

# THE MYSTERY OF CHIMPANZEE GROOMING BEHAVIOUR

Chimpanzees communicate extensively through various vocalization and facial expressions, that are able to be understood and interpreted by other individuals in the group. Grooming is one important behaviour that had been studied a lot when it comes to chimpanzees. It was seen to be related to build positive social connections within chimpanzee groups, and provide a way to communicate their needs.

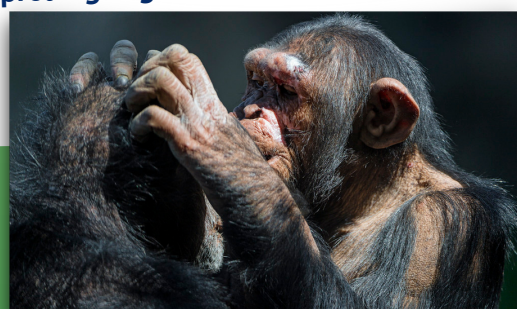
Specific vocalization and facial expressions, such as lip smacking, are observed to see how they affect the grooming behaviour. Therefore they are important to study if we want to learn more about the evolution of communication in primates. This can provide insight into how humans themselves developed language.

## COMMUNICATION



### GROOMING METHODS

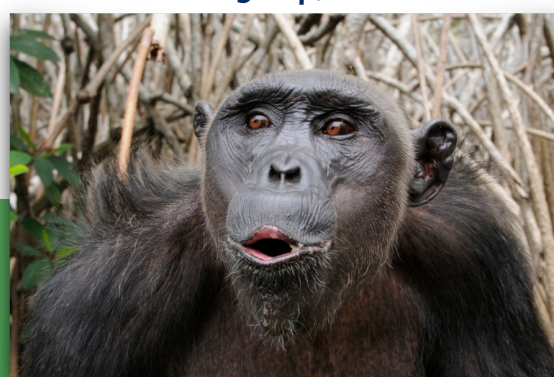
Grooming behaviour is described as when then chimpanzees actively try to remove dirt, insects, and various other things from the hair of another chimpanzee. The studies recorded this by using focal animal sampling of mostly males in the a group, and followed them around for a certain time of the day. They observed how many times they initiated grooming, either through certain vocalizations, or by the proximity of the two chimpanzees (1). This allowed them to gather results of how chimpanzees initiated and prolonged grooming sessions.



Source: Flickr, "Two chimpanzees grooming" by Tambako The Jaguar, CC license

### CHIMPANZEE VOCALIZATION

There are many vocalizations that chimpanzees utilize to communicate their grooming needs. Lip-smacking is the important one that many studies have observed. From the results, it was found that lip-smacking occurred in majority grooming bouts and they happened right before the session started (2). Lip-smacking also led to grooming sessions that lasted longer than without that initiation, which would allow for better social relations. Chimpanzees utilize these expressions to communicate to other individuals in the group.



Source: Wikimedia commons, "Chimpanzee Vocalizing" CC license

### BENEFITS OF BEHAVIOUR

Chimpanzees utilize these behaviours to build social relations in their complex groups. It was found that chimpanzees develop gestures and requesting cooperation from a young age. At a longer stage, chimpanzees were found to reciprocate much more among individuals who encountered each other more often (3). This benefits them because it suggests that they are able to remember who they groomed with and can reciprocate the action in the future. This builds stronger social bonds and their fitness.



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### EVOLUTIONARY CONTEXT

As chimpanzees evolved they were pushed to adapt to their large complex social groups. There is evidence that chimpanzees adapted larger brain for the increased cognitive abilities for communication (4). A lot of the reasons for this behaviour are still unknown, but many suggest that it was beneficial in terms of building social bonds and improving fitness long term. Through these findings, it can lead to learning more about the evolution of human communication. Future studies can be done to look at the ultimate effects of the behaviour in chimpanzees.



Source: Pixabay, CC license

#### REFERENCES:

1. Fedurek, P., Slocombe, K. E., Hartel, J. A., & Zuberbühler, K. (2015). Chimpanzee lip-smacking facilitates cooperative behaviour. *Scientific Reports*, 5(1), 13460. <https://doi.org/10.1038/srep13460>
2. Nishida, T., Mitani, C. J., & Watts, P. D. (2004). Variable grooming behaviours in wild chimpanzees. *Folia Primatologica*, 75(1), 31-36. <https://doi.org/10.1159/000073429>.
3. Gomes, C. M., Mundry, R., & Boesch, C. (2009). Long-term reciprocation of grooming in wild West African chimpanzees. *Proceedings of the Royal Society B: Biological Sciences*, 276(1657), 699-706. <https://doi.org/10.1098/rspb.2008.1324>
4. Parr, L. A., Waller, B. M., & Fugate, J. (2005). Emotional communication in primates: Implications for neurobiology. *Current Opinion in Neurobiology*, 15(6), 716-720. <https://doi.org/10.1016/j.conb.2005.10.017>