

DO ANIMALS THINK?

It used to be believed by scientists that animals were guided in their actions entirely by instinct, by natural impulses supposed to arise from long-ingrained habits in the race. The hive bee makes its cell without any instruction, and the cuckoo of her own accord lays her eggs in the nests of other birds. However, in more recent times, naturalists have come to feel that some sort of reasoning process does go on in the brains not only of the higher animals, such as dogs and monkeys, but of lower creatures, such as the snake and even the fish. All appear to be capable of having "ideas."

In his work on *The Descent of Man* Darwin quotes this story: "A pike which was separated by a plate of glass from an adjoining aquarium, stocked with fish, often dashed himself with such violence against the glass in trying to catch

the other fishes, that he was sometimes completely stunned. The pike went on thus for three months, but at last learned caution and ceased to do so. The plate of glass was then removed, but the pike would not attack these particular fishes, though he would devour others that were afterwards introduced; so strongly was the idea of a violent shock associated in his feeble mind with the attempt on his former neighbors."

Darwin also makes mention of a snake which was observed to thrust its head through a hole in a fence and swallow alive a frog on the other side. On account of the swelling made by the body of the frog in its neck, the serpent was unable to withdraw through the hole, and had to "cough up" its prey. A second time the frog was swallowed, with the same result, and a second time it had to be disgorged.

On the third occasion, however, the snake seized the frog by the leg and pulled it through the hole, after which it was able to swallow it in comfort. If this is not an act of reason it is certainly difficult to explain it in any other way.

Rengger, a German naturalist, states that when he first gave eggs to his monkeys in Paraguay they smashed them and thus lost much of the contents; but afterwards they gently hit one end against some hard body, and picked off the bits of shell with their fingers. Sometimes lumps of sugar were given to them wrapped up in paper, and occasionally Rengger would put a live wasp in the paper, so that in opening it a monkey would get stung. But any monkey that suffered in this way would never afterwards open the bag without first holding it to its ears to discover if there was any movement within. Sir Andrew Smith, a noted zoologist, himself witnessed the following incident in South Africa. An army officer had frequently teased a certain baboon. The animal, seeing him approach one Sunday

dressed up for parade, quickly poured some water into a hole and made some thick mud, which it dashed over passed by. For a long time afterwards whenever this baboon saw this officer it made signs of rejoicing.

Female monkeys have been observed carefully keeping the flies over their infants, and both male and female monkeys do not hesitate to adopt and care for orphan monkeys left unprotected. One female baboon observed by Brehm had adopted a kitten which one day scratched her. This astonished her very much. She proceeded to examine the paws she had always found so soft, and presently discovered the claws, which she proceeded to bite off, evidently considering them dangerous.

According to Darwin, dogs, cats, horses, and probably all higher animals, and even birds, have vivid dreams, which is shown by their movements and the sounds they utter, and he is of the opinion that from this we must admit that they have some power of imagination.

Colonel Hutchinson, in his work *Dog Breaking*, tells about two wild ducks that were "winged" and fell on the farther side of a stream. A retriever tried to bring both of them at once, but could not do it. Although never before known to ruffle a feather of a wounded bird, she then deliberately killed one, brought over the live one, and returned for the dead bird.

Elephants, of course, are famous for their sagacity, and when they are employed as decoys for the capture of wild members of the species it is apparent that they know well enough what they are doing when they deceive their untamed brethren. Indian elephants are also well known to break branches off the trees and use them for driving away flies.

Animals, too, have their ideas about property, as those know who have watched a dog with a bone or birds with their nests. This is also a common characteristic with monkeys, and Darwin tells of one in the London Zoo which had weak teeth and was in the habit of

breaking open nuts with a stone. After using the stone it always hid it in the straw, and would not let any other monkey touch it. Baboons have been observed to protect themselves from the heat of the sun by putting straw mats over their heads.

Language is supposed by many people to be one of the chief distinctions between man and the lower animals, but many animals are capable of expressing their desires and emotions by different sounds, and possibly enough these constitute the rudiments of language. Dogs bark in different ways to express different things, and monkeys make many different sounds which rouse in other monkeys the emotions they are intended to portray. Alexander Graham Bell, the inventor of the telephone, believed that dogs could be taught to speak, and claimed that a Skye terrier he had was able to say and understand a few words; and Darwin has stated that, as regards articulate sounds, dogs understand many words and short sentences, although they cannot utter a single word, and that in this respect they are at the same

age of development as infants between the ages of ten and twelve months.

Mr. Charles Cottar, writing in *Forest and Stream*, tells of keeping some Colobus monkeys in captivity, and of becoming convinced of their ability not only to reason but to talk with one another. They were kept in a structure made of poultry wire, and one of them, a half-grown female, learned to break the wire by continually twisting it with her hands. She made an opening large enough to creep through, but finding no forest at hand, stayed among the bushes and crept back into the enclosure at night. Finally she refused to come back, and a snare was set for her, consisting of a bent pole, a string, and a springing device as used by the natives for the purpose. It was baited with a piece of green corn. It worked twice — and that was all. For, after being twice caught by the hand, the monkey would reach below the rope, turn

the loop carefully aside, seize the corn, and running to the top of the cage would display as much knowing mischief as a spoiled child. When several other members of the same tribe were brought from the woods, some six months later, and put it in the same cage, the monkey that had learned to break the wire immediately taught the trick to the newcomers.

It appears to be the case that animals, especially in their higher forms, are endowed with very similar instincts, emotions, intuitions, and senses to those of man, and intelligence and reasoning power seem to result from the combination and interplay of these with one another. The more the animal advances the more complex these become. And, indeed, man's own understanding is supposed to trace its origin to some such humble beginnings. — *By F. B. M. Clark, condensed from Chambers's Journal (London) (August, '30)*