

What is a mutation? and the common ancestor to humans and chimps.

Background

There are four different molecular structures that come under the same title of DNA. These four molecules are called bases. Two of them are called purines and two of them are called pyrimidines. The pyrimidines are named Cytosine (C), Thymine (T) and the purines are named, Adenine (A) and Guanine (G).

C,T,A, and G, the initials of these four bases, represent the genetic code as it appears along the length of the chromosome. They pair with each other, cytosine pairing with guanine, and adenine pairing with thymine. The total DNA strand, the chromosome, is a continuous varying combination of these four molecules. This relationship enables DNA strands to divide and produce two identical strands, the process is called complimentary base pairing.

Ultraviolet light and other forms of radiation can damage the structure of the DNA strand, it is uncontrolled and the degree of damage will vary according to the destructive force of the light or radiation frequencies that penetrate the nucleus and affect the DNA molecules. The damaged caused will most likely result in some change to the original sequence of bases. **This change is called a mutation.**

Intentional mutation.

However, self-mutation, by definition, suggests that different forces are at play. Mind, having constructed strands of DNA for more than three billion years before humans appeared on this planet, should be quite adept at knowing where to change the sequence of ATCG, (change the genotype) in order to produce corresponding changes in physical characteristics, (phenotype).

These self-induced micro changes to the genetic code (mutations), are designed to benefit the individual and the species alike. Due to the billions of DNA bases in a single cell, one should be able to comprehend that a lot of mutations can occur without affecting the overall metabolism and biochemistry of the cell. In other words, small changes in genotype that do not threaten the life processes of the organism are designed to enhance the organism's ability to fit into the changing external environment. This results in greater genetic variation within the species.

The arrival of humans from the common ancestor to the chimpanzees and the hominids.

I focus on the arrival of hominids, our most recent ancestors on planet Earth. Their creation, like all new species, occurred as a result of Intelligent Creative Design, which is 'the workings of' Mind. The common ancestor of hominids and chimpanzees had 48 chromosomes (24 pairs), in each cell. (Chimps and the other great apes still do have 48 chromosomes in each cell). At that point in time and evolution, Mind had been creating new species for hundreds of millions of years, one has to acknowledge that it already had immense experience in dealing with this process (i.e. creating a new species).

By amalgamating two pairs of chromosomes into one, the total number of chromosomes in this new species would be 46, i.e. 23 pairs. The genotype (genetic complement) was significantly altered. This would have programmed the new organism to interact in a more efficient way with the physical environment. Here is not the place to discuss and explain this process, this is just to give you the ability to visualise approximately what is happening at the level of genotype and phenotype.

DNA self-mutates, that means that the mutations do not occur at random. There will always be a reason why anything happens. That is cause and effect. Some mutations within the DNA strand (chromosome), are caused by forces external to the cell, such as radiation or ultraviolet light. Other mutations can be caused by a build up of toxins (sickness), within the cell itself.

We are interested in the self-mutation, which is directed by Mind for the purpose of improving the phenotype (physical structure) of the organism. The interrelationship between Mind and cell has been intelligently designed from the appearance of the original primal cells more than three and a half billion years earlier. The interrelationship, is almost synonymous with awareness, it has been evolving accordingly.

A single mutation will result in a change to a stage in the sequence of biochemical reactions, this may well result in a change in the physical structure (phenotype) of the new organism created by this significant change in genetic material. It is possible that biochemical changes and structural changes do not go hand in hand. Mind would be knowing of some of the potential physical changes that would manifest in the new species. Sometimes it is just, trial and error. Sometimes a single mutation can cause a change that results in a non-viable lifeform. These mutations are not the result of Mind/Creative Intelligent Design.

Apparently there are several genes that are responsible for the pigmentation (colour) of our skin. Evidence strongly suggests that Homo Sapiens, (humans), originated in Africa and their skin was very dark because of the hair loss that would occur with the process of creating a new species. Hyperintelligent Mind, knows, or at least 'has a good idea' about what would arise within the physical characteristics of this new organism, and needed to install protection from ultraviolet light.

The heavy pigmentation was necessary to prevent ultraviolet light from the sun, penetrating the skin and causing bad mutations and ensuing ill health to the organism. A balance became necessary because vitamin D, a molecule essential for our metabolic well being, is made under the skin and depends on sunlight for its synthesis.

Eventually, Africans, as the populations increased, started to move out into new territories. The further they moved north, the more the climate changed and the strength of the sunlight was different and vitamin D production was reduced. Self-mutation of DNA within a gene coding for pigment, resulted in a reduction of the pigment (melanin) in order to lighten the skin colour and enable vitamin D production to proceed as normal. The reduction in melanin production is also linked to the increase in clothing covering the body for protection from the cold.

The above description is a simplified explanation that I give in order to help the reader understand how, a single unit change in the DNA code (the genotype), may or may not result in any change to the phenotype. It would depend on the location of the mutation. There are several genes involved with skin pigmentation, conventional science does not understand the true nature of the interrelationship between genes, genotype and phenotype, again, this is not the platform to discuss such matters.