

Human and ape: the legend, the history and the DNA

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Abstract

A vast amount of papers is published every year about species evolution, the most interesting being those recently published in the journal “Nature”, concerning the human-ape relationship. The results and the new theories generated from this research are sometimes astonishing, rising not only biological, but also social, religious and cultural questions. One of the new questions concerns the role of species interbreeding as a means of evolution. In the subject of species interbreeding between human and ape we found some interesting historical and mythical information that sort of back-up this theory of interbreeding, with a historical and cultural side of view. *Hippokratia 2007; 11 (2): 92-94*

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A series of papers published in Nature^{1,2} and Nature Genetics^{3,4} over the past few months concerning the DNA analysis of both human and chimpanzee genome conclude that humans and chimps not only share a common ancestor but probably also kept interbreeding for a long time after their genetic split. This today is a conclusion backed by strong scientific evidence. At the same time, the concept of such a relationship is widely spread across human History. In this paper we present some data compatible with the theory that the idea of interspecies sexual relationships was embedded in the common memory of humanity over thousands of years. (Figure 1).

The idea of evolution is ancient. Aristotle in his writings mentioned that “Nature, gradually, step by step,



Figure 1. Cave painting from the Val Camonica, Italy, circa 8000 BC

develops from inanimate substances to living creatures”⁵. He even gave a hint on natural selection. During the 13th c. AD, a Muslim scholar named Nasiraddin Tusi, while commenting on Aristotle, added that from elements evolve minerals, from minerals evolve plants, from plants evolve animals and from animals evolve humans, adding that “The human has features that distinguish him from other creatures, but has other features that unite him with the animal world, the vegetable kingdom or even with the inanimate bodies”⁶. All these of course were assumptions based on a rather generalized observation of nature and it was Darwin’s specialized observations that lead to a more precise and well-documented theory, with its most disputable element being that of the common ancestor of man and ape. The concept of the man-ape relationship has also enjoyed a long-standing history, its origins being traced somewhere between History and Legend. It has always been implied but rarely precisely described, that *man and ape*, regardless of the sub-species of ape, *shared more than the air they breathed*.

In some legends we find traces of this common memory of a cousin ape-man, an imaginary animal between the two species. In a 15th c. version of “Historia Alexandri Magni”, a fable book on the life and conquests of Alexander the Great that embodies earlier stories and legends dating from the Hellenistic era, Alexander reached the “land of the apes” where he found two kinds of ape-men, the one large, ferocious and man-eating (resembling gorillas), and the other small, hospitable and playful (resembling baboons)⁷. Other legendary ape-like humans or human-like apes are the famous Yeti of the Himalaya and Big-foot of North America. Somewhere between fable and reality there exist a few stories about man-like chimpanzees (Humanzees) “documented” with some

poor quality photographs, although their credibility is rather questionable⁸. All these stories could not leave Hollywood unaffected and several ape-like aliens became stars during the 20th century, Chewbacca and Yoda in “Star Wars”, the Klingons in “Star Trek” and the characters of the “Planet of the Apes” being the most famous. But where did these ape-men come from? Hidden in some other legends we may find a probable answer: In Hindu mythology Hanuman was a monkey-God, the son of Vayu, the wind-God, and a female named Anjana who was a Vanara (a human having the fur and tail of a monkey)⁹. According to an ancient Greek story, Hermolycos’ daughter copulated with a big ape and gave birth to several “Hermopapes”¹⁰. In the book of One-Thousand and One Nights (Nights 9-18, The Story of the Envier and the Envied) a princess in love protects a man enchanted to the form of an ape. This human-ape relationship remained hidden mainly because the result was degrading and demeaning. Actually, to the public opinion, any kind of kinship with apes is degrading and demeaning. In 1860, Thomas Huxley, a loyal defender of Charles Darwin’s theory of evolution, debated Archbishop Samuel Wilberforce over “The Origin of the Species”. The best line was uttered by a woman who wasn’t even allowed to attend: “Descended from an ape? Let us hope that it’s not true, but if it is, let us pray that it will not become generally known”. Such a degradation could very well be a punishment from God: According to one Jewish legend, three classes of men built the tower of Babel, one of which was turned to monkeys as a punishment from God, starting a line of thought that yields the possibility not only of evolution from ape to human but also of degradation from human to ape. From the same source we read a Muslim fable that tells of the ancient Jews who lived in Elath and were turned into monkeys as a punishment from Allah for having fished on the Sabbath¹¹.

But these are only fables. What kind of relationship did humans and apes *really* had and still have? There exist at least four kinds. One, the ape as food, two, the ape as a pet, three, the ape as an experimental animal and fourth the ape as a sexual partner. Apes were and probably still are an important source of protein for some primitive tribes. Strong evidence exists that some diseases have spread from apes to humans through hunting or eating their meat and viscera. SIV might have evolved to HIV in a similar way¹². In the cases where humans had other, tastier animals to eat, they still used apes for their amusement. There exist numerous references from ancient Egypt, Rome, Medieval Europe where men and women of aristocracy used to go to the market with their pet apes. Nowadays, although apes are harder to find than, say, dogs, some people retain apes as pets. A recent report talks about a southwest Missouri woman who has asked the Springfield-Greene County Health Department to allow her to take her pet monkey into local restaurants as a service animal, because, as she

said, her bonnet macaque monkey provides emotional support that allows her to overcome an anxiety disorder and go out in public places such as restaurants¹³. But in the case ape-as-a-pet is not the issue, apes still come in handy for humans. Their resemblance to humans makes them excellent material for experimentation. From the Roman era, Galen extrapolated the use of apes for dissections for educational and experimental reasons, pointing out that from all apes, those that were most man-like should be preferred¹⁴. Galen mentioned their external resemblance to humans because it was the only clue he had. The same policy regarding experiments takes place today: we use those apes that are more closely related to us genetically. And what about sexual relationships? According to a report, specially trained big apes were used in the Roman arena to copulate with willing or unwilling women¹⁵. From the same source we learn that during the Medieval times several stories existed about apes copulating with humans, one of them supposedly being narrated by Pope Alexander II who also presented an ape-like boy as the offspring of a countess and an ape. There also exists an interesting report from the 1920s regarding a Russian Biologist named Ilya Ivanovich Ivanov who carried out a series of experiments to create a human/ape hybrid. His project was backed-up by the Soviet government with a substantial amount of money. It is questionable why the Soviet government was interested in such a project. There are two aspects about this: 1) The Bolshevik elite wanted to destroy the belief in God, and subject nature to serve the new Soviet Man. 2) Probably, neither general ethical concerns nor Judeo-Christian beliefs would be of any interest to Soviet Marxists. Stalin, whose star was rising in the crimson world of Soviet politics, hoped he would get hybrid slaves who would be completely obedient. All Ivanov’s efforts however failed¹⁶. While such reports might seem untrue, according to the primatologist Birute Galdikas, orangutans could be sexually interested in a human if they lived closely for some time. And the story goes vice-versa as well. According to a study, conducted by Meredith Chivers and J. Michael Bailey, women could be sexually aroused by viewing other primates copulating¹⁷. Such a behaviour also has its humorous side of view (Figure 2).

The DNA analysis and comparison between humans and chimpanzees confirmed a homology of a very high percentage, above 98%. Some scientists used this finding to confirm our kinship with chimpanzees while others highlighted the 2% mismatch as a very important part to stress the differences between the species. After Stephen Wooding et al published their results on the possible ways of HIV transmission from chimpanzees to humans, the discussion on the human-ape relationship flared up. The late results about the DNA resemblances between our own and some ape species plus some very interesting hypotheses regarding the splitting of the species during evolution but with continuous interbreeding, brought a far



Figure 2. Cartoon by cartoonist Cathy Wilcox

more politically incorrect discussion to the surface: Did “humanoids” and primitive apes interbreed? According to the above legends and stories we may reply positively. Of course, these legends and stories cover only the last 3000 years while the interbreeding started millions of years ago. We have however other examples of events that took place before historical times, were similarly embedded in common human memories, but were incorporated in written religious or folk traditional texts many centuries later, like the Cataclysm, Homer’s poems, the Genesis of the Old Testament etc. So, if humans and apes had all kinds of encounters so long after they had genetically split, it would be no surprise if they habitually interbred early after their genetic split, when their external characteristics were only slightly different.

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