

Nothing in Biology Makes Sense Except in the Light of Evolution, on: 2007/6/27 17:17

Nothing in Biology Makes Sense Except in the Light of Evolution

Theodosius Dobzhansky (1900-1975)

Transcribed from The American Biology Teacher, March 1973 (35:125-129)

As recently as 1966, sheik Abd el Aziz bin Baz asked the king of Saudi Arabia to suppress a heresy that was spreading in his land. Wrote the sheik:

"The Holy Koran, the Prophet�s teachings, the majority of Islamic scientists, and the actual facts all prove that the sun is running in its orbit . . . and that the earth is fixed and stable, spread out by God for his mankind. . . . Anyone who professed otherwise would utter a charge of falsehood toward God, the Koran, and the Prophet."

The good sheik evidently holds the Copernican theory to be a "mere theory," not a "fact." In this he is technically correct. A theory can be verified by a mass of facts, but it becomes a proven theory, not a fact. The sheik was perhaps unaware that the Space Age had begun before he asked the king to suppress the Copernican heresy. The sphericity of the earth has been seen by astronauts, and even by many earth-bound people on their television screens. Perhaps the sheik coul d retort that those who venture beyond the confines of God�s earth suffer hallucinations, and that the earth is re ally flat.

Parts of the Copernican world model, such as the contention that the earth rotates around the sun, and not vice versa, h ave not been verified by direct observations even to the extent the sphericity of the earth has been. Yet scientists accept the model as an accurate representation of reality. Why? Because it makes sense of a multitude of facts which are other wise meaningless or extravagant. To nonspecialists most of these facts are unfamiliar. Why then do we accept the "mer e theory" that the earth is a sphere revolving around a spherical sun? Are we simply submitting to authority? Not quite: we know that those who took the time to study the evidence found it convincing.

The good sheik is probably ignorant of the evidence. Even more likely, he is so hopelessly biased that no amount of evid ence would impress him. Anyway, it would be sheer waste of time to attempt to convince him. The Koran and the Bible do not contradict Copernicus, nor does Copernicus contradict them. It is ludicrous to mistake the Bible and the Koran for primers of natural science. They treat of matters even more important: the meaning of man and his relations to God. The y are written in poetic symbols that were understandable to people of the age when they were written, as well as to peoples of all other ages. The king of Arabia did not comply with the sheik�s demand. He knew that some people fear enlightenment, because enlightenment threatens their vested interests. Education is not to be used to promote obscura ntism.

The earth is not the geometric center of the universe, although it may be its spiritual center. It is a mere speck of dust in the cosmic spaces. Contrary to Bishop Ussher�s calculations, the world did not appear in approximately its present state in 4004 BC. The estimates of the age of the universe given by modern cosmologists are still only rough approximations, which are revised (usually upward) as the methods of estimation are refined. Some cosmologists take the universe to be about 10 billion years old; others suppose that it may have existed, and will continue to exist, eternally. The or igin of life on earth is dated tentatively between 3 and 5 billion years ago; manlike beings appeared relatively quite recently, between 2 and 4 million years ago. The estimates of the age of the earth, of the duration of the geologic and paleont ologic eras, and of the antiquity of man�s ancestors are now based mainly on radiometric evidence the proportions of isotopes of certain chemical elements in rocks suitable for such studies.

Shiek bin Baz and his like refuse to accept the radiometric evidence, because it is a "mere theory." What is the alternative? One can suppose that the Creator saw fit to play deceitful tricks on geologists and biologists. He carefully arranged to have various rocks provided with isotope ratios just right to mislead us into thinking that certain rocks are 2 billion years old, others 2 million, which in fact they are only some 6,000 years old. This kind of pseudo-explanation is not very new. One of the early antievolutionists, P. H. Gosse, published a book entitled Omphalos ("the Navel"). The gist of this amazing book is that Adam, though he had no mother, was created with a navel, and that fossils were placed by the Creator w

here we find them now � a deliberate act on His part, to give the appearance of great antiquity and geologic uph eaveals. It is easy to see the fatal flaw in all such notions. They are blasphemies, accusing God of absurd deceitfulness. This is as revolting as it is uncalled for.

Diversity of Living Beings

The diversity and the unity of life are equally striking and meaningful aspects of the living world. Between 1.5 and 2 million species of animals and plants have been described and studied; the number yet to be described is probably as great. The diversity of sizes, structures, and ways of life is staggering but fascinating. Here are just a few examples.

The foot-and-mouth disease virus is a sphere 8-12 mm in diameter. The blue whale reaches 30 m in length and 135 t in weight. The simplest viruses are parasites in cells of other organisms, reduced to barest essentials minute amounts of D NA or RNA, which subvert the biochemical machinery of the host cells to replicate their genetic information, rather than t hat of the host.

It is a matter of opinion, or of definition, whether viruses are considered living organisms or peculiar chemical substance s. The fact that such differences of opinion can exist is in itself highly significant. It means that the borderline between living and inanimate matter is obliterated. At the opposite end of the simplicity complexity spectrum you have vertebrate animals, including man. The human brain has some 12 billion neurons; the synapses between the neurons are perhaps at housand times numerous.

Some organisms live in a great variety of environments. Man is at the top of the scale in this respect. He is not only a trul y cosmopolitan species but, owing to his technologic achievements, can survive for at least a limited time on the surface of the moon and in cosmic spaces. By contrast, some organisms are amazingly specialized. Perhaps the narrowest ecol ogic niche of all is that of a species of the fungus family Laboulbeniaceae, which grows exclusively on the rear portion of the elytra of the beetle Aphenops cronei, which is found only in some limestone caves in southern France. Larvae of the fly Psilopa petrolei develop in seepages of crude oil in California oilfields; as far as is known they occur nowhere else. T his is the only insect able to live and feed in oil, and its adult can walk on the surface of the oil only as long as no body p art other than the tarsi are in contact with the oil. Larvae of the fly Drosophila carciniphila develop only in the nephric gro oves beneath the flaps of the third maxilliped of the land crab Geocarcinus ruricola, which is restricted to certain islands in the Caribbean.

Is there an explanation, to make intelligible to reason this colossal diversity of living beings? Whence came these extraor dinary, seemingly whimsical and superfluous creatures, like the fungus Laboulbenia, the beetle Aphenops cronei, the flie s Psilopa petrolei and Drosophila carciniphila, and many, many more apparent biologic curiosities? The only explanation that makes sense is that the organic diversity has evolved in response to the diversity of environment on the planet earth . No single species, however perfect and however versatile, could exploit all the opportunities for living. Every one of the millions of species has its own way of living and of getting sustenance from the environment. There are doubtless many other possible ways of living as yet unexploited by any existing species; but one thing is clear: with less organic diversity, some opportunities for living would remain unexploited. The evolutionary process tends to fill up the available ecologic niches. It does not do so consciously or deliberately; the relations between evolution and environment are more subtle a nd more interesting than that. The environment does not impose evolutionary changes on its inhabitants, as postulated by the now abandoned neo-Lamarckian theories. The best way to envisage the situation is as follows: the environment presents challenges to living species, to which the later may respond by adaptive genetic changes.

An unoccupied ecologic niche, an unexploited opportunity for living, is a challenge. So is an environmental change, such as the Ice Age climate giving place to a warmer climate. Natural selection may cause a living species to respond to the challenge by adaptive genetic changes. These changes may enable the species to occupy the formerly empty ecologic niche as a new opportunity for living, or to resist the environmental change if it is unfavorable. But the response may or may not be successful. This depends on many factors, the chief of which is the genetic composition of the responding species at the time the response is called for. Lack of successful response may cause the species to become extinct. The evidence of fossils shows clearly that the eventual end of most evolutionary lines is extinction. Organisms now living are successful descendants of only a minority of the species that lived in the past and of smaller and smaller minorities the far ther back you look. Nevertheless, the number of living species has not dwindled; indeed, it has probably grown with time and the light of evolution theory; but what a senseless operation it would have been, on God&# 65533;s part, to fabricate a multitude of species ex nihilo and then let most of them die out!

There is, of course, nothing conscious or intentional in the action of natural selection. A biologic species does not say to

itself, "Let me try tomorrow (or a million years from now) to grow in a different soil, or use a different food, or subsist on a different body part of a different crab." Only a human being could make such conscious decisions. This is why the specie s Homo sapiens is the apex of evolution. Natural selection is at one and the same time a blind and creative process. Only a creative and blind process could produce, on the one hand, the tremendous biologic success that is the human species and, on the other, forms of adaptedness as narrow and as constraining as those of the overspecialized fungus, beetle, and flies mentioned above.

Antievolutionists fail to understand how natural selection operates. They fancy that all existing species were generated by supernatural fiat a few thousand years ago, pretty much as we find them today. But what is the sense of having as many as 2 or 3 million species living on earth? If natural selection is the main factor that brings evolution about, any number of species is understandable: natural selection does not work according to a foreordained plan, and species are produced not because they are needed for some purpose but simply because there is an environmental opportunity and genetic wherewithal to make them possible. Was the Creator in a jocular mood when he made Psilopa petrolei for California oil fields and species of Drosophila to live exclusively on some body-parts of certain land crabs on only certain islands in the Caribbean? The organic diversity becomes, however, reasonable and understandable if the Creator has created the living world not by caprice but by evolution propelled by natural selection. It is wrong to hold creation and evolution as mutually exclusive alternatives. I am a creationist and an evolutionist. Evolution is God�s, or Nature�s method of creation. Creation is not an event that happened in 4004 BC; it is a process that began some 10 billion years ago and is still under way.

Unity of Life

The unity of life is no less remarkable than its diversity. Most forms of life are similar in many respects. The universal biol ogic similarities are particularly striking in the biochemical dimension. From viruses to man, heredity is coded in just two, chemically related substances: DNA and RNA. The genetic code is as simple as it is universal. There are only four genet ic "letters" in DNA: adenine, guanine, thymine, and cytosine. Uracil replaces thymine in RNA. The entire evolutionary de velopment of the living world has taken place not by invention of new "letters" in the genetic "alphabet" but by elaboration of ever-new combinations of these letters.

Not only is the DNA-RNA genetic code universal, but so is the method of translation of the sequences of the "letters" in DNA-RNA into sequences of amino acids in proteins. The same 20 amino acids compose countless different proteins in all, or at least in most, organisms. Different amino acids are coded by one to six nucleotide triplets in DNA and RNA. An d the biochemical universals extend beyond the genetic code and its translation into proteins: striking uniformities prevail in the cellular metabolism of the most dirverse living beings. Adenosine triphosphate, biotin, riboflavin, hemes, pyridoxin, vitamins K and B12, and folic acid implement metabolic processes everywhere.

What do these biochemical or biologic universals mean? They suggest that life arose from inanimate matter only once a nd that all organisms, no matter now diverse, in other respects, conserve the basic features of the primordial life. (It is al so possible that there were several, or even many, origins of life; if so, the progeny of only one of them has survived and inherited the earth.) But what if there was no evolution and every one of the millions of species were created by separate fiat? However offensive the notion may be to religious feeling and to reason, the antievolutionists must again accuse the Creator of cheating. They must insist that He deliberately arranged things exactly as if his method of creation was evolution, intentionally to mislead sincere seekers of truth.

The remarkable advances of molecular biology in recent years have made it possible to understand how it is that diverse organisms are constructed from such monotonously similar materials: proteins composed of only 20 kinds of amino acid s and coded only by DNA and RNA, each with only four kinds of nucleotides. The method is astonishingly simple. All En glish words, sentences, chapters, and books are made up of sequences of 26 letters of the alphabet. (They can be repre sented also by only three signs of the Morse code: dot, dash, and gap.) The meaning of a word or a sentence is defined not so much by what letters it contains as by the sequences of these letters. It is the same with heredity: it is coded by the sequences of the genetic "letters" the nucleotides in the DNA. They are translated into the sequences of amino acids in the proteins.

Molecular studies have made possible an approach to exact measurements of degrees of biochemical similarities and di fferences among organisms. Some kinds of enzymes and other proteins are quasiuniversal, or at any rate widespread, i n the living world. They are functionally similar in different living beings, in that they catalyze similar chemical reactions. But when such proteins are isolated and their structures determined chemically, they are often found to contain more or I ess different sequences of amino acids in different organisms. For example, the so-called alpha chains of hemoglobin h

ave identical sequences of amino acids in man and the chimpanzee, but they differ in a single amino acid (out of 141) in the gorilla. Alpha chains of human hemoglobin differ from cattle hemoglobin in 17 amino acid substitutions, 18 from hors e, 20 from donkey, 25 from rabbit, and 71 from fish (carp).

Cytochrome C is an enzyme that plays an important role in the metabolism of aerobic cells. It is found in the most divers e organisms, from man to molds. E. Margoliash, W. M. Fitch, and others have compared the amino acid sequences in cy tochrome C in different branches of the living world. Most significant similarities as well as differences have been brough t to light. The cytochrome C of different orders of mammals and birds differ in 2 to 17 amino acids, classes of vertebrates in 7 to 38, and vertebrates and insects in 23 to 41; and animals differ from yeasts and molds in 56 to 72 amino acids. Fit ch and Margoliash prefer to express their findings in what are called "minimal mutational distances." It has been mention ed above that different amino acids are coded by different triplets of nucleotides in DNA of the genes; this code is now k nown. Most mutations involve substitutions of single nucleotides somewhere in the DNA chain coding for a given protein . Therefore, one can calculate the minimum numbers of single mutations needed to change the cytochrome C of one org anism into that of another. Minimal mutational distances between human cytochrome C and the cytochrome C of other li ving beings are as follows:

Monkey		
1		
Chicken		
18		
Dog		
13		
Penguin		
18		
Horse		
17		
Turtle		
19		
Donkey		
16		
Rattlesnake		

20
Pig
13
Fish (tuna)
31
Rabbit
12
Fly
33
Kangaroo
12
Moth
36
Duck
17
Mold
63
Pigeon
16
Yeast
56
It is important to note that amino acid sequences in a given kind of protein vary within a species as well as from species

to species. It is evident that the differences among proteins at the level of species, genus, family, order, class, and phylu mare compounded of elements that vary also among individuals within a species. Individual and group differences are only quantitatively, not qualitatively, different. Evidence supporting the above propositions is ample and is growing rapidly. Much work has been done in recent years on individual variations in amino acid sequences of hemoglobin of human blo od. More that 100 variants have been detected. Most of them involve substitutions of single amino acids � substitutions that have arisen by genetic mutations in the persons in whom they are discovered or in their ancestors. As expected, some of these mutations are deleterious to their carriers, but others apparently are neutral or even favorable in cert ain environments. Some mutant hemoglobins have been found only in one person or in one family; others are discovered repeatedly among inhabitants of different parts of the world. I submit that all these remarkable findings make sense in the light of evolution: they are nonsense otherwise.

Comparative Anatomy and Embryology

The biochemical universals are the most impressive and the most recently discovered, but certainly they are not the only vestiges of creation by means of evolution. Comparative anatomy and embryology proclaim the evolutionary origins of the present inhabitants of the world. In 1555 Pierre Belon established the presence of homologous bones in the superficial ly very different skeletons of man and bird. Later anatomists traced the homologies in the skeletons, as well as in other o rgans, of all vertebrates. Homologies are also traceable in the external skeletons of arthropods as seemingly unlike as a lobster, a fly, and a butterfly. Examples of homologies can be multiplied indefinitely.

Embryos of apparently quite diverse animals often exhibit striking similarities. A century ago these similarities led some biologists (notably the German zoologist Ernst Haeckel) to be carried by their enthusiasm as far as to interpret the embryonic similarities as meaning that the embryo repeats in its development the evolutionary history of its species: it was said to pass through stages in which it resembles its remote ancestors. In other words, early-day biologists supposed that by studying embryonic development one can, as it were, read off the stages through which the evolutionary development had passed. This so-called biogenetic law is no longer credited in its original form. And yet embryonic similarities are undeniable impressive and significant.

Probably everybody knows the sedentary barnacles which seem to have no similarity to free-swimming crustaceans, such as the copepods. How remarkable that barnacles pass through a free-swimming larval stage, the nauplius! At that stage of its development a barnacle and a Cyclops look unmistakably similar. They are evidently relatives. The presence of gill slits in human embryos and in embryos of other terrestrial vertebrates is another famous example. Of course, at no stage of its development is a human embryo a fish, nor does it ever have functioning gills. But why should it have unmistak able gill slits unless its remote ancestors did respire with the aid of gills? It is the Creator again playing practical jokes?

Adaptive radiation: Hawaii�s Flies

There are about 2,000 species of drosophilid flies in the world as a whole. About a quarter of them occur in Hawaii, altho ugh the total area of the archipelago is only about that of the state of New Jersey. All but 17 of the species in Hawaii are endemic (found nowhere else). Furthermore, a great majority of the Hawaiian endemics do not occur throughout the arc hipelago: they are restricted to single islands or even to a part of an island. What is the explanation of this extraordinary proliferation of drosophilid species in so small a territory? Recent work of H. L. Carson, H. T. Spieth, D. E. Hardy, and ot hers makes the situation understandable.

The Hawaiian Islands are of volcanic origin; they were never parts of any continent. Their ages are between 5.6 and 0.7 million years. Before man came there inhabitants were descendants of immigrants that had been transported across the ocean by air currents and other accidental means. A single drosophilid species, which arrived in Hawaii first, before ther e were numerous competitors, faced the challenge of an abundance of many unoccupied ecologic niches. Its descendants responded to this challenge by evolutionary adaptive radiation, the products of which are the remarkable Hawaiian dro sophilids of today. To forestall a possible misunderstanding, let it be made clear that the Hawaiian endemics are by no means so similar to each other that they could be mistaken for variants of the same species; if anything, they are more diversified than are drosophilids elsewhere. The largest and the smallest drosophilid species are both Hawaiian. They exhibit an astonishing variety of behavior patterns. Some of them have become adapted to ways of life quite extraordinary for a drosophilid fly, such as being parasites in egg cocoons of spiders.

Oceanic islands other than Hawaii, scattered over the wide Pacific Ocean, are not conspicuously rich in endemic specie s of drosophilids. The most probable explanation of this fact is that these other islands were colonized by drosophilid aft er most ecologic niches had already been filled by earlier arrivals. This surely is a hypothesis, but it is a reasonable one.

Antievolutionists might perhaps suggest an alternative hypothesis: in a fit of absentmindedness, the Creator went on ma nufacturing more and more drosophilid species for Hawaii, until there was an extravagant surfeit of them in this archipela go. I leave it up to you to decide which hypothesis makes sense.

Strength and Acceptance of the Theory

Seen in the light of evolution, biology is, perhaps, intellectually the most satisfying and inspiring science. Without that light it becomes a pile of sundry facts some of them interesting or curious but making no meaningful picture as a whole.

This is not to imply that we know everything that can and should be known about biology and about evolution. Any comp etent biologist is aware of a multitude of problems yet unresolved and of questions yet unanswered. After all, biologic res earch shows no sign of approaching completion; quite the opposite is true. Disagreements and clashes of opinion are rif e among biologists, as they should be in a living and growing science. Antievolutionists mistake, or pretend to mistake, t hese disagreements as indications of dubiousness of the entire doctrine of evolution. Their favorite sport is stringing tog ether quotations, carefully and sometimes expertly taken out of context, to show that nothing is really established or agre ed upon among evolutionists. Some of my colleagues and myself have been amused and amazed to read ourselves quo ted in a way showing that we are really antievolutionists under the skin.

Let me try to make crystal clear what is established beyond reasonable doubt, and what needs further study, about evolution. Evolution as a process that has always gone on in the history of the earth can be doubted only by those who are i gnorant of the evidence or are resistant to evidence, owing to emotional blocks or to plain bigotry. By contrast, the mech anisms that bring evolution about certainly need study and clarification. There are no alternatives to evolution as history t hat can withstand critical examination. Yet we are constantly learning new and important facts about evolutionary mechanisms.

It is remarkable that more than a century ago Darwin was able to discern so much about evolution without having availa ble to him the key facts discovered since. The development of genetics after 1900 especially of molecular genetics, in the last two decades has provided information essential to the understanding of evolutionary mechanisms. But much is in doubt and much remains to be learned. This is heartening and inspiring for any scientist worth his salt. Imagine that ever ything is completely known and that science has nothing more to discover: what a nightmare!

Does the evolutionary doctrine clash with religious faith? It does not. It is a blunder to mistake the Holy Scriptures for ele mentary textbooks of astronomy, geology, biology, and anthropology. Only if symbols are construed to mean what they are not intended to mean can there arise imaginary, insoluble conflicts. As pointed out above, the blunder leads to blasp hemy: the Creator is accused of systematic deceitfulness.

One of the great thinkers of our age, Pierre Teilhard de Chardin, wrote the following: "Is evolution a theory, a system, or a hypothesis? It is much more it is a general postulate to which all theories, all hypotheses, all systems much henceforw ard bow and which they must satisfy in order to be thinkable and true. Evolution is a light which illuminates all facts, a tra jectory which all lines of though must follow this is what evolution is." Of course, some scientists, as well as some philos ophers and theologians, disagree with some parts of Teilhard�s teachings; the acceptance of his worldview falls short of universal. But there is no doubt at all that Teilhard was a truly and deeply religious man and that Christianity was the cornerstone of his worldview. Moreover, in his worldview science and faith were not segregated in watertight compar tments, as they are with so many people. They were harmoniously fitting parts of his worldview. Teilhard was a creationi st, but one who understood that the Creation is realized in this world by means of evolution.

Re: Nothing in Biology Makes Sense Except in the Light of Evolution - posted by running2win (), on: 2007/6/27 17:24

:-D I didn't take the time to read the article but I had to comment on the title because I found it so amusing! My automatic thought is

Nothing in biology makes sense in the light of evolution!!!

even alot of evolutionist are noble enough to admit that the whole idea is impossible! :-D

The problem is they don't want to admit that there's a God so they have to have some alternative to believe. How dreadf ul. To live in denial of one's own conscience.

Re:, on: 2007/6/27 18:22

Quote:

running2win wrote:

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HAHAHA Well said!

Corey, you never replied to my last post on the thread you had a while ago.

As an ex Biology teacher, I object scientifally to Evolution.

As a Christian I object spiritually to Evolution.

However, the *scientific* understanding of what a poor hypothesis it actually is, came (for me) quite a long time before the spiritual understanding of how damaging spiritually it is.

I call it a hypothesis because there is no solid scientific evidence for it whatever many scientists say - and it can't be verified by experiment.

Indeed all the experimental evidence points to it being *impossible* for living things to get progressively more complex by chance mutations etc. - however many millions of years you have. Probably the same goes for astronomy, although do n't know too much about that subject. Certainly the geological evidence for Evolution is very poor, and there is much ge ological evidence of a worldwide flood, as Bible describes.

Corey, ask *the Lord* to show you the truth on this matter; because no amount of reasoning or argument can really help any of us to accept something if we have a "blind spot". (I'm sure I have a few too, but can't see them because they are blind spots!)

I shall never forget the mental liberation of realising I'd been brainwashed re Evolution, and the sudden ability to look at t hings in a different light (as I'd not been willing or even able to consider before). It was just amazing!

Blessings

Jeannette

Re: Nothing in Biology Makes Sense Except in the Light of Evolution - posted by RobertW (), on: 2007/6/27 18:48

Quote:

------But much is in doubt and much remains to be learned. This is heartening and inspiring for any scientist worth his salt. Imagine that everything is completely known and that science has nothing more to discover: what a nightmare!

Perhaps this piece was written to combat the 1972 work of Niles Eldredge and Stephen Jay Gould that we have come to know as 'punctuated equilibrium'? Even the late Steven Gould admitted that the fossil record is virtually silent of transitio nal forms. Phyletic gradualism, if true, would have left a host of fossils demonstrating the slow transitions. These are not present.

The great question that I have yet to hear answered is- if a species 'evolved' <u>suddenly</u> (as Gould states) what would it m ate with? You may have the freakish birth of one so-called transition- but what is the statistical probability of a perfectly

matching and compatible mate springing into existence within the reproductive lifespan of the first freakish creature? Wh at would be the probability of them conceiving? What would be the probability of the offsprings survival? What the would that surviving offspring mate with? It would need a male or female mate of reproductive age, and so on and so forth.

So in summary:

- 1) If *phyletic gradualism* is true- where are the mass numbers transitional forms that would <u>have</u> to exist alongside all the normally identified species?
- 2) If *punctuated equilibrium* is true- what is the probability that reproduction could continue the new species given the fac t that the new form would have nothing compatible to mate with?

Similarities in genetic code and design prove no more towards evolution that similarities in chemicals and elements. The whole creation was once in symphonic equilibrium; sin put the creation in a state of 'inutility'. Everything was working like a masterfully tuned orchestra in perfect harmony and unity- exactly as designed. There are a literal plethora of codepend ent systems within the creation that are masterfully balanced.

Pointing these things out (as to an extent does the article) does not demonstrate phyletic gradualism; it demonstrates irr educible complexity. That simply means that things that are 'systems' must have their minimum amount of components to function or they do not work. Some things can be considered 'accessories'; but some things are necessities. These all have to come not existence for a new life to form *and* for some new system to work. An ear drum is irreducibly complex and so is an eyeball, for example. Millions of examples of this.

Re: - posted by Compton (), on: 2007/6/27 19:07

Quote:	
Nothing in Biology Makes	Sense Except in the Light of Evolution

This, of course, is empty boasting. Darwinism make no contribution to practical science, including practical biology, che mistry, and medicine. (Not even troublesome virus immunity demonstrates new speciation.)

These days Darwinism is busier then ever defending itself from thinking people with real questions. Younger scientists w ith intellectual vigor who rightfully challenge this victorian theory, are multiplying and diversifying. Without the artifical sel ection of a few courts and the public school system, natural selection simply couldn't survive.

MC

Re: - posted by ginnyrose (), on: 2007/6/27 19:49

running2win wrote:

Quote:		
	The problem is they don't want to admit that there's a God so they have to have some alternative to believe. It	How dreadfu

Reminds me of a quote by Ravi Zacharias: "Is it possible that somewhere in the deepest recesses of the human heart we are not really battling intellectual ideas as much as fighting for the right of our sexual proclivities and our passionate in dulgences?"

~Ravi Zacharias, Lessons from the Battle of Ideas, 11-21

BTW: reading the responses to this post reminds afresh why I enjoy this forum so much...thanks ya'll!

Blessings, ginnyrose

Re: - posted by theopenlife, on: 2007/6/27 20:20

That nails it, GinnyRose.

Re: Nothing in Biology Makes Sense Except in the Light of Evolution - posted by HopePurifies (), on: 2007/6/27 21:16

Creation apologists have readily responded to every point in this essay. Check out answersingenesis.org or any other pl ace and see what they have to say about it. If you have done this, and are not convinced by their response, you could t ell us why.

This essay isn't that impressive, and doesn't show any of us more than we've already heard.

I believed in evolution fervently a few months after my profession of faith. I read probably every article on godandscienc e.org. I just didn't see any contradiction with evolution and the Bible.

But then I realized that Jesus quoted the creation account. Hit one. Then I read a lot of stuff over those months and rea lized that evolution isn't necessary. Why limit God to the use of evolution? Survival of the fittest is a sad fact, and a resu It of the fall. It is not the method that God would have originally intended for the development of His creation. Human-kin d is not the apex of evolution. If we didn't have similar DNA and such than the animals and plants then we couldn't get a s much nutrition from eating them. But we are completely different than animals. They were spoken by word, we were c reated by dust and the breath of God and in the image of God.

I'm really sleepy, so I'll leave ya to hearing and listening and responding and all that. May God lead us all in wisdom and truth.

Re: - posted by Compton (), on: 2007/6/28 3:14

Quote:

------ls it possible that somewhere in the deepest recesses of the human heart we are not really battling intellectual ideas as much as fig hting for the right of our sexual proclivities and our passionate indulgences?"

As eduators try to sell Darwinism to the Christian, Darwinism's essential narrative is not being admitted to. Darwinism in it's pure uncompromised form is athiesm. To claim that natural selection is friendly to the bible is jibberish. Yet, recently we learned that we live in an age when prominent Church leaders can claim to be both Christian and Muslim, while deny ing the theological contradictions. I suppose it's no more rediculous to see a Christian embrace scientific materialism, als o denying the theological contradictions. Welcome to post-modernity.

It is sentimental to try and 'add' God to the Darwinian model. The current leaders of the scientific and eduational establis hmnt do not share this sentiment. Recently my son and I were in a bookstore, when I picked up Penguin Publishing's edition of Origins. I showed my son the very last sentence in the book, noticing how the publisher surgically omitted the one use of the word' creator' from Darwin's text. I told him the same omission occurs at a new Darwin Exhibit in the Field Mu seum in Chicago. While Darwin was under victorian pressure to give obligitory credit to a 'creator in the very last setence of his book, there is no need for this impurity of thought anymore.

As Karl Marx observed...to mention a creator in order to 'sell' evolution to the religous masses is like wearing a fig leaf a nd living in denial about your nakedness.

Well, nowadays, despite professed reverence for Darwin brilliance, publishers and museums' will alter Darwin's text to re flect the atheistic materialism of their own post-modern age. They have no religous norms to cator to.

Today many Christians are intimidated by Darninism's wide spread acceptance and struggle with the bible's account of Creation. It might be helpful for us to consider that not only did God create the Earth quickly...He is going to do it again! Or must we suppose that the New Heaven and Earth wll also take 4.5 billion years to make?

No, one day soon there will be a New Earth. I suppose in that age if Jesus were not visibly ruling at that time, His creatio

n might doubt His involvement all over again.

Even in this age He is merciful in reminding us...

Isaiah 44. "This is what the LORD says—

your Redeemer, who formed you in the womb: I am the LORD, who has made all things, who alone stretched out the hea vens, who spread out the earth by myself, who foils the signs of false prophets and makes fools of diviners, who overthr ows the learning of the wise and turns it into nonsense...

Blessings,

MC

Re: Nothing in Biology Makes Sense Except in the Light of Evolution - posted by MikeH, on: 2007/6/28 5:53

Corey_H

Quote:

-----However offensive the notion may be to religious feeling and to reason, the antievolutionists must again accuse the Creator of cheat ing. They must insist that He deliberately arranged things exactly as if his method of creation was evolution, intentionally to mislead sincere seekers of truth.

This is the central lie to this paper. It assumes that God would create things in a way that made His creation blindingly o bvious. And yet we read: (1Co 1:21) For after that in the wisdom of God the world by wisdom knew not God For wisdo m read intellect, science etc. We have to believe in God, not intellectually deduce Him. And we, as a race, are further c ondemned, because: .(Rom 1:28) And even as they did not like to retain God in their knowledge, God gave them over t o a reprobate mind

The Cytochrome C data, along with all the other biological data, neither proves nor disproves evolution. It is consistent with a creationist model, where God designs an original Cytochrome C model and then makes increasing changes to the DNA sequence as He makes increasing changes to the form of life. Similarly, I think it would be very sensible to start wi th DNA and RNA and build life up from that basic structure, it simplifies the creation process and makes everything interr elate. If you want to go one step back, think of designing a Carbon atom with the attributes that make life possible, and t hen go one stage back to designing the quarks and leptons that mean that of the 92 or so naturally occurring elements, C arbon is formed in a way that supports life; truly awesome! Just because the data also fits an evolutionist model, doesn't mean it supports evolution. A good scientist will look for an experiment that distinguishes between two models. None of the biological data presented does that; it can easily be made to fit either an evolutionary or a creationist model.

Mike

Re:, on: 2007/6/28 6:14

Quote:

HopePurifies wrote:

Creation apologists have readily responded to every point in this essay. Check out answersingenesis.org or any other place and see what they have t o say about it. If you have done this, and are not convinced by their response, you could tell us why.

This essay isn't that impressive, and doesn't show any of us more than we've already heard.

I believed in evolution fervently a few months after my profession of faith. I read probably every article on godandscience.org. I just didn't see any con tradiction with evolution and the Bible.

But then I realized that Jesus quoted the creation account. Hit one. Then I read a lot of stuff over those months and realized that evolution isn't neces sary. Why limit God to the use of evolution? Survival of the fittest is a sad fact, and a result of the fall. It is not the method that God would have origin ally intended for the development of His creation. Human-kind is not the apex of evolution. If we didn't have similar DNA and such than the animals a nd plants then we couldn't get as much nutrition from eating them. But we are completely different than animals. They were spoken by word, we were created by dust and the breath of God and in the image of God.

I'm really sleepy, so I'll leave ya to hearing and listening and responding and all that. May God lead us all in wisdom and truth.

Thanks for this to the point comment!

I confess I didn't even bother reading the essay, becaue of having, like you, "heard it all before".

I will do so if you like, but it does seem a waste of time.

What thrills me is that God created our genetic makeup so incredibly *rich* that it was possible for organisms of each "kind " (perhaps roughly corresponding to what we call families or genera - a wider grouping than species) could adapt and div ersify to fill all the different habitats of the earth.

And even after the Flood, this could happen, and is still happening, when they were narrowed down to only ONE pair of animals (in most cases).

It's only in recent years that the gene pool (the genetic richness and variability of a population) has become so poor in the case of some animals and plants that they are probably becoming extinct simply because they can't cope genetically with changing conditions any more.

This is "devolution", not evolution, because genetic richness is being lost to a population. Yet even many scientists imagine this is evolution, in spite of the evidence otherwise.

Quote:			
If you have done this,	and are not convinced by their	response, you could te	ell us why

Yes indeed, it would be interesting to know if there is any rational response that can be made.

Although, merely picking holes in the details of Creation reasoning isn't enough. Even scientists, even creation scientists s can make mistakes. The point is the broafd thesis, the weight of evidence for and against Evolution.

Try making a list of pros and cons re Evolution, for example, and see which list is more likely scientifically. (bear in mind that such things as mutatation, speciation, adaptive radiation etc are *processes*, that some thikink produce Evolution. T hey are not Evolution in themselves. Indeed they are EXACTLY what one would expect from a literal reading of the Bible account of creation and the events that followed.

The question therefore is, whether these processes are likely or unlikely to produce "upward" change such as Evolution r equires, not do they fit in with the Bible account - because they obviously do! If they are likely to produce "evolutionatry changes, you are now in a position (scientifically) where Evolution is perhaps as likely as Creation, rather than less likely !

Personally (merely from the scientific point of view, even without the Genesis account), I don't think the evidence for Evo lution is even good enough to make it a "toss-up" which you believe!

Blessings

jeannette

Re:, on: 2007/6/28 8:07

In the words of Larry Norman... "I aint gonna let no paleantologist make a monkey out of me!"

(to save everyone time asking who Larry Norman is... www.larrynorman.com)

Krispy

Re: - posted by RobertW (), on: 2007/6/28 8:55

Quote:

Thanks for sharing this Mike. I was thinking something similar, but could not articulate it well enough to address it.

Re: - posted by Compton (), on: 2007/6/28 12:44

Quote:
-----None of the biological data presented does that; it can easily be made to fit either an evolutionary or a creationist model.

So true.

An evolutionist sees biological relationship as evolutionary relationship while it is quite reasonable to see genetic similari ty and homology as design relationship.

MC