



Max Planck Institute for Evolutionary Anthropology

PRESS RELEASE

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In Fathering, Peace-Loving Bonobos Don't Spread the Love

Female bonobos often tend to choose the same attractive male for mating, researchers observed

Bonobos have a reputation for being the peaceful, free-loving hippies of the primate world. But, researchers of the Max Planck Institute for Evolutionary Anthropology in Leipzig, Germany, and Arizona State University in Tempe, USA, have discovered that despite friendly relations between the sexes, particular males have a surprisingly strong advantage over others when it comes to fathering offspring. For example, researchers found in one group that the most reproductively successful bonobo male fathered more than 60 percent of the next generation.



The findings show that the reproductive skew—the extent to which a single male versus many males sires offspring—is much higher among bonobos than it is in male-dominated and more aggressive chimpanzees. While the reasons behind that skew aren't yet entirely clear, the researchers suspect that it may come down to a tendency for many females to choose to mate with the same attractive male. “The funny thing under such a scenario would be that most of the females would have the same preference for Camillo, the alpha male and ‘Brad Pitt’ of the bonobos at our research site,” says Martin Surbeck of the Max Planck Institute for Evolutionary Anthropology in Germany.

Surbeck and colleagues, including Kevin Langergraber at Arizona State University's School of Human Evolution and Social Change and ASU's Institute of Human Origins, have a long-standing

interest in bonobo society and particularly in the relationships between males and females. Bonobos are known for their friendly nature and lack of aggression. In that friendly setting, bonobo males often seem to invest in friendly relationships with particular females. The researchers wondered whether those “friendships” were leading to greater paternity success for those males.

To find out, the researchers tested paternity in 24 bonobo offspring conceived over the 12-year period from 2002 to 2013 in one bonobo community living in the Democratic Republic of the Congo. They compared that paternity data to published data in chimpanzee communities.

The researchers had hypothesized that bonobo females’ freedom to choose their mates would mean a more balanced distribution of paternity amongst males in the group. But they found just the opposite. While more work is needed to explore the reasons behind that skew, the researchers say, “if female choice is the mechanism behind our observation, all females seem to prefer more or less the same male.”

There may be other factors at play, the researchers say. Compared to humans and chimpanzees, bonobos tend to spend more time as a larger group. In that setting, lower-ranking males might have fewer opportunities for sneaking time away and copulating with particular females. But female choice most likely plays an important role. “Unlike chimpanzees, where all adult males outrank all adult females, and even the lowest-ranking males can coerce females into mating, there appears to be a greater role for female choice in bonobos,” Langergraber says. “Perhaps they choose high-ranking males.”

The researchers say the discovery came as a big surprise to them, despite all of their time spent watching bonobos and chimpanzees in the field. However, they note, the findings were made in a single bonobo group. It will now be important to find out if the same skew turns up in others.

[Joseph Caputo, Cell Press]

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Contact:

Dr. Martin Surbeck

Max Planck Institute for Evolutionary Anthropology

Email: surbeck@eva.mpg.de

Phone: +49 157 8760-966

Sandra Jacob

Press and Public Relations

Max Planck Institute for Evolutionary Anthropology

Email: jacob@eva.mpg.de

Phone: +49 341 3550-122