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Cultural differences determine when kids learn to play fair

Children in many — but not all — societies reject unfair deals by the age of eight.

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Playing fair
Researchers tested children's sense of fairness in experiments that dispensed differing amounts of sweets.

The concept of fairness informs everything from playground squabbles to business negotiations. Now, a study suggests that cultural differences shape when children develop a sense of fairness, with significant variations across countries.

Children from seven countries — the United States, Canada, Mexico, Peru, India, Senegal and Uganda — began rejecting unfair deals at different ages between 4 and 15 years old, when tested by researchers. Although children in all of these societies grew to decline deals that put them at a disadvantage, children in three of the countries also grew to reject deals that gave them an advantage.

Previous studies with adults have shown that ideas of fairness vary across human societies, says Katherine McAuliffe, a psychologist at Boston College in Massachusetts. “That variation has to start somewhere,” says McAuliffe, an author of the study, published on 18 November in *Nature*[1].

But the analysis does not draw any definitive conclusions about the specific cultural causes of this variation. “It's a really laudable, very clean experiment that leaves a lot to think about,” says Philippe Rochat, a developmental psychologist at Emory University in Atlanta, Georgia.

The broader scope of this study is encouraging, says Cristine Legare, a cognitive scientist at the University of Texas in Austin, who adds that psychologists have historically oversampled 'WEIRD' countries — those that are Western, educated, industrialized, rich and democratic. “If we're continually sampling from an unrepresentative pocket of human culture and claiming it's universal, this is scientifically problematic,” Legare says.

Pull the red lever

A precise definition of fairness is hard to pin down. One way to study it is to offer people unequal deals and see whether they reject

them more often than they do equal deals. In such an arrangement, inequality stands in for unfairness.

To test whether children showed an aversion to unequal deals, McAuliffe and her colleagues designed a relatively simple experiment.

They sat 866 pairs of children, each child sitting across from their partner with an apparatus between them. One child in each pair was the 'decision-maker' and was presented with the same task 16 times: to decide whether to accept or reject an offer of treats. The offers were either equal, giving each child a single treat, or unequal, giving one child four and the other just one. The treats varied by country, but they were most often Skittles sweets.

If the child accepted an offer — by pulling a green lever — the treats slid into bowls in front of both children and they were allowed to take them away. Pulling a red lever dumped the treats into a bowl in the middle of the table, and neither child got anything.

In roughly half of the pairs, the decision-maker was put at a disadvantage — the offerings gave the other child more, or were equal. The other half of the pairs were in the opposite situation, with the lever-pulling children deciding whether to take more for themselves. Rejecting unequal offers more often than equal ones provided evidence that a sense of fairness was at play.

Children from all societies eventually rejected offers that gave the other child more treats. But in the United States, Canada and Uganda, children also rejected deals that would give them an advantage. This emerged at a later age than the rejection of a disadvantageous deal, suggesting that a sense of fairness transitions from focusing on the self to focusing on others.

“What's fascinating to me is that different psychological processes are going to be engaged depending on who's wealthy and who's not,” says Peter Blake, a psychologist at Boston University in Massachusetts and a co-lead author of the paper.

Blake says that the team has more plans for the data they collected, which includes video recordings of many of the experiments. Combining their data with detailed interviews of the children and their parents might illuminate the cultural origins of the variability, he says.

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References

1. Blake, P. R. *et al*. *Nature* http://dx.doi.org/10.1038/nature15703 (2015).