Study suggests humans, apes and monkeys all expect something in return for generosity

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Image: Wikipedia.

(Phys.org) —A pair of researchers at the University of California, Santa Barbara has concluded that when it comes to sharing, there is little difference between human and non-human primates—all expect something in return. In their paper published in *Proceedings of the Royal Society B*, anthropologists Adrian Jaeggi and Michael Gurven describe their analysis of 32 separate studies on sharing, and found that all primates appear to have an ulterior motive when they share food with others.

The studies analyzed by the duo included field studies of monkeys, apes, and human societies that still relied on hunting or foraging for their survival. They were searching for an answer to the age-old question: do people (and/or other primates) always have an ulterior motive when sharing a resource with someone else? Put another way, is there really such a thing as pure altruism? Jaeggi and Gurven say no; their research indicates that when primates share, they always expect something back in return.

One area where the researchers found a difference between humans and other primates was in the type of reciprocity expected. According to the reviewed studies, apes and monkeys generally expect to get food in return at a later time for food shared, while humans are more likely to accept in-kind donations. This, the researchers say, is apparently due to the nature of the way food is obtained. For humans, food acquisition is generally balanced across a community which means there is equal risk among the population of coming up short at any given time. Sharing by others in the group helps fill the gaps. Thus, those that share can be confident that others will do the same for them should the need arise. But unlike other primates, humans are often willing to accept in-kind donations instead of food to make things even, which led to another observation. All of the groups studied appear to maintain forms of unofficial score-keeping. Monkeys, apes, and humans all keep a tally of who gave what to whom, and who still owes someone for what they received.

This new research may or may not apply to communities of primates, most particularly humans, where the food supply is essentially limitless. Thus for now, there is still no clear answer regarding true altruism as it applies to resources.

More information: Reciprocity explains food sharing in humans and other primates independent of kin selection and tolerated scrounging: a

phylogenetic meta-analysis, Published 14 August 2013 DOI: 10.1098/rspb.2013.1615

Abstract

Helping, i.e. behaviour increasing the fitness of others, can evolve when directed towards kin or reciprocating partners. These predictions have been tested in the context of food sharing both in human foragers and non-human primates. Here, we performed quantitative meta-analyses on 32 independent study populations to (i) test for overall effects of reciprocity on food sharing while controlling for alternative explanations, methodological biases, publication bias and phylogeny and (ii) compare the relative effects of reciprocity, kinship and tolerated scrounging, i.e. sharing owing to costs imposed by others. We found a significant overall weighted effect size for reciprocity of r = 0.20–0.48 for the most and least conservative measure, respectively. Effect sizes did not differ between humans and other primates, although there were species differences in in-kind reciprocity and trade. The relative effect of reciprocity in sharing was similar to those of kinship and tolerated scrounging. These results indicate a significant independent contribution of reciprocity to human and primate helping behaviour. Furthermore, similar effect sizes in humans and primates speak against cognitive constraints on reciprocity. This study is the first to use meta-analyses to quantify these effects on human helping and to directly compare humans and other primates.