

NEWS & VIEWS

HUMAN BEHAVIOUR

Share and share alike

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The happy tendency to share resources equitably — at least with members of one's own social group — is a central and unique feature of human social life. It emerges, it seems, in middle childhood.

Recent experiments^{1,2} have shown that chimpanzees do not take advantage of cost-free opportunities to deliver food to other members of their group. Nor do they prevent others from getting food when they could easily do so. In most situations, our nearest primate relatives seem to be focused exclusively on the food that they themselves might get.

In the words of Fehr *et al.*³, in a paper on page 1079 of this issue, chimpanzees seem to have no “other-regarding preferences”. But human children do. In their study, Fehr *et al.* found that 7–8-year-old children will not only provide food for others when it is of no cost to themselves, they will also seek an equal distribution, even in situations where they could potentially take a larger share for themselves (as well as in situations in which they could potentially give a larger share to the ‘other’). They care about what the other is getting, and they want it to be the same as for themselves. Importantly, this is especially true when the other is from their own group (that is, is one of their classmates), rather than from a different group.

Fehr and colleagues carried out their experiments with 229 Swiss boys and girls between 3 and 8 years of age. The children were given a choice between two food-allocation options, each of which involved providing some sweets for themselves and/or some for another child (not present, but pictured). For example, in one condition they could choose between ‘two for me, none for you’ and ‘one each’.

The authors’ finding that early-school-age children value equality of resource distribution confirms previous studies⁴. What is new is the experimental design. The current study’s design follows that of research in experimental economics with adults, such that the child’s choice of resource distribution is anonymous (the recipient is not in the room) and it will happen only once. This is meant to rule out the possibility that, as they divvy up the rewards, the children are mainly concerned either with future reciprocity from the recipient or with their own reputation for cooperation. With these self-centred concerns ruled out, we can be more confident that the children are truly acting with the other’s welfare in mind, as well



Sweet exchange: early-school-age children value equality of resource distribution.

as their own.

Such other-regarding preferences are the foundation on which humans’ unique forms of altruism, cooperation and social norms of fairness are built. Without a tendency to monitor and care about what others are experiencing and getting — and comparing it with what one is experiencing and getting oneself — it is difficult to imagine that human morality and culture could exist. And the tendency to prefer equal outcomes for everyone in the group is characteristic of individuals in the kinds of hunter-gatherer societies in which humans

spent the vast majority of their evolutionary history, suggesting that this preference did indeed play an important part in the evolution of human cooperation⁵.

The main criticism of this type of research with adults is that subjects do not really believe the assurances of anonymity — or that human psychology is such that we cannot help but operate as if we are being watched even when we ‘know’ we are not⁶. In Fehr and colleagues’ study, the children were told that everything was anonymous and that this was a one-time event (the beneficiary ‘children’ were only

pictured). However, the worry here is that the children could easily have been concerned with what the adult experimenters — who stayed in the room as the children decided — thought of them as cooperators.

A notable result was a change to other-regarding behaviour with age: younger children (3–4 years old) were mostly self-centred, whereas the older children (7–8 years old) were concerned with equality — within their group, that is. Interestingly, this developmental pattern is different from that of another form of altruism, namely ‘instrumental helping’. Human infants as young as 14–18 months readily help others do such things as fetch or stack objects, or open cabinets⁷. For this kind of helping there is direct evidence that infants are not influenced by external rewards, and indeed our nearest primate relatives sometimes help others achieve their goals as well^{7,8}. So, in the case of instrumental helping, the developmental trajectory is of early altruism and other-regarding preferences, and then, presumably, growing concern with reciprocity and reputation as children learn to be selective altruists so as to avoid being exploited by others.

One difference between these studies on instrumental helping and Fehr and colleagues’ research is that, in the former case, children were faced with a real individual, not pictures, and this might influence their altruism. That is, in more natural settings, where resources are being distributed among individuals who are physically present, young children might very well start out being altruistic as well. But it is also possible that altruism is not a general trait, and that there are actually two different evolutionary scenarios involved here: one for helping behaviourally and one for sharing resources. Young infants may thus be helpful behaviourally because it involves only energetic and opportunity costs. But being generous with food is another story, which might be governed especially strongly by such things as expectations of reciprocity, adult encouragement and social norms.

Fehr *et al.*³ thus contribute to a growing collection of direct investigations of the tendency of human beings to care about and act on behalf of others. Their paper shows that, in the case of sharing resources equitably, the tendency emerges in middle childhood. It is also significant that this tendency, even in childhood, is directed mostly at others within the group, for much evidence now suggests that human cooperation is at root parochial⁹. In the end, research of this kind should help us to determine the degree to which human social life, morality and culture derive from a unique other-regarding psychology that emerges early in life. ■

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