Patterns of Intelligence

Appendix B

Permutations of Nucleotides (Advanced Topic)

By far the best way to demonstrate the theory of evolution is nonsense is to talk about permutations.

A "permutation" is a unique way of ordering something.

For example, how may different ways can we order 3 nucleotides? The answer is 4^3 or 64. Here are a few of them:
AAA
AAC
AAG
AAT
ACA
ACC
ACG
ACT
...

Considering the entire length of DNA of a human being, there are $4^{3,200,000,000}$ different ways to "order" 3.2 billion base-4 nucleotides (A, C, G and T).

Each of these is called a "permutation." My DNA is one of these permutations as is the DNA of the reader.

The reader's DNA and my DNA are just 2 of these permutations (ignoring the difference between male DNA and female DNA in case the reader is a female).

By comparison the estimated number of atoms in this Universe, in base 10, is roughly 10^{83} or in base 4 is roughly 4^{138}. As telescopes get bigger these numbers are likely to increase.

The number $4^{3,200,000,000}$ is massively colossal compared to the puny number of atoms in our Universe 4^{138}. In other words, if we compared the number 4^{138} to a single atom of water, and we compared the number $4^{3,200,000,000}$ to all the atoms in a trillion Universes like our own, it would still not even remotely be a fair representation of the difference in the size of these two numbers.

For example, 4^{139} is 4 times larger than 4^{138}. 4^{140} is four times larger than 4^{139} and is 16 times larger than 4^{138}. Thus 4^{140} is roughly the number of atoms in 16 Universes. And so on.

The number of permutations of human DNA ($4^{3,200,000,000}$) is $4^{3,199,999,862}$ times larger than the number of atoms in our Universe!!!

What percent of these $4^{3,200,000,000}$ permutations will create DNA for a viable human being?

For the sake of argument, let us assume there are 4^{138} different permutations of nucleotides that would create a viable human being. This, of course, is a wild guess.

So let us then ask this question. If we randomly put together a sequence of 3.2 billion nucleotides, what is the probability that we will create a viable human being?

Ponder that question before reading on.

The answer is that the probability is one in $4^{-(3,200,000,000 - 138)}$ or one in $4^{-3,199,999,862}$.

This number is far beyond imagination!!

So how did two viable permutations for human DNA ever come to exist (one for Adam and one for Eve)?

The person might think that "evolution" did it. This is nonsense!! Every species on our ancestor-species would have a very different morphing of the embryo algorithm than what we have!!

For example, you cannot take a computer program written to control the traffic in a big city and randomly mutate it into a computer program to predict the weather.

A full discussion of this topic is far, far beyond the scope of this book.

However, the reader should be aware that the issue of viable permutations of nucleotides absolutely destroys the theory of evolution for those who care to do the mathematics.

Actually, in this case computer simulations are far more instructive than mathematics. Computer simulations are a visual way to see the problems for the theory of evolution which were created by the discovery of DNA.

For example, try to take a CD of the music of the Beatles and *randomly* mutate its bits into a CD of a Beethoven symphony (there were 9 or 10 of them, depending on how you count them) or even a symphony that "sounds" like it was written by Beethoven. It will never happen.