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BBC NEWS

**‘Language gene' effect explored by Edinburgh scientists**

Scientists have said their discovery of a gene could help explain dyslexia and speech disorders in children.

The University of Edinburgh staff found the gene ROBO1 linked to the mechanism in the brain that helps infants develop speech.

They said it could help explain how some aspects of language learning in infants is influenced by genetic traits rather than educational factors.

The five-year study was conducted on 538 families with up to five children.

The scientists found a significant link between the way the ROBO1 gene functions and the brain's ability to store speech sounds for a brief period of time, and that one version of the gene greatly enhanced a core component of language learning.

The gene directs chemicals in brain cells that help infants store and translate speech sounds they hear into meaningful language.

Professor Timothy Bates, who led the research for Edinburgh University's school of philosophy, psychology and language sciences, said: "The discovery of the ROBO1 gene helps to understand how speech sounds can be stored long enough to be integrated with meaning."

The research was carried out in collaboration with scientists at the University of Queensland, Australia. The results are published in the European Journal of Human Genetics.

The Times (London)

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Language gene holds key to treating speech disorders  
  
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Edinburgh A gene which explains how young children develop language skills has been identified by scientists at the University of Edinburgh. The discovery could lead to better understanding of speech disorders and dyslexia.

The ROBO1 gene directs chemicals in brain cells that help infants store and translate the speech sounds they hear into meaningful language. This process is an essential part of language learning for the very young, when words are at first meaningless, until associated with an object or concept.

"The infant language acquisition system is quintessentially human and yet is a complex system requiring many brain regions," said Timothy Bates, of the university's school of philosophy, psychology and language sciences.

"The discovery of the ROBO1 gene helps to understand how speech sounds can be stored long enough to be integrated with meaning."