

Is the Watchmaker Really Blind?

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In his famous exposition of the design argument in the 19th century, William Paley argued that even if one did not know how a watch had come into existence, its complexity would demand the existence of a watchmaker who made it. Similarly, the existence of intricate biological mechanisms demand the existence of a Divine Watchmaker.

The impression of design is so strong that Richard Dawkins's definition of biology is: 'the study of complicated things that give the appearance of being designed for a purpose'. Yet he asserts that there is no divine Watchmaker:

The only watchmaker in nature is the blind forces of physics ... Natural selection, the blind, unconscious, automatic process which Darwin discovered, and which we now know is the explanation for the existence and apparently purposeful form of all life, has no purpose in mind. ... it is ... the blind watchmaker.

For Dawkins, atheism is the logical implication of Darwin's work: 'Although atheism might have been logically tenable before Darwin, Darwin made it possible to be an intellectually fulfilled atheist.'¹

Dawkins, Professor of the Public Understanding of Science at Oxford University, is the most vocal of a group of scientists whose materialistic philosophy is expressed in the famous words of the late Carl Sagan 'The Universe is all that is, was or ever shall be'. These materialists take a strongly anti-religious stance and represent religion as totally hostile to scientific endeavour and science as hostile to religion. Alasdair Palmer can write: '... it is not just the religious explanation of the world that is contradicted by scientific

¹Richard *Dawkins*: *The Blind Watchmaker*, Harlow: Longman Scientific & Technical, 1986.

explanations of our origins. So, too, are most of our ethical values, since most of them have been shaped by our religious heritage.²

In the name of modern science human beings are effectively stripped of their created dignity, sense of moral values, freedom and immortality. If science has done away with the transcendent Creator, who once defined such values, how and by whom will they be defined?

Science versus Religion?

What is our response to those who claim the authority of science for their attacks on religion?

Firstly, the whole 'conflict' model which pictures science and religion as being locked in permanent warfare is now widely regarded as a seriously misleading myth.³ Many scientists do not think that science and religion are on a collision course, including one of this year's Physics Nobel Prizewinners (Phillips). Indeed the 1997 survey by Larson and Witham⁴ showed that of 1000 scientists in the USA 40 % believe in a personal God who answers prayer, 60 % do not. This survey was a repetition of one done by the psychologist J. H. Leuba in 1916 and it reveals the important fact that there has been no significant change in the past 80 years – except that nowadays more biologists believe in God and fewer physicists!

Furthermore, there are many distinguished scientists who reject the idea that accepting the biological theory of evolution means being an atheist, for example Sir Ghillean Prance, Director of Kew Gardens, Sam Berry, Prof. of Genetics at UCL, Bob White FRS, Prof. of Geology at Cambridge and John Bryant, Prof. of Molecular Biology at Exeter.

For, even if we grant for the sake of argument, that through evolutionary theory the biological workings of the universe can be explained, that no more does away with the need to posit a Creator than explaining how a watch works does away with the need to believe in a watchmaker. As Michael Poole points out it is important to distinguish different levels of explanation:

there is no logical conflict between reason-giving explanations which concern mechanisms, and reason-giving explanations which concern the

²Alasdair Palmer: Must Knowledge Gained Mean Paradise Lost?, in: The Sunday Telegraph, Apr. 6, 1997.

³Colin A. Russell: The Conflict Metaphor and its Social Origins, in: Science and Christian Belief 1.1 (1989), pp. 3–26; Alister E. McGrath: The Foundations of Dialogue in Science and Religion, Oxford: Blackwell, 1998.

⁴Edward J. Larson/Larry Witham: Scientists are still keeping the faith, in: Nature 386 (1997), pp. 435–436.

plans and purposes of an agent, human or divine. This is a logical point, not a matter of whether one does or does not happen to believe in God.⁵

In particular, God does not compete with science as an explanation for the existence of life.

Why then does this logical point not seem as persuasive as one might expect? One reason may be that descriptions of the putative evolutionary mechanism often involve a mixture of science, metaphysics and ambiguous terminology, as in the statement of Harvard biologist George Gaylord Simpson: 'man is the result of a purposeless and natural process that did not have him in mind. He was not planned.'⁶ A purposeless process could mean either a process which had no mind or purpose in itself or one which has no purpose in the sense that it was undesigned. In what sense did Simpson intend it? The phrase 'He was not planned' makes it clear. Here, Simpson is simply expressing his belief, not a logical inference from science.

Deducing atheism from biology is therefore a very suspect procedure. However, in some prominent cases, far from the philosophy being deduced from the science, the very reverse is true. Richard Lewontin, a world famous geneticist at Harvard, writes:

Our willingness to accept scientific claims that are against common sense is the key to an understanding of the real struggle between science and the supernatural. We take the side of science in spite of the patent absurdity of some of its constructs, ... in spite of the tolerance of the scientific community for unsubstantiated just-so stories, because we have a prior commitment ... to materialism. It is not that the methods and institutions of science somehow compel us to accept a material explanation of the phenomenal world but, on the contrary, that we are forced by our a priori adherence to material causes to create an apparatus of investigation and a set of concepts that produce material explanations, no matter how counterintuitive, no matter how mystifying to the uninitiated. Moreover that materialism is absolute for we cannot allow a Divine foot in the door.⁷

This revealing statement from a prominent member of the scientific establishment is a far cry from the common naive understanding of science as im-

⁵Michael Poole: A critique of Aspects of the Philosophy and Theology of Richard Dawkins, in: Science and Christian Belief 6.1 (1994), pp. 41–59, [URL](#) (visited on 07/23/2015), here p. 49.

⁶George Gaylord Simpson: The Meaning of Evolution. A Study of the History of Life and of its Significance for Man, New Haven: Yale University Press, 1949.

⁷Richard C. Lewontin: Review of 'Billions and Billions of Demons', in: New York Review of Books, Jan. 9, 1997, [URL](#) (visited on 07/24/2015).

partially following the implications of experiments wherever they lead. For Lewontin, commitment to materialism comes first, the science follows. If you shape your science in such a way that you are never in danger of detecting a divine footprint, then of course you never will. But that is to leave wide open the question as to whether divine footprints exist. Yet that is just what is denied on the basis of the theory!

Recognising Divine footprints

According to the Bible Divine footprints do exist. There seem to be three different ways in which God interacts with the world:

- 1) His providential upholding of the physical realm. This is God's regular working and it means that the whole universe is a divine footprint. It all shows forth his glory;
- 2) the occasions where God does something special using the web of cause and effect, as when He used the wind to drive the sea back at the exodus from Egypt, and
- 3) events where there is an injection of something new which is not part of the physical-law cause effect sequence, as at the incarnation and resurrection.

Events of the third kind are direct injections of divine energy and 'information' which, by their very nature, cannot be explained in terms of the physics and chemistry of the processes immediately antecedent to their occurrence. By separating the acts of creation from God's sabbath rest, the Bible makes a clear distinction between those acts and God's subsequent providence. By recording creation itself in terms of a sequence of steps, each of which emphatically features the activity of the Word ('And God said ...'), the Bible would seem to indicate that creation involves more than one event of the third kind and is not to be understood in terms of events of the first and second kinds only.

This suggests that, if we study nature through the lens of a theory that holds that the complete history of life from its pre-biotic state to the appearance of humanity is one seamless developmental whole, we may discover certain discontinuities or singularities which are not amenable to a satisfactory reductionist explanation, but do admit an explanation which involves a special injection of information.

Of course, such a questioning of evolutionary theory is risky, since in the eyes of many, it is to question sheer fact and therefore to run the risk of being banished to the lunatic fringe! Richard Lewontin writes:

It is time ... to state clearly that evolution is fact, not theory ... No person who pretends to any understanding of the natural world can deny these facts any more than she or he can deny that the earth is round, rotates on its axis and revolves around the sun.⁸

The word 'evolution' is used in a number of senses which are frequently confused:

1. microevolution – e.g. variations in colour distribution of moth populations or finch beak lengths;
2. macroevolution – e.g. the appearance of new structures, organs;
3. the transition from non-living materials to life;
4. the use of artificial selection, e.g. in breeding.

If one were to question microevolution then accusations of obscurantism might well be in order. But what about macroevolution? Is it in the same category? Apparently not. Wesson says: 'Large evolutionary innovations are not well understood. None has ever been observed, and we have no idea whether any may be in progress. There is no good fossil record of any.'⁹ By contrast, the fact that the earth orbits the sun may be repeatedly observed; there are very good records of it. Putting this observable and repeatable phenomenon in the same category as macroevolution as Lewontin does, seems such an elementary blunder that one cannot help wondering if fear of a divine footprint is playing a role, and that materialistic prejudice is beginning to override common sense. Indeed, if materialism is true, then matter/energy simply has to possess the capacity of organising itself into life so that macroevolution has more or less got to be true by definition! This close relationship between materialistic philosophy and evolutionary theory carries with it the danger that the theory may not be as self-critical as it should be. It is, therefore, worth risking a Dawkins' certificate of lunacy to ask whether the 'Blind Watchmaker' really can turn simple organisms into more complex organisms.

⁸Douglas J. Futuyma: *Science on trial. The case for evolution*, New York: Pantheon Books, 1982.

⁹Robert Wesson: *Beyond natural selection*, Cambridge: MIT Press, 1991.

Problems with evolutionary theory

Darwin himself was concerned about the absence of the transitional forms in the fossil record which his theory led him to expect. He wrote: 'The number of intermediate varieties, which have formerly existed on the earth, [should] be truly enormous. Why then is not every geological formation and every stratum full of such intermediate links?'¹⁰ The situation over a hundred years later does not seem very different. Stephen Jay Gould (Palaeontologist, Harvard) says that 'the extreme rarity of transitional forms in the fossil record persists as the trade secret of palaeontology'¹¹, and his fellow palaeontologist Niles Eldredge of the American Museum of Natural History adds 'We palaeontologists have said that the history of life supports [the story of gradual adaptive change] knowing all the while it does not.'¹²

Darwin regarded his theory as falsifiable: 'If it could be demonstrated that any complex organ existed which could not possibly have been formed by numerous, successive, slight modifications, my theory would absolutely break down.'¹³ Dawkins agrees, saying that if such an organ existed 'I shall cease to believe in Darwinism.'¹⁴

Biochemist Michael Behe takes up this challenge by pointing out that many biochemical systems exhibit such 'irreducible complexity'.¹⁵ That is, they are composed of interacting parts that contribute to the basic function, whereas the removal of any one of the parts would cause the system to cease functioning. A mouse trap provides a simple example. Behe argues that there can be no Darwinian-evolutionary explanation for such a system. Only intelligent design can account for it.

Once we admit the possibility of the causal activity of an intelligent agent, certain familiar facts may be seen in a very different light. For example, similarities in bone structures or genetic information in different animal groups are usually interpreted as evidence of common ancestry. But such similarities could equally well be read as evidence of common design. Of course, the common ancestry might have been designed, so the concepts are not mutually exclusive. However, common design does not necessarily imply common an-

¹⁰Charles Darwin: *The Origin of Species*, Harmondsworth: Penguin, 1968.

¹¹Stephen Jay Gould: *Evolution's Erratic Pace*, in: *Natural History* 86.5 (1977), pp. 12–16.

¹²Niles Eldredge: *Time Frames. The rethinking of Darwinian evolution and the theory of punctuated equilibria*, Princeton: Princeton University Press, 1985.

¹³Ibid.

¹⁴Ibid.

¹⁵Michael J. Behe: *Darwin's black box. The biochemical challenge to evolution*, New York: Free Press, 1996.

cestry. All cars have similar parts, because those parts are essential for their operation and because they are constructed according to a common design by a human mind, not because they have descended from each other.

It may be felt that the introduction of a designing intelligence leads to a 'God of the gaps' situation: 'We can't explain it, therefore God did it!' – which in turn will lead to the end of science? I do not think so. Think of a printed page. The chemistry of the paper and ink cannot even in principle help you to comprehend the significance of the letters written in the ink. That the shape of the letters is designed is, if you like, a 'gap' ('singularity' or 'discontinuity' might be better and less emotive!) in the explanatory power of chemistry. We might call it a 'good' gap or discontinuity in that it leads us to look for a higher level explanation which, in this case, includes the direct intelligent input of an author.

The origin of genetic information

This analogy is also relevant to the deepest question of all, the origin of genetic information. Each of the ten trillion cells in the human body contains an incredibly compact database of language-like information equivalent to that contained in the whole Encyclopaedia Britannica.

Dawkins attempts to explain the genesis of such information by using a modification of the famous monkey typing random letter generator. He argues that it can rapidly produce an intelligible sentence if that sentence is first programmed into a computer as a target sentence and each letter of the target is retained as soon as a monkey types it. But, a target and a mechanism to compare an attempt with the target introduce both teleology and intelligence into the system, both of which Dawkins has already ruled out. Behe says: 'Instead of an analogy for natural selection acting on random mutation, the Dawkins-Sober scenario is actually an example of the very opposite: an intelligent agent directing the construction of an irreducibly complex system.'¹⁶

Mathematician and philosopher William Dembski argues that intelligent design can be formulated as a scientific theory of information. He maintains that, although natural processes are excellent transmitters of information, they cannot generate information of the complex specified kind encountered in genetic material.¹⁷ This work promises to add a new evidence to the assertion that the Watchmaker is very far from blind.

¹⁶Behe: Darwin's black box (see n. 15).

¹⁷William A. Dembski: The design inference. Eliminating chance through small probabilities, Cambridge: Cambridge University Press, 1998.

We would like to emphasize in conclusion that God is not in competition with science as an explanation for the existence of life. The biblical view is not that God is only to be found in the scientifically inexplicable but that, infinitely superior to any watchmaker, as Creator and Sustainer of the universe his handiwork is to be seen in every genuine scientific mechanism. In addition, science, unfettered by a prior commitment to materialism, is set free to explore the hypothesis of intelligent design. After all, 'in the beginning was the Word', not mere matter and energy. And the Word is not blind.

Books for further reading

Behe, Michael J.: Darwin's black box. The biochemical challenge to evolution, New York: Free Press, 1996.

Dembski, William A.: The design inference. Eliminating chance through small probabilities, Cambridge: Cambridge University Press, 1998.

Duce, Philip: Reading the Mind of God. Interpretation in science and theology, Leicester: Apollos, 1998.

Johnson, Phillip E.: Darwin on trial, 2nd ed., Downers Grove: IVP, 1993.