# bark&whiskers

Dog Tips

# Have You Tried This Trick to Capture Your Dog's Focus?

If you want to communicate better with your pet, try this technique. Your furry canine buddy will better understand and connect with you. Some may find this adorable technique a bit silly, but your pup will love it!

#### STORY AT-A-GLANCE

- Recent research shows dogs understand humans better when they speak slowly, as dogs vocalize at two sounds per second while humans naturally speak at four syllables per second
- Scientists using EEG found that humans unconsciously slow their speech to about three syllables per second
  when talking to dogs, similar to speaking to someone learning a foreign language
- Dogs' brains show increased responsiveness to high-pitched "baby talk," particularly when spoken by women, according to a 2023 study using MRI scans at Eötvös Loránd University
- Research from the University of York found dogs pay more attention when people use both baby talk (exaggerated intonation) and discuss dog-relevant topics, rather than just one approach
- Regular communication with your dog, whether using baby talk or normal speech, helps strengthen the human-animal bond and is encouraged as a way to treat pets as family

Have you noticed that your dog responds differently to you depending on the tone you use while talking to them? Despite not being able to make any human sounds, dogs can respond to human speech, and according to a recent study, the manner in which you speak can affect how your furry companion responds.

### **Talking Slowly Helps Your Dog Understand You Better**

A study published in the journal PLOS Biology<sup>1</sup> looked at how dogs and humans communicate, and found that talking slowly to pets actually helped people to better connect with them.

The scientists analyzed the vocal sounds of 30 dogs and 27 humans speaking across five languages to other people. Twenty-two of those humans were also analyzed while talking to dogs. Using electroencephalography (EEG), the study authors then examined how the humans' and dogs' brains responded to speech.<sup>2</sup>

They found that humans have a speech rate of four syllables per second, meaning they are much faster talkers than dogs. Dogs have a rate of two vocalizations per second. However, when humans talked to dogs, they slowed their speech to around three syllables per second.

Think of it as if speaking to someone who speaks a foreign language — you may naturally slow down as you speak the words, so they can understand you better. Humans do the same with pets, unconsciously matching their communication speed.

The authors concluded that humans and dogs have different vocal processing systems; when we slow down our speech when speaking to pets, it allows us to forge stronger and better connections with them. The authors concluded:<sup>3</sup>

"Overall, these results reveal that dogs' auditory and vocal systems have aligned on a single temporal processing window that differs from that of humans, and which remains predominant even when dogs process and appropriately respond to human speech.

In parallel, we show that humans who speak to their dogs adopt a speech rate that differs from adult-directed speech and more closely aligns with the dog's neural delta oscillatory capacity.

These data are consistent with the hypothesis that in the history of the dog-human relationship, the neural constraints of the dogs' reception system may have limited this heterospecific communication to a temporal structure falling midway between the natural speech rate and a slower rate that would perfectly match the dog's analysis capacity."

## Previous Studies Show Dogs Respond to High-Pitched 'Baby Talk'

The featured study is an interesting example as to how dogs respond and form bonds with humans through speech. However, this isn't the first research that demonstrated how dogs are influenced by how we communicate with them.

In a 2023 study, researchers from Eötvös Loránd University in Hungary found that dogs are more sensitive to the cute high-pitched tone adults (especially women) use when talking to babies<sup>4</sup> — what's called "baby talk."

The study involved family dogs who were made to listen to dog, infant and adult-directed speech recorded from 12 men and women in different life scenarios. Their brains were then measured using an MRI scan.

According to the researcher's findings, "the sound-processing regions of the dogs' brains responded more to dog- and infant-directed than adult-directed speech." The speech sensitivity of the dogs' brains was also more pronounced when the speakers were women. Anna Gergely, co-first author of the study, says:

"Studying how dog brains process dog-directed speech is exciting, because it can help us understand how exaggerated prosody contributes to efficient speech processing in a nonhuman species skilled at relying on different speech cues."

### **Talking About 'Dog-Relevant' Subjects Helps Dogs Stay Attentive**

Back in 2018, researchers from the University of York in the U.K. also tested the effects of baby talk on dogs.<sup>7,8</sup> In the study, published in the journal Animal Cognition, the researchers talked to the canines in two ways — first, using a conversational tone about human topics, and then second, in dog-directed speech or DDS (using exaggerated intonations) talking about dog-relevant subjects.

To ensure consistency in the speech, recordings of the experimenters were used. While the recording was being played, the researchers measured how much time the dog spent looking at each person. After playing the recording, the dog was allowed to spend time with the person. The researchers observed that the dogs looked longer at the people who played the baby talk recording, and also spent a longer time with them.

They then conducted another experiment; this time, they used baby talk for human topics and conversational tone for dog-relevant subjects. This time, dogs showed no preference, meaning baby talk and dog-relevant subjects were necessary to hold their attention.

"This study concludes that naturalistic DDS elicits more attention from dogs than [adult-directed speech] ADS and has the potential to strengthen the affiliative bond a human has with a dog," the researchers concluded.<sup>9</sup>

#### **Talking to Your Dog Is a Bonding Experience**

Whether you use baby talk or converse in a normal voice, taking the time to communicate with your dog is a great way to strengthen your bond. Don't be afraid to be silly with your pet — chat with them, baby talk to them, read to them or even tell them about your day. They are, after all, your family members, too, and would appreciate every bit of attention you lavish on them!

#### **Sources and References**

- 1,3 PLoS Biol, October 1, 2024 22(10): e3002789
- <sup>2</sup> Science Daily, October 1, 2024
- 4,5,6 The Independent, August 29, 2023
- 7,9 Animal Cognition, 2018, Volume 21, pages 353–364
- <sup>8</sup> American Kennel Club, June 7, 2018