For macaques, male bonding is a political move

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Contrary to expectations, new evidence shows that unrelated male macaques in the wild form close and stable social partnerships with select males in their groups. Although the degree of emotional attachment obviously can't be measured, those relationships resemble human friendship, according to researchers who report their findings online on Nov. 18 in *Current Biology*, a Cell Press publication. What's more, it appears the motivation for those males to maintain close ties with other males is political in nature.

"We were able to show that the benefit of social bonding accrues through 'the manipulation of ones' own and others' social relationships,' which is one definition of politics," said Oliver Schülke of Georg August University Göttingen in Germany. "The bond does not directly affect

access to desirable resources but helps males to climb up the social ladder and to stay up there at the cost of other males that lose their status."

Earlier evidence had shown that female animals live longer and have more offspring when they form strong bonds with other females. The benefit of friendship in the case of females is usually explained by greater access to food and safety. But, given the strong competition among males for access to mates, scientists had generally expected that evolutionary forces would work against male bonding, particularly in groups like those of the macaques, in which male members typically aren't close kin.

In the current study, Schülke and his colleague Julia Ostner focused on wild male Assamese macaques living in their natural environment in Thailand. They found that males do maintain social relationships with other males in which both members spend time together and groom one another. Those bonds aren't confined to potential kin.

Males with stronger bonds to other males tended to form coalitions, and those coalitions predicted future social dominance, the researchers report. The strength of males' social bonds was directly linked to the number of offspring they sired.

"We have shown for the first time that having close friends makes males more successful in terms of social status and paternity," Ostner said.

The researchers added that they are "quite confident" that it is not the other way around—that successful males attract more friends. "The effect of friendship on success materializes in the future," they said. "Success does not make for future friendships."

Schülke and Ostner said that earlier work in chimpanzees starting with

Jane Goodall had shown that strong bonds among males promote alliance formation in conflicts over status. But, they said, chimps are different from macaques in that they stay in their natal groups all their lives, often bonding with brothers or at least with other males that they are sure to live with for long periods of time. On the other hand, male macaques all leave the groups they are born into sooner or later, resulting in a male society that is much more fluid.

The researchers expect that their findings will apply to other species, in cases in which males live in large groups with many males for long enough to develop bonds and benefit from them. The findings in primates may also provide insight into our own social lives.

"Our results suggest that the universal tendency of humans to form close social ties has evolutionary roots outside the extended family," the researchers said. "This long evolutionary history of a fundamental social trait may also explain why the loss of friendship or social integration has severe consequences for human mental and physical health."

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