

More than all-wheel drive. Introducing Saab XWD.



Available in the 9-3 Sport Sedan

Replay » Learn More »

# **NewScientist**

search New Scientist

Go

Login

Home News In-Depth Articles Blog Opinion Video Topic Guides Last Word E-Newsletter Jobs Subscribe

SPACE **TECH ENVIRONMENT HEALTH** LIFE PHYSICS&MATH SCIENCE IN SOCIETY

Home | Life | News

## Brain sees fine line between speech and song

11 November 2008

Magazine issue 2681. Subscribe and get 4 free issues. For similar stories, visit the The Human Brain Topic Guide

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).

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.

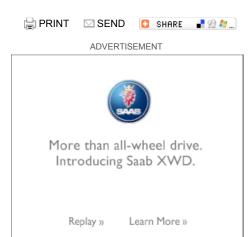


From issue 2681 of New Scientist magazine, page 17. Subscribe and get 4 free issues.

Browse past issues of New Scientist magazine

If you would like to reuse any content from New Scientist, either in print or online, please contact the syndication department first for permission. New Scientist does not own rights to photos, but there are a variety of licensing options available for use of articles and graphics we own the copyright to.

### Have your say



#### More Latest news

#### DNA dirty tricks loom in future elections

22:00 19 November 2008

Take a covert saliva sample, run a wholegenome scan and a candidate's genetic quirks could come under unfair and misleading

#### Why the universe may be teeming with aliens



18:00 19 November 2008 Hunting for a planet that can support life? There's more to it than looking for Earth's distant twin, says **David Shiga** 

#### Monkey gossip hints at social origins of language

18:00 19 November 2008

The discovery that female macaques are far chattier than males helps bolster the theory that human language evolved to forge social bonds

#### Frozen hair gives up first mammoth genome

18:00 19 November 2008

A rough draft of the extinct elephant's genome

Subscribe

This week's issue



22 November 2008

ADVERTISEMENT



More than all-wheel drive.

Introducing Saab XWD.

> Replay » Learn More »