

# Why humans are musical

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Why don't apes have musical talent, while humans, parrots, small birds, elephants, whales, and bats do? Matz Larsson, senior physician at the Lung Clinic at Örebro University Hospital, attempts to answer this question in the scientific publication *Animal Cognition*.

In his article, he asserts that the ability to mimic and imitate things like music and speech is the result of the fact that synchronised group movement quite simply makes it possible to perceive sounds from the surroundings better.

The hypothesis is that the evolution of vocal learning, that is musical traits, is influenced by the need of a species to deal with the disturbing sounds that are created in connection with locomotion. These sounds can affect our hearing only when we move.

"When several people with legs of roughly the same length move together, we tend to unconsciously move in rhythm. When our footsteps occur simultaneously, a brief interval of silence occurs. In the middle of each stride we can hear our surroundings better. It becomes easier to hear a pursuer, and perhaps easier to conduct a conversation as well," explains Larsson.

A behaviour that has survival value tends to produce dopamine, the "reward molecule". In dangerous terrain, this could result in the stimulation of [rhythmic movements](#) and enhanced listening to surrounding sounds in nature. If that kind of synchronized behaviour was rewarding in [dangerous environments](#) it may as well have been

rewarding for the brain in relative safety, resulting in activities such as hand-clapping, foot-stamping and yelping around the campfire. From there it is just a short step to dance and rhythm. The hormone dopamine flows when we listen to music.

**More information:** Larsson, M. Self-generated sounds of locomotion and ventilation and the evolution of human rhythmic abilities, *Animal Cognition*, Volume 15, Issue 1, pp 1-13. [DOI: 10.1007/s10071-011-0433-2](https://doi.org/10.1007/s10071-011-0433-2)

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