

Elephants are quick learners, offer helping hand

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African Bush Elephant in Mikumi National Park, Tanzania. Taken by Oliver Wright, via Wikipedia.

Elephants quickly learn to lend each other a helping hand - ah, make that a helping trunk.

In a series of tests, the giant mammals learned to cooperate to solve a problem, researchers report in Monday's edition of [Proceedings of the National Academy of Sciences](#).

[Elephants](#) are socially complex, explained lead researcher Joshua M. Plotnik.

"They help others in distress," he said. "They seem in some ways emotionally attached to each other, so you would expect there would be

some level of cooperation."

However, he added, "I was surprised how quickly they learned."

The elephants caught on as quickly as [chimpanzees](#), elevating themselves to such heady company as great apes, [dolphins](#) and [crows](#), according to Plotnik, of the department of experimental psychology at England's Cambridge University.

The tests, conducted in Thailand, involved food rewards placed on a platform on the ground connected to a rope. The elephants were behind a fence. To get the food, the elephants had to pull the two ends of the rope at the same time to drag the platform under the fence. Pull only one end and all you get is rope.

Six pairs of elephants were tested 40 times over two days and every pair figured it out, succeeding on at least eight of the last 10 trials.

Then the scientists tried releasing the elephants into the test area separately, up to 45 seconds apart. The elephants quickly learned to wait for their partners, with a success rate of between 88 and 97 percent for various pairs on the second day.

However, one young elephant had what the researchers termed an "unconventional" solution to the problem. As Plotnik and co-authors explained, the elephant firmly put one foot on the end of her rope, "forcing her partner to do all the work to retrieve the table."

In another experiment, the researchers left only one end of the rope within reach of the elephants, with the other end coiled on the table. The elephants didn't bother to pull the rope, seeming to recognize that it wouldn't work if their partner couldn't pull the other end.

It is hard to draw a line between learning and understanding, the researchers concluded, but the elephants did engage in cooperative behavior and paid attention to their partner.

Adam Stone, elephant program manager at Zoo Atlanta, said it was significant that the elephants learned quickly.

"We're learning about the amazing mind of the elephant," he said.

It was long thought that learning and cooperation were limited to primates, and "it's interesting to see that these other species are on the ball," Stone said.

Understanding how they think could help find ways to protect them in the wild, he said, noting that the greatest danger to elephants in Asia is people.

Don Moore, associate director of animal care science at the Smithsonian's National Zoo, said observations of elephants have suggested that they cooperate, but it hadn't been experimentally tested before.

"Elephants are big, they're social, they live long lives and they're really, really smart," he said.

Stone and Moore were not involved in the research, which was supported by the U.S. Department of Education and other groups.

More information: <http://www.pnas.org>

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