AoW 6

Directions:
1. Mark your confusion.
2. Show evidence of a close reading. Mark up the text with questions and/or comments.
3. Write a one-page reflection on your own sheet of paper.

Chimpanzees Clear Some Doubt After Generosity Is Questioned

Source: Carl Zimmer, *New York Times*: August 8, 2011

When it comes to the evolution of humans, a lot depended on the kindness of strangers.

Our species is especially cooperative. We routinely help other people — relatives and strangers alike — even when there's no immediate reward for us. The concern that humans have for each other is part of the foundation of complex societies, from neighborhoods to nations.

Scientists have long wondered how long ago our so-called prosocial behavior evolved. In a new paper published this week in the Proceedings of the National Academy of Sciences, a team of scientists at Emory University addresses that question with a study on chimpanzees, one of our closest living relatives. Contrary to some earlier laboratory tests, the Emory researchers concluded that chimpanzees are indeed willing to do favors for others. Our prosocial behavior may therefore date back at least several million years.

"These new results suggest chimpanzees may help others proactively simply because they understand they need help," said Brian Hare, an anthropologist at Duke University.

The Emory researchers decided to undertake the study because of a contradiction in the scientific literature. Some lab experiments on chimpanzees failed to show a willingness to help, but primatologists who observed chimpanzees in the wild saw many examples of what looked like helping. "They're sharing food, they're helping each other in fights — there was a huge mismatch between what was going on in the field and in the lab," said Victoria Horner, the lead author of the study.

Dr. Horner and her colleagues suspected that the design of earlier lab studies had been too complex for the chimpanzees to figure out. "It seemed to us that the chimps didn't understand what was going on," said Dr. Horner.

They set up what they believed was a much simpler experiment. For an earlier study, they had trained captive chimpanzees to give them colored tokens in exchange for food. For the current study, they used those tokens to give seven female chimpanzees a chance to help out fellow chimps.

In each trial a pair of chimpanzees sat next to each other, able to see each other in adjoining cages. They were given 30 tokens, half in one color and half in another. If a chimp gave the scientists a token of one color, she got a package of food while her partner got none. If she gave the other color, both of them got something to eat.

If chimpanzees didn't care about the welfare of other chimpanzees, the scientists predicted, they'd pick both colors equally often. That's not what happened. All of the chimpanzees were more likely to pick the generous color, up to 66.7 percent of the time. They showed no preference for their relatives versus unrelated chimps. The scientists also ran control sessions, in which the chimpanzees got food only for themselves, no matter which color they chose. In these control sessions, they had no bias in their choice of colors.

"This now fits with the evidence we know from the wild," Dr. Horner said.

She speculates that human helping evolved from the kind of bias she and her colleagues see in chimpanzees, as the probability of helping rose in our ancestors. "It's not that we have a unique ability, but it's the number of instances of when we do it is vastly different," she said.

Several experts gave Dr. Horner and her colleagues high marks. "They have been able for the first time to duplicate what field researchers already knew was a natural ability of chimpanzees," said Christophe Boesch, a primatologist at the Max Planck Institute for Evolutionary Anthropology in Germany.

But Michael Tomasello, also at the Max Planck Institute, found the study poorly designed. "The results are uninterpretable," he said. He notes that the Emory scientists ran their control sessions after the experimental sessions. "Maybe the chimpanzees were just tired of choosing the two-pieces-of-food option by the time the control conditions were run," Dr. Tomasello said.

Dr. Tomasello and his colleagues have published their own experiments on prosocial behavior in chimps, most recently in July in the journal *Nature*. His own research leads Dr. Tomasello to a somewhat different conclusion from Dr. Horner's. "Chimps help others, but what they do not do is give up food themselves so others can have it," he said. "So they are prosocial when it is not costly, but when it is, not so much."

Reflection ideas:

- Do you think humans are "wired" to help one another? Explain.
- Is generosity learned or natural? Both?