

Must Christians choose between science and the Bible?

Introduction

A previous booklet published in 2012, Questions for Evolutionists, focused on the problems and lack of answers regarding the theory of evolution (TOE). This booklet turns the issue around by answering questions frequently heard by Biblical creationists. The term Biblical creationist generally refers to Christians who stand behind a literal six-day creation as recorded in Genesis and supported throughout the Bible. The questions in this booklet are commonly presented by atheistic evolutionists and theistic evolutionists to creationists as "got-cha" questions for which, they think, there are no reasonable creationist responses. The answers to the questions here are provided by six creationists of varying Christian backgrounds, denominations, academic degrees and professional affiliations. We openly admit that we have a prior commitment in believing Isaiah 40:8 that the "word of our God will stand forever." and we are also compelled by 1 Peter 3:15 to "being prepared to make a defense to anyone who asks you for a reason for the hope that is in you." Apologetics, the defense of Christian faith, involves both Biblical and scientific responses to questions on reasons to believe.

Subject Categories for Questions and Answers-Q & A Groups

- Scientific evidence on the age of the earth and universe: Questions 1 through 5.
- II. The Flood of Noah as to historicity, extent, and post-flood events: Questions 6 through 8.
- III. The biological evidence for evolution considered: Questions 9 through 13.
- IV. The Bible and the theory of evolution—compatible or not: Questions 14 and 15.

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Part I: Age of the Earth and Universe

1. Does the Big Bang explain the origin of the universe? by Tony German

The Big Bang Theory (BB) is the thinking atheist's answer to the question of the origins of the universe. The BB theory states that at the beginning of the universe, all the energy in the universe existed at a single point, referred to as a "singularity." Then, at the beginning of time, hydrogen formed first and, then, by nuclear fusion, hydrogen formed helium, and from helium all the elements in the periodic table were eventually synthesized by natural fusion processes. Students and the general public will hear repeatedly that the BB theory is scientifically established, and that scientists know it is true in the same way that we know the force of gravity, and that the BB answers all of the pertinent questions of the origin of the universe. None of this is true. The stakes in this debate are high. The BB posits an age for the universe (stars) at 14 billion years and the earth at 4 to 6 billion years, directly contradicting a biblical age of less than 10,000 years. Our point here is not the exact biblical age of heaven and earth, but to note the extreme time differences between the BB theory and the Bible. Evolutionists point to certain evidences for the BB including cosmic microwave background (CMB) radiation and also recently discovered gravitational waves. But there is a mountain of evidence against the BB theory. The theory features hypothetical or imaginary elements, such as inflation (or imaginary mechanisms to drive inflation). Without inflation, which began 10.36 seconds after "the beginning", and the expansion of space at far greater than the speed of light, the theory fails.

The BB theory has come to rely on a conjecture, the Higgs field, to solve the inflation issue. As difficulties with the Higgs field were noted, hypothetical adjustments to the hypothetical Higgs field were invoked. "The need for fine-tuning of the universe... has been obviated by fine-tuning the Higgs mechanism instead" (ref. 1, p. 31). Additionally, the theory was found to be incompatible with astronomical observations, so theorists added imaginary dark matter and dark energy to the model to salvage the theory.

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Because there are so many problems with the theory, hundreds of scientists have gone on record pleading with their colleagues to investigate other theories (2). At least a dozen competing theories have been proposed (3, 4). A more complete discussion of the defects of the Big Bang theory is found in Ken Ham's *The New Answers Book 2* (5).

The BB is essentially a mathematical model of a physical universe, as are most models in astronomy and physical sciences. Furthermore, the theory doesn't explain the necessary precursors or cause of the BB. Before the BB all of the energy of the universe is either existing or has the preexistent potential to exist. The only explanation for the energy of the universe are words like "singularity," "inflation" and "quantum fluctuation" used by cosmogonists to explain things which happen without explanation—as is the BB. When pushed for explanations, the "multiverse" may be suggested. Science demands cause and effect relationships—but the BB proposes only an effect. The obvious purpose of the BB is to eliminate any need for our Creator, the God of the Bible. The BB theory, although supported by many scientists, is really not a scientific theory but rather a product of imagination and wishful thinking. The five references below discuss the BB.

- 1. David Berlinski, Was There a Big Bang?, Commentary Magazine, February 1998, http://www.discovery.org/f/386.
- 2. http://homepages.xnet.co.nz/~hardy/cosmologystatement.html.
- Eric Lerner, http://www.bigbangneverhappened.org/, prefers a theory of Plasma Cosmology, because of the many problems with the Big Bang theory listed on his website.
- https://en.wikipedia.org/wiki/Non-standard cosmology. This site lists the
 competing theories. Many of the competing theories exist because of specific
 problems with the Big Bang theory.
- 5. Ken Ham, *The New Answers Book*, Vols I, 2, & 3 for an extensive discussion on questions regarding evolution-creation. See www.answersingenesis.org.

2a. Does distant starlight disprove a young earth and universe? by Ralph Gillmann

Those who acknowledge the Creator have additional resources to answer distant startight travel time within the Bible's time frame. Briefly, four conceptually plausible answers have been given regarding light travel from distant stars to earth.

- (1) Just as God created Adam and Eve and animals with an apparent age and trees in the Garden of Eden would have tree rings representative of their maturity, light from distant stars was spoken into existence along with the stars. This would be similar to the view held by St. Augustine and St. Anselm that God created the whole universe instantaneously. God is certainly capable of this (6). Question 4 also discusses this issue.
- (2) The speed of light from the source is instantaneous and the speed of reflected light is half the apparent two-way speed of 3.0 x 108 meter/sec. Creationist astronomer Jason Lisle has suggested this solution. The two-way (round-trip) speed of light is always measured and known. It would be consistent with the accepted the speed of light if directly toward an observer light speed is infinite and reflected light from the observer is half the accepted speed of light. This is known as the Anisotropic Synchrony Convention (ASC), as discussed in reference (7).
- (3) The passage of time in the far universe is based on faster clocks than those on earth. Earth time in days is based on the rotation of the earth. There is no earth for this way of time-keeping in the distant universe, where millions of years could equal one year on earth. Physicists John Hartnett and Russell Humphreys have each proposed ways of using Einstein's General Theory of Relativity in a time dilation model for how starlight reaching the earth in a short amount of earth-time. Russell Humphress (8) and John Harnett (9) have complete books on this subject.
- (4) Some creationist astronomers suggest that the speed of light is dependent on gravity and light travels faster where the force of gravity is minimal in empty parts of our universe.
- (5) The cosmic scroll model is presented below in detail by Mr. Walsh in Question 2b.

Any of the above approaches provide plausible answers to the starlight and time problem for now. Creationists have not ignored the starlight problem and have proposed solutions. We do not claim to have the correct explanation for distant starlight here. Ultimately, we don't know and we will have to ask the Creator to explain how it was done.

Event horizon problem. Evolutionist astronomers have now changed the age of the universe from 18 billion years down to 13.7 billion years. This poses a light travel time problem for cosmic evolutionists, referred to as the event horizon problem. The cosmic microwave background (CMB) is uniform throughout space—energy including light has apparently traversed the most distant parts of our universe which are as much as 25 billion light years apart. This means there is insufficient time for light energy to have traveled across the universe in 14 billion years to provide uniform CMB. Inflation theory (see questions 1 above) with light travel exceeding the speed of light is the most frequent answer to this evolutionist dilemma. From the great distances of stars and galaxies combined with the speed of light one might get the idea that a long period of time must exist for light to get from "there" to "here." While stars visible to the naked eye are less than a thousand light-years away, some distant universe are more than 14 billion light-years from each other, yet are in thermal equilibrium.

- 6. C. John Collins, Science and Faith: Friends or Foes? Crossway, 2003, p. 9.
- 7. Lisle, J.P., Anisotropic Synchrony Convention—A Solution to the Distant Starlight Problem, *Answers Research Journal*, 2:191–207, 2010.
- 8. Humphreys, D.R., Starlight and Time, Master Books, 1994.
- Hartnett, J., Starlight, Time and the New Physics, Creation Book Publishers, 2007.

2b. Does distant starlight disprove a young earth and universe? by Robert Walsh

This is a wonderful question and arguably represents one of the last remaining questions creationists have not provided a coherent scientific answer. In this brief response, we shall: 1) provide a listing of models offered by creationists over the years that address this problem of starlight travel; 2) examine some of the Biblical data that go into developing a rigorous Biblical framework; and 3) briefly discuss what needs to be satisfied physically and mathematically to rigorously construct a coherent scientific model that simultaneously satisfies the cosmic Biblical criteria. However, remember that miracles in the Bible do not need rigorous scientific models.

There have been more than a handful of models offered to address the starlight time problem, including the following: 1) C-Decay; 2) tired light; 3) non-Riemannian geometry of Moon and Spencer; and 4) the appearance of age. Each of these models fails at providing a coherent view of the problem, and are unable to be easily extrapolated into other areas of cosmology. More modern cosmologies have been offered by Humphreys and Harnett. These latter two have the benefit of utilizing General Relativity, but to date fall short of providing a completely coherent physical picture. We will now consider the *cosmic scroll model* to explain distant light.

So what biblical criteria must go into the construction of a scientific model that we can use to explain the observational data while preserving the normative understanding of the inspired text? Footnotes 1 and 2 below provide a more complete discussion of a brief one in this booklet. Upon a careful reading of the biblical creation texts we find creation described from the point of view of the earth - even from the start of the Genesis account: "... and the earth was formless and void..." (Gen. 1:2). The rest of Genesis 1 describes the acts of creation from earth's perspective. Given that the contextual meaning of the days of Genesis 1 are literal 24 hour solar periods the timeframe described in Genesis 1 is that of six solar days for the entire creation to have occurred from the point of view of the earth. To ascertain specific Biblical details relating to constructing a physical model of God's creating, we must go elsewhere in the inspired text.

Elsewhere, God often describes His act of creating by way of a figure of speech called *simile*, where God's act of creating the cosmos is said to be *similar* to the "rolling out" a scroll (Isa. 34:4, Rev. 6:14). Here we consider a three-dimensional scroll. It follows that this "rolling out" could be used to create a thoroughly biblical model of cosmic origins that forms a framework to construct our physical models (including the star light travel problem). Imagine a double rolled scroll as shown in below.



Fig. 1. The Cosmic Scroll²

The simile of a cosmic-scroll is a wonderful tool to aid our understanding as to how God might have created the universe. A doubled rolled scroll is rolled out from its center, first revealing the earth, then the stellar members of the cosmos in their own order. We can use this simile to say that our local galactic area is *near* the center of the cosmos, as that corresponds to the first thing to be revealed as the scroll is rolled out. As He continues to roll out His cosmic scroll He creates items as their place in the cosmic scroll becomes revealed.

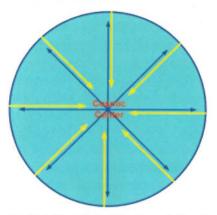


Fig. 2. Rolling Out of the Cosmic Scroll

It is assumed that God's rolling process is at some finite speed as measured from within the newly created cosmos. In Fig. 2 above this action is represented by the blue arrows and is directed outward from the cosmic-center. Since God designed various stellar objects to be seen with the naked eye on earth (Gen. 1:14), the light from these objects as they are revealed in the act of scrolling would have to travel at speeds that are proportional to the distance from the cosmic-center, which is further a function of the speed of the rolling out of the cosmic-scroll. In Fig. 2, these light paths are shown by the yellow arrows and are directed toward the cosmic-center. In this regard, our model requires that the light from these distant objects be visible to Adam upon Day 6. To satisfy the statement above, our creation cosmological model must be designed with the proper space-time geometry to satisfy Einstein's Field Equations as shown below,

$$G_{\mu\nu} + \Lambda g_{\mu\nu} = \frac{8\pi G}{c^4} T_{\mu\nu},$$

where the left hand side of the equation represents the curvature of space-time (our Biblical scroll) and the right hand side of the equation represents matter (our Earth and other stellar objects) contained in space-time. In other words, matter tells space to bend and the fabric of space-time determines how much it will bend.

From this model creationists must perform the following tasks:

- Find a space-time geometry that satisfies Einstein's field equations, where the right hand side is consistent with current observational data.
- This geometry must satisfy the Biblical criteria of allowing the light to be seen from various stellar objects within creation week.

The solution must allow for a very short period of time for light to appear on the earth and huge amounts of time to pass as one departs from the cosmic-center. In other words, time passes faster in the far universe relative to earth time. This increasing time passage allows light to reach the earth within a 6 day creation week.²

Thus, in order to "find the solution," creation researchers need to be well versed in differential geometry and general relativity and use these

mathematical and physical tools within a rigorous Biblical framework. This explanation is predicated upon a normative understanding of the inspired biblical text to construct a coherent physical cosmic model.

- For a brief analysis of the meaning of the word day in Genesis One see, R.E. Walsh, Biblical Hermeneutics and Creation, Proceedings International Conference on Creationism, Creation Science Fellowship, Inc. Pittsburgh, PA, Vol. 1, pp. 121–126, 1986.
- 2. http/www.icr.org/artcle/new-creationist-cosmology-no-time-at-all/

3. Does radiometric dating make the earth 4 billion years old? by Robert Walsh.

There are two major forms of radiometric dating: Radiocarbon or C-14 dating, which obviously applies only to carbon-containing (i.e., organic) substances, and radioisotope dating which applies to igneous and metamorphic rocks.

Radiocarbon dating:

- Can theoretically determine the age of a sample of up to approximately 60,000 years.
- Depends on a key assumption—that the earth's C-14 to total carbon ratio has been stable for tens of thousands of years (the equilibrium assumption); there is much evidence that the equilibrium assumption (first proposed by Willard Libby) is wrong and that C-14 production increased just after the flood of Noah.
- C-14 is actually the young earth creationist's friend. The presence of C-14 in a sample guarantees that the sample is less than 60K years old, an age much more consistent with young earth creationist views than traditional evolutionist views.
- C-14 is found in measureable amounts in coal, natural gas, diamond, fossil bone—in all materials containing C-14 above background. This is a disastrous finding for the TOE.

The claim that the presence of C-14 in a sample guarantees the sample is less than 60,000 years old does not depend on the equilibrium assumption above. Instead, the assumptions that have to be true are the accuracy of the accelerator mass spectrometer (AMS) and our estimates of the half-life of C-14. A short but excellent article, Carbon 14 is Now the Creationist's Friend is published by astronomer D. Russell Humphries (11). Numerous dinosaur fossil bones have been C-14 dated by AMS with ages totally inconsistent with the alleged age of dinosaurs.

Radioisotope dating is used to date igneous and metamorphic rocks; sedimentary rocks may have formed over centuries; igneous and metamorphic rocks are likely formed in one-time geologic events. The dating method compares ratios of parent to daughter atoms, such as uranium to lead, to estimate the age of a rock. Because we have evidence

of uranium decay, and because we know the half-life of uranium is measured in millions of years, radioisotope dating is presented as evidence for an old earth, if uniformitarian assumptions are correct.

- More parent, and fewer daughter atoms indicate a younger rock.
- Fewer parent, and more daughter atoms indicate an older rock.

The main problem with any historical analysis is that the starting conditions are unknown. We begin observing the decay process well after it has started. In the case of radioisotope analysis, the original parent-daughter ratios of the rock are unknown. The analysis methodology is forced, by necessity, to assume that every daughter atom inside the rock is descended from a decayed parent atom. To assume otherwise leaves the analyst with no non-arbitrary starting point for the analysis. But the "all daughters are from a parent" assumption is an obviously unproved assumption. Furthermore, there is strong evidence such as radio-halos, that other important assumptions are false, specifically the uniformitarian assumption that decay rates have always been the same.

Estimating the age of the earth is a historical science—never better than an educated guess. There are a number of ways to estimate the age of the earth. The vast majority of these methods indicate a young, or at least a relatively young earth. Radioisotope dating is the only one that gives ages of millions to billions of years. Radiometric methods have a thin veneer of scientific rigor, depending on assumptions that are very likely false. Given a number of possible ways to estimate the earth's age, evolutionists consistently pick methods that give them the answer they like—very old ages which are absolutely necessary for evolution to be true. C-14 dating is now apparently avoided when it gives "young" dates to "old" specimens.

11. Humphries, D. R., Carbon 14 is Now the Creationist's Friend, Creation Matters, 19(5), 2014.

4. Did God create heaven and earth with the appearance of age and is not this deceptive?

by Andrew Steinman

There are several indications in Genesis 1–2 that God created a mature looking universe. The sun, moon, and stars were created on the fourth day (Gen. 1:14–19). According to the text they were lights in the sky to provide light on earth. The account is told from the perspective of someone standing on the earth, and the lights are already visible on the fourth day. The stars specifically were to mark seasons, days, and years. Therefore, God created the stars and the light that appeared to emanate from them, making the heavens appear to be very old. In a similar way, God created trees with fruit in them, ready for human consumption (Gen. 1:29) and humans who were old enough to reproduce under God's blessing (Gen. 1:28).

Is this deceptive? Since God made the universe and has told us in his Word that it had features that appear to be older than they actually are, then this is not deceptive. He did not mislead anyone. This is much like a skilled artist who reproduces a famous painting from past centuries. There is nothing deceptive as long as the artist does not represent the painting as being older than it actually is, even though it appears to be an old painting.

5. Don't geological layers place the age of the earth at about 4 billion years?

by Tony German

Secular, that is non-biblical, estimates of the age of the earth are from two sources, the first is from the Big Bang (BB) theory discussed in Question 1 above. BB theorists used the rate of the expansion of supernovae to then calculate the age of the universe at 12 billion years (now 13.7 billion years). From this, the ages of our sun, planet earth, and the earth's moon were estimated. Earth's age, now said to be 4.5 billion years, is logically dependent on the estimates for the BB initial event, inflation theory, and all the *ad hoc* assertions of cosmology. Another way to estimate the earth's age is to note the layers of soil and calculate how long it would take to deposit each geological layers and add up the total. This method obviously discounts a global flood or localized catastrophes.

The evidences for a young earth, sun and moon and even universe are considerable, with lists of 100+ evidences for a young earth and a young universe. The evidences for deep time are forced from: 1) acceptance of BB theory, 2) inflation theory, 3) the need for deep time for evolution, 4) disregarding many C-14 dates, and 5) negation of a global flood. General references available on the evidences for a young earth and a global world-wide flood are listed at the end of this booklet.

Part II: Was the Genesis Flood of Noah World-wide or Local?

6. How could all the animals and birds fit on the ark? by Dennis Wert

First consider that all the animal species on earth were not on the ark. Taken onto the ark were two of every "kind" of air breathing land animal and bird and seven of all the "clean" kinds of animals as listed in Leviticus 11:1-47. Kinds are not species but represent a larger class of organisms on the level of perhaps the "family" in biological classification. These kinds were within in 2,000 years of creation with the curse placed on them due to Adam's sin which brought about death, disease, violence, predation and aging, but a lot of genetic mutation may not yet have been fixed in their genome. This means that, like humans, most living animals did not board the ark and so their genetic information was lost forever. The kinds of land animals and birds that the Lord brought to Noah to be placed on the ark obviously provided all the diversity of the animal kingdom.

According to the Bible, the ark had three decks (floors). It is not difficult to show that there was sufficient space for 16,000 animals, assuming they required approximately the same floor space as animals in typical farm enclosures and laboratories today. The vast majority of creatures (birds, reptiles, and mammals) are small. The largest animals were probably only a few hundred pounds of body weight. I refer now to: "How Could Noah Fit the Animals on the Ark and Care for Them?", by John Woodmorrage, October 15, 2013 (12). He states in that article that "without tiering of cages" only 47% of the floor space would have used for housing. Food (6-12%) and water would only take up another 9%. Feeding, care, and waste removal could all be accomplished by simple systems of gravity flow with waste going to the lowest part on each level and discarding it could have used slanted floors and overboard disposal, so none of these methods would be hard to envision as solutions to problems that are still commonly used today to easily handle food and waste." Large animals like dinosaurs could have been taken on the Ark in their juvenile form; after all they only needed to stay on the ark for 1 year maximum.

12. https://answersingenesis.org/noahs-ark/how-could-noah-fit-the-animals-on-the-ark-and-care-for-them.

7. Was the flood perhaps only a local one covering parts of Mesopotamia?

By Andrew Steinmann.

Genesis 6–9 states that the reason for the flood was to destroy every creature under heaven with the breath of life, that is, all humans and animals (in Genesis see also 6:17, 7:4, 21–22; 8:21; and 9:11-15). A local flood could hardly accomplish this unless one envisions animals only in Mesopotamia. Moreover, it is difficult to see why Noah was told to take birds on the ark if the flood was only local—birds could easily escape a local flood. The flood fits into the early chapters of Genesis as a renewal or new beginning for the entire earth after it had been totally corrupted by human sin. Just as Genesis 1 is about the filling the earth with plants, animals, and people, so Genesis 9:1 is about replenishing the earth. The blessing on Noah and his sons emphasizes this when they are charged with repopulating the earth.

8. How could all the genetic diversity develop from the few humans (8 in all) and the few animals on the ark, especially with the flood being less than 6000 years ago? by Dennis Wert

Noah and his 3 sons, Shem, Ham, Japheth and their wives, contained the genetic diversity of the human race. This means that all the genetic information from the people who died in the flood was lost for future generations. In population genetics, this is called a bottleneck effect, where genes are sorted through some catastrophic or other physical means from their related kinds thus narrowing the remaining possible information by this physical event. Even so, diseases, birth defects, and mutations were all going on during the nearly 2,000 years between creation and the flood, so we got what the family of Noah handed down to us as good and bad traits. Mutations are occurring all the time in the human genome and about 99% of these, are neutral in the sense of being below the selection threshold. There still remains up to 1% of mutations that can degrade genetic expression for either dominant or recessive genes. If the dominant is made non-effective, then the recessive may be expressed, but only in sexually reproducing organisms.

Returning to our question, there was still plenty of unspoiled genetic information from Noah's offspring to be spread around. Once his descendants started moving out to far off areas, isolation and founder effects would further allow the segregation and expression of recessive genes (or traits). Another thing to consider that supports the idea of only a few founders of the human race is the inheritance of mitochondrial DNA. Mitochondria are tiny organelies in the cell which handle energy transfer and cellular respiration in eukaryotic organisms. There is less diversity in the genes (DNA) of the mitochondria among all people because only mothers (not fathers) pass mitochondrial DNA onto offspring in the cytoplasm of the egg (ova) produced every 28 days. So since there were only three maternal sources of mitochondrial DNA in our predecessors (wives of Noah's three sons), there should be little mitochondrial variation among humans and this is exactly what we see. The mutation rate of mitochondrial DNA places human origins to merely 7,500 years ago. ^{13, 14}

- 13. https://answersingenesis.org/noahs-ark/four-women-a-boat-and-lots-of-kids/
- 14. https://trueorigin.org/mitochondrialeve01.asp.

Part III: The Biological Evidence for Evolution

9a. Does DNA Similarity of 98% Between Apes and Humans Prove Evolution?

by Dennis Wert

This often sited figure of 98% has been bandled around for years now as evidence that humans and chimpanzees have the same ape-like common ancestor and thus are closely related. A number of studies and papers have refuted this claim. One study is found in the International Conference on Creationism (ICC) 2013 by Jeffery Tomkins (15), in which he examined 40,000 chimp genomic sequences and compared these against the human genome project research. Here is an edited summary quote from that paper: "... which indicated that reported levels of human-chimp DNA similarity were significantly lower than commonly reported. The present, follow-up study was then completed in which chimp chromosomes were sliced into new individual query files of varying string lengths and queried against their human chromosome homolog. This allowed for comparisons to be optimized irrespective of the linear order of genes and sequence features. The definition of similarity was the amount (percent) of optimally aligned chimp DNA. For the chimp autosomes, the amount of optimally aligned DNA sequence provided similarities between 66 and 76 percent, depending on the chromosome. Only 69 percent of the chimpanzee X chromosome was similar to human and only 43 percent of the Y chromosome. Genome-wide, only 70% of the chimpanzee DNA was similar to human under the most optimal alignment conditions. While, chimpanzees and humans share many localized protein-coding regions of high similarity, the overall extreme discontinuity between the two genomes defies evolutionary time-scales and dogmatic presuppositions about a common ancestor."

Similarities in gene structure or protein function can be thought of as a mosaic of traits where the genetic pieces that are needed in all organisms that share the same atmosphere and environment. Hence nutrient needs are similar. Thus similarities even at this much lower level (70%) would be expected for chimp and human, but not for whale and human (both are air breathing mammals) where the difference is much greater. Obviously similar environments require similar biochemical functions. DNA which is not protein coding, that is the formerly 98% "junk", has been found to have regulatory and emergency backup functions.

15. Thompkins, http://www.creationicc.org/abstract.php?pk=312.

9b. What is the biological role of DNA?

by Theodore Siek.

DNA "similarity" is a tricky word in ape-human comparisons. By saying "98% identity," the implications would be entirely different. Similarity depends on what is being compared and identity depends on exact comparisons (e.g., oranges with oranges). First, consider that the four bases comprising DNA (adenine, guanine, cytosine, and thymine) are chemically identical in all species on earth. The 3-D structure of DNA is identical in all species. Many gene sequences are identical in humans and primates. DNA similarity and/or identity tells us almost nothing about biological relationships. The question or assertion by the evolutionist community of ape-human DNA similarity is mostly a diversion and not a sound reason for accepting human evolution through an ape-like ancestor. Despite all this similarity and even identical genes in some instances, the physical differences between humans and apes are vast. Some of these differences are: 1) apes mature in 3 years—humans in 16-18 years; 2) humans are helpless at birth, other primates are on their feet in hours after birth; 3) apes heal faster than humans, but are more susceptible to disease; 4) pound for pound apes are stronger than humans; and 5) animals act instinctively to protect their lives. The human-monkey animal barrier has never been crossed, regardless of the number and types of similarity and/or biological identity that are found. Table 1 below notes the similarities and differences in DNA between humans various other species. It is obvious that DNA similarity per se does not in the least correlate with body types or the type of life form.

Table 1. DNA Similarity Chart Comparing Humans with Other Species²

Inter-human identity 99.7%	Chimp-human 90%	Mouse-human 90%
Cow-human 85%	Dog-human 85%	Platypus-human 69%
Chicken-human 65%	Fruitfly-human 47%	Grapë-human 38%
Roundworm-human 38%	Yeast-human 18%	Bee-human 44%

¹DNA similarity chart between humans and other species provided by Dr. Jerry Bergman, Northwest State College, Archbold, OH 43502. The chimp species above is *Pan troglodytes*. Similarity in this table depends on how the experimental work is carried out in gene to gene comparisons.

Table 2 calls attention to the behavioral attributes and mental capacities separating humans and apes. The vast physical, behavioral, mental, and spiritual differences between humans and apes are enormous. DNA, a major biochemical role player in life, requires the coordinated interaction of thousands of different biochemicals and is powerless outside a living cell. In comparing the Y chromosome of apes and humans, a 30% or more difference was reported by Bergman and Tomkins (www.creation.com/chromosome-2-fusion-1).

Table 2. Biological Similarities & Differences between Humans and Apes.

Activity Considered	Humans	Apes
Make & Use tools	All the time	Pound coconuts open
Use of medication ¹	Need instructions	Eat healthy choices raw
Life-spans of healthy persons	Death usually by 85 years	Mature in 3 yrs., die at 20
Condition at birth	Helpless at birth	On their feet in hours
Biochemistry ²	Same as apes	Same as humans
Illnesses	Less susceptible to disease	Heal faster than humans
DNA content	3.2 billion base pair (bp)	3.6 billion bp
Means of communication	Spoken & written language	Non-verbal sounds
Contemplation & thought	Mind contemplates actions	Action is instinctive
Music, painting, arts	Distinctly human activity	Arts non-existent in apes

⁴Sick mother apes will sometimes eat certain leaves to induce vomiting of bacterial infection; however, these apes do not "over-medicate" and poison themselves—an instinctive behavior.

²Elemental composition: C, H, O, N, P, S, Ca, K, Na, and minerals same in humans and apes; blochemical pathways are essentially the same in humans, apes, mice, and other life forms.

Similar DNA and even large stretches of "identical" DNA does not produce the physical morphology and cognitive abilities (Table 1 above) that separate humans and animals. Capabilities and endowments exclusively human are language, reason, conscious memory, having culture, music, technology, self-awareness, imagination, higher emotions (grief, guilt, shame, hate, love, loyalty), morality—the sense of right and wrong, and mental capacities including free will. These apparently human-only attributes are not DNA connected or driven, but are beyond genetics.

DNA similarities do not predict or define human-animal differences, nor does DNA base pair count correlate with biological complexity. For example, the "primitive" lungfish has 32 times the base pair (bp) count of humans in 38 diploid chromosomes; the hermit crab has some 254 (2N) chromosomes compared to the 46 (2N) chromosomes in humans. The genome mass of an onion per cell is 17 pg (picogram) while that of a human is only 3.5 pg. Banana DNA has been said to be 50% similar to the human DNA. In a word, DNA comparisons do not define or represent the extent of evolution—in fact DNA content and chromosome count does not define or encompass complexity in life.

Recent studies (ref. 15 above) compare per cent "similarity" of DNA between humans and various other species. With one look at **Table 1**, it is apparent that DNA similarity (or even identity) does not predict biological relationship. Human to human DNA identities are about 99:7%; yet no one will argue that that humans are only 0.3% different physically or mentally. Identical twins have identical DNA sequences, but physical differences appear from birth and throughout the twin's lives—notwithstanding their identical DNA. One example is that identical twins (with *identical* DNA) have different fingerprints. To summarize, DNA similarity in different species is one of the worst arguments for evolution ever presented.

10. Is not biological and genetic evidence for evolution now overwhelming?

by Ralph Gillmann

The answer to this question is that the academic evolutionist cartel most certainly wants everyone to think the answer is definitely "yes" to this question. However, anthropologists and paleontologists are still combing the world for missing links (not found); researches are asking for funding to explore origin of life questions; and biologists are vehemently opposed to having discussions on intelligent design or even allowing critiques of evolution in the classrooms of the United States. If the creationist views are spurious, evolutionists should want their arguments publically exposed and deconstructed.

Going back to Darwin's time, Carl Linnaeus developed a taxonomic system to delineate all the fixed kinds of organisms that were created. What Charles Darwin did was to show that these taxonomic species were similar to varieties. That is, taxonomic species were not all fixed kinds as was expected by Linnaeus (species means type or kind). What should be concluded from this is that the taxonomic term species includes some varieties (or super-varieties) and that the fixed types may be a higher taxonomic order such as genus or family. Creationists are continuing to research the limits of variation in created kinds of organisms. However, evolutionists refuse to attempt such research because they are committed to unlimited biological evolution, which means that all life forms are varieties of one original life form.

Darwin argued that universal common descent was possible, and that one version of a theory of creation did not explain the evidence as well. This was a weak argument, but it was buttressed by Thomas Huxley who argued that science must be naturalistic and so creation should not be allowed in science—there can be no role whatsoever for God. Although there was and is an approach to science which does not deny the Creator, Huxley's view became dominant. Notwithstanding the dominant view, creation scientists present a robust theory of creation which does not conflict with observational science or the Bible.

As a scientific theory cannot be a complete explanation for biological diversity. Darwin's much-vaunted tree of life turns out to be inconsistent

with biological and genetic data, and evolutionists are now abandoning the "tree of life" icon. Discontinuities in the fossil record such as the Cambrian explosion are greater now than they were in Darwin's time, so evolutionists have continued attempting to explain away the fossil record rather than building a theory on this important evidence. The bacterial flagellum motor, made mostly of protein molecules, is similar to motors designed by people. Man-made motors are designed for specific purposes; far more complex and intricate molecular motors must also be designed.

Some 158 years after Darwin, evolutionists are still compelled to find evidence of morphological and genetic links between species. But evolution is in the eye of the beholder; similarities exist because all life shares the same atmosphere, the same laws of nature, and the same resources of the earth. That humans can discover their biochemical pathways by investigating bacteria, determine the toxicities of substances from mice, and make medical advances from animal studies, should be considered as God's providential care for those made in his image, not evidence for evolution. Biological science and creation science are fully compatible.

11. Isn't acquired antibiotic resistance in bacteria an evolutionary process?

by Dennis Wert

Antibiotics had their origin in the discovery of penicillin by Sir Alexander Fleming when he isolated it from the mold, <u>Penicillin notatum</u> in 1928. His discovery of penicillin earned him the Nobel Prize in Physiology & Medicine in 1945. "Fleming cautioned about the use of penicillin in his many speeches around the world. He cautioned not to use penicillin unless there was a properly diagnosed reason for it to be used, and that if it were used, never to use too little, or for too short a period, since these are the circumstances under which bacterial resistance to antibiotics develops." Thus this discovery and his quoted warning indicates just how the modern miracle working antibiotics work or don't work in a common way.

Antibiotics work by a number of mechanisms which interfere with the bacteria's ability to reproduce by poisoning its metabolic machinery or limiting its access to the human host's cells. Most antibiotics today are products of intensive searches for naturally occurring bacterial metabolic products that would prevent infection by other bacteria. In addition, chemical modification of existing antibiotics will make them resistant to the actions of infecting bacteria. Neutralizing the actions to inactivate the older antibiotic is another technique that has been developed to keep antibiotics one step ahead of the bacteria. But is this evolution in action? My answer as a microbiologist is no. Why? Just as Sir Alexander Fleming discovered so many years ago, in all bacterial populations minor mutant variants exist which cannot compete under normal conditions with the wild type but are in effect selected for by the death of the wild types. The antibiotics kill the wild type that are susceptible to it and the mutants survive because they have a work around system in place that allows them to negate the effect of the antibiotic being used to treat an infection. This is an example of varieties within a given species.

However, If the antibiotic is discontinued by human intervention, those selected antibiotic resistant bacteria that have mutant or less efficient genes now are less able to survive. They are less efficient at growth and reproduction (i.e., less fit) than the wild type. In this scenario, no species change occurs—no evolution. So it is not evolution but progress towards a better adapted wild type. How do these resistance genes get passed

along? Bacteria can be infected by viruses — are you surprised — called bacteriophages — that take over the reproductive machinery of the host bacterium and hijack it for their own reproduction. As a side benefit, the host bacterium may get a piece of DNA from a bacterial cell that has the ability to make the host bacterium resistant to an antibiotic. There are other methods by which bacteria can exchange DNA such as by bacterial conjugation via pill of one bacterium to another and naked absorption of a free DNA segment from another bacterium by that host bacterium. The wild type bacteria are still in the circulating biosphere and will out compete the "resistant" one in a natural environment. This is not positive directional evolution by selection! For a more complete discussion see, "A Creationist Perspective on Beneficial Mutations in Bacteria" by K. Anderson and G. Purdom¹⁷.

- 16. https://en.wikipedia.org/wiki/Alexander Fleming.
- 17. http://www.creationicc.org/abstract.php?pk=228.

12. Has the human-ape transitional species been found in the fossil record?

by Dennis Wert

An article by Dr. David Menton¹⁸ provides a general overview of the group of hominid fossils cited by evolutionists as pre-human cavemen. To quote Dr. Menton: "Nevertheless, the term caveman is often used as a catchall for peoples who lived in an earlier era in human history—the Ice Age. We'll focus on five of these groups: Neanderthals, early Homo sapiens (Cro-Magnon man), Homo erectus, Denisovans, and Homo floresiensis. The first three have long been stalwarts of the caveman discussion, but the latter two have only recently been uncovered—the Denisovans in Siberia and Homo floresiensis (sometimes called hobbits) in Indonesia." I will summarize his comments for each group including Homo erectus.

Neanderthals: They are the most well-known of the above. DNA testing has shown they are very closely related to "modern homo sapiens"; in fact there is really very little difference. Neanderthals buried their dead in a ritualistic fashion, made tools and hunting implements, sacrificed animals in complex community activities, and made jewelry—all purely human activities. Their physical appearance showed larger brows in adults and wider nasal openings in all age groups. Creationists rightly consider Neanderthals as an isolated post-flood human tribe.

Cro-Magnon Man: Cro-Magnons have a high forehead, narrow brow ridge, and protruding chin—very much like people today. They made complex jewelry, wove baskets, made clothes, did cave drawings of the phases of the moon, and used javelins, all exclusively human activities.

Homo Erectus: Homo erectus, when originally found in Java, were touted as early but not-quite human primates. The most famous finding was the "Turkana Boy" found in 1984 in East Africa. They built fires in the Middle East and they hunted across Asia and Europe where we find many stone tools that they used in apparently slaughtering animals for food. They built sailing vessels of some type since their remains are found on Indonesian islands which would have required them to sail there against the currents. In fact, we find their remains before any other human remains. They also buried their dead. Other than the skull, the rest of the skeleton is virtually indistinguishable from modern man.

Homo Floresiensis and Denisovans are two newer finds. We may only be scratching the surface of finding humans scattered after Babel (Genesis 11). Denisova Cave in Russia is where theses fossil fragments were found. DNA testing says they were slightly different than the Neanderthals but a polished stone bracelet was found with the remains. The *Homo Floresiensis* were found in a cave in 2003 on the Indonesian island of Flores. Nine members of this group have been found they have been referred to popular print as "hobbits" because of their height of 3 feet. Numerous charred bones of the dwarf elephant named Stegodon – many of them juvenile elephants – indicate they were opportunistic hunters who roasted these small elephants. They had numerous tools for slicing and dicing through tough animal skin.

To quote Dr. Menton: "In other words, we can be sure that they all descended from Adam through Noah's family. These certainly aren't unique species, in the sense of being something 'less than modern humans'—they're just more evidence of beautiful variations in the appearance of individuals in our one unique race. Our relatives may have looked different, but they weren't bumbling brutes. They had the very human and God-given ability to discover creative solutions in a dangerous, sin-cursed world. And they were all rebels from God, in need of His grace." A more technical article on Homo erectus is: "Homo erectus to Modern Man: Evolution or Human Variability?" 19

- 18. https://answersingenesis.org/human-evolution/cavemen/who-were-cavemen/
- 19. A. W. Mehlert, J. of Creation, 8(1), 105, 1994; (http://creation.com/homo-erectus-to-modern-man-evolution-or-human-variability).

13. Are creationists "anti-science" and obscurants about the good brought about by the theory of evolution?

Are there positive influences and advances—for example in medicine—that can be attributed to evolution?

by Theodore Siek and Ralph Gillmann

Creationists are well-represented in empirical and discovery science. Naturalists insist that everything in our universe must be explained from beginning to end without divine intervention. Biblical creationists assert that the uncaused first cause, the God of the Bible, spoke all things into existence including the natural laws that matter and energy follow. And furthermore, God upholds the universe by His word (Hebrews 1;3). Miracles must be attributed to God alone. Ironically, all the major steps of evolution require miracles within nature to continue the evolutionary process.

Four persons (Siek, Wert, Walsh, and Gillmann) answering the questions in this booklet have had careers in the sciences. Dr. Steinmann has an undergraduate degree in chemical engineering and a Ph D in Ancient and Biblical Studies; Mr. German has an MS in logistics. Most active, prominent creationists today are scientists or had fulfilling careers in science. Many Nobel Prize winners and those that have made notable discoveries in science were creationists. Examples from the past include Isaac Newton, Johann Kepler, Michael Faraday, Francis Beacon, Robert Boyle, Louis Pasteur, Ernest B. Chain, Galileo Galilei, Bernard Riemann, James Maxwell, Robert Millikan, Blaise Pascal, Joseph Priestly, George Boole, and John Ray.

Currently living accomplished creationist scientists are: Raymond V. Damadian, Danny Faulkner, Walter Lamberts, John Lennox, John Baumgardner, Werner Gitt, A. E. Wilder-Smith, David Menton, Duane Gish, Thomas G. Barnes, Stephen Hales, and John Sanford. The fact of the matter is that "believing" or "not believing" evolution is absolutely unrelated to a successful and fruitful career in science. In addition to the highly accomplished scientists listed above, a list of over 50 US inventors in machines and technology could be presented here. These names include: Bernard Acworth, Charles Babbage, Fredrick Brooks, George W. Carver, Arthur L. Schawlow, Duane Gish, John A. Fleming, and Werner Von Braun.

It is well-known among medical researchers, but not the general public,

that the theory of evolution is not needed to do medical research. Medical schools do not emphasize evolution. In fact, evolution has hindered medical research in at least two important ways:

- (1) By wrongly assuming that many organs are "vestigial" and so unnecessary and therefore at times, removed. This includes the appendix, tonsils, and the thyroid gland. Evolution has obstructed advances in medicine. It's now known that each of those organs plays an important role in human health. By presuming such organs were unneeded leftovers, evolution delayed medical progress.
- (2) By promulgating the now-defunct concept of "junk DNA" the assertion that most of the DNA in human cells is useless evolutionary leftovers. For many years, evolutionist concepts discouraged research into the non-protein coding part of DNA as discussed in 9a above.

Meanwhile, creationist thinking has provided advances in medicine and engineering. For example, the growing field of bio-mimicry, in which natural designs embedded in creation are taken as examples to be imitated to solve human problems. Georges de Mestral invented Velcro after observing the way burrs cling to a dog's fur with hooked barbs. The hard calcium carbonate shell of mollusks led to a design for bullet-proof armor. The design of gecko feet inspired scientists to create microfibers capable of sticking to smooth surfaces. And on and on:

No human advancement in medicine, science or the humanities has been inspired by, or is dependent upon some fact or finding related directly to the theory of evolution. As even evolutionary biologist Jerry Coyne (20) admits, evolution has yielded few practical benefits as he explains:

If the truth be told, evolution hasn't yielded many practical or commercial benefits. Yes, bacteria evolve drug resistance, and yes, we must take countermeasures, but beyond that there is not much to say. Evolution cannot help us predict what new vaccines to manufacture because microbes evolve unpredictably. But hasn't evolution helped guide animal and plant breeding? Not very much. Most improvement in crop plants and animals occurred long before we knew anything about evolution, and came about by people following the genetic principle of 'like begets like'.

20. "Selling Darwin: Does it matter whether evolution has any commercial applications?" A review by David P. Mindell, Nature, 442:983-4, August 31, 2006.

Part IV: The Bible and the Theory of Evolution

by Andrew Steinmann³

14. Can Genesis accommodate millions of years into its God-intended meaning?

No, and most biblical scholars recognize this. Only some scholars from evangelical churches who seek to maintain the truthfulness of the Scriptures while also accommodating evolutionary theory seek to argue otherwise. However, the text is clear. All six days of creation are defined as "evening and morning" (Genesis 1:5, 8, 13, 19, 23, 31). This is a reference to the cycle of darkness and light that we call a solar day (i.e., 24 hours). Moreover, Genesis 1:14, 16–17 mentions seasons, days, years, daytime and nighttime and clearly intends them to be the time periods we usually associate with those terms.

The number of the days in Genesis 1 also supports understand the days as regular days, though this is often obscured in English translation. The first day is actually called "one day" in the Hebrew text. The second through fifth days are called "a second day, a third day, etc.", not "the second day . . . etc." Even the sixth day is different. The Hebrew text actually reads "a day, the sixth one," not "the sixth day."

3. For further information on this see Andrew E. Steinmann, "nxx as an Ordinal Number and the Meaning of Genesis 1:5," Journal of the Evangelical Theological Society 45 (2002): 577–84 and Andrew E. Steinmann, "Night and Day, Evening and Morning," The Bible Translator, 62 (2011): 154–160.

15. Why can't we just live out New Testament Christianity and ignore the Genesis myths? Will accepting evolution undermine our Christian faith?

The Christian faith is undermined by evolutionary theory, since it questions the existence of Adam and Eve as the first humans. According to evolutionary theory, populations evolve, so that there could be no single original human couple. Instead, if evolutionary theory is correct, there must have been an origin human community that arrived by evolution. This calls into question a number of important theological underpinnings of the Christian faith as represented in the Bible, including the New Testament. For instance, the origin of sin and its consequences depends on there being a literal Adam, and so does the redemption won by Christ (Romans 5:12-21). Another example is marriage, which was instituted by God at creation (Genesis 2:22-24). Jesus and Paul in the New Testament affirm this view of marriage based on this passage in Genesis (Matthew 19:5; Mark 10:7; 1 Corinthians 6:16; Ephesians 5:31). Therefore accepting evolution, if one is logically consistent, means rejecting what the entire Bible says about sin, death, salvation in Christ, marriage and many other Christian doctrines.

As for living out New Testament Christianity and ignoring Genesis as myths—this is simply creating a false dichotomy between the Old and New Testaments. One cannot live out New Testament Christianity without any reference to the Old Testament or by dismissing the Old Testament as irrelevant, because Christ's teachings are firmly grounded in the Old Testament, including the foundational book of the Old Testament, Genesis.

Selected general references on Christian apologetics available from www.crsbooks.org.

- 1. The Ultimate Proof of Creation, by Jason Lisle, 2009. A Ph. D. astronomer presents a logical proof of creation.
- 2. The Genesis Account, by Jonathan Sarfati, 2015. Dr. Sarfati presents a thorough examination of Genesis and the implications regarding evolution theory in 700 pages.
- 3. Flight From the Absolute, Vols. 1 & 2, by Paul Gosselin, 2012, 2013. Mr. Gosselin examines our Western culture on religion, scientism, and postmodernism.
- 4. Genetic Entropy, by John Sanford, 2016. Dr. Sanford, a Cornell U. geneticist, makes a powerful case for the historical reading of Genesis through examining human genetics.
- 5. Without Excuse, by Werner Gitt, 2011. Dr. Gitt examines information theory in great detail.
- 6. Light-Years? No problem! An up-to-date DVD of distant starlight by Dr. Russell Humphreys, a creationist astronomer.
- 7. Not by Chance: Shattering the Modern Theory of Evolution, by Lee Spetner, a Ph. D. from MIT. A powerful argument against neo-Darwinism—it just won't work.
- 8. Transformed by the Evidence, 2014 by Jerry Bergman, Ph. D.; has testimonies of scientists who converted from evolutionists to creationists after examining the scientific evidence.
- That Their Words May Be Used Against Them, 1977, by H. M. Morris, Ph. D., a collection of revealing statements by evolutionists who admit commitment to atheistic naturalism.
- Reasons to Affirm a Young Earth, 2 booklets, and Reasons to Affirm and Global Flood are available from Rev. Paul Humber. www. CRMinistriesPhilly.com.

- II. Echoes of the Jurassic, 2016, by Kevin Anderson, Ph. D.; reviews the very recent evidence for fresh tissue and C-14 findings in dinosaur fossils; concise 55 pages of a moderately technical up to date book explaining the significance of C-14 in all buried carbon materials.
- 12. The iDINO Project Special Report, Creation Research Society, Vol. 51(4), 2015, a special issue on research on original biomaterials in fossils and related topics.

We, the writers of this essay, plan a future effort that will expose the failure of evolutionary theory to explain life and the universe. The theory of evolution depends on (1) random mutations, (2) natural selection, and (3) billions of years. Our next booklet will show that the essential three pillars of evolution—mutations, natural selection and deep time are each scientifically unsupportable. Close-minded evolutionists want to describe and explain everything by natural laws. The irony is that the theory of evolution requires working around the laws of physics and chemistry with apparent miracles at every key step of current evolutionary theory. On the other hand, what can be more natural than Almighty God doing what only He can do—speaking the earth and universe into existence.

The contributors to this booklet through a question and answer format emphasize that:

- Leading evolutionists reject any involvement of God at all stages of natural evolutionary processes.
- The scientific evidence for evolution is far weaker than it was in Darwin's day because science has now shown how complex and unique life is relative to non-life.
- Deep time, billions of years, is absolutely necessary for the theory of evolution; however convincing scientific evidence exists for a young earth and universe.
- The advancement of science and technology in no way depends on the acceptance an evolutionary scenario for the creation of the universe and life on earth.

The six persons producing this booklet, all who have credentials in science, admit to a prior commitment to believing Isaiah 40:8, that "the word of our God will stand forever." And we are compelled by 1st Peter 3:15 to "being prepared to make a defense to anyone who asks you for a reason for the hope that is in you."

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