

Chimpanzee males court friends in high places

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Gombe chimpanzee. Credit: Ian Gilby

In the world of chimpanzees, being the alpha male definitely has its benefits and, as with humans, it's good to have powerful friends.

A new study by primatologists at Arizona State University reveals that male chimpanzees that befriended the top-ranking male were more successful at mating with preferred females when in the alpha male's presence.

One benefit of being at the top of the [dominance hierarchy](#) is first priority to preferred mates. This typically translates into a greater number of offspring, and therefore, a greater chance of passing on one's genes.

Although alpha males almost always acquire more than their fair share of matings, they do not have complete control over access to preferred mates. This is because there are typically many male competitors and often several sexually receptive females. This study supported this finding, but also found evidence for another explanation for why alpha males do not completely monopolize matings.

"Alpha males may concede matings to subordinates in exchange for social favors, such as support in fights against other males," says Joel Bray, a graduate student in the School of Human Evolution and Social Change at Arizona State University and lead author on the study.

Subordinate males can benefit by having a chance to sire offspring in the short-term, whereas alpha males gain long-term benefits by staying at the top of the dominance hierarchy with help from the subordinates.

"Social exchanges are thus a win-win," says Bray.



Gombe chimpanzee. Credit: Ian Gilby

This work was conducted with coauthor Ian Gilby, research affiliate with the ASU Institute of Human Origins and assistant professor in the School of Human Evolution and Social Change. Along with coauthor Anne Pusey of Duke University, Gilby is the codirector of the Gombe Chimpanzee Database, a repository of detailed demographic and behavioral data on chimpanzees at Gombe National Park in Tanzania. Pusey and Gilby have studied this population since 1970 and 1997, respectively.

The authors analyzed several thousand matings over the course of 36 years and eight alpha male tenures, which can last as long as eight or nine

years. This dataset is the largest of its kind.

The researchers found that subordinate males that groomed most frequently with the alpha were also more successful at mating with preferred females when the alpha male was nearby, suggesting that the alpha male tolerated the subordinates' mating attempts.

"These results are very exciting," says Bray, "because they demonstrate one potential function of social bonds. Especially for [subordinate males](#), it gives them an opportunity to mate successfully even if they are not of high rank, as long as they befriend the chimp at the top."

Although not examined in the current study, these findings are also consistent with a short-term exchange, where alpha males tolerate mating attempts by males who have recently groomed them.

"The next step," says Gilby, "is to investigate these relationships in more detail. Is grooming evenly distributed? Are alpha males more tolerant if they have recently had attention from the lower ranking male?"

"In the future, we also want to look at whether [alpha males](#) vary in the degree to which they concede matings," says Gilby. "Large males that are firmly in control may have little to gain, whereas smaller alphas with a more tenuous hold on their dominance position may benefit by offering favors to subordinates to placate them or earn their support in fights."

Ultimately, this study shows that not just the brawny are successful in chimpanzee groups. Instead, it pays to be a good friend.

The study is published in the *Proceedings of the Royal Society B*.

More information: Incomplete control and concessions explain

mating skew in male chimpanzees, *Proceedings of the Royal Society B: Biological Sciences*, [rspb.royalsocietypublishing.org ...
.1098/rspb.2016.2071](https://rspb.royalsocietypublishing.org/doi/10.1098/rspb.2016.2071)

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