

Creation or Evolution?

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Science and religion take polar positions as to the question of our origin, but who is right? As with any such situation, somewhere in the middle is probably the Truth. The question that has baffled humanity for many generations has been given some clarification recently from the book "Rare Earth". The authors, Douglas Ward and Donald Brownlee, both astrobiologists, put forth the hypothesis that advanced life only exists only on Earth. This new concept comes in sharp contrast to the popular idea, supported by Carl Sagan and others, that advanced life is common in our galaxy and in the universe. These new scientific findings mesh well with the recent discoveries about early Christian teachings on the same subject. Taken together, a surprising picture of our past and future emerges.

Astrobiology, the study of life outside of Earth, is a young science, but it presents an excellent model for the future sciences. An astrobiologist must take into account all of the physical sciences in order to present its theory. Modern medicine, for example, almost completely ignores all the aspects of physics in its practice. From the basic concepts of gravity, "large bodies attract" to nuclear physics and the statistical behavior of subatomic particles, significant characteristics of the human body and its interaction with others of its kind and interaction with the environment around it are overlooked.

The authors of "Rare Earth" present a significant number of statistically improbable requirements for advanced life forms. The necessary coincidental occurrence of highly unlikely events gives the authors the courage to make the bold statement that "the Earth could be unique".

Let us take a close look at just two of these events. Firstly, the Earth was formed at the furthest outer extremity of the habitable zone. The habitable zone is defined as the portion of the solar system friendly to life, not too hot or not too cold. As the Sun ages, its temperature rising, the habitable zone will move further out into the solar system. It is currently estimated that the Earth will remain within the habitable zone for the next 12 to 13 billion years, closely matching the expected life of the Sun.

Secondly, our moon, specifically its size and orbital direction, is said to be another significant requirement for life. Its unusual counter rotational orbit (the moon orbiting in the opposite direction of the earth's spin) provides long-term stabilization of the earth's gravitational field, its rotation about the Sun and its weather patterns. Since the Moon is slowly moving away from the Earth, it will continue doing so, providing long-term stabilization instead of crashing violently into us. This stabilization is expected to continue to the scientific definition of "the end of this world"; when the Sun dies.

There are many other such long-term stabilizing factors that have combined to provide the Earth with an extremely high long-term chance to develop in relative peace, undisturbed from the chaos around us.

So what does this have to do with the Biblical description of the Earth's creation? Since there can be only one Truth, there should not be any discrepancies between the physical facts and the true meaning of the story of creation. When looking at the teachings of Origen (185 to 254 AD) at the School of Alexandria, there emerges a logical relationship between early Christian teachings and the modern knowledge of the physical world's creation out of a vacuum some 13 billion years ago as a result of the "Big Bang".

The early Christians taught that Paradise is a spiritual place. They believed that the Paradise in Genesis is the same place that Jesus referred to when He told the crucified man next to Him; "This day we will meet in Paradise." Origen taught that the story of Adam, Eve and the serpent was a spiritual

occurrence, not a material one. When Adam and Eve failed this first test of their respect for God's Laws, the infallible Final Judgment in the material world was created to insure the return of all the Fallen to Heaven. This interpretation was shared with King Solomon, Homer, Pythagoras, Plato and the Apostle Paul.

They believed that the Seventh Day of creation has yet to occur. It is clear to any human that we have not reached the Seventh Day yet, because God's work is not yet finished and He is obviously not happy. But there is a subtler clue in Genesis. Each of the first six days has a night, meaning a lack of light, or in other words evil. The Seventh Day has no night, thus containing no evil.

Origen's interpretation of the Genesis story places the creation of the material world after the Second Fall and in the middle of the sixth day. Based on this interpretation, we currently stand about $\frac{3}{4}$ the way through the Sixth Day.

We are taught in the Second Epistle of Peter that a thousand years are but as one day to God. A thousand was the largest conceivable unit of measure at the time of this writing. Both million and billion are modern units of measure and were inconceivable to the common citizen even 200 years ago. So if we rewrote the passage to say; "the largest conceivable amount of time by man is like a day for God", harmony returns between the Bible and modern mathematics, which says that any finite measure is insignificant relative to infinity.

With these early Christian beliefs and the aforementioned modern scientific knowledge, we can make the bold statement; "One of God's days in Genesis is approximately 53 billion earth years." Therefore, the first six days of the Bible story spans a time horizon of at least 318 billion earth years, followed by the period of infinite bliss on the Seventh Day. Such a wide-spanning time horizon shows that many of the Bible stories are spiritual in nature and not of a material nature. This helps us to understand the magnitude of the Infinite Love and Infinite Patience of God. It also helps to remove any shortsighted fear that "the end of the world" will occur anytime soon.

An enlightened intellectual would receive the following picture from "Rare Earth". The creation of life on Earth was a well-planned event that took place within the physical and spiritual laws set down by the Creator, God. As the newly formed material expanded from the point of creation, the "Big Bang", the most ideal location was chosen within the universe where long, stable conditions would be the most favorable. As soon as the Earth cooled enough, basic life forms were created to slowly produce an ideal environment to support man. First the extremities go to work producing the proper gases to be able to produce bacteria. Bacteria are the most basic creators and supporters of advanced life. They provides a foothold for plants that produce food for animals, and together provide the organic matter, or energy reserves that makes it possible for man to reach his highest intellectual and spiritual level; to develop to the perfection demanded by Jesus over billions of years.

The answer to the original question from "Rare Earth" is creative evolution: creation of the maximum diversity of life forms with a progressive evolution to perfection. This creation model fits within the symbolism of the Old Testament and the spirit of the New Testament. At the rate he is going, man will need a long, long time to achieve the required perfection needed for us all to enter Heaven.

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