

Reply to Skoyles: Misplaced assumptions of perfect human prosociality

In his letter (1), the author argues against prosocial tendencies in chimpanzees because the chimpanzees in our study (2) failed to select the prosocial option all of the time. Instead, he suggests that they show evidence for “mean-spirited” motivations, because any deviation from a perfectly prosocial score must indicate purposeful withholding of benefits for the partner. However, behavioral studies are not conducted in a vacuum, informed by hypothetical analogies. Our study involved real participants in a social environment in which they express myriad conflicting motivations, inhibitions, distractions, emotions, and preexisting social “baggage” brought with them into an experimental setting. Before discussing the potential influence of these factors, let us review some human prosocial choice tests (PCTs) because they yield results that do not substantially differ from our chimpanzee study.

Fehr et al. (3) found that 7- to 8-y-old children selected the prosocial option 78% of the time. The authors report that despite the overwhelming prosocial response of this age group, some selfish choices persisted owing to social factors such as the participants' previous experience of sharing with siblings and birth order within the family. Similarly, Thompson et al. (4) reported that 3- to 5-y-olds also performed below 100% in a PCT when interacting with an adult experimenter. Kümmerli et al. (5) presented adults with a public goods game in which participants could maximize their rewards by behaving prosocially. However, despite the advantage attached to the prosocial option (which the children and chimpanzees did not have), participants failed to reach 100% prosociality, because they kept the option open to sample alternative choices. Taken together,

these studies indicate that humans, like chimpanzees, do not reach perfect prosociality.

Why might the chimpanzees in our study have performed below 100%? First, we presented the chimpanzees with repeated trials and found that the communication between actors and partners influenced prosocial tendencies. Attention-getting by the partner increased prosocial choice, but begging or threatening reduced it, probably because they elicited negative emotions toward the partner. Second, like humans, chimpanzees may be averse to extreme strategies. To our knowledge, no organism is categorical in its choices, because it always pays to sample alternative options from time to time. It enables the actor to confirm the game's contingencies and to assess the response of the partner to both selfish and prosocial choices throughout the session.

The chimpanzees in our study were prosocial in two-thirds of their choices, more prosocial than they have been shown to be in other published reports of the PCT. Instead of the one-third selfish choices making them “mean-spirited,” this result makes them the imperfect altruists that humans also are. Expecting 100% scores in behavioral studies with any species is unrealistic.

Victoria Horner^{a,1}, J. Devyn Carter^a, Malini Suchak^{a,b}, and Frans B. M. de Waal^{a,b}

^a*Living Links, Yerkes National Primate Research Center, and*
^b*Psychology Department, Emory University, Atlanta, GA 30043*

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Author contributions: V.H., J.D.C., M.S., and F.B.M.d.W. wrote the paper.

The authors declare no conflict of interest.

¹To whom correspondence should be addressed. E-mail: vhorner@emory.edu.