

Challenging our understanding of the genetics behind the evolution of human language

The evolution of human language was once thought to have hinged on changes to a single gene that were so beneficial that they raced through ancient human populations. But an analysis now suggests that this gene, FOXP2, did not undergo changes in Homo sapiens' recent history after all — and that previous findings might simply have been false signals.

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A key 2002 paper found that humans carry two mutations to FOXP2 not found in any other [primates](#). When the researchers looked at genetic variation surrounding these mutations, they found the signature of a 'selective sweep' — in which a beneficial mutation quickly becomes common across a population.

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[T]he 2002 study has never been repeated. It was based on the genomes of only 20 individuals, including just a handful of people of African ancestry, says [population geneticist Elizabeth] Atkinson: most came from Europe, Asia and other regions. She and her team have now re-examined the gene's evolutionary history using a larger data set and a more diverse population.

They found that the signal that had looked like a selective sweep in the 2002 study was probably a statistical artefact caused by lumping Africans together with Eurasians and other populations. With more — and more varied — genomes to study, the team was able to look for a selective sweep in FOXP2, separately, in Africans and non-Africans — but found no evidence in either.

Read full, original post: [Diverse genome study upends understanding of how language evolved](#)