

Social ties help animals live longer

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A rhesus macaque mother (right) with her adult daughter (left) and their offspring. Credit: Lauren Brent

Large families and strong social ties help animals live longer, new research suggests.

In a huge study of female rhesus macaques, a scientist from the

University of Exeter found those with many close female relatives have better life expectancy.

However, the effect fades with age - suggesting older [females](#) learn how to "navigate the social landscape" and have less need for social ties.

"Our study supports the idea that social ties promote survival," said Dr Lauren Brent, of the University of Exeter.

"This adds to a small but growing body of research that helps to explain why animals are social."

The researchers used female relatives as a proxy for social ties, and they found that each extra female relative reduced a prime-aged female macaque's chances of dying in one year by 2.3%.

Dr Brent added: "What was particularly interesting was that [social ties](#) didn't have survival benefits for older females.

"One possible explanation for this is that older females behave differently from their younger counterparts.

"Macaques spend a lot of time interacting with one another. Being groomed helps rid them of parasites, while being aggressive helps establish their place in the social order.



Rhesus macaques are shown. Credit: Lauren Brent

"Each [macaque](#) would like to get a lot of grooming and give a lot of aggression, without spending much energy grooming others and without being the target of aggression."

The study found that older females manage this - behaving aggressively and spend a lot of time being groomed by others without offering much grooming in return or being the target of aggression themselves.

"Older females were still involved in society but seemed better able pick and choose their involvement. The experience and social skills females gain with age could mean they no longer need to rely on help from their friends to get by."

The researchers used a large dataset spanning 21 years and including 910

adult female rhesus macaques in Puerto Rico.

Dr Brent said such research could be "hugely important in understanding humans".

"Just like these monkeys, we spend a lot of time navigating the social world," she said.



Macaques are group-living, highly social animals. Credit: Lauren Brent

"Humans and macaques last shared a common ancestor about 25 million years ago, and we can take clues from these distant cousins about how humans might have existed in pre-industrial societies.

"Human societies are hugely complex, and factors such as culture and access to healthcare make it hard to study the impact of a single factor like social relationships on survival."

More information: "Family network size and survival across the lifespan of female macaques," *Proceedings of the Royal Society B* (2017). [DOI: 10.5061/dryad.013d5](https://doi.org/10.5061/dryad.013d5)

Provided by University of Exeter

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