

# Yawns are contagious among wolves just like humans and dogs

By Los Angeles Times, adapted by Newsela staff

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One of five wolf pups rescued from the edge of the Funny River wildfire in Alaska on May 27, 2014, is cared for at the veterinary facility of the Alaska Zoo in Anchorage.

People do not yawn just when they are sleepy. They also yawn when someone near them yawns. Chimpanzees and baboons have the same behavior. Even dogs do. But why? Scientists believe it is a sign that these animals are capable of feeling empathy.

A new study of wolves suggests it is more widespread among animals than experts had realized.

Yawning in response to another yawn is not precisely an emotional reaction. Yet the tendency for yawns to be contagious has been “linked to our capacity for empathy,” both by looking at our behaviors and our biology, say the Japanese researchers who conducted the study.

Humans and other primates are more likely to “catch” a yawn when they are around those with whom they share “a close social bond.” In people, contagious yawning is more common among those who get high scores on empathy tests. It is less common among those with mental conditions like autism that cause a lack of empathy, the researchers noted.

## Dogs Yawn With Humans

Yawning is also contagious for dogs. However, there's a twist: They don't yawn in response to yawns from other dogs, but to yawns from people. What's more, the yawns are more contagious when the person doing the yawning has a strong emotional connection to the dog.

These observations caused the University of Tokyo researchers to wonder whether dogs' role as man's best friend made them the only nonprimates capable of contagious yawning.

"Domestic dogs are unusually skilled at reading human social and communicative behaviors," they noted in their study, published in the online scientific journal PLOS ONE. "Thus, it could be possible that dogs' ability to yawn contagiously evolved with the capacity for reading human communicative signals."

On the other hand, if dogs were born likely to catch yawns, then wolves should be too. Wolves are the closest relatives of dogs and are "highly social" like dogs, the researchers wrote.

So off they went to the Tama Zoological Park, a zoo near Tokyo, Japan. Among the residents was a pack of 12 wolves—a mother, a father and their 10 offspring (five males and five females). They logged 254 hours of observation time over a five-month period, paying special attention to yawns.

## Watching Wolves Yawn

Only yawns that occurred when wolves were awake, relaxed and not in distress were included in the study. When such a yawn was observed, the researchers noted the wolf involved, other wolves within a few feet, and where the wolves were looking when the yawn occurred. Nearby wolves were not counted if their eyes were closed at the time of the yawn.

Then the researchers watched the nearby wolves for the next three minutes to see if any of them yawned too. If they did, they noted the gap in time between the first yawn and the follow-up yawn.

To make sure the yawns weren't random, the researchers also watched the wolves for three-minute periods that did not start with a yawn.

The scientists found that the wolves were indeed more likely to yawn after another wolf near them yawned. But a yawn was more likely to prompt a follow-up yawn if the two animals had a strong social bond. Not only that, but among females, the closer the bond, the shorter the gap between the first and second yawn. Yawns were also more likely to be contagious if they could be seen, not just heard.

“Yawning in wolves is contagious,” the researchers concluded. To them it makes sense that highly social animals like wolves would yawn because it “promotes social cohesiveness of the pack.”

The fact that yawns shared between wolves friendly with each other were most contagious supports the idea that contagious yawning is related to empathy. The researchers believe that more animals may show empathy and that it might “be present in a wide range of species.”

## Quiz

1. According to the article, which of the following sentences is CORRECT?
  - (a) Dogs are the only nonprimates capable of contagious yawning.
  - (b) Chimpanzees and baboons are not capable of feeling empathy.
  - (c) Research shows that contagious yawning is related to empathy.
  - (d) Scientists studied wolves to see if they too share strong social bonds.
2. How is yawning in dogs different from other animals?
  - (a) They yawn in response to yawns from other nonprimates.
  - (b) They yawn in response to yawns from other dogs.
  - (c) They yawn in response to yawns from baboons and chimps.
  - (d) They yawn only in response to yawns from humans.
3. Select the sentence that DOES NOT support the central idea of the article.
  - (a) People do not yawn just when they are sleepy. They also yawn when someone near them yawns.
  - (b) “Domestic dogs are unusually skilled at reading human social and communicative behaviors,” they noted in their study, published in the scientific magazine PLOS ONE.
  - (c) “Yawning in wolves is contagious,” the researchers concluded.
  - (d) The researchers believe that more animals may show empathy and that it might “be present in a wide range of species.”
4. Select the paragraph from the section “Dogs Yawn With Humans” that states the reason why dogs show the ability of contagious yawning.

## Answer Key

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  - (b) Chimpanzees and baboons are not capable of feeling empathy.
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