

Random Walking

Naked and Hairy Apes

Molecular evolutionists have made a great contribution by studying the great apes and their phylogenetic relationships to each other and to ourselves in terms of DNA and protein sequences. As an example, one of many such contributions is by Horai et al. (1992), in which mitochondrial DNA is used to study the place of humans relative to common and pygmy chimpanzees, gorillas, and orangutans. These studies help to counteract one of the most shameful episodes in the history of humans: their attitudes towards their fellow-primates.

The tailless primates are in five genera: gibbon, orangutan, gorilla, chimpanzee, and human. The human genus is the most ruthless of these in its behavior, both towards the other genera and itself. Here we shall review the treatment of orangutan, gorilla, and chimpanzee by humans.

Before recent years, human beings regarded orangs, gorillas, and chimps with loathing and usually with fear. The orangutan leads a quiet family life in the rain forests of Borneo and Sumatra. In the 1880s, Rudyard Kipling published a horror story called "Bimi," in which a jealous pet orang tore a woman to pieces. Bimi was later made drunk and was killed in hand-to-hand combat by the woman's vengeful husband, who simultaneously died of his wounds. The narration of this episode by a witness takes place on the deck of a ship, beside the cage of a male orang, which "was going to England to be exhibited at a shilling a head. For four days he had struggled, yelled and wrenched at the heavy iron bars of his prison without ceasing." Occasionally he would reach through the bars to try grabbing at passing sailors, who eluded him. As the anecdote ends, "the infernal clamor in the cage recommenced." The narrator then reduced the orang to trembling silence by hissing like a snake. According to Kipling, orangs were seven times as strong as

human beings, and the orang "had too much ego in his cosmos" in other words, was not sufficiently docile.

Gorillas were regarded with apprehension: the very word "gorilla" is pejorative. My dictionary says that a secondary meaning for gorilla is "[a] an ugly brute of a man, [b] a strong-arm man." The bodyguards of gangsters were termed "gorillas," and the motion picture "King Kong" was a great success because it showed a giant gorilla terrorizing people.

In Darwin's day, even Thomas Huxley looked upon gorillas with contempt, as is shown by his well-known encounter with Bishop Wilberforce. Apparently, in rebutting the bishop, the worst thing Huxley could think of to say was that he would prefer to be descended from a gorilla than from a man such as Wilberforce. Whereupon a woman in the audience swooned with horror at the thought, and "Wilberforce was booed by the undergraduates" (Stone 1980).

The public, not including creationists, has now become enlightened and sympathetic regarding these creatures and their social lives, which should teach us how much behavior is shared by various primates, including ourselves.

I have described (J Mol Evol 32:1–2, 1991) how the earlier superstitions about gorillas were dispelled by observing them on their home grounds. A recent issue of *Time* magazine, July 13, 1992, has a splendid photograph of a gorilla on the cover, with an article describing a foray into a swampy and remote stronghold of chimpanzees and gorillas, the Ndoki region in Northern Congo. The author, Eugene Linden, describes how he was surrounded by a group of 25 fearless chimpanzees. They banged branches of trees on the ground, and evidently were discussing the presence of this strange intruder with weird clothing.

Many fantasies have been created about the fu-

ture of humans, such as the O'Neill colonies (Goldsmith and Owen 1980), in which millions of people live in space, in some kind of a biological vacuum without the diversity of species that is essential to our life.

O'Neill colonies were supposed to be built from material mined from the moon, launched into space by superconducting slingshots, and constructed at the moon's distance from the Earth. Each cylindrical habitat, a few kilometers long, would hold several thousand inhabitants, using solar power to grow crops and run machines. Larger versions would follow, each supporting a million inhabitants, and there would be plenty of room for thousands of such colonies, said O'Neill. Perhaps the robotoid inhabitants would spend most of their time watching television documentaries of life on the Earth.

Desmond Morris, in Kavanagh (1984) predicts that such systems would soon break down; our qualities as primates would soon become evident. We would be at each other's throats, just as nations are today, and we would destroy one another because of overcrowding. Our only hope for the future is to admit that we belong to the apes, with their needs for social relationships, hormonal responses, parental ties, environmental requirements, and mammalian behavior, with all its complexities. We should attempt to reverse the process of destruction of the wild habitats, for the sake both of monkeys and ourselves. Television programs, especially on the public broadcasting system, travel, and motion pictures have shown us monkeys and apes in their true light. How fascinating it is to watch macaques

learning to wash potatoes, then to salt then by dipping in sea water, and, in the process, learning how to swim. Or to see a chimpanzee building a nest for an afternoon nap.

What does the future hold for the great apes? Orangs in Borneo are hunted for meat. The rain forests where they live have a precarious existence. Moreover, each female has a range of about 250 acres. Captive-held individuals almost never produce a subsequent generation (Kavanagh 1984). Babies are collected by zoos. Fortunately, the governments of Indonesia and Malaysia are trying to protect their apes, but forest homes are essential, and the trees seem to be doomed to fall, with dire effects on far more species than just the monkeys.

Every day another 150,000 human beings are added to the world population. This is more than the total number of most species of other primates.

References

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