

Cats distinguish between speech directed at them and humans

October 24 2022



Credit: Pixabay/CC0 Public Domain

A small study has found that cats may change their behavior when they hear their owner's voice talking in a tone directed to them, the cats, but not when hearing the voice of a stranger or their owner's voice directed

at another person. The study of 16 cats is published in the journal *Animal Cognition* and adds to evidence that cats may form strong bonds with their owners.

Human tone is known to vary depending on to whom the speech is directed, such as when talking to infants and dogs. The tone of human speech has been shown in previous studies to change when directed at [cats](#), but less is known about how cats react to this.

Charlotte de Mouzon and colleagues from Université Paris Nanterre (Nanterre, France) investigated how 16 cats reacted to pre-recorded voices from both their owner and that of a [stranger](#) when saying phrases in cat-directed and human adult-directed tones.

The authors investigated three [conditions](#), with the first condition changing the [voice](#) of the speaker from a stranger's voice to the cat's owner. The second and third conditions changed the tone used (cat-directed or adult-directed) for the cat's owner or a stranger's voice, respectively. The authors recorded and rated the behavior intensity of cats reacting to the audio, checking for behaviors such as resting, ear moving, pupil dilation, and tail moving, amongst others.

In the first condition, 10 out of the 16 cats showed a decrease in behavior intensity as they heard three audio clips of a stranger's voice calling them by their name. However, when hearing their owner's voice, their behavior intensity significantly increased again. The cats displayed behaviors such as turning their ears to the speakers, increased movement around the room, and pupil dilation when hearing their owners' voice. The authors suggest that the sudden rebound in behavior indicates that cats could discriminate their owner's voice from that of a stranger.

In the second condition, 10 cats (8 of which were the same from the first condition) decreased their behavior as they heard audio from their owner

in an adult-directed tone but significantly increased their behavior when hearing the cat-directed tone from their owner. The change in behavior intensity was not found in the third condition, when a stranger was speaking in an adult-directed and cat-directed tone.

The authors observed that the cats can distinguish when their owner is talking in a cat-directed tone compared to an adult-directed tone, but did not react any differently when a stranger changes [tone](#).

The small sample size used in this study may not represent all cat behavior but the authors propose that future research could investigate whether their findings can be replicated in more socialized cats that are used to interacting with strangers.

The authors suggest that their findings bring a new dimension to cat-human relationships, with cat communication potentially relying on experience of the speaker's voice. They conclude that one-to-one relationships are important for cats and humans to form strong bonds.

More information: Charlotte de Mouzon, Discrimination of cat-directed speech from human-directed speech in a population of indoor companion cats (*Felis catus*), *Animal Cognition* (2022). [DOI: 10.1007/s10071-022-01674-w](https://doi.org/10.1007/s10071-022-01674-w). link.springer.com/article/10.1007/s10071-022-01674-w

Provided by Springer

Citation: Cats distinguish between speech directed at them and humans (2022, October 24) retrieved 8 May 2024 from <https://phys.org/news/2022-10-cats-distinguish-speech-humans.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.