Name

Course

Tutor

Date

**Australopithecus Africanus**

**Hominids scientific name**

Australopithecus Africanus was a sub-species of Australopithecus. Its scientific name is gracile australopithecine.

**Brain size**

Australopithecus had a brain size of approximately 480 CC. its brain was relatively smaller compared to other sub-species of Australopithecus

**Body size and sexual dimorphism**

The male had relatively bigger bodies compared to the female. The average body sizes of males were 4 ft 6 (136 cm) and the females measured 3 ft 9 (116 cm). Male bodies weighed approximately 40 kg while the females weighed an average of 30kg. Males had bigger and larger bodies than females. They had longer arms and a cone-shaped rib cage (Dorey, 3).

**Discovery**

Australopithecus was discovered in Taung valley in South Africa by Prof. Raymond Dart in 1924. Raymond Dart was a famous Australian anatomist teaching at the University of Witwatersrand at the time of discovery. The fossils were excavated in a limestone quarry in the Taung region in South Africa.

**Evidence of Hominin’s diet**

The hominin’s jaw and teeth size, and shape can give evidence of its diet. It had larger molar and pre-molar teeth, and relatively shorter and smaller incisor and canines. The analysis of its tooth pattern and shape indicated that Australopithecus Africanus consumed a diet that included leaves and fruits (Dorey, 5) Additionally, the chemical analysis of its teeth suggests that it consumed meat but in smaller amounts. Given the structure and shape of its body, it is likely that it scavenged its food.

**Evidence of Hominin’s use of tools and fire**

There is evidence that Australopithecus Africanus used simple tools and weapons. The shape and size of its limbs indicate a possibility of the use of simple tools. Size of its legs and feet indicate that the hominin was bi-pedal i.e. could walk in two legs. Importantly, toe bones were slightly longer and had curved fingers and long arms, which aided its ability to grasp objects. Based on the shape and size of arms, the species probably used tools such as sticks and animal bones. It may have also used small stones, but there little evidence showing that stones were modified or shaped. The Hominin used simple tools to dig roots, crack nuts and fruits and crush bones. There is no evidence that Australopithecus used fire. It probably eats raw meat. There are suggestions that A. Africanus may have used Oldowan tools. Use of Oldowan tools dated 2 million years ago. This period coincides with the time that Africanus existed. Oldowan tools were made of basalt, Quartzite, and quartz. They were simple, rough and chipped in two directions to create an uneven surface. They were all-purpose tools capable of cutting, chopping, and scrapping.

**Evidence of language or culture**

Recent studies focusing on the emergence or development of language in hominin’s culture provide some evidence about Africanus’ language ability. The researchers studying genes related to languages in extinct Hominids and the studies of bones involved in the production of speech provide evidence showing the language ability of Australopithecus. The development of hyoid bone, size of the neck, and cranial base angle show the restructuring of hominin’s vocal track (Beaudet, 7). These features present in Australopithecus species indicate that the species may have developed a primitive form of language. Apart from recent studies tracing the development of language to hominids, there is little conclusive evidence showing that Australopithecus Africanus had functioning language. Besides, there is no evidence showing Africanus exercising cultural activities.

**Evolution**

There is a junk of information discussing the evolution and phylogeny of Australopithecus. According to Wood (4), hominid is a family name of apes or hominoids. The hominids include gorillas, chimpanzees, and orangutans. Hominine is a subfamily of Hominidae which includes humans, chimpanzees, and gorillas. The hominin is a tribe of Hominidae, and they include humans and chimpanzees (Wood, 5). Wood further observes that Australopithecine evolves directly from chimpanzees, and they are currently considered closest living relatives of human species. Traditionally, archeologists thought that Australopithecus Africanus was the immediate ancestor of Homo habilis. However, recent studies have revealed that A. Africanus may have evolved to Australopithecus afarensis which later evolved into the homo species.

**Other interesting or important facts**

Australopithecus Africanus was the first sub-species of Australopithecus to be discovered. The discoverer named it Taung Child (also known as Taung baby). Other body parts of the australopithecine were not found, its skull was only discovered in beneath rocks in Taung. According to the Paleontologists Lee Berger and Ron Clarke, the fossil materials found in Taung was carried there by birds of prey. In 2006, Berger published a paper indicating that the eye sockets of Australopithecus Africanus originally discovered in 1924 was damaged. In his evidence, the damaged skull of the Taung child is nearly similar to the crania of monkeys destroyed by crowned hawk-eagle. He argued that the skull remains were carried to Taung rocks by an eagle. His evidence coincides with the fact that other body remains of A. Africanus have never been found. Some paleoanthropologists have refuted Berger’s arguments noting that apart from physical marks on the skull of the Taung child, there is no other scientific evidence.

**Disagreements and controversies**

There is an existing controversy about the phylogeny of Australopithecus Africanus. Although there a consensus is that Australopithecus species transitioned to homo species, there is inconsistency on which sub-species directly transitioned to Homo. Some say it transitioned from Australopithecus Afarensis and others insist that it evolve from Australopithecus Africanus to Homo habilis. Some arguments further claim that Afarensis was a common ancestor of both homo species and A. Africanus. Some have suggested that the easiest way to solve this controversy is to find the species of Australopithecus which had closer features to those of homo species. When compared, Aferensis have more superior features. It has a larger brain capacity exceeding 600 CC with a large cerebral cortex. The jaws and teeth were similar to those of modern man, though they were long and narrow. The canines were longer. They were bipedal and its thumbs could grasp an object. They had long and curved fingers.

Given these superior features, many scientists believe that Afarensis is the immediate ancestor of homo species. Dissenters, however, refute this argument noting that cladistic events happen at A. Africanus. They argue that when tracing the phylogeny, you start from the stage where physical features started changing, and not when features have advanced.

Each of these arguments has their weaknesses, for instance, those who say A. Africanus evolved to homo species do not provide strong scientific evidence. I support arguments that Aferensis is the immediate phylogeny of Homo species. As noted by Kimbell and Villmoare (4) Aferensis had superior abilities, complex cognition, and superior tools. Like Homo habilis, they could use tools and weapons. These pieces of evidence suggest a close link and progeny.

**Works cited**

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