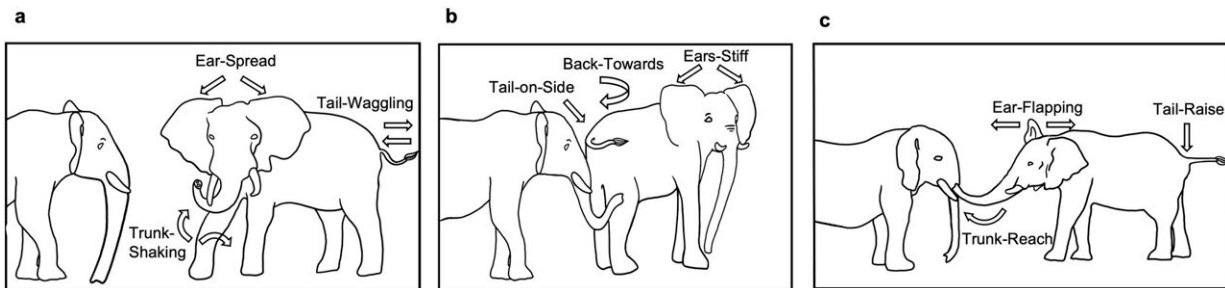


Elephants use gestures and vocal cues when greeting each other, study reports

May 10 2024, by Bob Yirka



Illustrations of frequent body act types used by semi-captive African savannah elephants during greeting. The signaler (right) is displayed using different body act types in the panels: a Ear-Spread, Tail-Wagging, and Trunk-Shaking; b Ears-Stiff, Back-Towards, and Tail-on-Side; c Ear-Flapping, Trunk-Reach, and Tail-Raise. Illustrations were drawn by Megan Pacifici. Credit: *Communications Biology* (2024). DOI: 10.1038/s42003-024-06133-5

A team of animal behaviorists from the University of Vienna, the University of Portsmouth, Elephant CREW, Jafuta Reserve and the University of St Andrews has found that elephants use gestures and vocal cues when they greet one another.

In their [study](#), published in the journal *Communications Biology*, the group observed a month's worth of greetings between African elephants living in the Jafuta Reserve in Zimbabwe in 2021.

Prior research has shown that elephants are highly intelligent, ranking close to dolphins. They also have complex matriarchal social structures. For this new study, the research team wondered if elephants have ways to communicate with one another that had not been observed during prior research efforts. They embarked on an [observational study](#) focused on elephant greetings.

The researchers ventured into the field at the reserve in Zimbabwe and watched and recorded encounters between elephants for one month in 2021. They observed 1,014 physical actions taken by elephants engaged in a greeting and 268 vocalizations.

The researchers found that elephants place importance on greeting one another. When two elephants who have not seen each other for a while meet, they both engage in apparently meaningful behavior. Gestures included swinging the trunk or using it to touch, ear-flapping and ear-spreading. Vocalizations tended to be rumbles of different sorts.

The research team noted that rumblings and gestures were often combined. Behaviors during greetings also sometimes involved urination, defecation and secreting sweat in the temporal gland, which emits odors into the air.

The researchers also found that the type of behaviors differed depending on whether the two elephants were looking at one another—most were more likely to engage in gestures when they knew the other elephant was looking at them. To get the attention of elephants who hadn't noticed them, they were also seen to engage in ear-flapping, which generates a lot of noise.

The research team concludes that the [gestures](#) and [vocalizations](#) used by the elephants appear to be part of a complicated system of communication used by the elephants to convey information during

encounters.

More information: Vesta Eleuteri et al, Multimodal communication and audience directedness in the greeting behaviour of semi-captive African savannah elephants, *Communications Biology* (2024). [DOI: 10.1038/s42003-024-06133-5](https://doi.org/10.1038/s42003-024-06133-5)

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Citation: Elephants use gestures and vocal cues when greeting each other, study reports (2024, May 10) retrieved 29 June 2024 from <https://phys.org/news/2024-05-elephants-gestures-vocal-cues.html>

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