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SCIENCE

Moving your hands could change what you hear

By Philippa Warr | 15 October 12



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How we perceive sound can be altered by whether we are using our left or right hands while listening according to researchers at Georgetown University Medical Centre.

The results -- which were presented at Neuroscience 2012 -- are being attributed to the different language processing abilities of the left and right hemispheres of the brain which control the right and left sides of the body respectively.

To investigate the phenomenon neurologist Peter Turkeltaub and his team disguised rapid- and slow-changing sounds within background noise. Participants were asked to indicate whether they could hear the noise by pressing a button using alternately their right hand then their left hands.

Those responding with their right hand heard the rapidly changing sounds more often than when using their left hands while the slowly changing sounds were heard more often when using the left hand.

"The left hemisphere likes rapidly changing sounds, such as consonants, and the right hemisphere likes slowly changing sounds, such as syllables or intonation," explains Turkeltaub on the GUMC website.

"It's really pretty amazing. Imagine you're waving an American flag while listening to one of the presidential candidates. The speech will actually sound slightly different to you depending on whether the flag is in your left hand or your right hand."

In addition to offering insight on our personal perceptions of sound, the results of the study could lead to improvements in treating conditions such as speech loss after a stroke or language-related learning disabilities like dyslexia.

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Story

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