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ON THE FITNESS OF THE LAWS OF NATURE

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In this paper there is an attempt to examine the origin of "natural laws." The special creationist and general evolutionist are both asked to explain the obvious "fitness" observed in these natural laws. It is concluded that the laws are difficult if not totally impossible to comprehend in terms of evolutionary origin because the laws point unerringly to a lawgiver.

Introduction

When I was a boy, at school, we used to have a subject which we called Nature Study. Nowadays it would be included under Science. One thing mentioned in Nature Study was "how animals are adapted to their environment."

It is undoubtedly true that animals are adapted to their environment: birds—light and with great strength in their wings; aquatic animals—well able to swim and dive; and animals of the plains, the jungle, the Arctic, etc.—each adapted to its respective home. That there is such adaptation nobody disputes.

Where people part company is on the question of priority. Is the adaption prior to the animals, or posterior? Was the animal designed to fit into a certain environment; or was it thrown first into the environment, and left to become adapted, if it lasted long enough? The first answer, of course, is that of Creation; the second, that of evolution.

Much of whatever apparent success evolutionists may have had in explaining adaptation comes from concentrating on rather superficial adaptions, and not considering the more profound ones. For instance, at first thought Darwin's theory of how the giraffe got his long neck might carry a bit of apparent plausibility. (However let it be remarked that Darwin's stories of this kind are not nearly so interesting as Kipling's "Just So" stories. Nor, upon a little consideration, are they any more believable!)

Yet there are difficulties about the giraffe, for the alleged natural selection, according to en-

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vironment, would have to be for several features, not just a long neck. It is highly unlikely that any individual would, just at random, excel in each of several features. Besides, selection would be by characteristics, but inheritance would occur by genes.

More profound adaptions, such as the alleged adaption of some land animal to water until it became a whale, would require that a multitude of changes be made all at once. If only some of them were made, the resulting creature would be neither one thing nor the other. It would be neither a land nor a water animal.

Moreover, an argument which proves too much proves nothing. Surely the alleged ancestors of the whale could not have been any "fonder" of water than otters are; yet the otter remains with us, undoubtedly a land animal and looking much more like a land animal than like a fish. How can the evolutionist explain the history of the otter and the whale?

Everyone would grant, then, that animals are adapted to their environment. What is perhaps not so generally considered is the converse proposition: the environment is adapted to the animals. This is seen especially vividly if we consider as the environment the whole Earth, and ourselves as animals.

Environment Adapted to Organisms?

The fact that the earth was "made to be inhabited" was discussed in several papers in the 1970 *Quarterly*. The point, however, to be made here, is that the whole universe is adapted to us and to the other inhabitants of the world. This "adaption" is to be seen even where we might last think of looking: in what we commonly call the laws of nature.

That there are laws of nature, in some sense, everyone, creationist or evolutionist, would agree. The creationist sees in the laws, as in the things to which the laws apply, the work of the Lawgiver, Who is also the Creator.

What is the evolutionist to say? It will do him no good to maintain that all we can know about the laws comes from what we see happening. A visitor to Britain, for example, would soon conclude that the law there is to drive on the left side.

But the way in which we come to know about laws does not tell us anything about their origin. The law of keeping to the left was either promulgated at some time, or else it arose by common consent. But there is no real distinction here, especially for anyone who holds that authority comes from the people. The difference is then seen to be only one of the degree of formality or informality.

How is anyone who holds that everything evolved to account for the natural laws? If the universe came into being at some time, did the laws come along with it? The laws are surely contingent in that they could have been otherwise. Nobody would hold that they are "necessary," in the sense that to deny them would lead one into a contradiction.

Did the laws evolve? Are we to suppose that we have had "survival of the fittest universe"? Have there been many different universes, each with different laws, arising at random and at different times? Has this present universe survived because it was the "fittest"? Surely any such propositions would be fantastic.

Again, if the laws evolved, what happened while they were evolving? In any such case the present would not be the key to the past! If it should be maintained that the laws arose, without any separate lawgiver, as the law of keeping to the left may have done; are we to suppose that the different parts of the universe at first interacted at random, but happened upon a certain way and fell into a particular pattern of action? Again, any such notion is fantastic.

We see the laws, rather, and from them we may deduce that there is a Lawgiver. To say otherwise is to deny the principles of sufficient reason. And if an evolutionist should deny that there must be a reason for every contingent thing, it is inconsistent of him to put so much effort into seeking the reasons for the diversity of living beings.

Laws of Nature Are Fitting

Let us consider, then, that God made the universe and everything in it—the laws and the things governed by the laws. The point which we set out to establish is that the laws are fitting—that they are adapted to a world made to be inhabited just as the environment is adapted to the animals.

In one way, it is difficult to investigate this matter, for we find it difficult to imagine the laws of nature anything other than what they in fact are. It may be possible, however, to suggest a few examples to illustrate the thesis,

It was apparently God's intention in creating the universe to have some part of it as a home for material beings. We learn about the creation of corporeal beings from revelation and about their existence from experience. There would be no point in being corporeal unless one could interact with other corporeal beings, of his own kind and of other kinds, living and lifeless. So corporeal beings are, to a certain extent, to be kept together. The Earth is to be kept in one piece, and we and other things on it. Of course, some heavenly bodies need to be fairly close to the Earth, as astronomical distances go, in order to fulfill their purposes; others need to be distant. So gravity serves to keep things together,

some on the Earth, others at various distances, as is appropriate for them.

(Notice, incidentally, that we find an inverse-square law in gravitation, in electrostatics, in magnetostatics, and elsewhere. Is anyone going to suggest that this shows that, e.g., electrostatic forces evolved from gravitational ones, magnetostatic from electrostatic, etc.? Presumably nobody would say anything so absurd. But if resemblance proves nothing about descent here in the matter of physical forces, are we not justified in doubting that it does so in regard to living beings?)

It was also God's purpose that there should be living creatures on His world. To have suitable bodies for these creatures required some complex materials. For such materials to be possible, the laws or organic chemistry (and along with them those of inorganic chemistry) needed to be established. Again, the formation of molecules, etc., is very much tied up with electrical attraction of the various parts of matter. So the laws of electrostatics are appropriate here. The corporeal beings which were created—some of them anyway—were intended to be able to move around, in order that they combine and recombine. To permit such activity, there needs to be freedom of motion, but not absolute freedom. Things would be altogether too unstable if unlimited motion were to result from any trivial cause. So the law of inertia, and also that of friction, are most appropriately given to us.

The various laws of conservation may have been established by God so that the very existence of things would be a witness to His creative work, just as the very existence of the stones mentioned in several places in the Old Testament was to be a witness of some mighty act of Gods. We know that matter, energy, etc., do not come into existence spontaneously. Since we know that they do exist, we should look beyond them to the Cause of their existence.

The second law of thermodynamics may not have been introduced until after the fall, as some suggest. It might be though, that God introduced it from the beginning, at least as it applies to heat, as a witness to the fact that the universe could not have existed forever, but must have had a start; and if a start, then a Starter. Even the laws of nuclear structure could have been given for a purpose. The world is to be warmed and lighted by the Sun, which, we believe, is kept hot and glowing by a nuclear reaction. Suitable laws of nuclear structure and behavior provided for this application (as we might call it); and maybe for others which are important to us, but of which we are now unaware.

Conclusion

It is clear that many other examples could be given. This point has been made sufficiently: God made the world, and He designed not only its outward appearance but also its manner of working, which we call the laws of nature. In the same way, when He established His people, Israel, he gave them appropriate laws. And the same is true of His new people, the Church; although, for several reasons, the giving of laws was not so prominent a part of His dealing with His Church. In all these cases it is clear: we should mark the laws, we should ponder on them, we should govern our actions by them; but most of all we should look beyond the law to the Lawgiver.

THE CREATION OF EVE

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In this short article the creation of Eve is considered in relation to contemporary knowledge of tissue culture, cellular differentiation, and chromosomal configurations. While nothing definite can be said regarding the mechanism of creation, the record and order of events is profoundly credible in terms of biology and theology.

The Creation Record

We are told in Genesis 2:21 that ". . . the Lord God caused a deep sleep to fall upon Adam, and he slept; and he took one of his ribs, and closed up the flesh instead thereof. And the rib, which the Lord God had taken from man, made he a woman, and brought her unto the man." This Biblical report of Eve's creation is far more credible than some critics have realized.

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Obviously no detailed information is given in this passage about the processes by which God produced Eve from a rib. Therefore any discussion of actual mechanisms must be avoided as it would partake of pure speculation. But the miraculous creation operation itself may be considered against the background of contemporary knowledge.

Tissue Culture

Man is presently able to manipulate living human cells outside the body by an amazing technique known as "tissue culture." While these human tissue studies may have no direct bearing