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Anthropology 101

Essay 1

**Big toe and Thumb**

Humans and chimpanzees share the most genes, and this shows that both species have the most recent common ancestor. However, humans and chimpanzees are apparently different. Especially, there are two clear morphological differences between humans and chimpanzees: pelvis and thumb.

Humans had to live outside of forests, and it caused evolution. Apes are terrestrial, but they rarely leave forests: their living is depending on trees. Since apes have worse sense of smell and sound than other animals, they have disadvantage to survive on the ground. However, apes can overcome the disadvantage by climbing up trees; they can get vision to see further, and this vision help them to find preys and natural enemies. Though forests are the best homes for apes, there is a problem for living in forests: a forest is too small. When ape population in a forest increases, there will be lack of food since amount of food in the forest is limited. In result, each individual ape will fight for food, and the loser will be dead or exiled. For those exiles, they had to find a new home, so they had to land on the ground. While they are on the ground, those who have better vision would survive, so the survivor would be taller; the most taller one of the survivors would have right body structure for bipedalism (Lavenda and Schultz, 2015).

The first bipedal hominin that we know is Australopithecus afarensis, but Australopithecus’ hands were not like humans’. Australopithecus had big toe that suits for walking. However, their hands were not right for making delicate tools. Their thumbs were too long, so they could not perform delicate handwork (Lavenda and Schultz, 2015). However, long thumbs are good for grabbing branches; it shows that they were dependent on tree living.

Homo habilis and homo erectus had short thumbs, so they could perform delicate handworks. However, the shapes of hands are quite different than human hands. The hand of homo habilis is more curved than homo erectus’ hand, and the fingers of homo erectus were shorter than homo sapiens’ fingers; it shows that hand shape of hominin changed over time: microevolution happened. Therefore, homo habilis and homo erectus were more like humans than apes or Australopithecus.

**References**

Lavenda, Robert H., and Schultz, Emily A. (2015). *Anthropology: What Does It Mean to Be Human? 3rd Edition.* New York, NY: Oxford University Press.