

Bonobos have human-like sense of disgust, researchers find

June 4 2018



Researchers investigate what elicits the disgust response in bonobos to understand how the reaction evolved in humans. Credit: Kyoto University / Cecile Sarabian

Even bonobos lose their appetites with enough if they experience

disgust. These primates, known for their liberal attitudes toward sex, are also generally open-minded when it comes to new foods—as long as it's is clean.

Researchers from Kyoto University's Primate Research Institute have now found that a bonobo's curiosity transforms into caution when [food](#) is presented with or near feces, soil, or [bad smells](#). Their study was published in the journal *Philosophical Transactions of the Royal Society B*.

In nature, parasites and pathogens are everywhere, and can enter the body along with food. Humans have therefore adapted sensitivity to the signs of such pathogens.

"Current studies suggest that animals evolved a system to protect against such threats, now known as the adaptive system of disgust," says Cecile Sarabian, lead author of the study. "For example, bodily fluids are universal disgust elicitors in humans, and recently, we published evidence that the same reaction exists in our primate cousins."

In a series of experiments, bonobos were presented with different food choices involving novel food items: foods contaminated with feces or soil; chains of food items linked to a contaminant; previously contaminated food; or only the odors of feces or rotting food.

Although bonobos happily gobbled up clean food, they steadfastly avoided anything contaminated. Moreover, their sensitivity to contamination risk seemed to wane the farther away a food item was located from the source of contamination.

Another experiment showed that bonobos are less likely to engage in exploratory activities like touching and tasting substrates, or even using tools to achieve a goal when confronted with 'bad' smells.

"These results fit with what one would expect if bonobos had a system of disgust driving their behavioral decision making," says Sarabian.

"Interestingly though, [bonobo](#) infants and juveniles showed much less precaution, matching human infant behavior in similar contexts."

One hypothesis is that while infants may get sick from this kind of behavior, it helps them build their immune systems at a critical time in their development. The team has yet to conclude if bonobos themselves express disgust in a way we can recognize, but plan to continue their research and further investigate the origins of [disgust](#) in humans.

"There's some evidence from humans and other animals—classically with rats—on what we call food neophobia, which is an inclination to stay away from or be cautious around new foods," adds senior author Andrew MacIntosh. "This might also be related to our tendencies to avoid things that might make us sick, with different individuals being more or less conservative in both cases."

"In our study, the bonobos seemed eager to tuck into novel fruits, which tells us that they are not very food-neophobic, or at least they automatically associate fruits they've never seen before with food," MacIntosh continues. "But we need more information about how they might react to a range of new foods before we can try to link food-neophobia with contamination sensitivity in other primates."

More information: "Feeding decisions under contamination risk in bonobos" *Philosophical Transactions of the Royal Society B* (2018). [DOI: 10.1098/rstb.2017.0195](https://doi.org/10.1098/rstb.2017.0195)

Provided by Kyoto University

Citation: Bonobos have human-like sense of disgust, researchers find (2018, June 4) retrieved 28 April 2024 from <https://phys.org/news/2018-06-bonobos-human-like-disgust.html>

This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.