NATURAL THEOLOGY IS A SCIENTIFIC SUBJECT

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In recapitulation of the argument, natural theology should now be called "scientific theology," and recognized as a branch of science through the great authority of Sir Isaac Newton. This science was started by Anaxagoras, who was the first physicist, and it has been developed almost entirely by scientists, for those who are not scientists cannot work effectively on the subject. In scientific theology factual evidence is used in a way which is neglected in the other branches of science, and thus important conclusions are reached which cannot be reached by other methods. Scientific theology is based upon the philosophy of dualism, that the universe is mind and matter, and this is accepted by both physical scientists and Christians. Scientific theology is not religion, but the strong bedrock upon which the structure of religion is erected. If scientific theology is taught effectively in our schools and institutions of higher education, atheism will disappear.

For the invisible things of him from the creation of the world are clearly seen, being understood by the things that are made, even his eternal power and godhead; so that they are without excuse.

—Romans 1:20

Introduction

Is natural theology a part, or branch, of science? This question is important, for if natural theology is indeed a scientific subject, there is no reason why it cannot be taught legally in our public schools and state universities. The final decision concerning this matter must be made by the Supreme Court of the United States of America, and it is not likely that the decision of this court will be arbitrary.

In this article, conclusive evidence will be given to show that natural theology is now and has always been a branch of science. Do not lightly pass over the term, *is now,* in the above sentence, for it means that there is no reason at present why teachers should not be teaching natural theology in our public schools. No change in current laws is needed, for this subject is not a part of religion, the teaching of which is not legal in public schools. Teaching the subject can become illegal only by further decision by the Supreme Court. If any one is arrested for teaching the subject, he can claim false arrest, and take legal action based upon this claim.

First, some attention to the word, *natural,* in Natural Theology. This was the term used in Latin by Sir Isaac Newton in his great Mathematical Principles of Natural Philosophy, one of the most important books ever written in physical science. A hundred years ago and earlier, what we now call physics, chemistry, and astronomy were all called natural philosophy. I have in my possession a book on simple physics, used by my uncle, which was written by Le Roy C. Cooley, Ph.D., Professor of Natural Science in Vassar College, and published in 1871 by Charles Scribner's Sons with the title, *Natural Philosophy for Common and High Schools.* Due to changes in the meanings of words, the term, *natural theology,* should now be changed to *scientific theology,* and the subject matter should be considered one of the branches of science.

The greatest authority, and a great one indeed, for the idea that there can be a scientific theology is Sir Isaac Newton, one of the most intelligent people who ever lived. A revision of an early translation from the Latin of Newton's *Principia* by Florian Cajori was published in 1934 by the University of California Press, Berkeley, California. The "General Scholium" of this book was written by Newton when he was seventy-one years of age, and twenty-six years after the first publication of his *Principia.* This has been well called "the Famous Scholium."

In this critical discussion, Newton stated, "This most beautiful system of the sun, planets, and comets could only proceed from the counsel and dominion of an intelligent and powerful Being." People of this generation should read all of Newton's profound discussion of God which is completed by the statement, "And thus much concerning God: to discourse of whom from the appearances of things, does certainly belong to Natural Philosophy." This is a perfectly clear statement: the greatest of all authorities in physical science recognized that scientific theology is possible and properly a scientific subject.

The basic idea of scientific theology, the term which we should now use instead of natural theology, is that it is possible to learn from the appearances of things something about their Creator, just as we can learn from a design of an engineer something about his thinking, learning, and purposes. We have an old saying, "Actions speak louder than words." Designs also "speak" to those who are willing to listen.

Early Beginnings of Scientific Theology

Scientific theology started many centuries ago. Anaxagoras, an ancient Greek, who was born

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about 500 B.C. and died in 428 B.C., may be considered the first physicist. He taught that reason is the cause of all things. After many centuries, this idea is still accepted by many physical scientists, although they express it differently: they now believe that the universe is rational, and they search for rational explanations of things.

Only a few decades ago, the great British mathematician and philosopher, Alfred North Whitehead wrote a little book, *The Function of Reason,* in which he definitely supported the idea of Anaxagoras, and does not support Darwinism and Materialism. In a recent book, *Fundamental Laws of Physics,* F. Woodbridge Constant stated on page two:

> Clerical authorities generally look upon the laws of nature as God's laws for the physical world, and the fact that scientists find these laws to be comprehensive, yet simple and few in number, furnishes a strong argument for belief in the omniscience and wisdom of God.

Let us compare this modern statement with some ideas expressed by Sir Isaac Newton's friend, Roger Cotes, Fellow of Trinity College, who wrote in a preface for the second edition of Newton's *Principia*: "Newton's distinguished work will be the safest protection against the attacks of atheists, and nowhere more surely than from this quiver can one draw forth missels against the band of godless men." This comparison shows that after three centuries scientists still believe that there can be a scientific theology because physical science "furnishes a strong argument for belief in the omniscience and wisdom of God."

Aristotle, the ancient Greek philosopher, who lived from 384 B.C. to 322 B.C., was one of the most learned and influential men who ever lived, and the first great biologist. G. F. W. Hegel, the German philosopher, who lived from 1770 to 1831, stated the following in his *Philosophical History*:

> A thought of this kind—that Nature is an embodiment of Reason; that it is unchangeably subordinate to universal laws, appears nowise striking or strange to us. We are accustomed to such conceptions, and find nothing extraordinary in them. And I have mentioned this extraordinary occurrence, partly to show how history teaches that ideas of this kind, which may seem trivial to us, have not always been in the world; that on the contrary, such a thought makes an epoch in the annals of human intelligence. Aristotle says of Anaxagoras, as the originator of the thought in question, that he appeared as a sober man among the drunken. Socrates adopted the doctrine from Anaxagoras, and it forthwith became a ruling idea in Philosophy, except in the school of Epicurus, who ascribe all events to chance.

It is, of course, only a short step in reasoning to go from the idea that Reason is the cause of all things to the basic thought of scientific theology, that we can learn something about a Designer from His design. Therefore we should consider that Anaxagoras, the first physicist, is the originator of scientific theology. Its origin is in the Greek traditions, rather than in the Hebrew, and Christians can make no special claims for it, although they may make reference to it.

Francis Bacon, Baron Verulam and Viscount St. Albens, was an English statesman, philosopher, and essayist who lived from 1561 A.D. to 1626 A.D., about a century before the time of Sir Isaac Newton, who lived from 1642 A.D. to 1727 A.D. Bacon was in important advocate for science, but he had much less direct influence on science than Newton.

Bacon was a man of great learning and force of mind. In his essay, "Of Atheism," he stated,

> I had rather believe all the fables of the Legend, and the Talmud, and the Alcoran, than that this universal frame is without a mind. And therefore God never wrought miracle to convince atheism, because his ordinary works convince it. It is true, that a little philosophy inclineth men's mind to atheism; but depth in philosophy bringeth men's minds about to religion. For while the mind of man looketh upon second causes scattered, it may sometimes rest in them, and go no further; but when it beholdeth the chain of them, confederate and linked together, it must needs fly to Providence and Deity.

From this we must conclude that Bacon was aware of the basic thought of scientific theology, and that he accepted it as completely valid.

William Paley and Natural Theology

William Paley, Doctor of Divinity, who lived from 1743 to 1805 A.D., was an English theologian, philosopher, clergyman, and author, as well as the Archdeacon of Carlisle. His book on *Natural Theology* is well known for his famous illustration of the watch. The dedication of this great book was written in 1802. A. Cressy Morrison in his book, *Man Does Not Stand Alone,* stated in regard to Paley's book of some 125,000 words the following:

> So far reaching and so convincing was this process of reasoning that the sum of $48,000 was left to the Royal Society of Great Britain for an investigation in the various fields of

science which would conclusively demonstrate the existence of God. The result was some twelve volumes written by members of the Royal Society and others. These studies brought forward with apparent conclusiveness the evidence of design, and demonstrated to the philosophers of that period the existance of a Supreme Being.

This book by Paley, and other books mentioned, should be recognized as a part of science because the methods used are those which have long been recognized as scientific. Let us remember that the Royal Society of Great Britain is an organization of scientists. In his book, Paley stated forcefully,

> There cannot be a design without a designer; contrivance without a contriver; order without choice; arrangement, without any thing capable of arranging; subserviency and relation to a purpose, without that which could intend a purpose; means suitable to an end, and executing their office in accomplishing that end, without the end ever having been contemplated, or the means accommodated to it. Arrangement, disposition of parts, subserviency of means to an end, relation of instruments to a use, imply the presence of intelligence and mind.

In order to obtain the factual basis for his conclusion that designs in nature are caused by an Intelligent Being, Paley studied the scientific subjects of physiology, natural history, and astronomy. He recognized the need to use his own powers of observation, and his book clearly indicates that he could see for himself. In this there is the strong hint that clergymen who wish to make the most effective use of Paley's studies must follow his example of studying science and of seeing for themselves. If they do this, they will be able to help others to understand how very powerful Paley's evidence and argument really are.

While Paley's subject matter is different from that of physicists, his method is the same as that followed by them to obtain, for example, evidence for the existence of the electron. He certainly reasoned "from the appearances of things" to his conclusions about God. This, according to Newton's statement, makes his book a part of "natural philosophy," the subject which is now called *science*.

The fact that a physician studies physics and chemistry in order to find better methods for the control of disease does not make physical sciences a branch of medicine. Paley was a theologian but it does not follow from this that he could not make scientific investigations. It does not appear to be generally known that Charles Darwin was educated to be a clergyman. Physics and chemistry are related to medicine. Scientific theology is not religion, but a part of the solid bedrock upon which the structure of religion is erected.

To Newton, God revealed aspects of Himself in the mathematical laws which describe the motions of the solar system; to Paley, God revealed additional aspects of Himself in the designs and actions of organisms; and to the religionists, God has revealed other aspects of Himself through persons and the histories of peoples.

On Designs and Mechanics

The work of Paley and his followers clearly established the truth of the idea that in some of their aspects, organisms are similar to machines. Decades ago, biologists reduced this similarity to the metaphors, "organisms are machines," and "man is a machine." So the question is no longer whether or not this similarily exists, for this is accepted by all. Of course, it is going too far when biologists ignore differences and misuse their metaphors. The important question is, what does this similarity between machines and organisms really mean?

Paley recognized that the minds of designers and mechanics are involved in the construction of watches and other man-made devices, and therefore he generalized to draw the conclusion that a Mind must be involved in bringing organisms into existence. Paley's generalization is made strictly according to the important rule of scientific philosophy that we are not to introduce into our theories any more elements than necessary.

Darwin claimed that the generalization of the scientific theologians is false, and that the origin of species can be explained by variations and natural selection, both of which are conceived as mechanical processes not involving mind in any way. It is not surprising that Darwin should search for mechanical causes, for at that time physicists were seeking mechanical explanations for physical phenomena, mostly because Newton's mechanics had been found successful for many things. Since Darwin's time, mutations were discovered, and these changes have been correlated in theory with Darwin's small variations. The idea of natural selection has been kept by Darwinians.

If one argument refutes another, it is evident that both arguments belong to the same subject. It is not possible to refute a legal argument by one based upon the principles of musical composition. An argument in support of a move in chess cannot be refuted by one based upon the science of thermodynamics.

Since both arguments must belong to the same subject in order for the one to refute the other, it is a mistake to consider that Darwin's theory

of organic evolution is scientific, and that Paley's alternative explanation is religious. Both theories belong to the same subject, and this is scientific theology, a scientific subject.

If we are to classify Paley's theory as religious, we must also classify Darwin's theory as religious, although from the point of view of Christians, it is heresy. Newton is the greatest authority, and he considered scientific theology a part of science. In order to classify a theory correctly, it is not necessary to pass judgment concerning its truth; a great blunder in science, must still be considered science.

Requirements of Scientific Theology

In order to work effectively in the field of scientific theology, a person must have an excellent education in science, for he must be able to understand what scientists have discovered, and this means that he must be educated at least through the level of differential equations, the level that is ordinarily required for engineers. It is not possible for the non-mathematician to fully understand physical laws as they are understood by physical scientists.

Since the designs of organisms are similar in some aspects to machines, the scientific theologian should study engineering and its history, and then design some fairly complex device. To know so much is difficult, but if we recognize the importance of the subject, and place great emphasis upon it in our institutions, it is reasonable to hope that sooner or later a person with the mind of an Aristotle will be found to "climb to heights." The point here is that scientific theology actually is a scientific subject which can be effectively developed and taught only by people educated in science.

Many people seem to have drawn the false conclusion that since physical scientists have explained many things, they will eventually be able to explain everything. This expectation appears to have been reached through reckless generalization, a cause of many extremely bad errors.

To the contrary, there are excellent reasons for thinking that the methods and concepts of physical science will never be used to explain everything. For example, there is nothing in physical science which can be used to explain the distance of the earth from the sun, a distance which is very important to living things which must not be too hot or too cold.

Further, given the design of a watch, physical scientists can explain satisfactorily how it keeps time, but not how the design happens to be what it is; they can give no explanation for the sizes, shapes, materials, and arrangement of parts. Essentially the same thing is true for the other things made by man. Scientific theology makes use, or different use, of factual information which is neglected in science otherwise, and this also shows that it is indeed a scientific subject.

Not only is scientific theology a branch of science; it is also an important part to which much thought should be given, and it should be taught in our schools and colleges. Alfred Russell Wallace became cognizant of the idea of natural selection independently of Darwin, but unlike the latter, he did not become an agnostic. Wallace made a profound statement which belongs to the subject of scientific theology:

> This earth with its infinitude of life and beauty and mystery, and the universe in the midst of which we are placed, with its overwhelming immensities of suns and nebulae, of light and motion, are as they are, firstly, for the development of life, culminating in man; secondly, as a vast schoolhouse for the higher education of the human race in preparation for the enduring life to which it is destined.

Something should be said about the philosophical basis of scientific theology. It is one of the basic axioms of common sense that all pertinent evidence must be used in drawing conclusions. When we fail to use all of the evidence, and try to understand a whole in terms of a few of its parts, we fall into the fallacy of the expansion of abstractions.

This fallacy forms the basis of materialism: physics and chemistry are based upon only a part of our total experience, and when people conclude that the whole universe is nothing more than a vast physical system, they do so for a false reason.

It is not possible to cram into physical science all that we know. An extreme example is mathematics, which certainly is a part of the totality of everything, that is, a part of the universe; yet, we cannot use mathematics to explain physics and chemistry, then use these to explain physiology, including that of the brain, and finally the brain to explain the mathematics, with which we start, to form a closed circuit of explanation. Such reasoning is not valid.

The most generally accepted philosophy is that the universe is mind **and** matter, and scientific theology is based upon this dualism. We can be certain that teaching scientific theology will never produce atheism.

Conclusion

In recapitulation of the argument, natural theology should now be called scientific theology, and recognized as a branch of science through the great authority of Sir Isaac Newton. This science was started by Anaxagoras, who was

the first physicist, and it has been developed almost entirely by scientists, for those who are not scientists cannot work effectively on the subject. In scientific theology factual evidence is used in a way which is neglected in the other branches of science, and thus important conclusions are reached which cannot be reached by other methods.

Scientific theology is based upon the philosophy of dualism, that the universe is mind and matter, and this is accepted by both physical scientists and Christians. Scientific theology is not religion, but the strong bedrock upon which the structure of religion is erected. If scientific theology is taught effectively in our schools and institutions of higher education, atheism will disappear.

COMMENTS ON SCIENTIFIC NEWS AND VIEWS

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Kangaroo Rat Origins—Divine Intervention?

As is well known there are many creatures which have special ways of life (diets, for instance), which suit them but which would be useless to any other organism. One of these is the kangaroo rat, *Dipodomys microps* of the south-western deserts.

Unlike most other creatures, the kangaroo rat can live on leaves of the saltbush, *Atriplex*.[1] The outer layer of these leaves is very salty in contrast to the inside of the leaf. The kangaroo rat is equipped with special teeth, with which it is able to shave off the salty outside of these leaves before eating the inside.

Of course, the author of the report says that this ability evolved. But there is no evidence for any such thing. Nobody has ever found a fossilized rat peeling the fossilized outer layer off a fossilized saltbush leaf.

Indeed, the usual objection to supposing that such a thing could have evolved is apropos again. For the ability to eat saltbush leaves would have had to be about perfect before it would have been of any use at all; moreover the teeth to do the job, and the instinct (or whatever it is), to use them would have had to evolve simultaneously.

There is a question, though, of interest to creationists, which might be raised. Was the diet of saltbush leaves necessary in the beginning; or were there, perhaps, no deserts until after the Flood? At the present, we have no information to answer such a question. Even if there were no deserts before the Flood, there may have been the types of vegetation now found in the deserts. Cacti, e.g., can live with much more water than they get in the desert. Maybe, after the Flood, when the deserts formed, such plants were the only plants that became established, or re-established, there.

On the other hand, it might be that God intervened directly, at some time after Creation, to give such creatures as these a new way of life, suited to new conditions. We know that He did intervene after the Creation in one case; viz.: that of the serpent. Since he intervened then to cause punishment, it seems quite possible that He might in other cases, as an act of assistance to the creatures concerned.

Nor has any evolutionist any right to complain if creationists propose that, in some cases, God has intervened directly. For anyone who believes at all in God, in any meaningful way, would not doubt at all that He could intervene. But evolutionists, beyond repeating meaningless catchwords, have really nothing at all to say as to **why** creatures have their peculiarities; or, if they do say something, usually their ideas, on close analysis, involve something that could not have happened.

Sherlock Holmes, in one of the stories, remarked that when what is impossible has been eliminated, whatever remains, no matter how improbable, must be the truth. Evolution, as we have shown many times in many ways, is impossible. The only alternative is Creation. So even one who considers Creation improbable (we see nothing improbable about it, but the argument can continue in this way), should admit that it must be the truth.

Scheme for Skater Evolution

From the time when we were children most of us have been fascinated by the "skaters," the insects which walk, or, rather, run, on water. Apparently the means whereby they are able to do this have not been investigated very much. Now electron microscopy, which has been of so much use in investigating the structures of so many tiny things, has been applied to them.[2]

Some of the halobates, in particular, were studied. Many small pits are found on their surfaces, and also a growth of hairs.

It is not clear how the pits function. But the hairs, it is believed, help to trap a layer of air, which, in turn, helps these insects in their special way of life.

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