

# Chimpanzees help each other on request but not voluntarily

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The evolution of altruism has long puzzled researchers and has mainly been explained previously from ultimate perspectives—I will help you now because I expect there to be some long-term benefit to me.

However, a new study by researchers at the Primate Research Institute (PRI) and the Wildlife Research Center (WRC) of Kyoto University shows that chimpanzees altruistically help conspecifics, even in the absence of direct personal gain or immediate reciprocation, although the chimpanzees were much more likely to help each other upon request than voluntarily. The findings are published October 14 in the open-access, peer-reviewed journal *PLoS ONE*.

Shinya Yamamoto and colleagues studied six pairs of chimpanzees (three mother-offspring pairs and three non-kin adult pairs) in two different experiments, designed to test whether the chimpanzees would transfer a tool to a conspecific even if doing so would bring no immediate benefit to themselves. In each case, two chimpanzees would be situated in two adjacent, transparent booths, either in a straw-use situation where the chimpanzee would need access to a straw to be able to drink the juice box available to it, or in a stick-use situation where the chimpanzee would need access to a stick to drag a juice reward back into the booth.

In the first experiment, the two chimpanzees would have access to the opposite tool needed to obtain the reward in their booth—the chimpanzee that needed the straw would have access to the stick and vice-versa. In the second experiment, the mother-offspring pairs were tested in a situation where there was no opportunity for reciprocation because each individual was assigned a fixed role—giver or recipient—for 24 trials (one week's worth) before the roles were reversed.

The researchers found that the chimpanzees did spontaneously transfer tools in order to help their partner. This tool transfer occurred predominantly after the partner had actively solicited help (by poking its arm through a hole in the booth, for example, or by clapping), even when there was no hope of reciprocation from the partner (as in experiment 2) and even when the two animals were unrelated.

"Communicative interactions play an important role in altruism in chimpanzees," said Dr Yamamoto. "While humans may help others without being solicited, the chimpanzees rarely voluntarily offered an effective tool to a struggling partner. Indeed, simple observation of another's failed attempts did not elicit voluntary helping in chimpanzees."

Helping upon request may be a more economical and effective strategy. Altruistic behavior by definition produces no direct immediate benefit to the actor; making a request is a clear indicator to the actor that the recipient requires help, minimizing the risk to the actor of unnecessarily behaving altruistically. In this sense, "help upon request" is an ideal strategy since the helping is always helpful and not wasted. This type of altruism may have initially driven the prevalence and development of altruism during human evolution.

One important question for future research is whether high-frequency, voluntary altruism is a behaviour unique to humans. Some new world monkeys have demonstrated unsolicited prosociality suggesting that voluntary [altruism](#) evolved in phylogenetically diverse taxa but for now, there seems to be no consensus on what is the decisive factor in explaining species differences.

More information: Yamamoto S, Humle T, Tanaka M (2009) [Chimpanzees](#) Help Each Other upon Request. [PLoS ONE](#) 4(10): e7416. [doi:10.1371/journal.pone.0007416](https://doi.org/10.1371/journal.pone.0007416)

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