

Study: Baby Kinda baboons become independent faster if moms are social, dominant

September 12 2022, by Nicole Pomerantz



Credit: Megan Petersdorf/Durham University

New research shows female Kinda baboons who have strong social connections with other female and male baboons, or are more dominant, have babies who become independent faster than others.

They are the smallest of the baboon species, social and the least aggressive of other baboons. Hence the name Kinda (kihn-dah), or "the kindest," said India Schneider-Crease, an evolutionary anthropologist at Arizona State University.

Schneider-Crease is an assistant professor with the School of Human Evolution and Social Change and Center for Evolution and Medicine. She recently published eight years of statistical data showing Kinda baboons' [social bonds](#) play an important role in the independence of their babies.

"The past decade or two has seen a real increase in interest in looking at how [social relationships](#) affect health in humans and in animals," Schneider-Crease said.

She and fellow researchers examined infant survival, interbirth interval length (the length of time between births for a female) and infant behavioral maturation (independence from the mother baboon) in relation to social bonds.

The data collected for this project were collected from baboons living in the Kasanka Baboon Project in Kasanka National Park, Zambia. The project is the only long-term project dedicated to studying the Kinda baboons.

Schneider-Crease says the scientists were surprised that they did not find any impact of social bonds or dominance rank on [infant mortality](#) or interbirth interval.

"What we did see was an impact of social bonds on infant behavioral maturation," Schneider-Crease said. "Females that had stronger social bonds with both other females and males had infants who were more likely to display more independent behaviors at earlier ages. This is relative to females with weaker social bonds or lower social integration with both males and females."

Dominance rank is how scientists gauge aggressive social interactions, Schneider-Crease explained. The more wins you have, the higher rank

you are. For baboons, "wins" can include physical displacements or fights.

Another surprising aspect of this study was the importance of social bonds with the male Kinda baboons, Schneider-Crease said.

"In many [primate species](#), social bonds between females and males are short-lived and related to mating or protection from aggression," she said. "In Kinda baboons, females maintain social bonds with males outside of these contexts, and this study showed that one of the benefits of these extended female-male bonds may lie in the progression of infants towards independence."

To document independence in the baby Kindas, scientists, Zambian employees and research assistants observed how close the baby Kinda baboons were to their mothers at different ages.

Schneider-Crease said that Kinda [babies](#) progress through multiple behavioral stages on their way to independence, ranging from "ventral riding," where a baby is held on the mother's chest right after birth, to gaining mobility but staying close to the mother, to full independence and spending long periods of time away from the mother.

She said that these types of insights are only possible with long-term data collection, during which researchers are able to look at broad patterns over many different Kinda mother-and-infant pairs.

"One possible benefit of this is that if the infant is able to mature faster, it can start feeding independently more quickly," Schneider-Crease said. "The female can redirect her energy into maintaining her own condition and getting herself ready to get pregnant again and invest in another baby."

Schneider-Crease's research focuses on disease ecology and the evolution of infectious disease in non-human primates. She hopes to do more research and teach about the non-aggressive interactions in primates.

"One of the people who's brought research on the benefits of social bonds to the forefront is ASU Regents Professor Joan Silk," Schneider-Crease said. "Silk's work was an inspiration for this study, as one of the first people to really investigate the importance of social bonds, not just social aggression, in the lives of primates."

The paper, "Stronger maternal social bonds and higher rank are associated with accelerated infant maturation in Kinda baboons," is published in *Animal Behaviour*.

More information: India A. Schneider-Crease et al, Stronger maternal social bonds and higher rank are associated with accelerated infant maturation in Kinda baboons, *Animal Behaviour* (2022). [DOI: 10.1016/j.anbehav.2022.04.011](https://doi.org/10.1016/j.anbehav.2022.04.011)

Provided by Arizona State University

Citation: Study: Baby Kinda baboons become independent faster if moms are social, dominant (2022, September 12) retrieved 27 April 2024 from <https://phys.org/news/2022-09-baby-kinda-baboons-independent-faster.html>

This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.