

6th grade Language Arts Reading for 6/1/20

The Chimpanzees I Love

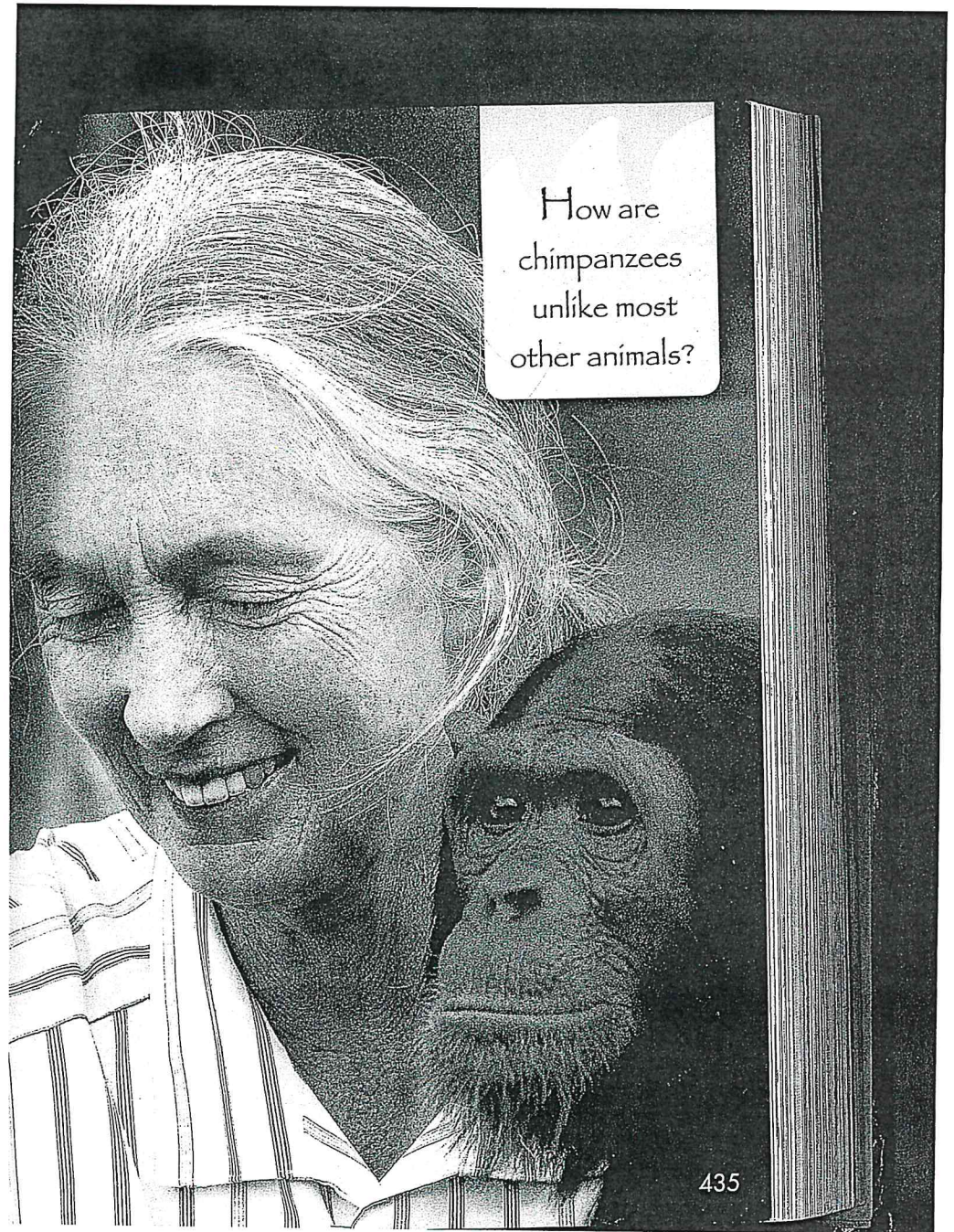
Saving Their
World and Ours

by Jane Goodall

Genre

Expository nonfiction explains the nature of something. Look for explanations about the nature of chimpanzees as you read.

434



How are chimpanzees unlike most other animals?

435

The Mind of the Chimpanzee

ANIMALS ARE much smarter than scientists used to think. I was told at school (fifty years ago) that only human beings have personalities, can think and reason, feel pain, or have emotions. Luckily, as a child, I had spent hours learning about animal behavior from my dog, Rusty—so I knew none of that was true!

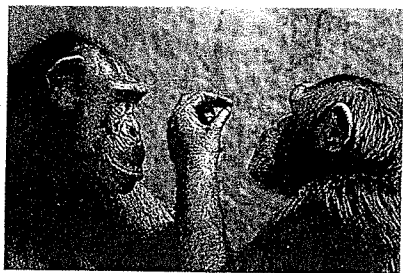
The more we have learned about chimpanzees, the clearer it is that they have brains very like ours and can, in fact, do many things that we used to think only humans could do. I've described how the Gombe chimps use grass stems and twigs to fish termites from their nests. The chimps also use long smooth sticks to catch vicious biting army ants. They use crumpled leaves to soak up water from hollows in trees that they cannot reach with their lips, then suck the homemade sponge. They wipe dirt from their bodies with leaf napkins. They use stout sticks to open up holes in trees to get at birds' nests or honey and as clubs to intimidate one another or other animals. They pick up and throw rocks as missiles. In other parts of Africa, chimps have different tool-using behaviors. For instance, in west Africa and parts of central Africa, they use two stones, a hammer and an anvil, to crack open nuts. It seems that infant chimps learn these behaviors by watching the adults, and then imitating and practicing what they have seen. So the chimps have their own primitive culture.

Many scientists are finding out more about the chimpanzee mind from tests in captive situations. For example, chimps will go and find sticks to pull in food that has been placed outside the cage, beyond their reach. They can join two short sticks together to make one long tool. They have excellent memories—after eleven years' separation, a female named Washoe recognized the two humans who had brought her up. A chimp can plan what he or she is going to do. Often I've watched a chimp wake up, scratch himself

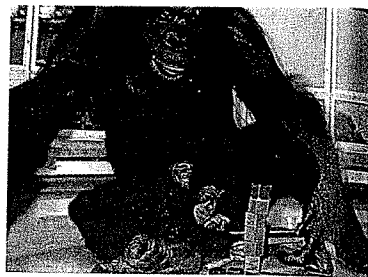


“How many times I have wished that I could look out onto the world through the eyes, with the mind, of a chimpanzee. One such minute would be worth a lifetime of research.”





Chimpanzees can communicate by means of calls, gestures, postures, and facial expressions.

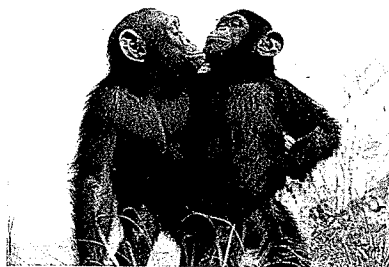
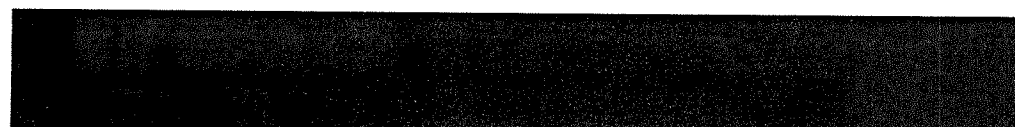


Ai has been learning language skills at Kyoto University since 1978. Her infant, Ayumu, will learn to stack blocks.

slowly, gaze around in different directions, then suddenly get up, walk over to a clump of grass, carefully select a stem, trim it, and then travel quite a long way to a termite mound that was out of sight when he made his tool.

Chimpanzees can be taught to do many of the things that we do, such as riding bicycles and sewing. Some love to draw or paint. Chimps can also recognize themselves in mirrors. But they cannot learn to speak words because their vocal cords are different. Two scientists, the Hayeses, brought up a little chimp named Vicky and tried to teach her to talk. After eight years she could only say four words, and only people who knew her could understand even those.

The Gardners had another idea. They got an infant chimpanzee, named her Washoe, and began teaching her American Sign Language (ASL) as used by deaf people. Then other infant chimps were taught this language. Chimps can learn 300 signs or more. They can also invent signs. The chimp Lucy, wanting a Brazil nut but not knowing its name, used two signs she knew and asked for a "rock berry." A fizzy soda became "listen drink," a duck on a pond, "water bird," and a piece of celery, "pipe food." Washoe's adopted son learned fifty-eight signs from Washoe and three other signing chimps by the time he was eight years old. He was never taught these signs by humans. Other chimps have been taught computer "languages" and can punch out quite complicated sentences. These experiments have taught us, and continue to teach us, more and more about the chimpanzee mind.



These two young chimps are good friends.



Fifi is a very good mother. Here she is with offspring Ferdinand, Faustino, and Fanni.

Chimpanzees in Captivity

UNFORTUNATELY chimpanzees, so like us in many ways, are often very badly treated in many captive situations. Chimpanzees were first brought to Europe from Africa in the middle of the seventeenth century. People were amazed by these humanlike creatures. They dressed them up and taught them tricks.

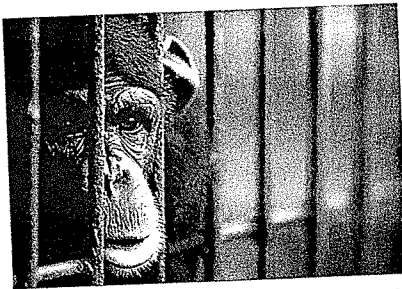
Since then we have often treated chimpanzees like slaves, shooting their mothers in Africa, shipping them around the world, caging them in zoos, training them to perform in movies and circuses and advertisements, selling them as pets, and imprisoning them in medical research laboratories. Some chimps become famous. J. Fred Muggs starred on TV's *Today* show for years and was known by millions of viewers. What they didn't know was that whenever J. Fred Muggs got too big and strong for the show, he was replaced by a younger one.

A young male called Ham was sent up into space. He was shot up in a Mercury Redstone rocket in January 1961, and because he survived the ordeal (he was terrified), it was decided that it was safe for the first human astronauts. Ham was taught his routine by receiving an electric shock every time he pressed the wrong button. Often circus chimps

are taught, right at the start of their training, that instant obedience is the way to avoid a beating. The beatings are given when the trainer and chimp are on their own, so no one sees. It is the same for other animals—and for many of those used in movies and other forms of entertainment.

Infant chimpanzees are adorable and, for the first two or three years, are gentle and easy to handle. People buy them and treat them like human children. But as they grow older they become more and more difficult. They are, after all, chimpanzees, and they want to behave like chimpanzees. They resent discipline. They can—and do—bite. And by the time they are six years old they are already as strong as a human male. What will happen to them then? Zoos don't want them, for they have not been able to learn chimpanzee social behavior and they do not mix well with others of their kind. Often they end up in medical research labs.

It is because their bodies are so like ours that scientists use chimps to try to find out more about human diseases and how to cure and prevent them. Chimpanzees can be infected with almost all human diseases. Hundreds have been used (with no success) in AIDS research. The virus stays alive in their blood, but they do not show the symptoms. It is very unfair that, even though chimpanzees are being used to try to help humans, they are almost never given decent places to live.



Zoos are improving gradually, but thousands of chimpanzees around the world spend their lives in barren cement-floored cages with nothing to do.



Jou-Jou has been caged alone in a Congolese zoo. He reaches to touch me, desperate for contact.

Hundreds of them are shut up in 5' x 5' x 7' bare, steel-barred prisons, all alone, bored, and uncomfortable. Measure out this space and imagine having to live in it your whole life. (Many closets are much bigger!)

I shall never forget the first time I looked into the eyes of an adult male chimpanzee in one of these labs. For more than ten years he had been living in his tiny prison. The sides, floor, and ceiling were made of thick steel bars. There was a car tire on the floor. His name, I read on the door, was JoJo. He lived at the end of a row of five cages, lined up along a bare wall. Opposite were five more cages. At either end of the room was a metal door. There was no window. JoJo could not touch any of his fellow prisoners—only the ends of his fingers fitted between the bars. He had been born in an African forest, and for the first couple of years he lived in a world of greens and browns, leaves and vines, butterflies and birds. Always his mother had been close to comfort him, until the day when she was shot and he was snatched from her dead or dying body. The young chimpanzee was shipped away from his forest world to the cold, bleak existence of a North American research lab. JoJo was not angry, just grateful that I had stopped by him. He groomed my fingers, where the ridges of my cuticles showed through the surgical gloves I had to wear. Then he looked into my eyes and with one gentle finger reached to touch the tear that rolled down into my mask.



JoJo and I touch through the bars of his prison cage in a research lab.



La Vieille spent years alone in a Congolese zoo. We were able to move her to our Tchimpounga sanctuary and introduce her to other chimpanzees.

“Chimpanzees are more like us than any other living beings.”



442

In the United States, several hundred chimpanzees have been declared “surplus”—they are no longer needed for medical research. Animal welfare groups are trying to raise the money to build them sanctuaries so that they can end their lives with grass and trees, sunshine and companionship. Some lucky ones—including JoJo—have already been freed from their laboratory prisons. Many others are waiting.

Zoos are getting better, but there are still many chimps in small concrete and metal cages with no soft ground and nothing to occupy them. Good zoos keep their chimpanzees in groups and provide them with all kinds of stimulating things to do, different things each day, so that they don’t get bored. Many zoos now have artificial termite mounds. Chimps use sticks or straws to poke into holes for honey or other foods. These innovations make a world of difference.

Protecting the Chimpanzees

CHIMPANZEES live in the forested areas of west and central Africa. In some places, where there is a lot of rain, these are thick tropical rain forests. In other places there are strips of dense forest along the rivers, with woodland and even open grassland in between. The chimpanzees usually cross open ground in groups, traveling without stopping until they reach the safety of the trees again. Chimpanzees can survive in quite dry areas, but there they have very big home ranges, for they must travel widely to get food. Like the other African great apes, the gorillas and bonobos, they are disappearing very fast. One hundred years ago we think there were about two million chimpanzees in Africa; now there may be no more than 150,000. They are already extinct in four of the twenty-five countries where they once lived. There are more chimpanzees in the great

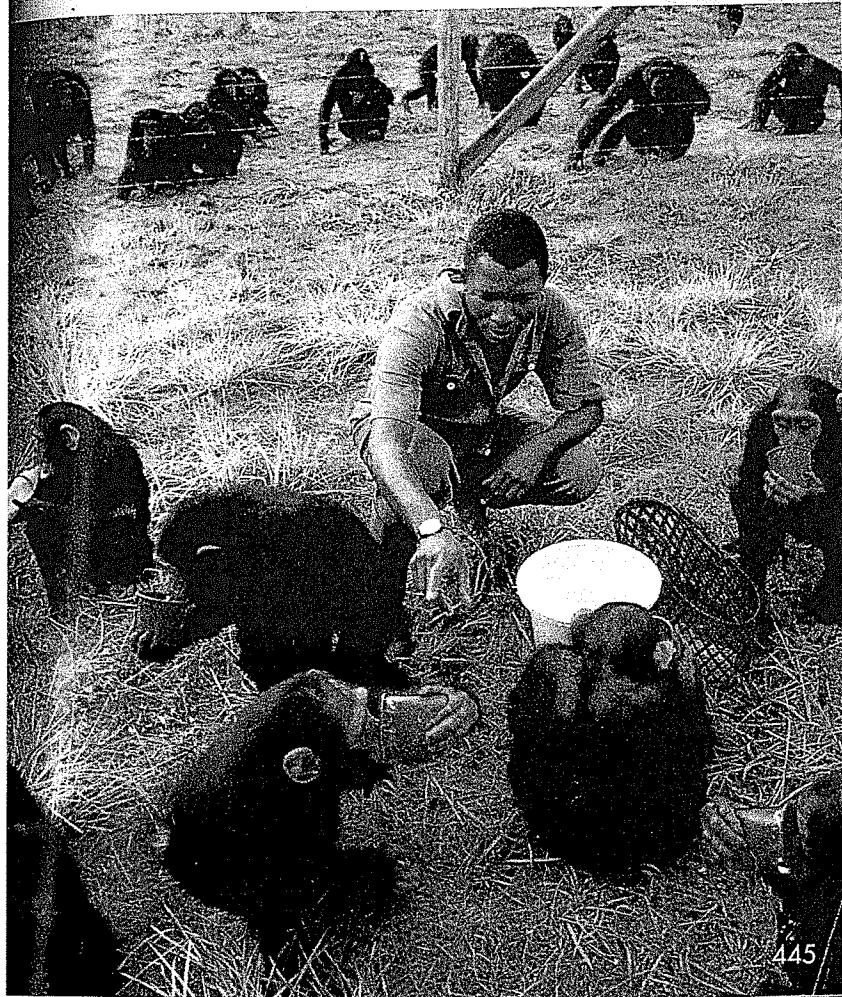
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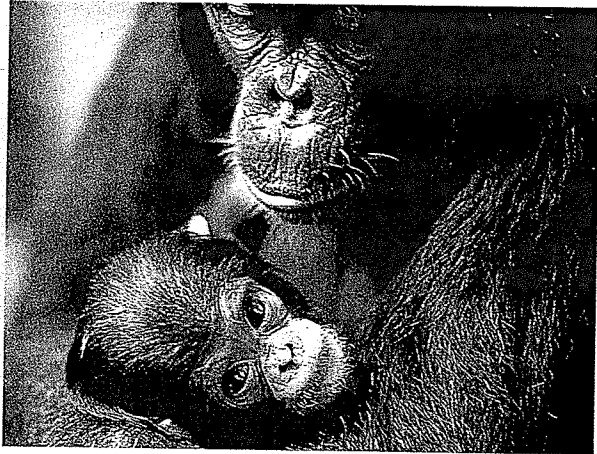
Congo basin than anywhere else—but that is where they are disappearing the fastest. They are disappearing for various reasons:

- 1 All over Africa, their forest homes are being destroyed as human populations grow and need even more land for their crops and for their homes, and even more wood for making charcoal or for firewood.
- 2 In many places chimpanzees are caught in snares set for bushpigs or antelopes. Snares were once made of vines, but now hunters use wire cable. Often the chimps are strong enough to break the wire, but they cannot get the noose off. Some die; others lose a hand or a foot, after months of agony.
- 3 There are still dealers who are trying to smuggle chimpanzees out of Africa for the live animal trade. Mothers are shot so that hunters can steal their infants for entertainment or medical research. Many individuals die in the forest (including adult males who rush to the rescue and are shot) in order for one infant to reach its destination alive. The dealers pay the hunters only a few dollars while they themselves can sell an infant chimp for \$2,000 or more.
- 4 The greatest threat to chimpanzees in the great Congo basin is commercial hunting for food. Local tribes, like the Pygmies, have lived in harmony with the forest and its animals for hundreds of years. Now logging companies have made roads deep into the heart of the last remaining forests. Hunters ride the trucks to the end of the road and shoot everything—chimps, gorillas, bonobos, elephants, antelopes—even quite small birds. The meat is smoked or even loaded fresh onto the trucks and taken for sale in the big towns. The trouble is that so many people living there prefer the taste of meat from wild animals, and they will pay more for it than for that from domestic animals. If this trade (known as the “bush-meat” trade) cannot be stopped, there will soon be no animals left.

There are many people and organizations trying to help protect chimpanzees and their forests, but the problems are very hard to solve. Most of the people destroying the forests are very poor. They can't afford to buy food from elsewhere, so they cut down more trees for

Every individual has a role to play. Every individual makes a difference. And we have a choice: What sort of difference do we want to make?”





Fanni gazes down at Fax.

their farms and shoot or snare more animals for food. Because the soil needs the shelter of the trees in the tropics, the people are soon struggling to survive in a desert-like place. So they cut down more trees. And the bushmeat trade has become a very big money-making operation, with many high-up government officials involved. We shall not give up until solutions have been found.

Chimpanzee Facts

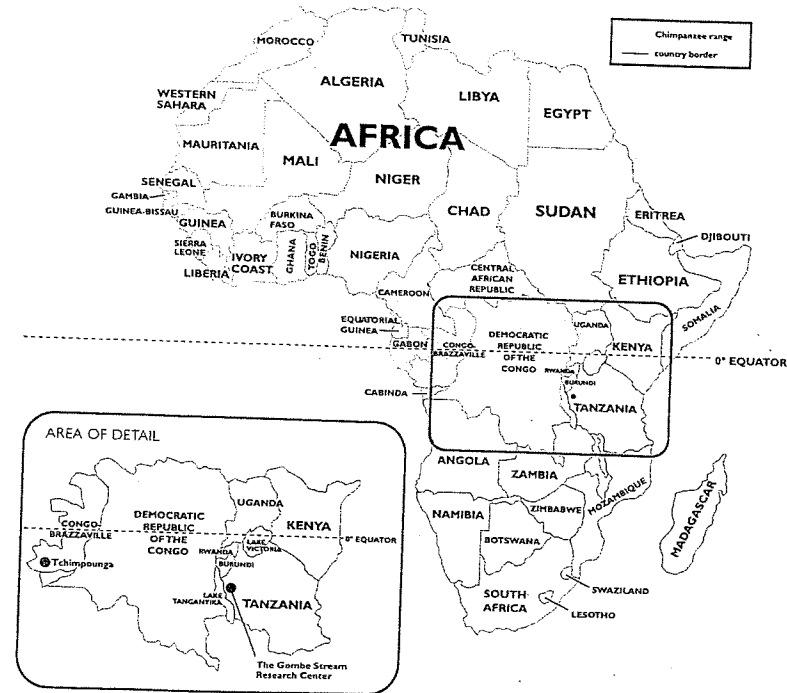
- A fully grown male chimpanzee at Gombe is about 4 feet tall and weighs up to 115 pounds. The female is about as tall, but she is lighter, seldom weighing more than 85 pounds.
- In west and central Africa the chimpanzees are a little bigger and heavier. Often they are heavier in captivity, too, at least when they are well fed and given medicine. This is not surprising, as they have much less exercise than when they live in the wild.
- Chimpanzees in the wild seldom live longer than fifty years, though some captive individuals have lived more than sixty years.
- A female chimpanzee in the wild raises two to three offspring, on average. But she may raise as many as eight or nine.

Chimpanzee Habitats

Chimpanzees are found in twenty-one African countries, from the west coast of the continent to as far east as western Uganda, Rwanda, Burundi, and Tanzania. Chimps live in the greatest concentrations in the rain forest areas along the equator. Due to the fast-paced destruction of these rain forests, as well as other pressures, chimpanzees are considered an endangered species.

The Gombe Stream Research Center is located on the eastern shore of Lake Tanganyika, in Tanzania.

CHIMPANZEE RANGE



Write Now

Story About an Animal

Prompt

Read *The Chimpanzees I Love*, Jane Goodall's story of her work with chimpanzees. Think about an animal that interests you. Now write a story about that animal, complete with a beginning, middle, and end.

Writing Trait

Vivid **word choice** helps readers imagine the story you are telling. Select precise and interesting words.

Student Model

Opening sets a scene of a story.

Ruth couldn't wait for the Spelling Bee. All the neighborhood moose were practicing their words. Ruth thought she had a good chance to win. She played spelling games with her Granny Moose.

The morning of the Spelling Bee, Ruth bounced out of bed. She galloped to the mirror to practice.

"Tri-thical," she said. Oh no! Ruth had a loose tooth.

"What's wrong?" Granny inquired.

"Granny Mooth," whimpered Ruth, "my tooth is looth."

"So?" said Granny. "Can you still spell?"

Ruth mused for a minute. "Of courth!" she smiled.

Ruth finished her breakfast and left for school.

"Inthithor," she whispered to herself. "I-N-C-I-S-O-R."

Writer uses precise and interesting words.

Story ends in an upbeat note.

Use the model to help you write your own story about an animal.

Your last activity is to do this writing prompt. Should be at least $\frac{1}{2}$ a page.

Next week I will send out a photo album of when I went to Zambia, Africa and worked with chimpanzees. 😊

Just a fun read! I've actually met Washoe. She lives in Washington!

Science in Reading

Expository Nonfiction

Genre

- There are different kinds of nonfiction compositions.
- Expository nonfiction tells and explains facts and information.
- Sometimes it includes stories that are more typical of narrative nonfiction.

Text Features

- In this article, the author includes stories about the subjects to make the facts more relevant and interesting to the reader.
- The author uses quotation marks to mean many things, yet she never uses them for dialogue. As you come across words in quotation marks, think about what the author means by them.

Links to Science

The apes in this selection learned some basic symbols to communicate with their trainers. If you were training apes, what words do you think would be important to teach first? Why?

450

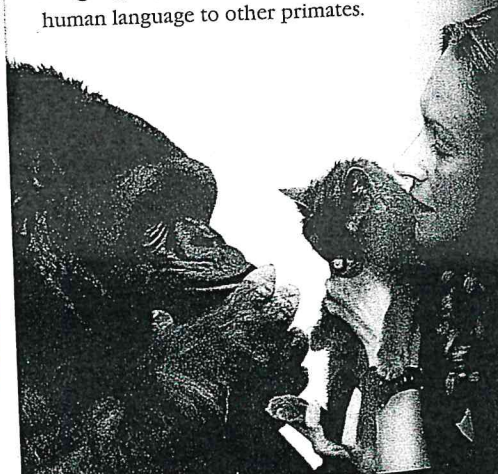
Going Ape over Language

by Natalie M. Rosinsky

Humans Talking with Apes?

Such conversations were once found only in fables or in science fiction like *Planet of the Apes*. But, since the 1960s, scientists have "gone ape" over other methods of interspecies communication.

Great apes physically cannot produce the consonants or some vowel sounds of human speech. So, instead of spoken language, researchers are using *American Sign Language (ASL)* and technology to teach human language to other primates.



A Chimpanzee Named Washoe

In 1966, Dr. Allen Gardner and his wife, Beatrix, began teaching ASL to a year-old female chimpanzee named Washoe. They taught Washoe by "cross-fostering" her—that is, treating her like a deaf human child. Washoe had a stimulating environment filled with toys and attentive human companions who used ASL to "discuss" daily activities. In those first years, one important topic of conversation was—of course—potty training! Dr. Roger Fouts, an early companion, and his wife, Debbi, have now spent more than 30 years with "Project Washoe." In 1992, the Foutses founded the Chimpanzee and Human Communication Institute at Central Washington University, where Washoe lives with an adoptive family of four other ASL-using chimpanzees.

Washoe is the most "talkative" member of this group, with an ASL vocabulary of 240 signs. She often "translates" spoken words she understands into ASL. Washoe signs correctly even when an object is out of sight—signaling "DOG," for example, whenever she hears canine barking. She also accurately puts together short "sentences"—signing "ROGER TICKLE WASHOE" when this is what has occurred. If she does not know the sign for an item, Washoe creatively yet logically "renames" it. She called her first candy bar a "CANDY BANANA"!

Yet emotion, not just logic, has filled some of Washoe's most memorable conversations with humans. Washoe had already had two unsuccessful pregnancies when she learned that a caregiver's baby had died. The chimpanzee looked groundward, then directly into the woman's eyes, and signed "CRY" while touching the woman's cheek just below her eye. Later that day, Washoe wouldn't let her caregiver go home without further consolation, signing "PLEASE PERSON HUG."



Author's Purpose

How do the author's section heads help?

451

“Aping Their Betters”?

Linguist Noam Chomsky insists that human beings are the only primates neurologically capable of language. Some other scientists, including MIT’s Dr. Steven Pinker, share this view. They conclude that “Project Washoe” and similar research prove only that apes can be trained, and that they will imitate the behavior of trainers just for rewards or approval. These critics maintain that investigators, along with animal rights activists, have misinterpreted the results of these research projects because they *want* to believe that apes can “talk.”

But there are answers to these objections. The private signing done by chimpanzees is evidence that apes use language for more than rewards or approval. And the technology used to teach “Yerkish” to bonobos lessens the possibly questionable element of imitation in this and similar research. Furthermore, as Dr. Sue Savage-Rumbaugh notes, comprehension and visual cues between humans are themselves part of a broader definition of language. It may be unfair to define language for apes only in the narrowest sense. Lastly, current research into how apes communicate among themselves in the wild is reshaping our views of them. Geographically separated groups of bonobos have their own “dialects” of communicative gestures and sounds. And bonobos already may communicate symbolically among themselves, smashing plants and placing them at particular angles as “road signs.”

Researchers are also excited by the chimpanzees’ use of ASL among themselves. Washoe, her adoptive son Loulis, and other family members have been videotaped having ASL conversations on their own about games, food, and “housecleaning.” Birthday parties and holiday celebrations are other “hot” topics of conversation. The chimpanzees have even been observed “talking to themselves,” much as a human might mutter under her breath. When Louli mischievously ran away with one of her favorite magazines, an annoyed Washoe signed “BAD, BAD, BAD” to herself.

It is Loulis’s use of ASL, though, that may be most significant. In a planned experiment, researchers avoided signing in Loulis’s presence during his first five years. Yet Loulis—like deaf human children—learned ASL by watching and imitating his adoptive mother and other family members! Chimpanzees, it seems, not only can learn human language, but also can transmit it to others.



A Gorilla Named Koko

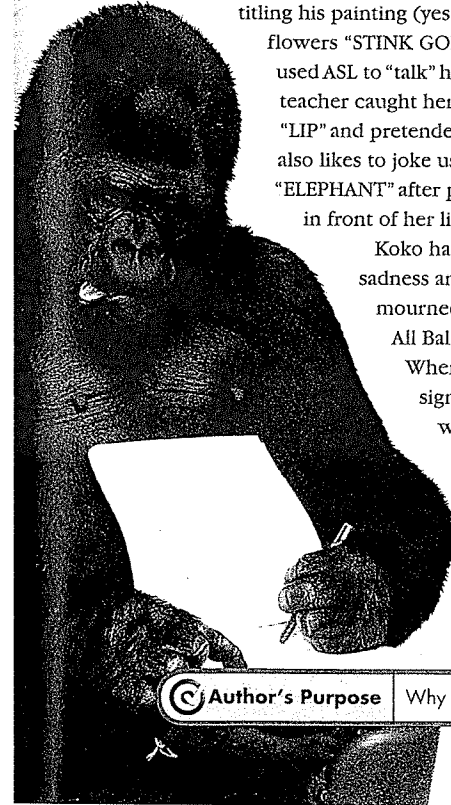
Koko, a female lowland gorilla, began learning ASL in 1972, when she was one year old. Her teacher, Dr. Francine Patterson, provided her with a gorilla companion in 1976, when three-year-old Michael joined them at the official start of the Gorilla Foundation.

Koko has a working vocabulary of 1,000 signs and understands 2,000 spoken words. Michael—before his unexpected death in 2000—used 600 signs to communicate. Both gorillas, like Washoe, have shown creativity and logic in naming unknown objects. It was obvious to Koko that a face

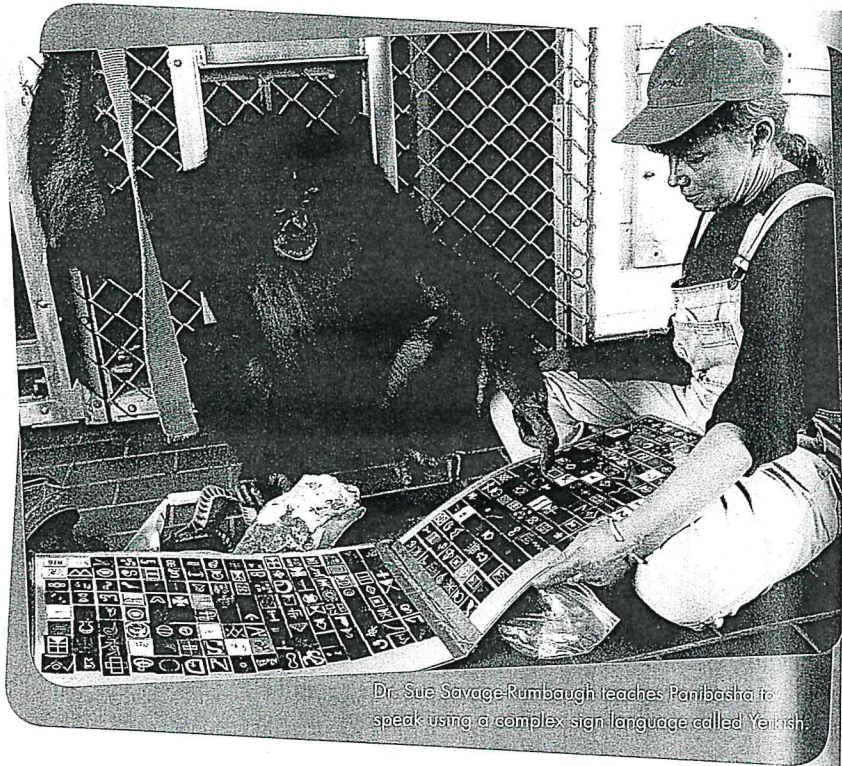
mask is an “EYE HAT,” while Michael had no difficulty at all in titling his painting (yes, gorillas paint) of a bouquet of flowers “STINK GORILLA MORE!” Koko has even used ASL to “talk” herself out of trouble. When a teacher caught her eating a crayon, Koko signed “LIP” and pretended to be applying lipstick! Koko also likes to joke using ASL, calling herself an “ELEPHANT” after pointing to a long tube held out in front of her like that animal’s trunk.

Koko has also used ASL to express sadness and some complex ideas. She mourned the death of her kitten, named All Ball, by repeatedly signing “SAD.”

When asked when gorillas die, Koko signed “TROUBLE OLD.” When she was then asked what happens to gorillas after they die, Koko answered “COMFORTABLE HOLE.” With Dr. Patterson as an interpreter, Koko has even participated in online, computerized “chats”!



Author’s Purpose Why are there both funny and sad incidents here?



Dr. Sue Savage-Rumbaugh teaches Panibasha to speak using a complex sign language called Yerkish.

A Bonobo Named Kanzi

Kanzi, a male bonobo born in 1980, "speaks" a different human language than Washoe and Koko. He communicates in "Yerkish," a visual code invented by researchers at Georgia State University and the Yerkes Primate Research Center. "Yerkish" is a set of several hundred geometric symbols called "lexigrams," each representing a verb, noun, or adjective. These lexigrams are placed on an adapted computer keyboard, which bonobos learn to use while learning the meanings of the lexigrams. Kanzi communicates by computer! (Outdoors, Kanzi points to lexigrams on a carry-around tagboard.)

Kanzi, who also understands more than 1,000 spoken English words, first learned Yerkish by watching humans train his mother. Like a silent toddler who astonishes parents by first speaking in complete sentences, two-year-old Kanzi amazed researchers on the day he first "spoke" Yerkish by using most of the lexigrams taught to his mother. By the age of six, he had a Yerkish vocabulary of 200 lexigrams. According to Dr. Sue Savage-Rumbaugh, Kanzi and other bonobos construct logical sentences in Yerkish and even use the lexigram for "later" to discuss future activities.

Dr. Savage-Rumbaugh and an assistant teach sign language to a chimp.




Think about this ↓

Reading Across Texts

After reading *The Chimpanzees I Love* and "Going Ape" over Language," what are some amazing things you learned about what apes can do?

Writing Across Texts Write about the most amazing thing you learned about chimps from these selections.

 **Answer Questions** How is Kanzi different from Koko?