LETTER

How chimpanzees cooperate: If dominance is artificially constrained

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Suchak et al. (1) report an observational study replicating a basic finding from experimental research: Chimpanzees are skillful at recognizing situations in which they need a collaborative partner to acquire food and then collaborating to obtain it (2).

However, experimental research has also found that: (*i*) chimpanzees would rather acquire food individually than cooperatively (3), (*ii*) their cooperation breaks down if the outcome is a single cache of resources that must be peaceably divided by cooperators (4, 5), and (*iii*) they do not punish free riders or reward contributors asymmetrically (6, 7).

In their study, Suchak et al. (1) ensured that their chimpanzees would collaborate to obtain food by designing an instrumental task controlling all of these mitigating factors: the situation was one in which there were no solo options for obtaining food (their task thus did not "loosely mimic" a stag hunt, as they claim); there was no need for collaborators to work out a way to divide the spoils after collaboration because the spoils were predivided by experimenters (so that dominants could not easily monopolize rewards, as in ref. 8); and free riders were not able to disrupt things inordinately.

Suchak et al. (1) make much of chimpanzees' "enforcement" strategies against noncooperators without providing direct evidence that they impacted freeloaders' future cooperative behavior. Indeed, over half of freeloaders' attempts to obtain undeserved rewards were successful. And much of the so-called freeloading in the study was very likely not attempts by noncollaborators to benefit, but rather attempts by collaborators to steal from one another (the coding scheme did not distinguish between initiators who were actively collaborating and outsiders). Suchak et al.'s (1) so-called third-party interventions are not indicative of "group-enforced social norms" as seen in humans (9); not only did they occur very rarely [<10% of freeloading/displacement events, replicating experimental research (7)], they could easily represent situations where the third party simply wanted the contested food for itself or was concerned about its dominance status (although there was no information about who were the third parties attempting to enforce or if the enforcer even witnessed the stealing event).

In a very general sense of the term then, the chimpanzees in the Suchak et al. (1) study were cooperating [or at least some of them; see the skewed distribution of rewards among group members (10)]. The chimpanzees were working together to obtain food and managed not to let competition and aggression mess things up. This result confirms previous research. However, cooperation in a more human-like sense normally involves a free choice or preference to work with others, not a forced situation, and a recognition that all collaborators—but not free riders—deserve their fair share of the spoils even if that means sacrificing resources oneself. And when there is enforcement against noncooperators or freeloaders, it is done not for selfish motives—such as obtaining the food for oneself or maintaining dominance—but rather for the good of the cooperative group, ultimately preserving shared group norms. None of this is what the chimpanzees in the Suchak et al. (1) study were doing.

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