



ETCSA

East Tennessee Creation Science Association

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But aren't humans 97% chimp?

Dr. Don Batten, Ph.D.

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The notion that human beings and chimps have close to 100% similarity in their DNA seems to be common knowledge. The figures quoted vary: 97%, 98%, or even 99%, depending on who is telling the story. What is the basis for these claims and does the data actually indicate little difference between chimps and humans? The following concepts will assist with a proper understanding of this issue:

1. Similarity ('homology') is not evidence for common ancestry (evolution) or against a common designer (creation). Think about a painter. Why do his or her various paintings have so many similarities? Because they had the same creator. Whether similarity is morphological or biochemical is of no consequence to the lack of logic in this argument for evolution.

2. If humans were entirely different from all other living things, or indeed if every living thing was entirely different, would this reveal the Creator to us? No. If anything, it would

indicate the existence of multiple creators instead of one.

3. If humans were entirely different from all other living things, how would we survive? We must eat food to provide nutrients and energy to live, what would we eat if every other organism on earth were fundamentally different biochemically? How could we digest them and how could we use the amino acids, sugars, etc., if they were different from the ones we have in our bodies? Biochemical similarity is necessary for our survival.

4. We know that DNA in cells contains much of the information necessary for the development of an organism. In other words, if two organisms look similar, we would expect there to be some similarity also in their DNA. The DNA of a cow and a whale, two mammals, should be more alike than the DNA of a cow and a bacterium. If it were not so, then the whole idea of DNA being the information car-

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DEVOTIONAL INTERPRETING THE BIBLE

"Knowing this first, that no prophecy of the scripture is of any private interpretation. For the prophecy came not in old time by the will of man: but holy men of God spake as they were moved by the Holy Ghost" (II Peter 1:20,21).

One basic reason why so many people seem to have trouble understanding the Bible is that they try to "interpret" it to fit their private

opinions. The Greek word for "private" (idios) is related to such English words as "idiom" and "idiosyncrasy," and this key passage warns us against any exposition of Scripture which is based on the teacher's pet doctrinal or behavioral prejudices. A reader or hearer of the word of God whose "heart is waxed gross, and their ears are dull of hearing" will be un-

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Special points of interest:

- *February meeting: 17th, at First Baptist Concord, Room ???, 6:30 PM*
- *February 27-29: Kent Hovind will be speaking at Calvary Baptist Church*
- *Darwin Day: Feb . 9-10*
- *Answers in Genesis seminar coming in May.*
- *Origins Conference at Bryan College in Dayton, TN this summer!*
- *We have books, videos and tapes for sale! Check out our website for more details: www.etcsa.org/*

MUTATIONS by Bob Zuvich

1. What Is A Mutation?

A change in a gene is called a mutation. The information on a gene is now different. So the descendant is now "slightly" different. The key word is "*slightly*". ***It is still the same organism.***

2. Are They Harmful?

- 99.99% of all mutations are, without a doubt, harmful.
- The Evolution model demands that many good mutations-in a row-even millions of them, in a vertical climb, for a new species to arise.
- The Creation model requires that mutations occur on a purely horizontal level.
- The chances are between one in ten thousand and one in a million for a good mutation. And that is only ONE good one. The same chance is then applied to the next mutation (the exponents are added).
- Now you can appreciate the enormous barrier between kinds.
- There are many causes of mutations (radiation, chemicals, inbreeding, etc.).
- All chance mutations in nature occur without warning, and don't make a better organism, or help it to adapt.
- Almost all do nothing or cause harm.
- With all of the radiation dosing of fruit flies over the years, we still get fruit flies. We don't get better fruit flies, just mutant fruit flies.

"In 1800, experiments were begun in France to increase the sugar content of table beets, which at that time amounted to 6%. By 1878, the sugar content had reached 17%. Further se-

lection failed to increase the sugar content above that figure. The information for a 17% sugar content was already written into the code of the beets, with a limit as to how much was to be the limit. More information did not just suddenly appear from nowhere in the beets. It had to be bred to be brought out."

-Dr. Duane Gish, Challenge Of The Fossil Record, p. 33-34.

- The worker tried to reduce the number of bristles on the thorax of fruit flies by artificial selection and breeding. In each generation, the average number of bristles became fewer until the twentieth generation. After that, the average remained the same, although he selected as before. Selection was no longer effective; the upper limit had been reached.
- The same is true for the dogs. All types of canines could come from two wolf-like animals. The information for the Dachsund, Labrador, Dingo, St. Bernard, Poodle, etc. is all there, but it took man's selective breeding, skills, know how, intelligence and patience, to bring out the different varieties of dogs.
- If Evolution could be advanced with radiation, then



"All types of canines could come from two wolf-like animals...but it took man's selective breeding... [and] intelligence ...to bring out the different varieties of dogs."

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Darwin Day Events for the Month of February:

The first day of Darwin Day is now past. Several ETCSA members were present, and we gave out Creation tracts throughout the day. Also several members made their presence known (politely) at the seminars. The next events for Darwin Day are as follows. Please make plans to attend if possible.

Wednesday, Feb. 9 5:00 PM – 8:00 PM Teacher's Workshop: "Teaching the Fact and Theory of Evolution – Meshing Classroom Practice with Science and with Common Sense" Organized by Dr. Ken Miller, Brown University, Shiloh Room, University Center.

Thursday Feb. 10 8:30 AM – 5:00 PM Information Booth, Lobby, University Center

8:30 AM – 5:00 PM Book Display, Campus Bookstore, University Center

Times TBA Film Festival, Room 221, University Center

7:00 PM Keynote Address: "Finding Darwin's God: On the Apparent Conflict Between Evolution and Religion" Dr. Ken Miller, Auditorium, University Center.

The films to be shown on 2/10 are:

Evolution in the Classroom: The 1996 Controversy in Tennessee (BBC Video) The conflict between scientific and biblical accounts of the origins of the Universe that surrounded the Tennessee State Legislature's attempt to prevent the teaching of evolution as fact.

God, Darwin, and Dinosaurs (NOVA) Scientists and biblical scholars give their views on the debate over the teaching of evolution and creation in schools.

Origin of Species: Beyond Genesis (Discovery) The development of Charles Darwin's The Origin of Species and the importance of evolution to modern medical and biological sciences.

In Search of Human Origins: The Story of Lucy (NOVA) How scientists have used fossil evidence and the modern tools of the molecular biology to piece together the evolution of humans.

For more information:

<http://fp.bio.utk.edu/darwin/2000/2000events.html>

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rier in living things would have to be questioned. Likewise, humans and apes have a lot of morphological similarities, so we would expect there would be similarities in their DNA. Of all the animals, chimps are most like humans, so we would expect that their DNA would be most like human DNA.

5. Certain biochemical capacities are common to all living things, so there is even a degree of similarity between the DNA of yeast, for example, and that of humans. Because human cells can do many of the things that yeast can do, we share similarities in the DNA sequences that code for the enzymes that do the same jobs in both types of cells. Some of the sequences, for example, those that code for the MHC (Major Histocompatibility Complex) proteins, are almost identical.

6. What of the 97% (or 98% or 99%!) similarity claimed between humans and chimps? The figures published do not mean quite what is claimed in the popular publications (and even some respectable science journals). DNA contains its information in the sequence of four chemical compounds known as nucleotides, abbreviated C,G,A,T. Groups of three of these at a time are 'read' by complex translation machinery in the cell to determine the sequence of 20 different types of amino acids to be incorporated into proteins. The human DNA has at least 3,000,000,000 nucleotides in sequence. Neither human nor chimp DNA has been anywhere near fully sequenced so that a proper comparison can be made (this would also require unprecedented processing time and power). Indeed it may be a long time before such a comparison can be made because it will probably be the year 2005 before we have the full sequence of human DNA -- and chimp DNA sequencing has a much lower priority.

Where did the "97% similarity" come from then? It was inferred from a fairly crude technique called DNA hybridization, where small parts of human DNA are split into single strands and allowed to re-form double strands (duplex) with chimp DNA. However, there are various reasons why DNA does or does not hybridize, only one of which is degree of similarity (homology). Consequently, this somewhat arbitrary figure is not used by those working in molecular homology (other parameters, derived from the shape of the 'melting' curve, are used). Why has the 97% figure been popularized then? One can only guess that it served the purpose of evolutionary indoctrination of the scientifically illiterate.

Interestingly, the original papers did not contain the basic data and the reader had to accept the interpretation of the data 'on

faith'. Sarich et al. obtained the original data and used them in their discussion of which parameters should be used in homology studies. Sarich discovered considerable sloppiness in Sibley and Ahlquist's generation of their data as well as their statistical analysis. Upon inspecting the data, I discovered that, even if everything else was above criticism, the 97% figure came from making a very basic statistical error -- averaging two figures without taking into account differences in the number of observations contributing to each figure. When a proper mean is calculated it is 96.2%, not 97%. However, there is no true replication in the data, so no confidence can be attached to the figures published by Sibley and Ahlquist.



"...humans and apes have a lot of morphological similarities..."

What if human and chimp DNA was even 96% homologous? What would that mean? Would it mean that humans could have 'evolved' from a common ancestor with chimps? Not at all. The amount of information in the 3 billion base pairs in the DNA of every human cell has been estimated to be equivalent to that in 1,000 books of encyclopaedia size. If humans were 'only' 4% different this still amounts to 120 million base pairs, equivalent to approximately 12 million words, or 40 large books of information. This is surely an impossible barrier for mutations (random changes) to cross.

7. Does a high degree of similarity mean that two DNA sequences have the same meaning or function? No, not necessarily. Compare the following sentences:

There are many scientists today who question the evolutionary paradigm and its philosophical implications.
There are not many scientists today who question the evolutionary paradigm and its philosophical implications.

These sentences have 97% homology and yet have almost opposite meanings! There is a strong analogy here to the way in which large DNA sequences can be turned on or off by relatively small control sequences.

(See: Dr. Don Batten, Ph.D., *Creation Ex Nihilo* 19(1):21-22, Dec. 1996-Feb. 1997)

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why do we worry about the decay of the ozone layer? Won't we get more, better species on earth? I think not. We'll get more cancer.

- The claim is often made by Evolutionists that the theory of Evolution is proven by the fact of the resistance

to antibiotic drugs by many bacteria. They neglect to tell you that some of the bacteria frozen since 1946, when thawed, were found to already be resistant to the drugs. This means that the capability to resist the drug was already present in the bacteria. They did not evolve it. Besides, they were still bacteria. They did not turn into jellyfish.

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We're on the Web!
www.etcsa.org/



ETCSA

“Set in the Defense of Creation Science”

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able to “understand” (Matthew 13:15) because he comes with his mind and heart already bound to his own opinions. The Bible does not need to be “interpreted” at all. In every other New Testament reference to “interpretation,” except the one in our text (which means “explanation” or “exposition”), the meaning is simply “translation.” The Bible does, of course, need to be correctly translated from Greek and Hebrew into English and other national languages, but that is all. God is able to say what He means, and He wants to communicate His authoritative word to men and women of obedient hearts, who are willing to devote diligent study to all the Scriptures (II Timothy 2:15; Hebrews 5:12-14), to obey them (James 1:22), and then teach them to others (II Timothy 2:2,24-26), carefully, and clearly, and graciously. To such sincere students of the word, the promise is: “Yea, if thou criest after knowledge, and liftest up thy voice for understanding; If thou seekest her as silver, and searchest for her as for hid treasures; Then shalt thou understand the fear of the LORD, and find the knowledge of God” (Proverbs 2:35).
Henry M Morris

UPCOMING EVENTS:

Kent Hovind will be at Calvary Baptist church in February!

Please note, this is an updated schedule.

Sunday, Feb. 27, 10:45 AM (morning worship service)

Sunday, Feb. 27, 6:00-8:00 PM

Monday, Feb. 28, 6:00-8:00 PM

Tuesday, Feb. 29, 6:00-8:00 PM

All events will be at Calvary Baptist Church, 3200 Kingston Pike, Knoxville. For more information, please call: (865) 523-9419 (ask for Joe Drummer)

Coming in May: Answers in Genesis seminar at Grace Baptist Church. There will be several committees to organize this event. Please let us know if you will be able to help! (856) 376-5186 or kentsie@esper.com