In The Shadow Of Man Essay, Research Paper

In this paper I am going to discuss how anthropology is a science. I am also going to explain how Jane Goodall is a scientist with her works with chimpanzees, and how that is known as primatology. I will also look at the order primates in correspondence with Jane Goodall?s book on primates, specifically the chimpanzee.

Anthropology is a science; it has four aspects in which you can study. Anthropology takes a look at humankind and with its subdiciplines you can break down individual societies into four parts. Physical anthropology, archaeology, linguistic anthropology, and cultural anthropology; allows you to break down specific things in a culture, past, present, and to make predictions about thing in the future. Empirical data is also important because the objects that they study are what make anthropology a science.

Anthropology is a social science similar to sociology, psychology, and economics. What they learn and observe is taken from research. For example an archaeologist will search through ancient empirical data and observe what they find, to evaluate and note how one thing relates to another. Anthropology being a science uses the scientific method to evaluate data that they have found or have observed, where in science a hypothesis is created and then somehow a theory is made. In taking a theory it sometimes can be wrong and afterwards will be changed to fit the new standard, which is an ongoing process. This could be known as the scientific process.

In the book, In the Shadow of Man, Jane Goodall, specifically deals with primatology. Primatology is the study of primates. She studies, observes, and finally is accepted by the chimpanzees at the Gombe Stream, therefore, becomes a primatologist. In doing this she describes how she took notes and recorded her findings and observations throughout her day. Then she tells us how, during endless nights, she would retype her findings to be clearer. She describes these observations in great detail, specifically showing which chimpanzees did what. In one specific case she states how David Graybeard, one of the chimpanzees in her book, is the first of many sightings of the chimpanzees making and using tools. ? ?on several occasions they picked small leafy twigs and prepared them for use by stripping off the leaves.? (1, Goodall) Jane Goodall records during one of her first sightings.

After observing and noting specifically how the chimpanzee makes and uses the tool Goodall notices that he also proceeds to modify the tool. Then after awaiting David Graybeard to leave she went to his previous location to look over the data, and even tests the technique for herself and finds it to be very successful. In many other circumstances Goodall gathers data to help further her research. She also includes her first research assistant with the first incidences of dung-swirling. They did this by washing the chimpanzees dung to find out what food they were eating. By doing this they found the seeds or stones of fruit, as she describes them, the chimpanzees ate. This is an example of empirical data because she uses the droppings to the advancement of her research.

Chimpanzees belong to the order primate; they share this order with monkeys, prosimians, apes, and humans. Some examples of the order primate are arboreal conditions, opposable thumb, dentition, omnivorous diet, and the gestation period. As written about in Goodall?s book, the chimpanzees spend a lot of time in the trees, or otherwise known as arboreal way of life. This is one of the many characteristics seen in primates. They do many of their activities in these arboreal conditions. For one they make nests to sleep in on the branches of the trees. They go as far as to find themselves a firm foundation and gather leafy twigs to lie on top of it. Also she records how just before laying down they gather more leafy twigs to place under their head to make them more comfortable.

Also they do a lot of eating in the trees. They must be able to climb up to their food, since most of it is found there. Sometimes going by themselves or sometimes being accompanied by small or even large groups. When in these groups they were seen grooming each other, not only in the trees but on the ground as well. These social grooming sessions are a very large part of the chimpanzee?s lives. It calms them when they are upset, and they also use this as a relaxation technique. By doing this they are bonded together as a small or large group by these social gatherings. By grooming one another they are not removing fleas or ticks, for it is shown that chimpanzees rarely have them, but rather picking off dandruff from the others skin.

As well as having some of these social grooming sessions in the trees they use them as a safety from other more aggressive chimpanzees. Otherwise known as the hierarchy, which is also a part of a chimpanzee?s social order, the larger more aggressively dominant chimpanzees make aggressive displays. Making aggressive displays like this helps them to get higher rankings in the group, as well as to keep the lesser chimpanzees aware of their place in society. Sometimes these more dominant males will attack innocent females and the infants that are around during these displays, therefore, they use the high branches to keep far away from these aggressive displays. After a male attacks a chimpanzee they hurry over to them to get a touch of reassurance or even by being groomed by the aggressor just to feel a sense of security from the male. Jane Goodall has recorded an incidence with two male chimpanzees?, ?If William and Goliath started to move toward the same banana at the same time, it was William who gave away and Goliath took the fruit. If Goliath met another adult male along a narrow forest track, he continued ? the other stepped aside.? (1, Goodall) This is an example of the respect the higher ranking males receive.

Sometimes they will use the trees to assist them in catching a smaller animal, such as a baboon, to feed on. Another characteristic of a primate is to be omnivorous, in Goodall?s observations the chimpanzees at the Gombe Stream had this kind of diet. Omnivorous meaning a diet made up of a variety of foods including anything from plants, fruits, nuts, and seeds to eating other animals, and insects. It seems that meat is rarety; mostly because it seams that the more dominant males were the only ones able to hunt and kill something to eat. After they have caught their prey, many other chimpanzees gather around in hopes to get some of the catch or even be handed an already chewed piece of the meet. The brains of the animal are an extreme delicacy to the chimpanzees and are never shared. Some chimpanzees would even use leaves to get every last drop of the brains of the dead animal, which is another example of tool use.

Another social group is the primate sexual behavior, which deals with one particular female. In this case it is the female that is pink, or sexually mature, the males of high-ranking status don?t particularly dominate other males in these situations. The female simply mates with all of the males in the group. When she becomes sexually in heat the sex skin of her genitals becomes very swollen and pink. At this time the males will follow a female around just specifically to mate with her. This process will last for every day that the female has this pink swelling. Most males are very patient with waiting their turn to mate with the pink female. In most cases young infants and adolescent, either belonging to the pink female or not will try to interfere by pushing and jumping at the mating male. Almost always after the swelling has gone a female will become pregnant after such a strenuous week.

Another characteristic the chimpanzees share with the primate order is the gestation period. The females are pregnant for several months, which is longer than non-primate animals. When the female chimpanzee gives birth the infant is completely dependant on its mother. In Goodall?s book it shows that the normal chimpanzee is dependant on its mother until age five, and even after that they still rely on their mother for certain things. Only in specific chimps are shown to go on their own earlier when forced by the mother or in cases where the mother dies. In the instant where the mother dies the infant almost never makes it, unless the infant is over three years of age, and only then if they have siblings that are strong enough to take care of them.

In the case that Goodall follows specifically a mother chimpanzee by the name of Flo has a son by the name of Flint. Flo has had many other children before the birth of Flint, so she is very experienced when it comes to child rearing. She is very playful with Flint, and shows very good signs of motherly affection, although it may have been too much security for the young chimpanzee. When flint was just about five years old Flo became pregnant again, and Flo tries to wean Flint he puts up a fight and she seams too old and tired to fight with his cries. Even when she finally has her new baby, Flame, Flint still persists to ride on his mother?s back. As Flo attracts a flu epidemic her baby Flame disappears. When she gets better she no longer shows signs of trying to wean Flint. Flint ends up staying dependant on his mother, and when she finally dies Flint cannot live without her, and he too soon passes on. This is why it is important for the mothers to wean their children, before it is too late for the baby to become independent. Therefore if not weaned the child, in this case Flint, becomes too dependent on the mother, in this case Flo.

I think that in the closing of Goodall?s book she makes a good point about the evolution of the chimpanzees at the Gombe Stream. Chimpanzees are so close to humans that we share 99% of our genetic material with them. I think it would be beneficial to the comprehension of our own evolution to allow these chimpanzees to evolve as we have. We need to help preserve their species and allow them to live in harmony with humans. By doing this we might find out a lot more about the evolution of our societies and ourselves.

1.Goodall, Jane, In the Shadow of Man, 1988, Houghton Mifflin Company, New York, New York

2.DeCourse, Christopher R., Scupin, Raymond, Anthropology a Global Perspective, 1998, Prentice-Hall Inc., Upper Saddle River, New Jersey