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Materialism and Abiogenesis

By Joe Spears

The TASC newsletter article Fossils examined the fossil record as evidence in support of the theory of evolution.¹ The conclusion of that article, as well as that of several evolutionists themselves, was that the fossil record did not provide evidence to support the theory of evolution. We might think, "Well, that doesn't matter since evolution is so strongly supported by the genetic evidence." However, is it really? Let's look and see. We will look primarily at the genetic evidence for the origin of life in this article.

Is abiogenesis irrelevant?

The idea of life arising from non-life is known as abiogenesis. It might be argued that abiogenesis is not evolution and thus is irrelevant in a discussion of evolution. The line of reasoning is that evolution deals with how life evolves from pre-existing life via natural selection or how more complex life arises from simpler life, which does not involve the origin of life. This is still *life* giving rise to more complex life, not life arising from *non-life*. Therefore, the argument goes, the question of how life arose from *non-life* is not part of evolution and is therefore excluded from any discussion of evolution as not being relevant.

So, is the question of how life arose relevant to discussions of evolution? This is a matter of semantics, though one may wonder if it is a matter of substance.

A fictional illustration

To help us put this question in proper perspective, let us consider by analogy, an unexplained hypothetical discovery recently made on Pluto—this is fiction, of course, to illustrate a point.

Suppose that on a manned mission to Pluto, one astronaut went down alone to Pluto's surface and later reported seeing a carved rock on Pluto with text carved on it that he actually read, consisting of the exact text of the drama *Julius Caesar*, as written by William Shakespeare! Some people, let us suppose, argue that this report is nonsense, and the reason they give for its being

nonsense is that the carvings would have eroded over time and, therefore, would not be readable.

A citizen, Bill, interested in the space program denies the discovery: Bill says, "We have heard some amazing reports, which strain our credulity, of the text of one of Shakespeare's plays found carved on rock on Pluto. I deny this; my reason is founded in very strong, irrefutable, logic. The carvings must be old, and, therefore, over time they would have eroded to the point that the text would be totally unreadable." (We will leave aside the question as to how Bill knows the age of the carvings or if the age would be old enough for sufficient erosion to occur since this is merely a fictional tale.)

A scientist, Alfred Meinstone, responds to Bill: "The question of the validity of the findings on Pluto, or indeed the question of the reality of the reported carvings of the text of Shakespeare's *Julius Caesar*, can be put to rest. The erosion that supposedly would have removed the text over time, did not occur! Therefore, the carvings are real! You may ask, why did the erosion not occur? To erode, we must have an eroding agent: water, sand, etc.; and, what is more, that agent must be in contact with the material to be eroded. I spare you the technical details. To get to the crux of the matter, the inescapable conclusion is that on Pluto, there was no such eroding agent that would have been in contact with the carvings for a long enough period of time to have removed the text. Therefore, we have answered the objection to the reality of these carvings and have shown proof for the reality of the carvings by refuting and eliminating the erosion argument."

The story becomes big news. Reports on TV tell everyone that "Scientists prove carvings on Pluto are real!" In the light of these developments, we find Bill discussing this turn of events with his friend, Sam. Bill sighs and sadly admits defeat. However, Sam says, "Wait a minute! There is no one on Pluto to have made the carvings."

Bill thinks, "Wow! Sam has really come up with the clinching argument." Bill tells Sam, "I knew there was something not quite right with those carvings on Pluto! Something just didn't make sense, and I do believe that you, Sam old buddy, have hit the nail on the head!" Within a matter of days Sam's thoughts on the matter

¹ Spears J (2016 Feb) Fossils. <<http://tasc-creationscience.org/article/fossils-0>> Accessed 2016 Feb 23

find their way into the news media. “Pluto - Shakespeare Debate Continues!” read the headlines.

After a few days of media frenzy about the ongoing debate, reporter Suzy Anderson asks Professor Meinstone for an interview on her TV show, on Media-Front, a nation-wide TV network. “Professor Meinstone,” she says, “we all have been watching the debate over the recent Pluto findings. Bill made a claim that the carvings could not be real, which admittedly sounded valid to many people. However, it was you who so soundly refuted that claim with a very scientific response. Now, however, someone else—Sam by name—is arguing again in support of Bill’s position that the carvings simply cannot be real, although Sam is using different arguments. Could you respond to Sam’s point for our viewers?”

“Ach! The line of argument put forward by Sam may seem indeed to clinch the case, so to speak, for those who are not keen observers of the details of the logic involved in Sam’s argument. But to a keen mind—such as that of yours truly, myself!—it becomes obvious that the line of argument proposed by Sam has no logical validity.”

Suzy looks puzzled and asks, “Well, Professor, don’t keep us guessing! Tell us where the flaw lies.”

Alfred Meinstone leans back, looking immeasurably pleased with himself. He tilts his head a bit to position himself more favorably for the camera. “The argument I gave, that there could be no erosion, is still true. However, it is not the truth-value of the argument that is relevant in this situation.” Suzy looked even more puzzled.

“The point is, that my argument dealt with the preservation of the carving, not the creation of the carving. So, in fact, did the line of reasoning put forward by Bill. He argued that the carving could not have survived, persisted, or have been **preserved**, so long as it has, and my response dealt with that.”

Suzy seemed to be beginning to understand. “Oh,” said Suzy, “so the question of the *origin* of the carvings is not implicit in the question of their *preservation*?”

“Yes! You have it,” said the professor. “This is not a question of origins, but a question of preservation. To help you understand—well, since you already seem to get this, to help the viewers understand, I will say this much: this is like the evolution debate. Evolution is *not* the origin of life.”

Suzy agreed. “Yes,” she said. “And the arguments that the origin of life from non-life could not have happened are therefore irrelevant—I certainly get that, I understood that long ago. Therefore the creationists’ arguments for creation—about how impossible it is that non-life produced life—are really irrelevant.”

“Yes,” the Professor agreed. “So we must accept evolution. Likewise, we must accept the reality of those carvings, and not question them!”

So, the scientist replies back to Sam’s point, that the scientific refutation of Bill’s argument against the reality of the carvings does *not deal with their origin*—merely with their *preservation*, and that therefore, Sam’s point about the impossible *origin* of the carvings is irrelevant and, therefore, invalid.

The proposition of Meinstone that the reality of those carvings on Pluto was proven by arguments related to their *preservation*, while ignoring questions of their *origin*, seems to not really have proven the reality of the carvings for their origin is still left a mystery, unexplained and unresolved.

We can see that the reasoning that the origin of the carvings is irrelevant does not prove the reality of the carvings. Likewise, we can see that the reasoning that origin of life is irrelevant does not prove the reality of the evolutionary view.

What is the evolutionary view? Namely that the current diversity of life is explainable totally by means of natural mechanisms, explicitly excluding supernatural and spiritual effects, permitting solely those mechanisms already understood in the current framework of science. This would seem by definition to limit the progress of science to go no further than what is already known, an all too common attitude found down through the history of science, in the opposition to the heliocentric view, the opposition to Einstein’s relativity, the reluctance by scientists to accept heavier-than-air flight, and so forth.

We also see that the focus on the preservation of the carvings to the exclusion of the origin of the carvings reminds us of the evolutionary focus on the preservation of species, as Darwin put it in the title of his book, *On the Origin of Species by Means of Natural Selection, Or, The Preservation of Favoured Races in the Struggle for Life*.²

Just as an analysis of the preservation of the carvings, disregarding their origin, is an incomplete analysis regarding the reality of those carvings, so likewise an analysis of the preservation of species of life, disregarding their origin, is an incomplete analysis regarding the reality of the diversity of life. The origin of life is a foundational requirement for the reality of that life, which must exist in order to “be preserved” as Darwin implied, or to evolve, just as the carvings must exist in order to be preserved.

² Darwin C. (1859) *On the Origin of Species by Means of Natural Selection; Or, The Preservation of Favoured Races in the Struggle for Life*. London. John Murray, Albemarle St. Printed by W. Clowes and Sons also found at <https://books.google.com/books?id=jtbMjoXRJv8C&dq=on+the+origin+of+species+by+means+of+natural+selection&hl=en&sa=X&ved=0ahUKewid_Oyvoo7LAhVCJR4KHdcTC8YQ6AEIMDAA>

To say that carvings must exist because they would not have eroded, ignores the question of their origin. We might find it humorous to think that people would accept the existence of the carvings on the basis of Professor Meinstone's reasoning, while ignoring the question of their origin. The obvious reply to the professor is below:

"Professor, the issue is not whether an argument resides within the scope of the boundaries of one particular *discussion* about the carvings on Pluto; rather the issue is the *reality* of the carvings on Pluto. To be real, carvings need to have been carved; this is logical and ineluctably leads to the question of the origin of the carvings. This question of origins is therefore relevant to the issue of the *reality* of the carvings, and the question of whether it lies within the scope of one particular *discussion about* the carvings is not relevant to the reality of the carvings, regardless of its relevance to that particular discussion. We must distinguish between the issue itself and a dialog about that issue."

Likewise, the argument that evolution is not about the origin of life can be seen as a side issue, *if* the main issue is another one, namely, whether the species, genera, and all types of living things we see in the world today could possibly have arisen by natural means, without God. The question of abiogenesis is relevant to *that* issue, whether or not abiogenesis is part of some discussion about some aspect of this hypothetical scenario of how existing species and genera, etc. arose. Think about it, if we explain the origin of species by tracking them back to a predecessor species and stop there, have we explained the origin of species? This is admittedly a matter of semantics with respect to the meaning of the word "origins," but to those who really want to know—to those of a scientific mindset—it would seem that there ought to be more of an answer than that for the question of whether natural mechanisms apart from God can explain the life forms we see today as well as those we see in the fossil record.

For an example, if we are tracing the origin of an ancient 500 year old manuscript, and we find that someone bought the manuscript from someone else 5 years ago, have we explained its origins? Would we want to explore further and try to go to the source?

We can see that, whether or not the definition of the scope of the argument or discussion limits that discussion to the preservation of the carvings only, the actual reality (as opposed to an artificially imposed restriction on a discussion) is that there is *another* potential discussion, another topic of quite some interest, and another mystery to be solved, for which the question of origins *will* indeed be relevant.

We can also see that, to most people, the issue of interest would be the origin of those carvings of Shakespeare's text, regardless of imposed restrictions on discussions to their preservation only.

Likewise, it would be safe to say, based on:

- consideration of the reality of the fact that life obviously does exist,
- the fact that science supposedly exists for the purpose of finding out the answers to such questions as how life came to be,
- that, to scientific mindsets, life seems to be virtually crying out for explanation, exploration, and investigation, and finally
- that science has a characteristic, or at least a reputation, of not being restricted by artificially imposed bounds on investigation,

this topic of the origin of life and the question of abiogenesis seems likely to be of extreme interest to many scientists.

Arguably, this just may not be, but indeed most likely is, of interest to all scientists, in the sense of the meaning of "scientist" as one seeking to search and to explore the unknown in order to discover the truth of reality, while seeking to not be unduly restricted nor hampered by artificially imposed bounds that are based in dogma, such as is exemplified by the attitude expressed in the following statement, "We will not look through Galileo's telescope because we already have our opinion."

Some might say that abiogenesis is not evolution, that the origin of life is a different theory or topic. I think of the quote from Shakespeare: "What's in a name? A rose called by any other name would smell as sweet." Whether the question of whether the "origin of life" is evolution or not is mere semantics or a weightier issue, this fact remains: the origin of life from non-life is the required foundational building-block assumption that is required in order for evolution to work, unless God is allowed into the picture.

For genes to be selected, there must first be genes. According to Dr. Paul Giem, assistant professor of emergency medicine at Loma Linda University, materialism requires this explanation of how life arose from non-life.^{3,4} But what is materialism? According to the Catholic Encyclopedia,

As the word itself signifies, Materialism is a philosophical system which regards matter as the only reality in the world, which undertakes to explain every event in the universe as resulting from the

³ Who's Who in Creation/Evolution. <<http://christiananswers.net/creation/people/giem-p.html>> Accessed 2016 Feb 23

⁴ Giem P (2015 Mar 07) *Eugene Koonin and the Origin of Life* 3-7-2015 by Paul Giem, Second Look Seminars / Faith and Science Sabbath School Class. <<https://www.youtube.com/watch?v=gkB8VcfvcBQ&list=PLHD SWJ BW3DNUUhiC9VwPnh>> Accessed 2016 Feb 23

conditions and activity of matter, and which thus denies the existence of God and the soul.⁵

So, must we accept the evolution of life as scientifically proven and ignore investigating the question of abiogenesis? Let us remember that abiogenesis, the ultimate origin of life from non-life, is a topic of interest to many, regardless of whether it is, or has been, part of some discussion about other aspects related to the question of how to explain the current diversity of life on this planet. Abiogenesis is seemingly relevant to the following question, which takes cognizance of the aspect of materialism which is implicit in so many expressed opinions concerning evolution:

Can the diversity of life we see all around us be explained by natural mechanisms without supernatural intervention?

In the true spirit of exploring to find the truth, casting aside blind adherence to dogma and arguments founded in semantics, we will now proceed to examine the possibility of the origin of life from non-life. Rather than deal here with such an artificially imposed restriction on the scope of the discussion, let us look at the issue of interest. So how does evolution account for the origin of life? Due to space considerations, we shall only briefly summarize some evidence concerning abiogenesis.

What do the experts say?

Darwin

Charles Darwin suggested that life evolved from a few created forms, or perhaps a single created form, of life:

There is grandeur in this view of life, with its several powers, having been originally breathed by the Creator into a few forms or into one; ...⁶

However, most evolutionists today seem to want to deny a "divine foot in the door."⁷

Some have suggested that Darwin, even though he was bold enough to propose a mechanism for transformation from one form of life to another, realized that the origin of life itself was even more unlikely to have unfolded via natural mechanisms.⁸

⁵ Materialism, The Catholic Encyclopedia <<http://www.newadvent.org/cathen/10041b.htm>> Accessed 2016 Feb 15

⁶ Darwin C (1859) 490

⁷ Richard Lewontin . <<http://hyperphysics.phy-astr.gsu.edu/nave/html/faithpathh/lewortin.html> > Accessed 2016 Feb 23

⁸ Tour JM. Layman's reflections on evolution and creation. An insider's view of the academy, <<http://www.jmtour.com/personal-topics/the-scientist-and-his-%E2%80%9Ctheory%E2%80%9D-and-the-christian-creationist-and-his-%E2%80%9Cscience%E2%80%9D/>> Accessed 2016 Feb 27

Hoyle

Sir Fred Hoyle is known for giving the Big Bang its name, though he disagreed with it, and is also known as the evolutionist that wrote the book titled *The Mathematics of Evolution*.⁹

Let's look at a quote from Hoyle:

The trouble is that there are about two thousand enzymes, and the chance of obtaining them all in a random trial is only one part in $(10^{20})^{2000} = 10^{40,000}$, an outrageously small probability that could not be faced even if the whole universe consisted of organic soup. If one is not prejudiced either by social beliefs or by a scientific training into the conviction that life originated on the Earth, this simple calculation wipes the idea entirely out of court."¹⁰

What do these numbers mean? The estimated number of atoms in the universe is about 10^{80} , and even 10^{130} is trillions of trillions beyond that. $10^{40,000}$ is almost unimaginably vast beyond even this.

Meyer

Stephen Meyer, former geophysicist and college professor, is the author of *Darwin's Doubt* and *Signature in the Cell* and director of the Discovery Institute's Center for Science and Culture in Seattle. He wrote

...the probability of constructing a rather short functional protein at random becomes so small (no more than 1 chance in 10^{125}) as to appear absurd on the chance hypothesis.¹¹

and

... to have a reasonable chance of finding a short functional protein in a random search of combinatorial space would require vastly more time than either cosmology or geology allows.

Yet more realistic calculations (taking into account the probable presence of nonproteinaceous amino acids, the need for vastly longer functional proteins to perform specific functions such as polymerization, and the need for multiple proteins functioning in coordination) only compound these improbabilities—indeed, almost beyond computability. For example, recent theoretical and experimental work on the so-called "minimal complexity" required to sustain the simplest possible living organism suggests a lower bound of some 250-400 genes and their corresponding proteins [62, 63, 64]. The nucleotide sequence

⁹ Hoyle F. (1999) *Mathematics of evolution*. Subsequent edition. Acorn Enterprises Llc.

¹⁰ Hoyle F, Wickramasinghe C. (1981) *Evolution from Space*, Paladin: London, Reprinted 1983, 19-21

¹¹ Meyer SC. DNA and the origin of life: Information, specification, and explanation, 16, <<http://www.discovery.org/articleFiles/PDFs/DNAPerspectives.pdf>> Accessed 2016 Feb 23

space corresponding to such a system of proteins exceeds 4^{300000} .¹²

Some have stated that the process for creating first life would not be totally random, which Meyer addresses. He points out that efforts to describe mechanisms to remove the random chance element have problems, such as assuming the complex information that they are trying to explain and by reduction of information by postulating deterministic mechanisms.¹³

Koonin

For the sake of space, let us conclude this section by looking at a recent article from an acknowledged expert in the field of evolutionary and computational biology, Eugene Koonin. Koonin has studied bacterial genetics and viral biochemistry at the Institutes of Poliomyelitis and Microbiology at the USSR Academy of Medical Sciences, has been a member of the editorial board of *Trends in Genetics* and also of *Bioinformatics*, and has researched the mathematical modeling of genome evolution.¹⁴

Let us examine some comments made in his article:

...for biological evolution that is governed, primarily, by natural selection, to take off, efficient systems for replication and translation are required, but even barebones cores of these systems appear to be products of extensive selection...¹⁵

Replication and translation are two mechanisms Koonin describes as required for natural selection, but natural selection seems to be necessary to produce them, which is obviously circular.

How does Koonin suggest getting around this seeming impasse?

The model of eternal inflation implies that all macroscopic histories permitted by laws of physics are repeated an infinite number of times in the infinite multiverse. In contrast to the traditional cosmological models of a single, finite universe, this worldview provides for the origin of an infinite number of complex systems by chance, even as the probability of complexity emerging in any given region of the multiverse is extremely low.¹⁵

Koonin also points out:

The currently favored (partial) solution is an RNA world without proteins in which replication is cata-

lyzed by ribozymes and which serves as the cradle for the translation system. However, the RNA world faces its own hard problems as ribozyme-catalyzed RNA replication remains a hypothesis and the selective pressures behind the origin of translation remain mysterious. Eternal inflation offers a viable alternative that is untenable in a finite universe, i.e., that a coupled system of translation and replication emerged by chance, and became the breakthrough stage from which biological evolution, centered around Darwinian selection, took off.¹⁵

Note that "a coupled system of translation and replication emerged by chance" is "untenable in a finite universe."

It is admitted that the probability of the appearance of the required mechanisms for "virtually impossible" abiogenesis are "vanishingly small":

Thus, spontaneous emergence of complex systems that would have to be considered virtually impossible in a finite universe becomes not only possible but inevitable under MWO, even though the prior probabilities of the vast majority of histories to occur in a given O-region are vanishingly small.¹⁵

To illustrate the numbers for just how untenable this is, he tells us:

In other words, even in this toy model that assumes a deliberately inflated rate of RNA production, the probability that a coupled translation-replication emerges by chance in a single O-region is $P < 10^{-1018}$.¹⁵

The probability is less than 1 chance in 10 raised to the 1,018th power. To get a sense of the size of this, recall the estimated number of atoms in the universe—not just earth, but the entire universe—is on the order of 10 raised to the 80th power. Ten to the 1,018th power is trillions of times bigger and more. The chance calculated is a very small chance, to put it mildly, and that small chance was using artificially inflated numbers to make it more likely. More realistic numbers would result in an even smaller chance of the origin, not of life, but of just these coupled translation-replication mechanisms.

Also, please note: this is the probability of getting replication and translation only. Once that is done, you must multiply this by the improbability of taking those two building blocks up through single cells and on to species that evolve. This is so improbable that the multiverse concept of an infinite number of universes is utilized to increase the odds for abiogenesis.

Does this treatment of abiogenesis sound as though abiogenesis is a mechanism that has been proven by the genetics, biochemistry, microbiology and other related sciences? Note this statement:

... to attain the minimal complexity required for a biological system to start on the path of biological

¹² Ibid., 17

¹³ Ibid., 1-44

¹⁴ Eugene Koonin. <https://en.wikipedia.org/wiki/Eugene_Koonin> Accessed 2016 Feb 23

¹⁵ Koonin EV (2007) The cosmological model of eternal inflation and the transition from chance to biological evolution in the history of life. *Biology Direct*. 2007 May 31 <<http://biologydirect.biomedcentral.com/articles/10.1186/1745-6150-2-15>> Accessed 2016 Feb 23

evolution, a system of a far greater complexity, i.e., a highly evolved one, appears to be required. How such a system could evolve, is a puzzle that defeats conventional evolutionary thinking.¹⁵

Thus, explaining abiogenesis “defeats conventional evolutionary thinking,” according to Koonin. The complexity and information inherent in the mechanisms required for life seem to require an intelligent designer.

The conclusion seems to be that the evidence from genetics and mathematical probability calculations does not clearly provide proof that evolution has occurred. ☹

COMING EVENTS

Thursday, March 10, 7:00 pm, Providence Baptist Church, 6339 Glenwood Ave., Raleigh, Room 207
Note the change of the room.

We will watch the video: Grand Canyon - The Puzzle on the Plateau. The Grand Canyon is one of the most breathtaking sites in the world. First time visitors often stare, spellbound...“How did this happen?!” Standard geological interpretations (that always involve millions of years) cannot explain many of the strange features and anomalies. On the other hand, creationists have often assumed that receding flood waters formed the canyon. This view includes its own set of problems that cannot be explained. So, like a great, intriguing mystery, the canyon has been quietly guarding its secrets.

Ken Ham, Answers In Genesis Conference, March 13-14, 2016, Colonial Baptist Church, 6051 Tryon Rd, Cary

Colonial Baptist Church is pleased to welcome Ken Ham, President of Answers In Genesis, with special guest Buddy Davis for a two-day conference. This event will challenge you to think biblically, teach you how to defend your faith, and help you point people to the Ark of Salvation, Jesus Christ. The entire conference is free and open to the public. No registration is required.

For more information, go to:
<https://www.colonial.org/default.aspx?page=3664>