

DISPOSITION AND INTELLIGENCE OF THE CHIMPANZEE.

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I shall not, in this brief paper, attempt to prove aught of the disposition and intelligence of *Anthropopithecus troglodytes* by force of argument. I shall merely set forth a few of my own personal observations. You may draw your own conclusions.

The chimpanzee is a native of tropical Africa, ranging from about twelve degrees north of the equator to ten degrees south of this line, and from the Atlantic Ocean on the west, to the Blue Nile on the east. But these interesting animals seem to be much more abundant in the western part of their range than in the eastern; at least, most of the specimens we get in captivity come from near the Atlantic. The chimpanzee is not nearly so large as the gorilla, and possibly not quite so large as the orang-utan, but there is not much difference in size between the chimpanzee and the orang. The adult males reach a height of about four feet five inches and a weight of from one hundred and forty to one hundred and sixty pounds. The females are not quite so large. The color is black, both the hair and skin being black. In some specimens, however, the face is quite light in color, and in others there may be found considerable ashy-gray hair among the black.

The chimpanzee is the most friendly and docile of the great apes, differing in this way from his near relative, the gorilla, which is savage and morose, refusing to make friends with man. I have seen a young chimpanzee fresh from the jungles, on being taken from the shipping box in which he came to America, throw his arms about a man's neck he had never seen ten minutes before, and hug him affectionately. To me, one of the most interesting things about these great apes is that they know how to express affection and gratitude by hugging and kissing without being taught. A few years ago I had a big chimpanzee called Mike, who insisted on kissing me, and kissing me on the lips, whenever I came near him. This was not the most delightful of experiences, because Mike's lips were not always clean. Joe, a smaller specimen,



Skeleton of a Chimpanzee, showing close resemblance in structure to man.

very intelligent and affectionate, and my special pet, would often cuddle up close to me, and if I did not voluntarily put my arm about him, he would take hold of my arm and fold it about his shoulders or waist.

When Joe was only a baby, he fell into the habit of pulling my hand to his mouth and biting my fingers, while I was talking to the people about him. He was only playing and did not intend to hurt me; but often, in his efforts to get my hand to his face and in snapping at my fingers, he would bite harder than he intended. Then, too, it was tiresome to have him pulling on me when I was trying to talk. One morning I got tired of his pulling and biting. I was carrying a small stick and gave him a light tap on the bare arm. He stopped instantly, lifted his pretty brown eyes to mine with an expression of pained surprise and incredulity upon his face, as if he could not believe I would hit him. After looking at me thus intently for fully half a minute, he put up his hands, folded his little black arms about my neck, and hugged me, three times, before he would let me go. This display of wounded feeling and tender affection almost brought tears to my eyes.

The chimpanzee is also affectionate towards members of his own species and towards other animals, especially his nearest relatives, the simians. Recently we had three chimpanzees in our collection, Mike and Joe, already mentioned, and Jerry, a baby about thirteen months old. Joe and Mike were both devoted to the baby and were always ready to fight for him. Mike usually mothered the little fellow, keeping him under his especial care, and was jealous of Joe. One morning Joe appropriated the baby and sat on the floor holding him on his lap, much the same way that a very small boy holds his very big baby brother. Mike wanted the baby and insisted upon having him. The two almost came to blows (or bites) over the youngster. Mike was itching for a fight but knew that sure and condign punishment awaited him if he hurt his smaller companion. First, he took a handkerchief and tried to strike Joe with it, much in the spirit of the young man who wanted to fight, but was afraid, and exclaimed, "I'm so mad at you I could chew paper." Then he doubled up his fist and commenced a fusillade of very light taps, delivered in very rapid succession about the neck and shoulders of his rival, just to show him what he would like to do, if he dared.



Fresh from the Old Sod—A big Chimpanzee.

One day baby Jerry was on top of a cage, when he caught hold of a large wooden ring suspended from a rope, and swung off. He was now quite a distance from the floor, and was afraid to drop. He could not swing back to the cage. Mike saw his dilemma, got on top of the cage, reached out, caught the baby, folded him in his arms, and carried him in safety to the floor. The keepers had always to be on their guard when handling Jerry, for fear Mike would mistake their intentions and attack. One evening, in Rochester, N. Y., a little girl came behind the guardrail, attracted by the cunning antics of the baby, when Mike lit her a blow in the face that brought the blood.

When Jerry died, Mike, who had been sleeping with him, went into the box and felt all over the body. When the body was taken in to the basement, Mike insisted on following, and had to be driven back with a shovel. He went to bed, but when he found out Jerry was not there, he got up and came out again. He then sat about for an hour or more, grieving and crying in the strangely human-like voice of his species. For several days he was listless and spiritless.

After years of experience in studying these animals and living with them, I have come to the careful and deliberate conclusion that, up to about four years of age, the chimpanzee babe is not only more precocious, but more intelligent than a human child of the same age. But after about four years the chimpanzee babe begins to fall behind and the human child to go ahead.

Joe learned to brush his hair with a hairbrush, to dust his clothes with a whiskbroom, to wipe his nose with a handkerchief, to eat out of a cup with a spoon as well as any human child, to bore holes with a brace and bit, to use a handsaw quite dexterously, to take screws out of the guardrail with a screwdriver, to drive nails with the hammer and pull them out again with the claw of the hammer, to play on a toy piano, and to play on a mouthharp. This last is a very difficult trick to teach an animal. You can not tell him to expel the air from his lungs and you can not show him how to do it. He must pick it up himself. I have known two or three elephants to learn this trick, but, aside from these, Joe was the only other I ever knew to accomplish the feat. All these tricks he learned with little or no teaching. He was a very close



Mike.

Jerry.

Joe.

Three of the Chimpanzees frequently mentioned in the context.

observer, and whatever he saw his human friends do, he would try himself, until he had acquired a long string of accomplishments.

In Chicago an employe of the menagerie brought from a Chinese restaurant a menu card printed in red ink. Joe seemed much interested in this and carefully kept it for a week or ten days. With considerable deliberation he would spread it out on the floor, then follow the lines slowly with his finger, as if reading. I have observed that most chimpanzees are right-handed, but Joe was left-handed. He always used a hammer or saw in his left hand, and in studying this menu card he would follow the lines with the index finger of his left hand.

Like human children, chimpanzees are fond of candy. But sweets are forbidden the menageries, owing to the fact that the chimpanzee stomach will bear but little sugar. In spite of the printed placards, however, well-meaning but unwise visitors would often throw them candy. One afternoon Joe was enjoying to the full a morsel of the proscribed dainty, when he saw his master approaching. He cunningly ducked his head under a blanket so the cruel tyrant, as he doubtless considered his human persecutor, could not see what he was eating. His cleverness was awarded by telling him to eat the candy. Joe dearly loved to tease a small Mexican hairless dog, called Harry, which usually slept on the stage near the chimpanzee cage. He would reach through the bars, give the dog a punch, pinch him, or pull his tail, then jerk his hand before Harry could nip him. In this way he kept the dog irritated much of the time, and he was always ready to bite him. One morning the manager came in with some oranges, a fruit of which the chimpanzee is very fond. To see how Joe would solve the problem, he placed one of the oranges directly under the dog's nose.

Joe was puzzled at first, but he soon had an idea. He brought the hammer from the other end of the cage, and with this in his right hand began punching at Harry. The dog was ready for a fight, as usual, and began biting at the hammer handle. In this way he gradually enticed him away from the orange, then he reached out with his left hand and took the fruit.

While exhibiting our animals in Kansas City, we kept the chimpanzees in a big cage, almost as large as an ordinary bedroom. To the top of the cage we had several ropes attached by means of bolts, with a

ring for a head. The chimpanzees would swing on these ropes, chasing each other from end to end of the cage. We found that the more exercise they took, the longer they would live in captivity. One day one of the bolts came loose and fell to the floor. The manager got into the cage, picked up the bolt and handing it to Joe, told him to put it up there in place, pointing to the hole, and hold it until he could make it fast. Joe took the bolt, climbed to the top of the cage, put it into its proper hole and held it there until the manager got on top and fastened it. The head keeper was standing near, and exclaimed, "By George, that's going some." His words expressed the thought of all us. It was the strongest manifestation of intelligence I had ever seen from an animal.

One Christmas morning a gentleman with a Great Dane came into the room. Mike and Joe were much excited and not a little afraid of the dog. Joe climbed over the senior partner's back. Mike got a piece of board into which Joe had been driving nails, and made desperate attempts to throw it. He would swing his arm back and forth, but did not seem to understand just when to let go, and the board was just as likely to go back over his shoulder as toward the dog. But now and then he came very near the dog and hit him a telling blow. Mike kept practicing at throwing till he became expert. He got into the infamous habit of throwing the hammer out among the people in front of the stage, and we had to keep it out of his reach. The wife of the manager came out of the kitchen with a half head of cabbage and cast it over the bars onto the stage, there being no top on to the chimpanzee cage at that time. Mike picked up the cabbage and tossed it back to her with just as much dexterity and precision as she had used.

We once had a very intelligent chimpanzee called Sallie. A negro connected with the menagerie had a needle and thread with which he mended his clothes. Sallie watched the operation very intently. A little later she was noticed with a string trying to find an eye in a nail. She was given a small darning needle, and a heavy cotton thread, and at once threaded the needle, just as she had seen the negro do. After that she could not be deceived. When given a nail or piece of wire, she would look for an eye and, if there was none, she would throw away the counterfeit. She would begin by wetting the end of the thread in her mouth, would place the eye of her needle in line with her eye, insert the thread

from behind forward, then pull the thread the remainder of the way with her lips. She often tried to tie a knot, too; but in this she was never successful. She always tried to make the knot in the thread up next to the needle. After a number of successful attempts at this, she would go to work on her dress, and sew, and sew, and sew, pulling the thread clear at every stitch. Sometimes she would amuse herself in this way for half an hour.

I often wondered if these very intelligent animals really understood the meaning of words, or whether they only comprehended a sentence or phrase as a whole or got the idea from my gestures or the order of the performance. One morning I saw an opportunity to test the matter. We had a little hat which I would hand to Sallie and tell her put on her "five dollar" hat. This she would generally do very neatly and skillfully, but sometimes in the morning, when she had just gotten out of bed, or at night, when she was tired and sleepy, she would respond very indifferently, either getting the hat on one side or missing her head altogether. I always had her put on her hat immediately after shaking hands at the beginning of the lecture. On the morning in question, the hat had fallen to the stage floor near her feet. Shortly after the lecture commenced, as I was finishing the talk, I said to her without changing my tone or looking toward the hat, "Sallie put on your five dollar hat." Without the slightest hesitation, she reached down, picked up the hat, and put it on her head.

Joe learned the order of the performance, and when I got through describing his hand to the audience, he would proffer his foot. He seemed, too, to understand the meaning of "posterior limb," for, although I might change the order of the lecture, the instant I said "posterior limb," he would put up his foot.

One afternoon, in Detroit, some one had given Mike something to eat in a common earthenware bowl. When I came up, he had almost emptied the vessel. I knew he would throw it to the floor and break it, so I stepped behind the guardrail and said, "Mike, hand me that bowl." Immediately he set down the bowl and put out his hand. I saw at once that I, not he, had blundered. The word "bowl" was new to him, he had never heard it before; but as I had told him to hand me the bowl, he set down the vessel and offered me his hand. So I changed the form of the

command, "Give me that cup." He was perfectly familiar with the word "cup", as he kept one on the platform and, when he was thirsty, gave it to the keeper to fetch him a drink of water. Without hesitation he picked up the bowl and gave it to me, doubtless considering it merely a cup of larger size.

One day, when our Joe was a little fellow, he and one of the keepers got into an argument. The keeper wanted Joe to sit on his chair, but he refused to do so. Bad temper and angry passions were prevailing on both sides. The keeper had a whip and was threatening to strike. Joe was showing his teeth and threatening to bite. I stepped behind the guardrail and sent the keeper on an errand out of the room. I spoke a few soothing words to Joe. He stopped screaming and got up on his chair. In a moment he had forgotten his trouble. A bystander wanted to know the secret of my influence over the animal. It was kindness and love.