

Being sociable is good for your health – if you're a baboon

Female baboons that form strong social bonds have longer-lived offspring. The need to maintain such relationships may be one of the factors that drove the evolution of bigger brains in humans

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Strong social bonds may shield baboons from social conflict and competition. Photograph: Theo Allofs/Corbis

Baboons that live in close social groups are healthier and have longer-lived children, according to scientists. The research supports the idea that close human groups are good for mental and physical wellbeing and sheds light on when group-living might have evolved among our ancestors.

The conclusions come from a 15-year study of a group of baboons in the [Moremi Game Reserve](#) of the Okavango Delta in Botswana. Led by Robert Seyfarth and Dorothy Cheney of the University of Pennsylvania, the observations were carried out for seven hours a day, six days a week between 1992 and 2007. The observers monitored the reproductive lives of 66 adult females during this time.

The analysis, published today in the Proceedings of the Royal Society B, was led by Joan Silk, an anthropologist at the University of California, Los Angeles. It shows that the offspring of females with the strongest social bonds were about 1.5 times as likely to be alive at 5 years of age as the offspring of females with the weakest social bonds.

"Being sociable means that you spend more time close to others, and this makes you safer from predators," said Silk. "Females with strong social bonds may be shielded from social conflict and competition, and they might be able to forage more efficiently and nourish their offspring better."

Previous work has shown that females with strong social bonds are also better able to cope with stressful events in their lives and it is possible that the short-term benefits are translated into long-term differences in health or evolutionary fitness. "It's also possible

that sociable females and their offspring are better protected against predators because there is safety in [numbers]," said Silk.

Females are the core of any group in baboon society. "Females stay in their group their whole lives and inherit their rank from their mother, whereas the males, once they get to adulthood, disperse to a new troop where they are unrelated to all the other individuals," said [Andrew King](#), a behavioural ecologist at [the University of Cambridge](#) and [the Zoological Society of London](#) who studies baboons but was not involved in the latest research.

Silk's researchers measured the strength of social bonds within the baboon group using an index of friendship that took into account several factors including the frequency and duration of grooming others, how often a baboon requested grooming from others and approaches between [animals](#).

"Grooming and proximity are the way baboons build social relationships – females show very strong preferences for close kin, particularly their mothers and daughters," she said. "We do not have many females who don't have any close relatives in the group, so it's hard to tell whether these effects are completely independent of kinship. But we do know that the number of close kin in the group is not as important as the quality of social bonds that females form. And for females whose mothers have died before they reached adulthood and don't have any adult daughters, social bonds with sisters become important predictors of offspring survival."

She said her results paralleled well-established findings in humans demonstrating that social ties have important effects on mental and physical health and welfare. "But we cannot extrapolate directly from baboons to humans – it's possible that different causal processes generate what look like similar outcomes in baboons and humans."

King said the research supported the idea that the role of social bonds for primates goes back millions of years, to at least the common ancestor of baboons and humans. The need to maintain social relationships, he said, may be one of the factors that drove the [evolution](#) of big brains in humans. "One way to improve your fitness is to make lots of friends, but then you need to keep tabs on everyone so if you're better at doing that, there will be selection pressure for bigger brains and higher cognitive ability."