

The Bible is a Textbook of Science

by Henry M. Morris, Ph.D.*

"If I have told you earthly things, and ye believe not, how shall ye believe if I tell you of heavenly things?" (John 3 :12).

The Christian polemicist frequently is confronted with the problem of the scientific "errors" in Scripture, especially in its first eleven chapters. Often he is tempted to resort to the solution of neo-orthodoxy and to protest that "the Bible is, after all, not a textbook of science, but rather of religion." "It is meant to tell us the fact of creation, not the method of creation; it tells us who is Creator, not when or how He created. It points us to a confrontation with the Creator, not an understanding of earth history."

It is obvious, of course, that the Bible is not a scientific textbook in the sense of giving detailed technical descriptions and mathematical formulations of natural phenomena. But this is not adequate reason for questioning the objective accuracy of those numerous portions of Scripture which do deal with natural phenomena and historical events.

This type of apologetic device is both logically unsatisfactory and evangelistically unfruitful. How can an inquirer be led to saving faith in the divine Word if the context in which that Word is found is filled with error? How can he trust the Bible to speak truly when it tells of salvation and heaven and eternity which he is completely unable to verify empirically he finds that data which are subject to test are fallacious? Surely if God is really omnipotent and omniscient, He is as well able to speak with full truth and perspicuity when He speaks of earthly things as when He speaks of heavenly things.

IMPORTANCE OF BASIC PRESUPPOSITIONS

It is salutary for anyone dealing with questions of this sort to recognize the essential nature of faith and presuppositions in his reasonings. "Science" (the very meaning of which is knowledge) necessarily can deal only with those things which exist at present. The scientific method involves reproducibility, the study of present natural processes. When men attempt to interpret the events of the prehistoric past or the eschatological future, they must necessarily leave the domain of true science (whose measurements can be made only in the present) and enter the realm of faith.

This faith may be in the doctrine of uniformity, which assumes that the present processes may be extrapolated indefinitely into the past or future and that therefore "all things continue as they were from the beginning of the creation" (II Peter 3:4). If one, because of his basic presupposition, wishes to believe in uniformity in this way, it is logically possible for him to do so and to explain all the pertinent data in this context. He can determine the ages of rocks and suns by projecting present rates of change into the limitless past; he can develop theories about the evolution of species and life and galaxies and chemical elements and everything in the universe, if he wishes, and no one can prove him wrong, for the simple reason that these events are not reproducible and therefore not subject to scientific checking. The most that can be done is to argue that his theories are either probable or improbable on the premise of his own uniformitarian presupposition, depending upon the logical consistency of the superstructure he has erected upon this foundation. But this is all within the context of his pure assumption faith uniformity.

One can equally logically start with some other assumption and then develop his explanations of the data within that framework. For example, one may assume, if he wishes, that all things in the universe were created by divine fiat five minutes ago. He could say that our apparent memories of earlier events were also created five minutes ago, and once again, no one could prove him wrong. He had logically explained all the data that exist, given his initial premise. As a matter of fact, one could assume, if he wishes, that all existence is illusory, a disease of mortal mind. The important point, here, is that one may pretty well believe what he wants to believe. He can erect a logical system within which he can explain all the physical data upon any one of any number of mutually exclusive and contradictory premises.

But we are concerned here mainly with the Biblical framework, and with the assumption that the Bible is truly the Word of God as it claims to be. If one starts with the presupposition that God has written the Bible as His own perfect revelation of the origin, purpose, and destiny of the world, then it again is perfectly possible to correlate all the physical data of science and history within that framework. The decision as to which presupposition leads to the most logical and self-consistent system of interpretation must necessarily be based on statistical arguments, and these are notoriously subjective in nature. Thus, in the last analysis, it is a spiritual and moral decision rather than a scientific decision. One can interpret everything in terms of Biblical creationism and catastrophism or in terms of evolutionary uniformitarianism, and all the pertinent data can be understood, at least in broad outline, within the framework of either system. Our concern here is simply to show that the Bible does provide a perfectly sound basis for understanding not only religious truth but also physical processes. It may very effectively serve as a "textbook" of scientific principles within which we can satisfactorily explain all the data of science and history. Whether or not

we choose to accept this framework is basically determined by whether or not we want to do so. Those who elect the evolutionary framework do so not because the facts of science require this, but because this is the philosophic thought-structure they desire. "They did not like to retain God in their knowledge" (Romans 1:28).

THE BIBLICAL FRAMEWORK

Those who, by faith, accept the Biblical cosmogony, do so for a perfectly good reason. It is obviously impossible to prove that God does not exist. There is, at the very least, a good possibility that He does exist. If so, it follows that all things are His creatures. The very minds with which we attempt to develop logical thought-structures are created by Him and must operate within the limitations which He has set upon them. It is therefore necessary, if we would understand anything of the true origin, purpose, and destiny of the world and of ourselves, for us to look to God for His own revelation of these things. God can only be known as He wills to be known.

The Bible claims, in numerous ways, to be God's unique revelation. It was accepted as such by Jesus Christ, who also claimed to be God incarnate, and who vindicated His claim by His uniquely perfect life, His atoning death, and especially by His glorious bodily resurrection from death.

The Bible, with this perfect claim to absolute divine authority does very clearly establish a framework of interpretation within which men are expected to formulate their understanding of the data of science. It is most reasonable and most gracious of God so to do, since it is quite impossible for man, with his study of present processes, to know anything for certain about the prehistoric past or the eschatological future. Only God can know these things, and we are able to know the truth about these matters only through faith in God's statements concerning them. Therefore, the Bible-believing Christian goes to the Bible for his basic orientation in all departments of truth. The Bible is his textbook of science as well as his guide to spiritual truth.

In its very structure, in fact, the Scriptures provide fundamental perspective on the entire Bible-science question. The word Bible means simply book, and it is significant that the first mention of book in the Old Testament speaks of the "origins of Adam" (Genesis 5:1), and the first mention of book in the New Testament speaks of the "origin of Jesus Christ" (Matthew 1:1). The true book, therefore, by implication, is concerned essentially with the first Adam and the second Adam, and the relation between the two. It is also meaningful that the final mention of book in the Bible is in Revelation 22:19, speaking of the "book of this prophecy" and the "book of life," with a grave warning against tampering with the words of the Book.

The word science is essentially synonymous with knowledge, and is so used in Scripture. The first mention of knowledge in the Bible, in Genesis 2:9, is in connection with the "tree of knowledge." One might paraphrase by saying that God warned man against partaking of the "tree of science." There were to be prescribed limits within which man was to exercise dominion over the world; for his own good, he was not intended to venture outside these bounds and know in an experimental fashion the "science of good and evil." By contrast, the first use of knowledge in the New Testament, in Luke 1:77, speaks of the "knowledge (Greek, gnosis) of salvation," and the final mention speaks of the "knowledge of our Lord and Saviour Jesus Christ" (II Peter 3:18).

It is instructive also to compare the words knowledge and wisdom. The former has to do primarily with awareness of facts, whereas the latter has to do with interpretation and correlation and explanation of facts. They are in general parallel to what we mean by our technical words science and philosophy. This also corresponds with their usage in Scripture. In the New Testament knowledge is normally the translation of the Greek gnosis or epignosis. In one passage (I Timothy 6:20) it is actually translated, in the KJV, by science, referring to the opposition of "science falsely so-called." Wisdom, in the New Testament, is translated from the Greek sophia, which, when compounded with the Greek for "love of," and transliterated into English, becomes "philosophy," the "love of wisdom." It is significant that the only time the actual word philosophy is used in the Bible is in Colossians 2:8, which warns: "Beware lest any man spoil you through philosophy and vain deceit, after the tradition of men, after the rudiments of the world, and not after Christ."

True knowledge and true wisdom, which, is to say, science and true philosophy, must come from God alone, and therefore must conform to His framework of revealed Truth. The wise man said: "The fear of the Lord is the beginning of knowledge," and he also said: "The fear of the Lord is the beginning of wisdom" (Proverbs 1:7; 9:10). The Apostle Paul, in a tremendous doxology, shouted: "O the depth of the riches both of the wisdom and knowledge of God! how unsearchable are his judgments, and his ways past finding out! For who hath known the mind of the Lord? or who hath been his counselor? Or who hath first given to him, and it shall be recompensed unto him again? For of him, and through him, and to him, are all things: to whom be glory for ever. Amen" (Romans 11:33-36).

And he also emphasized that in Jesus Christ, the Living Word of God, "are hid all the treasures of wisdom and knowledge" (Colossians 2:3). Not only religious knowledge, but all knowledge; all the treasures of science and true philosophy are hid in Jesus Christ, who is the Creator and Sustainer of the physical universe!

It is not only legitimate then, but absolutely mandatory, for the Christian to depend implicitly on the scientific and philosophic framework revealed in Holy Scripture if he is to attain a true understanding of any of the factual data with which science deals, and their implications. It is not surprising at all, then, when we find that the Bible does speak rather explicitly about basic principles in every area of science.

THE PHYSICAL SCIENCES

We shall consider science under two very broad categories, the physical sciences and the life sciences, the latter including also the so-called social sciences. The physical sciences include such disciplines as chemistry, physics, geology, meteorology, hydrology, and the like. The life sciences include biology, psychology, anthropology, sociology and others.

As far as the physical, or inorganic sciences, are concerned, perhaps the most fundamental fact concerning them, long ago revealed in Scripture and only recently acknowledged by modern science, is that the physical world is basically nonphysical in its ultimate essence. The mechanics of the universe can only be comprehended, and then only vaguely, in terms of non-mechanical, mathematical concepts.

The Scriptures have made it quite clear that the physical universe was created *ex nihilo* and is fundamentally spiritual in essence. For example, Hebrews 11:3 states: "Through faith we understand that the worlds were framed by the word of God, so that things which are seen were not made of things which do appear." Some might object that the Greek word for worlds really here means ages. It probably can mean both, but in view of the modern recognition of the universe as a space-matter-time continuum, it would clearly be correct to speak of either space or matter or time or all of them as having been created by the word of God. And the basic "stuff" of this continuum is most definitely not "apparent" to the physical senses.

The same truth is revealed in Hebrews 1:2-3: "By his (God's) Son he made the worlds; who being the brightness of his glory, and the express image of his person, and upholding all things by the word of his power . . ." Thus, by power, by the Word, all things were made, and all things are upheld. Jesus Christ, through the continual outflow of His limitless divine energy is thus sustaining all the material stuff of the universe which He had once created. Here is clearly spelled forth the modern scientific truth of the equivalence of matter and energy. Here also is revealed the ultimate source of the mysterious nuclear forces, the binding energy of the atom. One might also refer to Colossians 1:16-17 for the same teaching.

As far as the laws or processes of the physical universe are concerned, these all devolve upon two extremely broad and powerful principles, the so-called first and second Laws of thermodynamics. Let it be emphasized that, if there is really such a thing as a law of science, these two principles meet that definition. There is no other scientific law supported more fully and certainly by more numerous and meaningful lines of evidence than are these two laws. All physical processes (and all biologic processes, for that matter) involve the interplay of two basic entities called energy and entropy. One could say that any event occurring in space and time is a manifestation of some form of exchange of energy. The particular event or process basically is just this transformation of one or more forms of energy (kinetic or motion energy, electrical, chemical, light, heat, sound, electromagnetic, nuclear, or other forms of energy) into one or more other forms.

In this process, the total energy remains unchanged; no energy is either created or destroyed, although its form may and does change. **This is the first law of thermodynamics, the law of conservation of energy.** This law has been validated on both the cosmic and sub-nuclear scales and is a truly universal law, if there is such a thing. And, since energy really includes everything, even matter, in the physical universe, it is as certain as anything can possibly be, scientifically, that no creation of anything is now taking place in the universe, under the normal conditions which science is able to study.

But in the process, some of the energy is always transformed into non-usable heat energy, and thus becomes unavailable for future energy exchanges. The concept of entropy has been developed to describe this phenomenon, entropy being a measure of the unavailability of the energy of the system or process. The second law of thermodynamics describes this by stating that there is always a tendency for the entropy of any closed system to increase. Or, in more general terms, the second law states that there is always a tendency for any system to become less organized. Its disorder or randomness tends to increase. If isolated from external sources of order or energy or "information," any system will eventually run down and "die."

These laws are basic in every scientific system or process. As far as science has been able to show, they are universal in scope, with no exceptions known. They were only discovered and validated by science, however, about a hundred years ago, after much uncertainty and controversy.

If men had been willing to develop their scientific systems on the basis of Biblical presuppositions, however, it should have been quite obvious all along that the basic physical processes were those of **conservation and decay, as**

now formalized in the statements of the first and second laws of thermodynamics. The Bible does not, of course, state these principles in the mathematical symbols or technical jargon of modern physics but the basic truths are quite clearly enunciated.

The conservation principle is strongly emphasized in the summary statement at the end of the period of creation, when the Bible says: "Thus the heavens and the earth were finished, and all the host of them. And on the seventh day God ended his work which he had made; and he rested on the seventh day from all his works which he had made. And God blessed the seventh day and sanctified it: because that in it he had rested from all his work which God created and made" (Genesis 2:13; italics added).

This statement is as clear as it could possibly be in teaching that God's creative acts were terminated at the end of the six days. Whatever processes He may have used in creating and making, all His work ceased when God rested on the seventh day. Nothing is now being created and this is what was finally formalized by science in the first law of thermodynamics.

The most significant implication of this fact, for modern philosophers, is that it is therefore quite impossible to determine anything about certain creation through a study of present processes, because present processes are not creative in character. If man wishes to know anything at all about creation time of creation, the duration of creation, the order of creation, the methods of creation, or anything else his sole source of true information is that of divine revelation. God was there when it happened. We were not there, and there is nothing in present physical processes which can tell us about it. Therefore, we are completely limited to what God has seen fit to tell us, and this information is in His written Word. This is our textbook on the science of creation!

Present processes are those of maintenance or providence. Not only is nothing being created but also nothing is being destroyed. He is "upholding all things by the Word of his power." By the same omnipotent Word who created all things, "the heaven and the earth which are now, are kept in store" (II Peter 3:7).

But we have already noted another very significant characteristic of all such present processes. **It is true that nothing is being destroyed, but it is also strangely true that everything tends to become less useful. This is the second law of thermodynamics, the law of entropy increase, which states that the natural tendency is toward increasing disorder and randomization.** Energy tends to become less available for useful work, and the process can only be maintained by a continual influx of fresh energy from outside the system itself. Everything tends to grow old, to wear out, or to run down. There is a universal tendency toward decay and death. And who cannot help but sense that this state of affairs, universal and inexorable though it seems to be, is somehow undesirable and abnormal in a universe created by a Holy and Omnipotent Creator?

But this is all explained and long anticipated in Scripture, which attributes it to the entrance of sin into the world. At the end of the creation and making of all things, the Bible says that "God saw everything that he had made, and, behold, it was very good" (Genesis 1:31; italics added). There was no disorder, no lack of harmony, no decay and, above all, no death in the world as originally made by God. For the Bible believing scientist, this can only mean that any evidence he finds in the present order of things, or in the records of the past, that indicates disorder and struggle, suffering, decay, and death, must necessarily be understood as entering the world after (not before or during) the six days of creation.

Specifically the Bible tells us that this happened as a result of the sin of the first man, Adam, who had been designated by God as master of the earth and everything in it. When he sinned, God pronounced a curse on both Adam and his dominion. "Cursed is the earth for thy sake" (Genesis 3:17). And from that day on, as the Scripture says: "The whole creation groaneth and travaileth in pain together until now" (Romans 8:22). The whole world, both the heavens and the earth, and all that in them is, are "waxing old, as a garment" (Hebrews 1:11).

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