

Who's bad? Chimps figure it out by observation

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Chimpanzees make judgments about the actions and dispositions of strangers by observing others' behavior and interactions in different situations. Specifically, chimpanzees show an ability to recognize certain behavioral traits and make assumptions about the presence or absence of these traits in strangers in similar situations thereafter. These findings, by Dr. Francys Subiaul - from the George Washington University in Washington DC - and his team, have just been published online in *Animal Cognition*, a Springer journal.

Character judgments are an essential feature of cooperative exchanges between humans, and we use them to predict future behavioral interactions. A system for attributing reputation is therefore expected in any species which needs to assess the behavior of others and to predict the outcomes of future interactions. Chimpanzees have sophisticated social skills and there is evidence that primates eavesdrop and benefit from third-party interactions. Could they have a system for forming reputation judgments across a wide variety of contexts like humans"

In a series of three experiments, Dr. Subiaul and colleagues looked at whether chimpanzees learn the reputation of strangers indirectly by observation, or by first-hand experience. Seven chimpanzees observed unfamiliar humans either consistently give ('generous' donor) or refuse to give ('selfish' donor) food to either a familiar human recipient or another chimp.

In the first experiment, after observing humans either give or refuse food to familiar humans, chimps were in turn given the opportunity to gesture to either the 'selfish' or the 'generous' human.

There was no marked preference for either donor. However, in a second experiment, the researchers evaluated whether prolonged observation and first-

hand experience would allow chimps to generalize this social rule—pertaining to the reputation of strangers—to new humans. In this experiment, the chimpanzees showed a strong preference for the new generous donor. They were able to predict which new donor was generous, based entirely on observation.

In a third experiment, chimpanzees (rather than humans) were the recipients of either 'selfish' or 'generous' acts. The results of this last experiment replicated the results of the second experiment in a new context and using novel 'generous' and 'selfish' acts, demonstrated that chimpanzees are flexible and astute social problem-solvers, capable of attributing reputation to strangers by eavesdropping on interactions between others.

The authors conclude that their results demonstrate chimpanzees' ability "to infer stability in an individual's character or behavior over time through observation – an inference that underlies the ability to make reputation judgments... This ability may have served as a catalyst to the evolution of various uniquely human traits such as shared intentionality, language and reasoning."

Reference: Subiaul F et al (2008). Do chimpanzees learn reputation by observation Evidence from direct and indirect experience with generous and selfish strangers. *Animal Cognition* (DOI 10.1007/s10071-008-0151-6)

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