





# LENDING A HAIRY HAND

Chimpanzees are similar to humans, even when it comes to helping.

**H**elping other people is super nice—but also sometimes selfish. Today at lunch I may give you a handful of my pretzels, secretly hoping that tomorrow you'll give me a bite of your chocolate bar. Or maybe I volunteer to play tuba for the school band knowing I'll get to go on a cool trip. Helping others out feels great—but would it be as wonderful if I wasn't going to benefit too?

Let's ask the chimps. Chimpanzees are among humans' closest relatives, and they've also been known to help each other. They sometimes hunt together, share food, or groom each other. But what if the favor won't be returned or—worse yet—there's an actual cost to helping out? Would a chimp still do it?



## THANKS, TAI

Meet Tai. She's a chimp who lives in the Wolfgang Köhler Primate Research Center in Germany. She was trained to help out other chimps, so researchers could see if those chimps would help her out in return.

In one version of the experiment, Tai didn't do much of anything. She stood outside a small metal booth. On the opposite side of the booth stood another chimp. For some of the trials, this was a chimp named Kofi. Inside the booth were two choices of food. By pulling on various ropes, Kofi could give himself four pieces of food and give Tai none or give both Tai and himself three pieces of food.

Not surprisingly, Kofi almost always picked the selfish option and took the four pieces of food for himself.

Then researchers had Tai take a chance. She got first choice of the food bowls. But rather than selecting food, she pulled on a rope that opened a latch. This allowed Kofi to decide who got what food instead. Tai was trained to take this action, but Kofi didn't know that. To him, it looked like Tai had taken a big risk—perhaps not getting any food at all—by letting Kofi pick.

In this case, Kofi didn't always take all the food for himself. Instead, he often chose option #2, which gave both him and Tai some food. This was “prosocial,” meaning he acted to benefit Tai as well as himself. The kicker is that he chose #2 even though it meant he got less food. If he had chosen #1, he would have gotten four pieces. By paying Tai back for her risky decision, he got only three.

All in all, the researchers studied six chimps with 24 trials each. Forty percent of the time, a chimp gave Tai some food when she took this risk, even though that chimp would get one less piece of food him- or herself. “This doesn't sound like much,” says lead researcher Martin Schmelz at the Max Planck Institute for Evolutionary Anthropology. “But it is actually amazing because it has been believed for a long time that chimps will always be selfish when it comes to giving up food for someone else.”

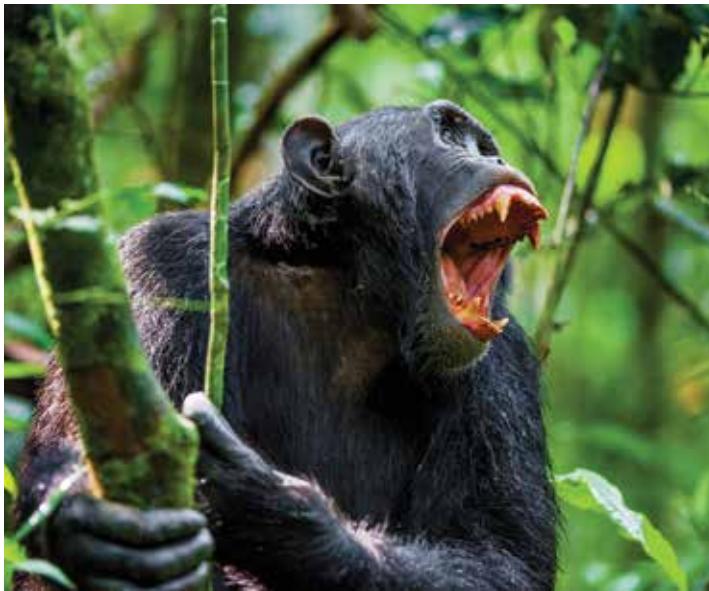
The generosity might have to do with oxytocin. In humans and chimps alike, this hormone makes us bond



with each other and care for one another. Schmelz says, “It might be possible that the act of seeing Tai pulling that rope and releasing that latch made the subject chimps feel good about her.” That could explain why they chose the more generous option.

## ANOTHER COOPERATION EXAMPLE: WILD ABOUT PATROLLING

The group of wild chimps is on the move. In single file, they walk toward the edge of their territory. They don't pause to eat, and they don't make noise. They're on the lookout for chimps from neighboring groups. If a strange chimp is on their turf, they'll let him know this is unacceptable—



helped conduct a 20-year study on chimps living in Kibale National Park in Uganda, Africa.

Not surprisingly, a lot of the males that went on these patrols had a selfish reason: they had children. Keeping their youngsters safe and well fed was a good reason to volunteer. Most volunteers were also among the healthier, stronger members of the group. Long days spent patrolling weren't as hard on them.

But some of the weaker males, who didn't have young, also patrolled. Why did they bother? There wouldn't be any punishment if they didn't participate, so why not simply spend the day eating like they normally would?

The researchers theorize these males were looking toward their futures—eventually, almost all of them had babies. Volunteering helped make the group healthier right away, which made it healthier later on too. Langergraber says the chimps helped patrol because “even if you have nothing to gain from it now, and even if the costs are high, in the long run it will pay off.”

## A LENGTHY HISTORY

Through studies like these, researchers have shown that chimpanzees make complex decisions when it comes to cooperating. They consider whether another chimp has taken a risk to help them, or look far ahead to see if the benefits of working together will come to them too.

And understanding chimps—our closest relatives—may help us understand ourselves. Chimps are one of the few species that cooperates to kill individuals from other groups; their patrols are similar to humans waging war. “If we as a society want to decrease things like warfare,” says Langergraber, “the first step is to understand them.”

The fact that humans and chimps are two species that cooperate also points to this being a behavior we've both been doing for a long time. Schmelz says, “It can be argued that if we find similarities between these species, then our last common ancestor also already behaved in that way. Differences probably only evolved later, and we can then think about what happened in our evolutionary history that caused these differences.”

Overall, Schmelz says humans are probably more prosocial than chimps. In another version of the food experiment, when Tai hadn't risked anything and Kofi got the same amount of food either way, he didn't seem to care whether Tai got food or not. If Kofi were human, he probably would have been nice more often and given Tai food too.

So yeah, help yourself to a handful of my pretzels. Then I'm off to band practice. (Just remember, please, to bring that chocolate bar tomorrow.)

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Canadian writer **Galadriel Watson** (whose first name comes from the series *The Lord of the Rings*) was excited to hear one of the German chimps was named Frodo (which comes from the same books). More proof that humans and chimps are closely related!

sometimes in violent ways. Or they may penetrate their neighbors' territory and claim that turf for themselves.

There are several reasons male chimps cooperate to patrol like this. It keeps their territory and group members safe. It expands their territory, giving them more sources of food. And it increases their group size when they take over neighboring females.

But why volunteer to go on patrol? That's what Kevin Langergraber, an anthropologist at Arizona State University, wondered. He says, “Patrols can last a long time and cover long distances. So time spent patrolling is time that you're not feeding or mating with females.” To better understand why a chimp might give those things up, Langergraber