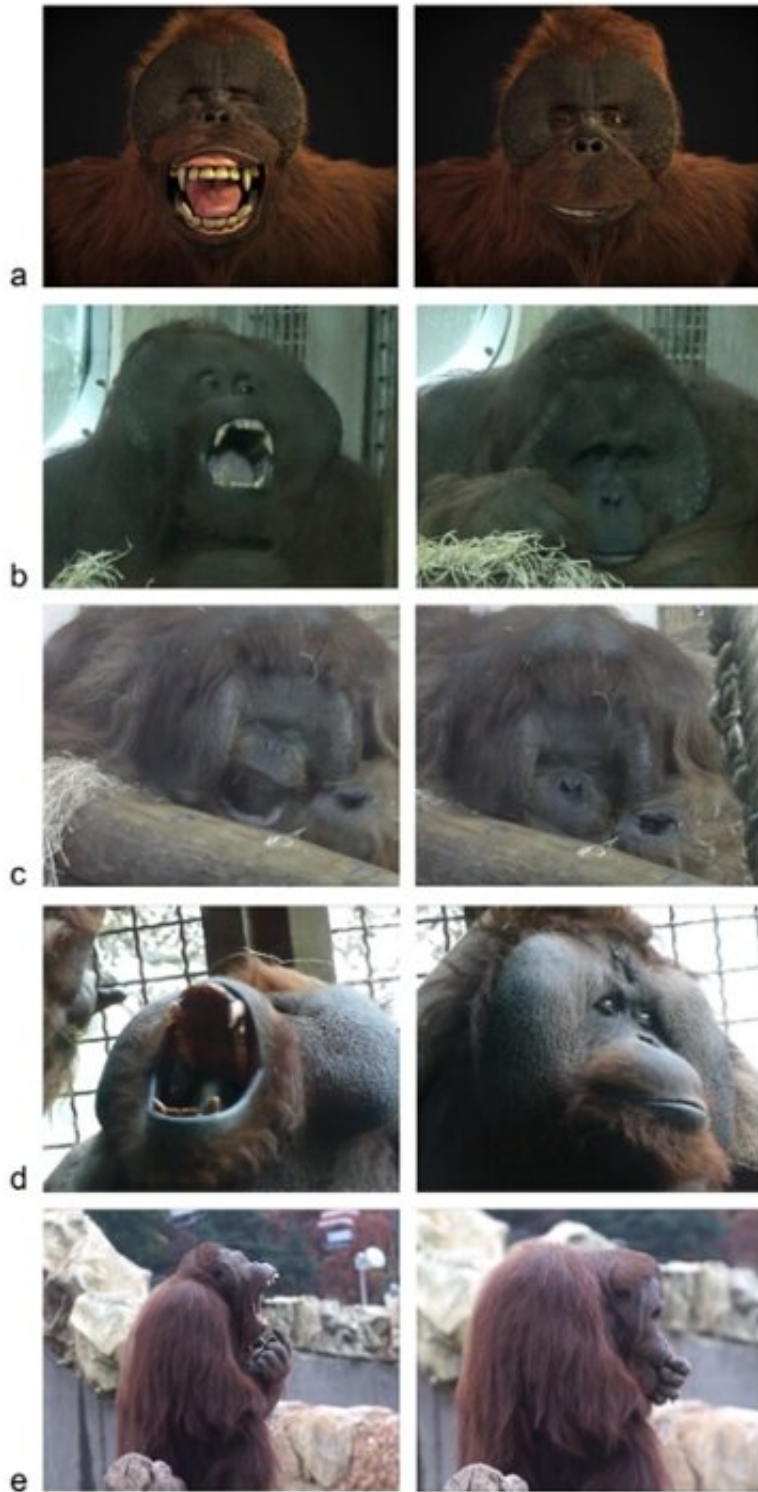


Orangutans yawn contagiously when they see others yawn

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Yawn videos: (a) Waldo, avatar by Paul Kolbrink at XYZ-Animation; (b) and (c) two males from Apenheul; (d) and (e) two unknown orangutans. Credit: Leiden University

For the first time, contagious yawning has now also been found in a species that roams its territory mostly in solitude and is less frequently engaged in social interactions: the orangutan. Publication in *Nature Scientific Reports* by an international group of scientists with lead-author Evy van Berlo, psychologist at Leiden University.

In humans and some other very social, group-living animals such as dogs, wolves, parakeets, chimpanzees and bonobos, yawning is highly contagious. Seeing or hearing others [yawn](#) is likely to trigger yawns in the observer, and this is especially true for family and friends. Orangutans and humans share a common ancestor roughly 18 to 14 million years ago.

Apenheul

An international group of researchers from the Benemérita Universidad Autónoma de Puebla in Mexico, and Leiden University and Utrecht University in the Netherlands investigated [contagious yawning](#) in orangutans of primate park Apenheul in Apeldoorn. Lead by Jorg Massen (Utrecht University), the team observed orangutans while they were watching videos of other orangutans that either yawned or had a neutral expression, and found that they, like humans, are prone to catching yawns from others.

3-D orangutan Waldo

Lead-author Evy van Berlo, cognitive psychologist at Leiden University, says that they were not only interested in whether orangutans yawn contagiously, but also in whether this automatic behavior is influenced by how familiar the individuals on the videos are to the orangutans who watched the videos. To study this, orangutans saw videos of group members, strangers, and also a 3-D [orangutan](#) avatar named Waldo

(kindly donated to the team by graphics designer Paul Kolbrink from XYZ-Animation). While the orangutans were found to yawn contagiously, they seemed particularly sensitive to videos of 'real' orangutans, regardless of whether they were of a [group member](#) or a stranger. Interestingly, the yawns of Waldo did not result in more yawns.

Continue studying contagious yawning

The results of the study have recently been published in the scientific journal *Nature Scientific Reports*, and show that contagious yawning is probably something that all great apes do. In addition, contagious yawning is likely not confined to very social animals. According to the team it is important that scientists continue studying contagious yawning in all sorts of animals, including more solitary ones such as pandas, tortoises, cats, foxes, and even snakes and other reptiles.

More information: Evy van Berlo et al. Experimental evidence for yawn contagion in orangutans (*Pongo pygmaeus*), *Scientific Reports* (2020). [DOI: 10.1038/s41598-020-79160-x](https://doi.org/10.1038/s41598-020-79160-x)

Provided by Leiden University

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