

Body size conveyed by voice determines vocal attractiveness

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Deep male voices and high-pitched female voices are perceived as more attractive because listeners gauge the speaker's body size from the frequency of their voice, according to research published April 24 in the open access journal *PLOS ONE* by Yi Xu from University College London (UK) and colleagues.

Studies of animals and birds reveal that listeners can perceive a caller's body size and intension based on the frequency, voice quality and formant spacing of a call. For example, low frequency growls are more likely to indicate larger body size, dominance or a potential attack, while higher frequency and pure-tone-like sounds suggest smaller size, submissiveness and fear.

The researchers tested whether a similar principle applied to human vocal attractiveness by asking male volunteers to listen to a female voice that was systematically altered for pitch, voice quality and formant spacing to signal a smaller body size. Female listeners heard a male voice that had been similarly altered to indicate a larger body size. Results showed that male listeners preferred female voices with high pitch, breathy voice and wide formant spacing that correlated with a smaller body size, while females preferred to hear low-pitched [male voices](#) with low pitch and narrow formant spacing that suggested larger body size. But surprisingly, female listeners also preferred male voices that are breathy, which presumably softened the [aggressiveness](#) associated with a large body size. The authors conclude that despite the development of complex language, human vocal interactions still employ certain animal

instincts.

More information: Xu Y, Lee A, Wu W-L, Liu X, Birkholz P (2013) Human Vocal Attractiveness as Signaled by Body Size Projection. *PLoS ONE* 8(4): e62397. [doi:10.1371/journal.pone.0062397](https://doi.org/10.1371/journal.pone.0062397)

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