

# Study shows dog-directed speech more effective on puppies than adult dogs

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(Phys.org)—A small team of researchers from the U.S., the U.K. and France has found that puppies are more receptive to dog-directed speech than are adult dogs. In their paper published in the journal *Proceedings*

*of the Royal Society B*, the researchers describe experiments they conducted recording human voices and playing them back to dogs, what they found, and what it might mean for human communications.

Most everyone has heard dog-directed [speech](#), which is similar to speech patterns some use when talking to infants—the voice gets higher, the words come out slower and there is a sort of sing-song phrasing. Some of the phrases are familiar as well, such as "Who's a good boy?" In this new effort, the researchers looked into the use of dog-directed speech seeking to learn if there might be any modulating factors in its use.

The experiments consisted of asking 30 female human volunteers to look at pictures of dogs while reading a script consisting of typical dog-directed speech phrases into a microphone to make recordings. The recordings were then played to 10 puppies and 10 adult dogs at an animal shelter as the researchers watched and recorded their reactions.

The researchers report that the volunteers tended to raise their voices in ways similar to people speaking to human infants regardless of the age of the dog they were looking at, though it was noted that the voices were raised slightly higher for puppies than for adult dogs. They also report that at the animal shelter, the puppies responded very clearly to the voices coming from the speakers, acting as if they wanted to play. The adult dogs, on the other hand, after a quick investigation, ignored the recordings altogether.

The researchers were not able to explain why the humans spoke in dog-directed speech or why the puppies responded to it while the adult dogs did not, but suggest that humans likely respond to [puppies](#) in much the same way they respond to babies—and babies have been shown to respond more to baby-directed speech. As for why the older dogs were not interested, it might have been the case that they were simply older and wiser—they could see very clearly there was no human present

speaking to them, so they chose to ignore whatever was being said.

**More information:** Tobey Ben-Aderet et al. Dog-directed speech: why do we use it and do dogs pay attention to it?, *Proceedings of the Royal Society B: Biological Sciences* (2017). [DOI: 10.1098/rspb.2016.2429](https://doi.org/10.1098/rspb.2016.2429)

### **Abstract**

Pet-directed speech is strikingly similar to infant-directed speech, a peculiar speaking pattern with higher pitch and slower tempo known to engage infants' attention and promote language learning. Here, we report the first investigation of potential factors modulating the use of dog-directed speech, as well as its immediate impact on dogs' behaviour. We recorded adult participants speaking in front of pictures of puppies, adult and old dogs, and analysed the quality of their speech. We then performed playback experiments to assess dogs' reaction to dog-directed speech compared with normal speech. We found that human speakers used dog-directed speech with dogs of all ages and that the acoustic structure of dog-directed speech was mostly independent of dog age, except for sound pitch which was relatively higher when communicating with puppies. Playback demonstrated that, in the absence of other non-auditory cues, puppies were highly reactive to dog-directed speech, and that the pitch was a key factor modulating their behaviour, suggesting that this specific speech register has a functional value in young dogs. Conversely, older dogs did not react differentially to dog-directed speech compared with normal speech. The fact that speakers continue to use dog-directed with older dogs therefore suggests that this speech pattern may mainly be a spontaneous attempt to facilitate interactions with non-verbal listeners.

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