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SCIENTIFIC PROBLEMS FOR EVOLUTION

Favorable Evidence for Evolution:

Old earth, some billions of years old
Initially no life, although period for this now seen to be very short
Then just simple life
first prokaryotic, then eukaryotic cells
Then explosion of life at beginning of Cambrian
all animal phyla
Then fishes, followed by amphibians, reptiles,
birds and mammals, then apes, then mankind
Similarities of biochemicals also looks favorable
So does homology, similar structures

So Why Doesn't Everybody Believe in Evolution?

A variety of reasons, depending on person's worldview:
--Some have other information besides scientific which raises questions
for them
--Not all opponents of evolution object for religious reasons
e.g., Denton, Kenyon, Yockey

Not all who have religious reservations feel that these are the *decisive* problems;
after all, there are many theistic evolutionists who think God did it via
evolution. (I think the decisive problem is *scientific* evidence).

Could so many scientists really be wrong? Consider case of continental drift,
with a sudden paradigm shift in the middle of 20th century

Want to look today at scientific problems for evolution, particularly evolution of
the "Blind Watchmaker" variety (see Richard Dawkins, *Blind Watchmaker*)

Some Scientific Problems for Evolution:

1. Problems Generating Order by Randomness & Survival

Origin of life: mutation and natural selection will not work until one has a
mechanism capable of replicating itself. The minimum complexity for this seems
beyond the probability resources of our universe over its history. See Dembski; Ludwig;
Thaxton, Bradley and Olsen; and Moreland (in bibliography).

Origin of specific biochemicals: Stanley Miller=s famous experiment is merely a very small first step, a few amino acids. Functional proteins have over 100 amino acids. Making DNA and RNA is far harder. There is also the problem of handedness (chirality). See Shapiro and Moreland.

Origin of chemical processes, and organs: The problem of large Aminimal complexity.@ How does one build a system that requires many features working together before it has any function? Examples: rotary motor in the bacterial flagellum, blood clotting mechanism, intracell transport, vision. These seem to be out of range of what can be accomplished with the number of atoms and length of time available. See Behe, Denton

Darwinian mechanism: computer simulations of mutation and natural selection do not suggest that it will do what it is cracked up to do. See Ludwig, and Dembski.

2. Problems of the Fossil Record

Relative Lack of transitional forms: Notice we say Arelative@ lack. No need to argue that no fossils might be transitional. The problem is that Darwinian ABlind Watchmaker@ evolution has only a random walk to cross the gaps between the major kinds of life. But the fossil record looks like the transitions are very sudden.

Fragmentary Fossil Record? Darwin (and many since) have argued that the lack of transitions is due to the fragmentary nature of the fossil record. But there are nearly ¼ billion fossils collected and housed in the various museums. How detailed a picture can one construct using ¼ billion pixels?

The Shape of the Fossil Record: The Darwinian model (including neo-Darwinism and Punctuated Equilibrium) predicts that the tree of life will be produced by the divergence of species into genera, genera into families... and classes into phyla by the accumulation of small differences. The actual data show that all animal phyla were formed suddenly at the Cambrian explosion and none since then, the opposite of the prediction.

Small populations: It is true that any particular mutation is more likely to become dominant in a small population than in a large one, since random fluctuations from average are larger in a small population. Compare tosses of coins for small number vs large. The number dependency for the relative size of such fluctuations is $N^{-1/2}$. This is used by evolutionists today to argue that all the significant transitions took place in small populations, which we would not expect to show up in the fossil record. But for such changes as the differences between higher levels of the biological classification scheme, many mutations are necessary, probably hundreds or thousands. The relative chance of getting (say) 5 of the right mutations in a given population varies with the size of the population as N^5, so that a large population is much more likely to have the mutations than a small one. This more than cancels out the benefit of small populations.

Punctuation: As Gould, Eldridge and others have pointed out, the fossil record typically shows sudden transitions to new forms rather than gradual transitions. Geneticists have not been able to figure out how such transitions could occur. This does not favor evolution as an undirected process.

Stasis: The fossil record is also characterized by **stasis**, that is, that each particular form of life (after appearing suddenly) does not change significantly over its history in the record, either eventually becoming extinct, or surviving till today. This suggests that mutation and natural selection is basically a conservative mechanism, as confirmed by computer simulations.

Islands of function: Living organisms and the fossil record suggest that each living thing is surrounded by a multitude of alternative designs that won=t work. They are islands of function in the midst of a sea of dysfunction. Undirected evolution must assume that these are "isthmuses" of function rather than "islands," or that the islands are close enough together for single mutations to be able to jump from one to another. But how does one get from two-chambered to 3-chambered to 4-chambered hearts, from push-pull lungs to flow-through lungs, from black & white to color vision, from legs to wings, from scales to feathers, etc.? Many of these things have no intermediate forms, yet numerous *coordinated* changes have to be made for each to work.

Some Conclusions:

Problems Generating Order:

> Origin of Life
> Origin of Specific Biochemicals
> Origin of Processes and Organs

Problems with the Fossil Record:

> Relative Lack of Transitional Fossils
> Shape of the Fossil Record
> Inadequacy of Small Populations to Explain Large Changes
> Punctuation and Stasis
> Islands of Function

Worldview: If you hold tenaciously that we live in a universe with no God, that there is no mind behind it all, then all appearance of design in nature *must* be explained as merely the deceptive products of "blind watchmaker" evolution. But of course, your satisfaction may be misplaced. And how could you ever find that out, if you never look at the scientific problems facing a "no-god" worldview?

Mind: If you admit these problems indicate a Mind behind the universe, then that Mind may have worked by purely natural processes or by occasional abrupt means.

God: But having a God raises the question of what life is all about and what am I going to do about it.

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