

WORKBOOK 5

TIME AND LIFE - THE SCIENCE PHILOSOPHER'S DILEMMA

PART 5 ASSIGNMENT

Name: Class Date

5-1 Evolution is a theory associated with billions of years of change. The **proposition** that the history of the Universe has involved large quantities of **TIME** is currently based on the rates of decay of radioactive substances such as Uranium. This radioactive decay involves large, more complex, and more energetic atomic Nuclei breaking down to smaller, less complex, less energetic atomic Nuclei. Evolution is a **proposition** where small non life molecules have built up into vastly more complex life molecules. This leads to a puzzle. Vast time spans deduced from large atomic Nuclei **Naturally Breaking down** into smaller atomic Nuclei, are used as support for a process of small non life molecules **Naturally building up** into larger life molecules.

The Science Philosophers Dilemma - Can both of these **propositions** be true at the same time? Explain your answer.

5-2. If you succeed in winning a Nobel prize by being the first scientist to create life in a test tube, which of the following best fits your results?

- (a) life did evolve from non-life
- (b) life could evolve from non-life
- (c) life was created
- (d) life could have been created

Explain your answer.

5-3 Are the properties of the Hydrogen atom due to the Natural properties of its parts?

THE END IS IN THE BEGINNING

Two philosophers more than any others have had significant effect on modern man's thinking about the Origin of Life. Read their brief reviews and then answer the questions which follow.

In a book published 3 years after his death, Scottish philosopher, **David Hume (1711 - 1776)** argued any design seen in nature was not real, but only apparent. Hume's hypothesis was: given long enough, apparent design could result from processes due to **Natural Properties** alone.

Hume claimed the world was composed of a finite number of particles which were in perpetual random motion. In unlimited time the particles could enter every combination possible. Occasionally they entered arrangements which would be stable enough to persist. So Hume argued that the spontaneous juggling of matter must eventually produce an ordered form which would survive and give the appearance of design. To use Hume's words:

"The finite number of particles is only susceptible of finite transpositions, and it must happen in an eternal duration that every possible order or position must be tried an infinite number of times.....the continual motion of matter, therefore, in less than infinite transpositions must produce this economy or order and by its very nature that order, when once established, supports itself for many ages".

In 1802 English philosopher **William Paley (1743-1805)**, wrote a lengthy rebuttal to works such as Hume's.

Paley argued *"In crossing a heath, suppose I pitched my foot against a stone, and were asked how the stone came to be there, I might possibly answer, that, for anything I knew to the contrary, it had lain there for ever: nor would it perhaps be very easy to show the absurdity of this answer. But suppose I had found a watch upon the ground, and it should be inquired how the watch happened to be in that place; I should hardly think of the answer which I had before given, that for anything I knew, the watch might have always been there. Yet why should not this answer serve for the watch as well as for the stone? Why is it not as admissible in the second case as in the first? For this reason, and for no other, viz., that when we come to inspect the watch, we perceive (what we could not discover in the stone) that its several parts are framed and put together for a purpose, eg. that they are so formed and adjusted as to produce motion, and that motion so regulated as to point out the hour of the day ... The inference, we think, is inevitable, that the watch must have had a maker, that there must have existed, at some time, and at some place or other, an artificer or artificers, who formed it for the purpose which we find it actually to answer; who comprehended its construction, and designed its use."*

...."nor would any man in his senses think the existence of the watch, with its various machinery, accounted for, by being told that it was one out of infinite possible combinations of material form;

Paley then applied his logic to nature *...."every indication of contrivance, every manifestation of design, which existed in the watch, exists in the works of nature; with the difference, on the side of nature, of being greater or more, and that in a degree which exceeds all computation."*

His favourite example was the eye whose muscles and structures so excited him he wrote *"Were there no example except that of the eye, it would be alone sufficient to support the conclusion which we draw from it, as to the necessity of an intelligent Creator."*

So successful was Paley's argument that design always indicated a designer, it became popular for both scientists and theologians to argue that structures in nature which are infinitely more complex than a watch, (eg. the intricate construction of man's eye, the inter-relationship between plants and animals,) was overwhelming evidence life could not have arisen spontaneously but that unnatural manipulation, **Outside Information**, had been applied to matter by an external intelligent Creator God in order to make the life we see around us.

THINK IT THROUGH

5-4. Hume's key assumption was that all combinations of matter are possible. What happens to his philosophy if this assumption is incorrect? Explain.

5-5. What does Quantum Theory suggest about the thought that all combinations of matter, time and energy are possible given enough time?

5-6. Whose thoughts - Paley's or Hume's - best fit the current state of knowledge about the possibility of life being a natural or spontaneous result of the properties of molecules?

5-7. Evolutionist Professor of Microbiology, Michael Denton, stated in his book Evolution a Theory in Crisis 1986 (p.341) that: "*Paley was not only right in asserting the existence of an analogy between life and machines, but was also remarkably prophetic in guessing that the technological ingenuity realised in living systems is vastly in excess of anything yet accomplished by man*".

Has man invented any machine as sophisticated as the smallest life forms? What are the implications of your answer?

5-8. On April 7, 1864 Pasteur reported to a scientific conference at Sorbonne France: *“There is now no circumstance known in which it can be confirmed that microscopic beings have come into the world without germs, without parents similar to themselves. Those who maintain this view are the victim of illusions of ill conducted experiments, blighted with error they have either been unable to perceive or unable to avoid”*. Has anything been discovered since 1864 to alter Pasteur’s conclusions? Explain.

HAND IN YOUR COMPLETED ASSIGNMENTS TO YOUR INSTRUCTOR.

Instructors Final Comments and Rating

WE TRUST YOU HAVE ENJOYED THIS BRIEF EXCURSION TO SEARCH FOR THE ORIGIN OF LIFE. FURTHER OUTSIDE INFORMATION IS AVAILABLE FROM THE AUTHOR.