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Chimpanzee Sexual Swellings: A Female Strategy for Social Acceptance

Females of most species mate only when they are fertile. However, some species, especially primates, extend their mating period to times when they cannot get pregnant. Mating is costly, both in energetic expense and attracting male aggression. To research this phenomenon, I analyzed data collected on the wild chimpanzees at Gombe National Park in Tanzania. Female chimpanzees have a normal 36 day sexual cycle, 10 days of which they display sexual swellings. During maximal swelling, females are accompanied by many males and mating is frequent. After giving birth, there is a period where they do not have normal cycles and swellings. There is variation among individuals in how soon they resume swelling after giving birth and how long they swell into pregnancy. I found that social factors like dominance rank or time spent living with the group as well as factors like age and number of offspring influence this variation. Females which are younger , new to the group, or low ranking swell longer into pregnancy and begin swelling sooner after giving birth than older, high-ranking females. Swelling more often may be an evolutionary strategy to facilitate building social bonds and gaining group acceptance . By mating with males even when infertile, females receive benefits from males such as assistance in conflicts with other females, which ultimately may have a significant effect on her survival and reproductive success.

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