

Puppies don't pick up on yawns

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Do you get tired when others yawn? Does your dog get tired when you yawn? New research from Lund University establishes that dogs catch yawns from humans. But not if the dogs are too young. The study, published in Springer's journal *Animal Cognition*, found that, like humans, dogs show a developmental trend in susceptibility to contagious yawning.

While [dogs](#) above seven months of age catch human yawns, younger dogs are immune to [yawn](#) contagion.

Contagious yawning is not just a sign of sleepiness or boredom. Previous research has shown contagious yawning in humans, adult [chimpanzees](#), [baboons](#) and dogs, and suggests that it can be used as a measure of empathy. Empathy, mimicking the [emotional responses](#) of others, is difficult to measure directly, but contagious yawning allows assessment of a behavioral empathetic response, the researchers say.

While the development of contagious yawning in human children has seen much research, this is the first study to investigate its development in another species.

Elainie Alenkær Madsen, PhD, and Tomas Persson, PhD, researchers at Lund University, engaged 35 dogs in Denmark, aged between four and 14 months, in bouts of play and cuddling and observed the dogs' responses when a human repeatedly yawned or gaped or performed neither of the two expressions. Only dogs above seven months of age showed evidence of contagious yawning.

This pattern of development is consistent with that in humans, who also show a developmental increase in susceptibility to yawn contagion, with children typically beginning to yawn contagiously at the age of four, when a number of [cognitive abilities](#), such as accurate identification of others' emotions, begin to clearly manifest. One interpretation that Madsen and Persson suggest is that the results reflect a general developmental pattern, shared by humans and other animals, in terms of affective empathy and the ability to identify others' emotions. Given that contagious yawning may be an empathetic response, the results suggest that empathy and the mimicry that may underlie it develop slowly over the first year of a dog's life.

There was some evidence that the researchers may have transferred the emotion that yawning reflects ([sleepiness](#)) to the dogs, as nearly half of the dogs responded to yawning with a reduction in arousal, to the extent that the experimenter needed to prevent a number of dogs from falling asleep.

Research with adult humans and other primates suggest that individuals are more likely to yawn contagiously to those with whom they have close emotional bonds. Madsen and Persson tested the dogs with both an unfamiliar experimenter and their owner, but found no evidence that the puppies preferentially yawned in response to the yawns of the human with whom they were emotionally close. Since this is also the case for young human children, the researchers suggest that in species that show an empathy-based social modulatory effect on contagious yawning, this behavior only emerges at later stages of development.

More information: *Animal Cognition*; [DOI 10.1007/s10071-012-0568-9](#)

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