

In a [recent post](#), I commented on the existence of markets of goods and services in monkeys' societies. Exactly as in human societies, supply and demand determine value of commodities exchanged among individuals. In an article entitled "[Chimpanzees coordinate in a negotiation game](#)" in the last issue of [Evolution and Human Behavior](#) (Volume 30, Issue 6, Pages 381-392, November 2009), Melis, Hare and Tomasello from the [Max Planck Institute for Evolutionary Anthropology, Department of Developmental and Comparative Psychology](#), complement this finding by showing that chimpanzees can negotiate conflicting interest regarding the division of the product of cooperation.

Abstract: A crucially important aspect of human cooperation is the ability to negotiate to cooperative outcomes when interests over resources conflict. Although chimpanzees and other social species may negotiate conflicting interests regarding travel direction or activity timing, very little is known about their ability to negotiate conflicting preferences over food. In the current study, we presented pairs of chimpanzees with a choice between two cooperative tasks—one with equal payoffs (e.g., 5-5) and one with unequal payoffs (higher and lower than in the equal option, e.g., 10-1). This created a conflict of interests between partners with failure to work together on the same cooperative task resulting in no payoff for either partner. The chimpanzee pairs cooperated successfully in as many as 78-94% of the trials across experiments. Even though dominant chimpanzees preferred the unequal option (as they would obtain the largest payoff), subordinate chimpanzees were able to get their way (the equal option) in 22-56% of trials across conditions. Various analyses showed that subjects were both strategic and also cognizant of the strategies used by their partners. These results demonstrate that one of our two closest primate relatives, the chimpanzee, can settle conflicts of interest over resources in mutually satisfying ways—even without the social norms of equity, planned strategies of reciprocity, and the complex communication characteristic of human negotiation.

Importantly, there are also big differences between humans and chimpanzees.

As the authors state:

We never observed any clear overt communicative signals between partners to help them coordinate their conflicting preferences. This was surprising, since in situations in which the partners were waiting for each other at the different trays (being unable to agree from which tray to pull, and in some extreme occasions waiting for each other up to 3 min), any type of communicative efforts to influence the partner could have facilitated or accelerated the negotiation process [see [a video](#) featuring two chimpanzees cooperating in the lab].

The absence of fairness is the other big difference.

Although it is clear that resource maximization motivated chimpanzees' behavior, it is unclear what role, if any, sensitivity to inequity (or a sense of fairness) played in the current experiment. Certainly, it does not seem to have played a role among the dominants who offered selfish splits at similarly high rates during the whole experiment.

Although some studies had already shown that chimpanzee do not care about fairness (see my

previous [post](#)), these studies had some ecological drawbacks. In particular, they involved a human experimenter giving unequal goods to two individuals who did not work together. Here, on the contrary, no human is involved, there is no gift and the sharing is really about the benefits of cooperation. To sum up, chimps are rational (they negotiate) and selfish (they do not care about fairness): They are really simians oeconomicii!