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## Brain sees fine line between speech and song

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A SOUND curiosity, in which a spoken phrase seems to morph into a song when repeated, is shedding light on the difference between speech and song.

[Diana Deutsch](#), a psychologist at the University of California in San Diego, first noticed the illusion in the mid-1990s when editing a recording of her own voice. One phrase - "sometimes behaves so strangely" - began to sound like a song when she replayed it several times.

Now Deutsch has confirmed that the illusion is real by testing it on proficient singers. Those played the same phrase just once and asked to repeat what they heard, spoke it back. But those who heard the phrase many times, sang it back ([listen at www.tinyurl.com/65tcer](http://www.tinyurl.com/65tcer)).

The illusion only occurs when the phrase is repeated exactly - not with a slightly drifting key, for instance. "It brings to the fore a real mystery - why don't we hear speech as song all the time?" says Deutsch. She suspects our brains normally suppress musical cues when we hear speech, so that we focus on interpreting the words. But repetition of the words, which we've already processed, can sometimes override this.

"It stops the inhibition of the pitch region of the brain so we hear song, which is really what we ought to have been hearing in the first place," says Deutsch, who will discuss her findings next week at an [Acoustical Society of America](#) meeting in Miami, Florida.

Her team is now using MRI scans to see which brain regions "light up" when people perceive a shift from speech to song.



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