

# Mistakes explain 'cooperative' behaviour

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In economic games people can choose to keep or pool their 'monetary units'

(PhysOrg.com) -- How people behave in economic games, where they can choose to be selfish or cooperative, can be explained more easily by 'mistakes' than wanting others to succeed, Oxford researchers find.

The finding comes from four new experiments carried out by researchers from Oxford University, Edinburgh University, and the University of Lausanne, Switzerland. A report of the research is published this week in *PNAS*.

In the four experiments 168 people played games in groups of four where they were able to choose how many of 40 monetary units they wished to contribute to a public project. Players were then rewarded according to the premium put on [cooperative behaviour](#) (contributing) as opposed to holding onto their 'money'.

‘What we found was that even as we increased the premium on cooperation, so that players made most money by contributing 100 per cent of their money, on average people contributed significantly less than 100 per cent,’ said Professor Stuart West of Oxford University’s Department of Zoology, one of the leaders of the study. ‘In fact even when full cooperation delivered the best financial returns between 66 and 94 per cent of people still saw fellow players as their competitors.’

The research shows that mistakes or ‘imperfect behaviour’ made by players in a game setting can lead to a systematic bias in how much or little they cooperate.

‘Our results suggest that players avoid both completely ‘selfish’ and ‘fully cooperative’ behaviour, even if one of these strategies delivers maximum benefit,’ said Professor West. ‘This could derive from a psychology that avoids extreme behaviours, which could be very costly if they go wrong, or indicate that the sort of simple everyday rules of thumb we use to make these kind of [judgements](#) ‘misfire’ in an intense experimental setting.’

The findings have important implications for evolutionary theory as they challenge the need for new evolutionary theories (such as ‘strong reciprocity’) to explain how such seemingly ‘altruistic’ behaviour could have evolved.

A report of the research, entitled ‘Resistance to extreme strategies, rather than prosocial preferences, can explain human cooperation in public goods games’, is published in this week’s *PNAS*.

Provided by Oxford University

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