

Chimpanzees can learn how to use tools without observing others

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New observations have lead researchers to believe that chimpanzees can use tools spontaneously to solve a task, without needing to watch others first.

The evidence of chimpanzees (*Pan troglodytes*) spontaneously using

sticks to scoop food from water surfaces is published in the open-access journal *PeerJ*.

Researchers from the University of Birmingham, UK, and University of Tübingen, Germany, looked for the spontaneous re-occurrence of a tool-use behaviour practiced in [wild chimpanzees](#) where sticks are used to 'scoop' algae from the top of water surfaces.

Chimpanzees at Twycross Zoo, UK, were provided with a container of water with pieces of floating food. The tested chimpanzees successfully used the sticks, and moreover, spontaneously showed the same underlying action pattern (a scooping action of the stick) as their wild cousins do.

The results challenge the accepted belief that chimpanzees need to learn from each other how to use tools, and instead suggest that some (if not all) forms of tool-use are instead within their pre-existing behavioural repertoire (what the authors call "latent solutions").

Elisa Bandini explained, "The commonly held belief is that chimpanzee behaviour is cultural, much like how human culture has been passed between groups. But if that was the case, the same behaviours should never re-occur in naïve subjects. Nobody, for example, could accurately reinvent extinct languages on the spot."

Due to the close genetic ties between humans and [chimpanzees](#), it is likely that naïve individuals also spontaneously invented some forms of early human material culture.

Dr Claudio Tennie added, "Given these results, the long-held assumption that apes must observe one another in order to show these behaviours may have been due to an illusion of cultural transmission - created by the apes arriving at the same [behaviour](#) independently."

The University of Birmingham and Twycross Zoo has a Memorandum of Understanding (MoU), which promotes teaching, research and other activities for the mutual benefit of both parties. This research was conducted under the MoU agreement, using Twycross' extensive history with, and in caring for, primates.

More information: Elisa Bandini et al, Spontaneous reoccurrence of "scooping", a wild tool-use behaviour, in naïve chimpanzees, *PeerJ* (2017). [DOI: 10.7717/peerj.3814](https://doi.org/10.7717/peerj.3814)

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