

Study shows tolerance and cooperative ties between male Guinea baboons

September 10 2014



Male Guinea baboons (*Papio papio*) are grooming each other. Credit: Julia Fischer

Contests, threats, or ignoring one another: The relationships between male mammals are usually described in this or a similar way. The situation is quite different in humans where strong partnerships and close ties between unrelated men are widespread. Ranging from the joint construction of a hut up to the decisions of executive board members,

there are countless examples that friendships among men bring decisive advantages and are a core ingredient of the complexity of human societies. In their recently published study, Julia Fischer and her colleagues from the German Primate Center (DPZ) in Göttingen found that male Guinea baboons are tolerant and cooperative towards their same-sex conspecifics, even if they are not related. In this way, males actively contribute to the cohesion of their multilevel Baboon society. Guinea baboons are therefore a valuable model to understand the social evolution of humans (Patzelt et al., 2014, *PNAS*).

Within a long-term field study conducted at the DPZ Research Station Simenti in Senegal, a population of Guinea baboons was observed over a period of two years. The scientists found that the [social organization](#) of the Guinea baboon has three tiers. The smallest and central units of the society are so-called parties comprising of three to four [males](#) with their associated females and their infants. Close social bonds between males are formed within the parties. The next higher level is the gang that consists of two or three parties. Also within the gang, some friendly social interactions between males could be observed. The third level includes all animals that share a home range and is referred to as a community.

"The degree of kinship did not affect the social interaction. The males form close cooperative connections with both related and unrelated conspecifics", says Julia Fischer, head of the Cognitive Ethology Laboratory at the German Primate Center. Furthermore, the male Guinea baboons showed far less rivalry as well as less aggression towards females than for example the chacma baboons. Interestingly, traits associated with intersexual competition such as the size of their canine teeth or testicles were also smaller in Guinea baboons than in other species.



Male Guinea baboons (*Papio papio*) form close cooperative connections with both related and unrelated conspecifics. Credit: Julia Fischer

"Our results show that a complex social organization builds on the emergence and maintenance of cooperation regardless of the genetic relationships", says Julia Fischer. Humans live in a multilevel social system too, where the smallest unit is the family. Within traditional societies, male individuals enter strong cooperative relationships with each other regardless of the degree of kinship. The occurrence of these bonds is associated with the evolutionary development of multilevel societies. "In order to understand our [social evolution](#) non-human primates who live in complex communities are important models", says Julia Fischer.

In future studies, the researchers want to investigate the role of females in the male friendships. Perhaps they prefer males with an established network and can thereby contribute to a more intensive friendship between males.

More information: Patzelt A et al. (2014): "Male tolerance and male-male bonds in a multilevel primate society." *PNAS*, [DOI: 10.1073/pnas.1405811111](https://doi.org/10.1073/pnas.1405811111)

Provided by German Primate Center

Citation: Study shows tolerance and cooperative ties between male Guinea baboons (2014, September 10) retrieved 3 July 2024 from <https://phys.org/news/2014-09-tolerance-cooperative-ties-male-guinea.html>

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