

Humans: What Makes Them Unique?

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Bipedalism

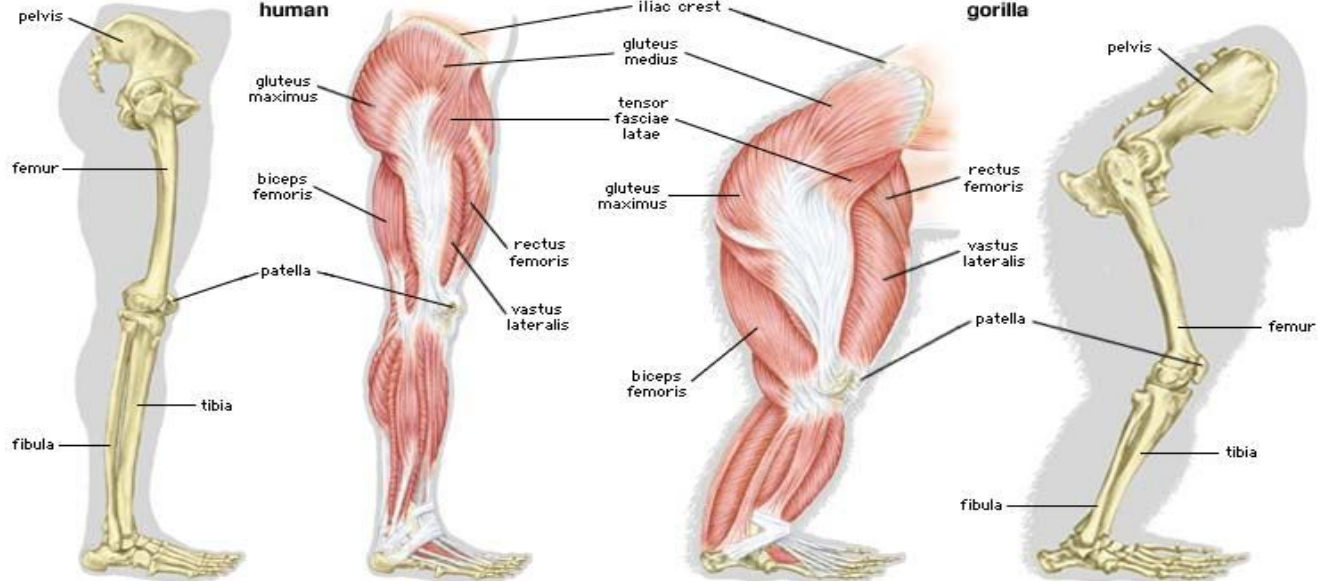
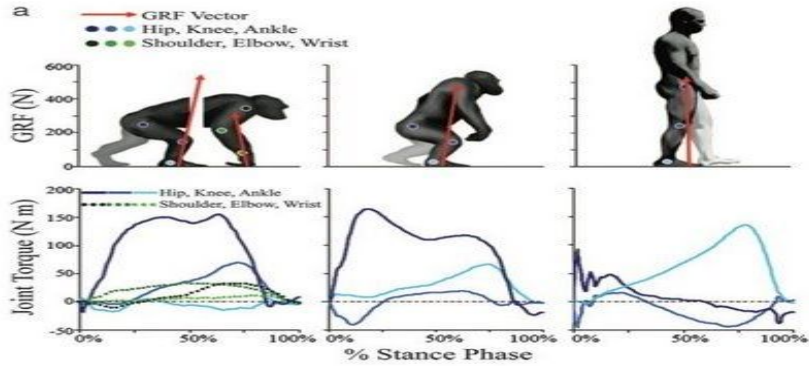
our knees are structured so they can extend and lock to form a straight line, which means that we can use the heel-strike/toe-release method of walking (unlike apes and chimps).

We have one spine which ends at the pelvis in an angle which is needed for upright walking, and this spine collects and sends all of the nerve and muscular information to and from our brain to the halves of our body in order to keep our "trunk" in a vertical position.

This makes humans unique because we are one of the few species whose spines are specifically designed to stand up right, unlike most other species. Also we are the only species to have a unique set of knees.

Bipedalism

Here are some diagrams to help demonstrate differences between leg and spine structures in humans



Hand Structure

Primates hands are structured so that their knuckles are the first thing that touches the floor, making them “knuckle draggers.” This is because their long fingers are structured in a way that makes them curved. Human hands are structured so that our fingers end up more straight.

Primates fingers are longer than humans, along with their arms. This enables primates to climb trees and swing from branches much easier than humans.

Humans are also one of the few species to have opposable thumbs, allowing us to grab onto things in ways that other species cannot, such as scissors and phones. We can bring our thumbs all the way across the hand to our ring and little fingers. We can also flex the ring and little fingers toward the base of our thumb

This makes humans unique because our hand structure is not something that is found in other species. The closest species whose hand structure resembles ours are primates, but even their hands greatly differ from ours.

Hand Structure

Diagram demonstrates difference in hand structure between primates and humans.



Baboon



Orangutang



Chimpanzee



Man

The Cerebrum

The cerebrum is split into portions. It is also where we manage emotions and info.

The human brain is unique because it is split into different portions that responsible for different functions:

The left hemisphere of the brain controls language, speech, mathematical and analytical abilities

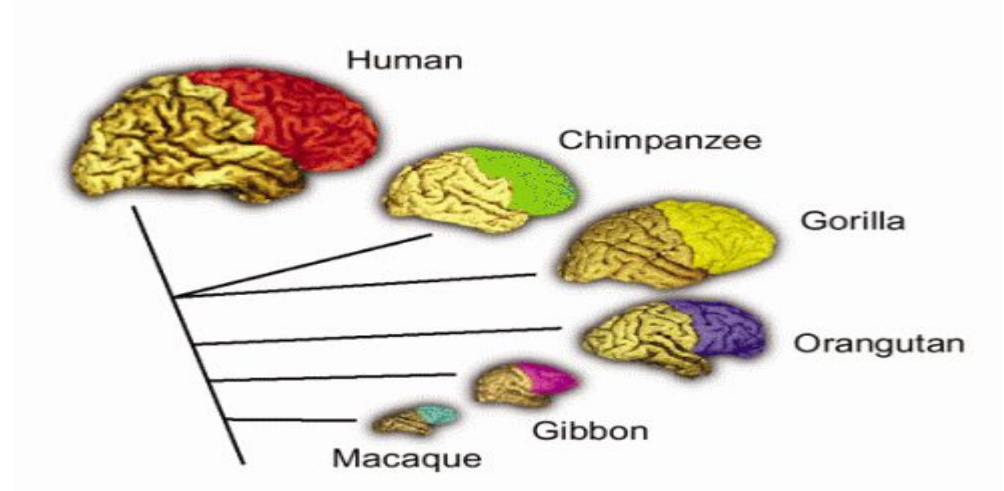
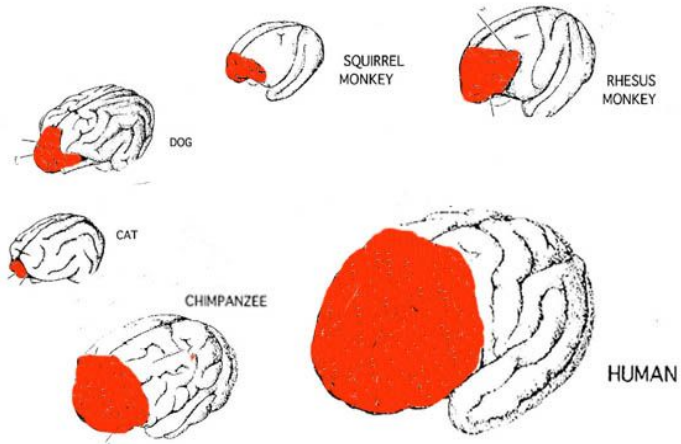
The right hemisphere is responsible for visual and spatial processing

There are many functions that are controlled by both the left and right hemispheres

communication is possible because of a bundle of nerve of nerve fibers, called the corpus callosum

This makes humans unique because our cerebrum allows us to learn and put that knowledge to use. We can accomplish things such as speech and math because of our cerebrum, whereas other species have not shown such abilities, with the exception being mating calls and other primal calls. our cerebrum has a direct line with our emotions, allowing us to process things around us and react to them how we see fit depending on our emotions.

Cerebrum



Diagrams represent unique traits of human brain when compared to other animals brains.

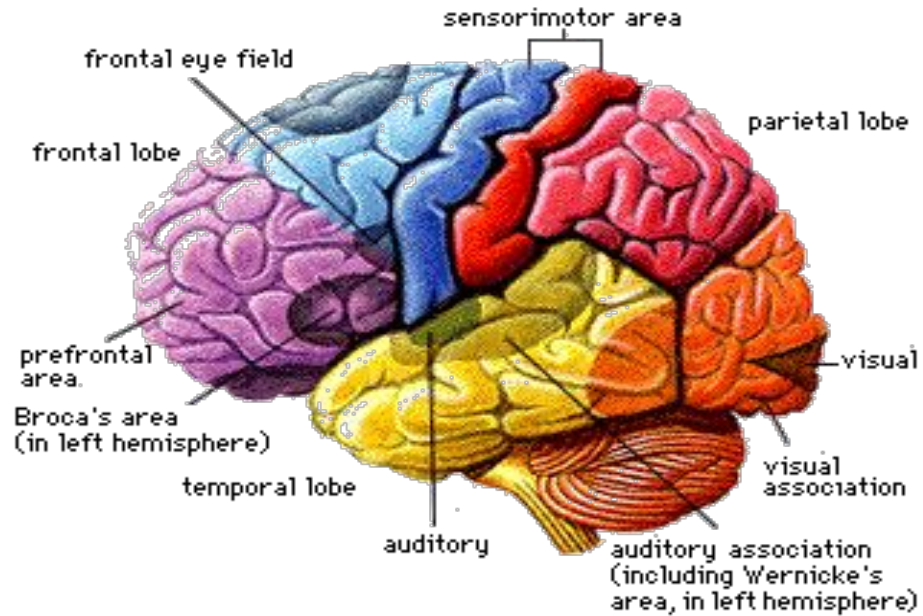
Brain Structure

The human brain is mostly similar to that of a chimpanzee. But the human brain is the larger and more complex because it has more separate portions in the brain than the chimp. The cerebral cortex is larger in humans than other species and allows more enhanced brain functions.

Human brains are also quite large when compared to the rest of our body. The average human brain weighs three pounds, while a chimpanzee has a brain that is one-third the size of our own. Most of this brain-size difference reflects the evolutionary expansion of the association cortex, a group of regions that supports such sophisticated cognitive functions as language, self-awareness, and problem solving.

This makes humans unique because our brains are bigger than most mammals, with the exception of the whale, which allows us to have more complex thoughts.

Brain Structure



Human behavior

The human brain is responsible for our complexity because of two things. For one our brain's cerebrum is so much more developed than any other animal. Another reason for our brain's complexity is its size compared to the other parts of our brain, that's why we aren't the most athletic or balanced animals.

This makes humans unique because our brain is directly linked to our actions and behaviors, whereas with animals are driven by primal instinct.

Human Culture through Artifacts

Human culture is and was more unique than any other species on earth. Through the artifacts we found on the Ice man's body, we see forged metal. In order to have that there must have been a place where you could have heated metal enough to shape it into a weapon. The weapons themselves and the stomach of the body show that we were once hunters.

This makes humans unique because we are the only species to constantly show progression in terms of society. We have shown to use tools and the resources from the environment to survive and thrive in the environments we found ourselves in.

Human Culture through Artifacts

Images show body of Iceman found at site and the tools that were found on his body. There is also a drawing that shows what the iceman could have looked like when he was alive.



Childhood

As seen with the hand walking family from Turkey, environment does play a role in how humans develop. When given assistance, such as walkers or other such devices used to assist those with spine issues, the hand walkers could walk upright.

Classic case of nature vs nurture

Humans generally base actions off of what they learned as a child or through childhood experiences, giving them variety. Most animals base all actions on instincts.

This shows that humans are unique because our species changes with experience, unlike animals, who either rely on parents or instincts for survival.

Childhood



An animal's childhood will greatly differ from a human's childhood. They will have completely different experiences and lessons taught to them.

THE END

Sources Used

Notes from class

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