

Research suggests gorillas can develop food cleaning behaviour spontaneously

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Researchers from the University of Birmingham, University of Tübingen and University of St. Andrews have suggested that gorillas are capable of

learning food cleaning behaviours without having to witness it in others first.

Though the authors acknowledge that general purpose social learning between individuals can help to increase the [behaviour](#) in frequency, their study of captive [gorillas](#) - who haven't crossed paths with those who are already known to show the behaviour - shows that [food](#) cleaning can be reinnovated spontaneously.

Their findings, published in *PLoS ONE*, challenge the interpretation of recently published data that suggested that [wild gorillas](#) acquire food cleaning primarily by learning from others.

A captive population of western lowland gorilla (*Gorilla gorilla gorilla*) at the Wolfgang Kohler Primate Research Centre in Leipzig Zoo, Germany, was provided with clean and dirty apples by the research team.

When the gorillas were provided with dirty apples, coated with sand, all subjects showed evidence of food cleaning in at least 75% of trials.

Lead author Damien Neadle, from the University of Birmingham, explained, "In four of our five gorillas, at least one of the techniques for cleaning was similar to that observed in the wild. Given that these two groups are culturally unconnected, it suggests that social learning is not required for this behaviour to emerge"

"This fact does not discount the importance of social learning, but simply emphasises the role of individual learning in the emergence of food cleaning behaviour in western lowland gorillas. Here, we argue that individual learning is responsible for the form of the behaviour, whilst [social learning](#) possibly contributes to its frequency."

"Rather than being a binary consideration of either cultural learning or

not, behaviours like food cleaning, which can be propagated by shared learning but are also capable of being learnt spontaneously by individuals, could be deemed to be 'soft culture'."

More information: *PLoS ONE* (2017). [DOI: 10.1371/journal.pone.0188866](https://doi.org/10.1371/journal.pone.0188866)

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