds of the earth"; "And shall go out to deceive the nations of the four quarters of the earth." So the Bible and science were thus found further to confirm each other. But, again, in process of time it came to be seen that neither the words of the Bible nor the phenomena of the earth taught what had been supposed; that the Bible taught nothing about the shape or other characteristics of the earth in these or other passages; and that the phenomena

of the earth, rightly understood, did not teach that it is a four-cornered immovable plain. Here, again, it is seen that all we should ask for is not harmony, but absence of contradiction. The examination of other cases would lead to the same conclusion.

The Bible does not teach science; and to take its language in a scientific sense is grossly to pervert its meaning.

Yet it is not correct in any of these cases to say that the language of the Bible does not express the exact truth; that it is accommodated to the weakness of the popular mind, to the ignorance of the unlearned. We are often told by some defenders of the Bible that it speaks inaccurately when it says that the sun rises and sets, or that it stood still upon Gibeon. But what is accurate speech? It is speech which conveys exactly the thought intended. Now, if to say that the sun rises conveys exactly the thought intended, wherein can this expression be called inaccurate? There is no intention to explain the cause of the fact of rising. This fact exists equally, whether produced by the sun's absolute motion in space or by the rotation of the earth on its axis. The meaning is, that the relative position of our horizon and the sun has changed in a certain way; and in stating that the change has taken place, there is not the remotest reference to the cause. In passing from Europe to the United States, we say that we go westward. But we are met by the assertion, uttered in a patronising tone of superior wisdom: "Oh no; you speak erroneously; you show that you are not acquainted with the real state of the facts; or if you are, you are speaking inaccurately for the sake of accommodating yourself to your ignorant hearers; you make a false statement because your hearers could not otherwise gain any idea from you on the subject. The truth is, that when you thought you were going westward, you were going eastward at a rapid rate; what you call your going westward was merely stopping a small part of the eastward motion you had in common with the surface of the earth." Now it would probably be hard to discuss this sage utterance in a perfectly respectful manner. But wherein does it differ from the tone of those who apologise for the "gross form" in which the Scriptures convey instruction, for their not speaking with "greater exactness," and the like? A

phenomenal truth is as much a truth as is the so-called scientific explanation of it; and words which accurately convey a knowledge of the phenomenon are as exactly true as those which accurately convey a knowledge of the explanation. Science has to do almost exclusively with the explanation; it is interested in phenomenal truths only on account of their relations to each other; while the Bible speaks solely of the phenomenal truths involved in natural science for their own sake, and never for the sake of the explanation of them or their scientific relations to each other.

Admitting these principles, which are so readily admitted in their application to the cases already considered, many difficulties usually regarded as of the gravest character at once disappear. For example, in Leviticus xi. and Deut. xiv. the divinely inspired lawgiver classes the coney and the hare as animals that chew the cud; he places the bat amongst the birds; he speaks of the locust, the beetle, and the grasshopper as flying creeping things that go upon all four. Now if these representations are to be taken as scientific statements, we must without hesitation say there is here a sad batch of blunders: for the coney and the hare do not chew the cud; the bat is not a bird; the locust, the beetle, the grasshopper, and other flying creeping things, do not go upon four, but upon six. But now suppose that the words used conveyed exactly the knowledge that was intended, are they not correctly used? We understand by "chewing the cud" bringing back into the mouth, for the purpose of being chewed, food which had been previously swallowed; but if those to whom the words in question were addressed understood by them that motion of the mouth which accompanies chewing, then they would recognise by this motion the hare and the coney as rightly characterised. So with the bat—in a scientific sense it is not a bird; it is a mammal; hence, if we are teaching natural history, we would grievously err in making such a classification. But in describing flying things which do not creep, the bat was rightly placed where it is. Two years ago the Legislature of South Carolina enacted that "it shall not be lawful for any person . . . to destroy any bird whose principal food is insects, . . . comprising all the varieties of birds represented by the several families of *bats*, whip-poor-wills, . . .