

Female bonobos use homosexual sex to increase social status

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Female Bonobo. Image: Wikipedia.

(PhysOrg.com) -- Female bonobos (*Pan paniscus*) often form strong bonds with other females, and these bonds affect their position in the social hierarchy. Scientists from St Andrews University in the UK looked at the part sexual interactions might play in the formation of these social bonds, since female bonobos are known to often engage in sexual contacts with other females.

The researchers, Zanna Clay and Klaus Zuberbühler, observed bonobos in the naturalistic setting of the Lola Ya Bonobo Sanctuary at Kinshasa, in the Democratic Republic of the Congo in central Africa. They found that high-ranking [females](#) rarely interacted sexually with other females, but low-ranking females interacted sexually with all females. Most of

these sexual contacts were initiated by the female having higher status in the group; sexual contact initiated with lower-ranking females was usually ignored by those of higher rank.

The scientists also found that the "copulation calls" of squeals and screams, made by females during genital contact with other females, were affected by the social rank of both participants, and by the audience present. The calls were significantly more prominent if the alpha female was among the audience, and females of lower rank were more likely to make calls if they were interacting with high-ranking females. The call duration and volume were not found to be related to physical factors such as duration of the sexual contact or body position.

The results of the study suggest that [sexual interactions](#) between female bonobos play an important part in building the social structure, especially in acting as a mechanism for low-ranking females to build and strengthen their alliances with females of higher social ranking. The results also suggest that copulation calls, which might be presumed to have originally evolved to play a part in reproduction, now serve other purposes.

As well as observations in the field, the scientists also carried out controlled experiments to test their hypothesis that the copulation calls were being used as social signals advertising the success of the low-ranking females in attracting attention from a female of higher rank. In these experiments male bonobos were excluded, but the same behavior was observed in the female bonobos as had been seen in the field. They concluded that the homosexual contact between female bonobos was an important means for low-ranking females to consolidate bonds with other females in order to enhance their social status, and was also an important mechanism for higher ranking females to exert their dominance over those of lower rank.

Bonobo groups, unlike closely related chimpanzees, are not male dominated, and the close alliances between females may partly explain this difference. Female [bonobos](#) also have a special need to climb the rungs of the social ladder in their society since juvenile females leave the group in which they were born and join a new group in which to spend their adulthood. On arrival, they begin as low-ranking females, and rising in the ranks quickly increases their chances of successfully mating with desirable males.

More information: Communication during sex among female bonobos: effects of dominance, solicitation and audience, *Scientific Reports* 2, Article number: 291 [doi:10.1038/srep00291](https://doi.org/10.1038/srep00291)

Abstract

Bonobo females frequently form close bonds, which give them social power over other group members. One potential mechanism to facilitate female bonding is the performance of sexual interactions. Using naturalistic observations and experiments, we found various patterns that determined female-female sexual interactions. First, while low-ranked females interacted with all females, sexual interactions between high-ranked females were rare. Second, during genital contacts, females sometimes produced ‘copulation calls’, which were significantly affected by the rank of the caller and partner, as well as the solicitation direction. Third, there was a significant effect of the alpha female as a bystander, while variables relating to physical experience had no effects. Overall, results highlight the importance of sexual interactions for bonobo female social relations. Copulation calls are an important tool during this process, suggesting that they have become ritualised, beyond their reproductive function, to serve as broader social signals in flexible and potentially strategic ways.

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