

Bonobos will share with strangers before acquaintances

January 2 2013



Female Bonobo. Image: Wikipedia.

Bonobos, those notoriously frisky, ardently social great apes of the Congo, value social networking so much, they share food with a stranger before an acquaintance.

You're standing in line somewhere and you decide to open a pack of gum. Do you share a piece with the coworker standing to one side of you, or with the stranger on the other?

Most humans would choose the person they know first, if they shared at all.

But bonobos, those notoriously frisky, ardently social great apes of the



Congo, prefer to share with a stranger before sharing with an animal they know. In fact, a <u>bonobo</u> will invite a stranger to share a snack while leaving an <u>acquaintance</u> watching helplessly from behind a barrier.

"It seems kind of crazy to us, but bonobos prefer to share with strangers," said Brian Hare, a professor of <u>evolutionary anthropology</u> at Duke University. "They're trying to extend their social network." And they apparently value that more than maintaining the <u>friendships</u> they already have.

To measure this willingness to share, Hare and graduate student Jingzhi Tan ran a series of experiments with bonobos living in the Lola ya Bonobo sanctuary in Kinshasa, Democratic Republic of Congo. The experiments involved piles of food and enclosures that the test subjects were able to unlock and open. Tan and Hare describe their work in a paper in the January 2, 2013 edition of PLOS ONE.

In the first series of experiments, a pile of food was placed in a central enclosure flanked by two enclosures, each of them holding another animal. The test subject had the knowledge and ability to open a door to either of the other chambers, or both. On one side was a bonobo they knew from their group (not necessarily a friend or family member) and in the other was a bonobo they had never really met, but had only seen at a distance.





This is an infant bonobo feeding on papaya. Credit: Jingzhi Tan

Upon entering the chamber with the food, the test subjects could easily just sit down and consume it all themselves, or they could let in one or both of the other animals to share.

Nine of the 14 animals who went through this test released the stranger first. Two preferred their groupmates. Three showed no particular preference in repeated trials. The third animal was often let in on the treat as well, but more often it was the stranger, not the test subject, who opened the door for them.

Tan said that by letting the third animal into the enclosure, the stranger voluntarily outnumbered himself or herself with two bonobos who knew each other, which a chimpanzee would never do. In 51 trials of the experiment, there was never any aggression shown, although there was quite a bit of typical bonobo genital rubbing between the strangers.

To isolate how much motivation the animals receive from social interaction, the researchers ran a second set of experiments in which the subject animal wouldn't receive any social contact with another animal. In the first of these experiments, the subjects couldn't get any food for themselves regardless of whether they chose to open the door to allow the other animal to get some food. Nine out of ten animals shared with the stranger at least once.

In the final experiment without social contact, the subject animal was given access to the food in such a way that opening the door to share with the other animal would cost them some food. But they still wouldn't have any social contact as a reward. In this instance, the animals chose



not to share. "If they're not going to see a social benefit, they won't share," Hare said.

This second test is similar to something called the dictator game in which humans are given the chance to share cash with a <u>stranger</u>, Hare said. Most people will share anonymously, but they share even more when they aren't anonymous. Bonobos won't share at all in the anonymous condition if it costs them food.

"They care about others," Hare said, but only in a sort of selfish way.
"They'll share when it's a low-cost/low-benefit kind of situation. But when it's a no-benefit situation, they won't share. That's different from a human playing the dictator game. You really have to care about others to give anonymously."

The findings, which Hare calls "one of the crazier things we've found" in more than a decade of bonobo research, form yet another distinction between bonobos and chimpanzees, our two closest relatives. "Chimps can't do these tests, they'd be all over each other."

More information: "Bonobos share with strangers." Jingzhi Tan, Brian Hare. *PLOS ONE*, Jan. 2, 2013. dx.plos.org/10.1371/journal.pone.0051922

Provided by Duke University

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