

4/6/2004

Re: Of Monkeys and Men

Dear Editor,

It saddens me to see the abuse and distortion of scientific evidence in support of intuitive personal beliefs. Geoffrey Simmons, M.D. (in Letters, 4/2/2004) claims that the great apes and humans are genetically too different to be related, and attempts to support this viewpoint with some scientific sounding "facts". However, it must first be recognized that the scientific theory of evolution through natural selection simply explains the overwhelmingly observed molecular and fossil evidence- that chimpanzees and humans shared a common ancestor roughly 5 to 8 million years ago. Much of the genetic differences (and corresponding physical differences) between the two species that we observe today, are simply a result of the continued separate evolution of both species (through natural selection), since that time in the distant past.

Furthermore, according to a recent study done by the Max Planck Institute, the actual genetic difference between today's chimps and today's humans is actually about 1.3% based on the base pair differences (the other great apes being more distantly related to us), but new research shows that these differences consist largely of so called "junk" DNA that is not actually utilized and that of the remaining differences, almost all is higher level genomic rearrangements, rather than simple base-pair substitutions. This means that the functionally significant genetic base-pair difference between the two species is only a fraction of a percent. Now consider that the average base pair difference between humans themselves is around 1/10th of a percent (0.1%), and one might not be surprised that, after 5-8 million years of divergent evolution, there is about five to ten times more genetic difference between chimps and humans than between humans themselves.

Finally, for the letter writer to mention the 75 billion cells contained in an average adult human body, as though that fact mathematically increases genetic differences, is purely disingenuous, since all animals develop from a single cell (at conception) that contains the complete genetic information, which is replicated and shared in all subsequent cell growth within the organism.

Dr. Simmons needs to get his facts straight if his opinion is to be considered any more than an emotionally held personal belief.

John Donovan
Eugene, OR