

Helping family is key for social birds

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Chestnut-crowned babbler.

(Phys.org) -- Social birds that forgo breeding to help to raise the offspring of other group members are far more likely care for their own close relatives than for more distant kin, a new study has found.

The research, by an international team including a University of Exeter scientist could give clues to the origins of [cooperation](#) in social species, including humans.

The study focused on the chestnut-crowned babbler, a highly [social species](#) from outback Australia that resembles [starlings](#) in body size. The team found that these birds work much harder to care for their brothers and sisters than the young of less-related [group members](#).

The findings, published in the journal *Proceedings of the Royal Society B*, provide new insights into understanding why some individuals cooperate with each other for a common good rather than pursuing their own

selfish reproductive agenda.

Dr. Andy Russell of the University of Exeter's Centre for Ecology and Conservation at the Cornwall Campus said: "Humans live in cooperative societies, where individuals direct care to both family members and others in the community. Our results suggest that the evolution of cooperation might have started with [offspring](#) helping parents to rear younger siblings and only latterly, as societies evolved, did cooperation among members of different families become common.

"Our research sheds new light on the evolution of cooperation and suggests that it starts within the family."

"Cooperation is a major evolutionary puzzle," said Dr. Lucy Browning from the University of New South Wales and the University of Cambridge, who led the study and is a post-doctoral researcher at the UNSW Arid Zone Research Station, at Fowlers Gap, in far-western NSW.

"One idea is that by helping relatives with whom they share DNA, they can pass on their genes indirectly, but testing this idea in birds and mammals has proved surprisingly difficult. An alternative theory is that such cooperation is actually selfish because in group-living species like babblers, individuals can increase their own welfare by helping to make their group larger, irrespective of how closely related they are.

"The fact that babblers preferentially help family members makes it seem likely that promoting the success of kin is the reason they cooperate."

Babblers live in groups in which most members help to take care of young chicks in the nest, despite not being the parents themselves. But like any team activity, some individuals do the lion's share of all the

work, while others do nothing at all.

The study took place between 2006 and 2008, with birds being fitted with tiny radio transponders, like pet identity chips, that were detected each time an individual visited the nest in order to feed the chicks.

“We wanted to get to the bottom of why some ‘helpers’ were so industrious while others were apparently so lazy,” continued Dr. Browning. “We found that when helpers are caring for their brothers and sisters, they feed them three times more often than when they are unrelated. In other words, they are much more ‘helpful’ when looking after family”.

Provided by University of Exeter

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