

# Study reveals human ability to make ourselves sound bigger

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Credit: University of Sussex

Research from the University of Sussex suggests that humans are unique among primates in being able to intentionally alter the frequencies of our voices to sound larger or smaller than we really are, a capacity that is likely to have evolved over many thousands of years.

Body size is very important for many animals, including humans, in predicting [social dominance](#), reproductive success and health. Because of this, communicating [body size](#) to others through [vocal signals](#) is important, and being able to alter ones voice to trick other members of the species is a useful evolutionary tool.

Psychologists Dr Kasia Pisanski and Dr David Reby, in collaboration with researchers from the University of Havana, University of Wrocław, and McMaster University, have discovered that humans can intentionally lower or raise the frequencies of our voices to sound larger or smaller than we actually are.

In the first study of its kind to focus exclusively on human vocal modulation of body size, the ability was demonstrated in men and women from three distinct cultures (Canada, Cuba and Poland).

The researchers also found that men modulate their voices more than women, which supports the likelihood that exaggeration of body size was more important for men's social and [reproductive success](#) during human evolution.

"Our results are really interesting when we compare ourselves to other animals," said Dr Pisanski, who worked on the research.

"Nonhuman primates are far less capable than we are at modulating their voice pitch and resonances on demand, so we humans are special in this regard. This can provide clues into the evolution of nonverbal communication in humans.

"Our results also compliment a growing number of studies that suggest that people might actually modulate their [voices](#) quite often in real life situations – changing their voice to sound more attractive on a first date, or to sound more dominant during a political debate, for example."

The researchers' next step will be to fully test whether people can effectively "fake" their body size in modern life when interacting with other humans. More specifically, they will examine whether people are "tricked" by modulated vocal cues to body size, or rather, can detect that they are faked.

"We are only just now beginning to explore the truly dynamic nature of the [human](#) voice as an everyday social tool," added Dr Pisanski.

**More information:** Katarzyna Pisanski et al. Volitional exaggeration of body size through fundamental and formant frequency modulation in humans, *Scientific Reports* (2016). [DOI: 10.1038/srep34389](https://doi.org/10.1038/srep34389)

Provided by University of Sussex

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