

Questioning Talking Apes and Chimpanzee Memoirs

by Matt Nisbet. <http://atheism.about.com/library/misc/BLapes.htm>

At twenty-six years of age, Koko has inspired a best-selling novel and film, exhibited her own artwork, been the subject of more than two decades of intense study, appeared on multiple covers of a leading international magazine, and last week, hosted her own internet chat session. Why all this attention? With beautiful dark hair, penetrating eyes and a strong figure, Koko is said to be the world's most articulate female--female gorilla to be more exact.

Koko, a resident of the Gorilla Foundation in the suburbs of San Francisco, California, has been tutored in modified American sign language for 25 years and reportedly is able to understand close to 2,000 words of spoken English. Her trainers claim she has an IQ between 70 and 95, slightly lower than the average human intelligence of 100. Koko even has her own personal computer. Apple donated a modified Macintosh with the aim of developing simpler touch- screen technology.

On Monday, April 25, this alleged "Plato" of apes took part in what was billed as the first "interspecies" cyberspace chat session. Internet users typed in questions from their computers across the country, and a moderator fed them to Koko's trainer who translated the questions into sign language. Koko responded in sign-language, the answers were interpreted into spoken English by her trainer, and sent back out into cyberspace. Koko answered questions for half an hour, as long as her attention span would last.

Sponsored by America On-Line and Enviro-Link, an internet environmental website, organizers said they hoped to spread awareness about breakthroughs in human-animal communication and the plight of gorillas in Africa. "We're trying to educate people about what they can do for Earth Day and beyond. If a gorilla can stand up and speak up about environmental issues, maybe normal people can do the same," Enviro-Link spokesman Josh Knauer told ABC News On- Line.

Koko: the making of a star

Koko got her lucky break when she met a young, brilliant Stanford graduate student named Penny Patterson in 1972. Patterson developed an immediate fondness for Koko and, as part of her research in animal communication, began to teach Koko sign language. Koko and Patterson moved their efforts to the suburbs of San Francisco in 1979, funding for continued research coming from private donations and exclusive ownership and sale of photos of Koko to magazines. In 1981, Patterson and Eugene Linden authored *The Education of Koko*. The gorilla received enormous international attention from NATIONAL GEOGRAPHIC magazine, appearing on

the cover in 1978 and 1985. Koko has also appeared on multiple television specials and news programs.

Starting with Jules Verne's 1901 *The Village in the Tree Tops* and including Robert Merle's 1967 best-selling *Day of the Dolphin*, animal communication has been a recurring theme in thrillers and science fiction novels. In 1979, popular author/film producer/science speculator Michael Crichton took Koko's tale and wove it into his King's Solomon's Mine adventure novel *Congo*. As he does in many of his books, Crichton blurred the lines between science fact and fantasy, prompting extraordinary belief among readers in the communication abilities and human-like intelligence of gorillas. *Congo* was turned into a less-than-successful film release in 1995.

Ape language in doubt

Despite widespread public belief in the ability of Koko to communicate with humans through sign language, linguistic researchers question the claims. Jim Swanson, professor of linguistics at Dakota State University, told ABC News On-line that Koko's trainers probably see what they want to see. "If a gorilla makes a gesture, the trainers see a positive response that they were looking for."

Koko's sign language communication may be the mimicking of trainers or a response to innocent cueing. Over-interpretation of Koko's signs may also occur. Some signs produced at random by the gorilla might be counted as successes and recorded by researchers, while irrelevant signs are overlooked and unreported.

TIME magazine dubbed Koko's internet chat session a "Dada exercise" noting that Penny Patterson as interpreter used "some pretty impressive logic to expand her simian friend's limited communication skills." A partial transcript from the session is revealing:

Question: Koko are you going to have a baby in the future? Koko signs: Pink

Patterson explains: We had earlier discussion about colors today.

Question: Do you like to chat with people? Koko signs: Fine nipple.

Patterson explains: Nipple rhymes with people, she doesn't sign people per se, she was trying to do a "sounds like..."

Question: Does she have hair? Or is it like fur?

Koko signs: Fine.

Patterson explains: She has fine hair.

Question: Koko, do you feel love from the humans who have raised you? Koko signs: Lips, apple give me.

Patterson explains: People give her her favorite foods.

Linguists note that Koko's signs fail to produce the syntax of young children's phrases, and cannot be considered actual language. They also question why the flashes of human-like intelligence allegedly displayed by Koko and other primates have not been observed in the wild. For example, Koko uses paints to create what her handlers claim are pictures of her surroundings and representations of memories from early in her life. Curiously though, primates in the wild have yet to be observed displaying similar picture-making ability.

While little of the research on Koko has been published in scientific journals, her trainer Penny Patterson has taken to the popular press and electronic media to publicize mainly anecdotal accounts of her research success with Koko.

CSICOP fellow Thomas Sebeok, Professor Emeritus of linguistics at the University of Indiana, told ABC News On-Line that claims of Koko's ability to communicate using human-like language are "nonsense."

In his edited collection of articles on the topic, *Speaking of Apes* (1979), Sebeok warns of the "destructive pitfall of self-deception." He describes animal communication researchers as a "tightly knit social community with a solid core of shared beliefs and goals." He adds that "it is difficult to imagine a skeptic being taken on as a member of such a 'team'."

Outspoken MIT linguist Noam Chomsky concludes in his contributed chapter to Sebeok's anthology that "human language... is outside of the capacities of other species." Chomsky describes this lack of language ability on the part of animals as a matter of a "different type of intellectual organization."

Support, however, comes from some big names

Language studies with primates first occurred with chimpanzees in the 1960s. One of the most publicized of the test subjects was a female chimpanzee named Lucy. Famous primatologist Jane Goodall wrote in her book *Through a Window* that "Lucy, having grown up a human child, was like a changeling, her essential chimpanzeeness overlaid by various human behaviors she had acquired over the years. No longer purely chimp yet eons away from humanity, she was man-made, some other kind of being."

Some scientists do point out possible benefits and expanded understanding from primate language studies. Arizona State University and Institute of Human Origins

anthropologist Donald Johanssen told the San Francisco Examiner in 1988 that the type of research

surrounding Koko's language ability "tells us that these creatures have a considerably larger intellectual capacity than we ever thought possible...Now when we see apes in the wild, we realize there is something there common to all of us, and that they are as emotionally, intellectually and evolutionarily close to us as any animals could be." As humans, we must "entertain the fact of that connection."

In discussing chimpanzee intelligence and language ability, Carl Sagan in his book *The Dragons of Eden* (1979) surmises that if gestural language like American sign language were necessary to chimpanzee survival, "it does not appear to me out of the question that, after a few generations in such a verbal chimpanzee community, there might emerge the memoirs of the natural history and mental life of a chimpanzee, published in English or Japanese."

Sagan finds it "striking" that there are "nonhuman primates so close to the edge of language" and he suggests that it is likely that at some point in early human history we exterminated other primates that exhibited traits of intelligence. By engaging in primate language studies today, humans are "beginning a belated attempt to make amends."

However, Sagan revisits the topic in a less romantic and less dramatic fashion in his 1992 best-seller *Shadows of Forgotten Ancestors*, co-authored with wife Ann Druyan. Sagan and Druyan note that critics of primate language claims have "merely asserted that apes cannot use language, and then dismissed evidence to the contrary because it contradicted their assumption."

The husband and wife team conclude that "no ape has ever shown linguistic abilities approaching those of a normal child entering kindergarten. Nevertheless they seem to have a clear-cut, although elementary, ability to use language."

Even if primate ability to communicate using human language is never verified, or if the written memoirs of a chimpanzee never appear in a library, study of animal cognitive abilities can lead to greater understanding of human evolution and man's place in nature. Both Charles Darwin and Alfred Russel Wallace, in their research leading to the discovery of evolution, used their observation of language-like quality in apes to confirm their theories on the lineage of man. Skeptic Noam Chomsky concedes that understanding the intellectual capacity of apes may lead to greater understanding of human cognitive ability. As for the general public, non-sensational media portrayals of Koko and primate language ability (trading "interspecies" chat sessions for balanced scientific reporting) can ultimately lead to a greater understanding of man's humble link to animals.