

‘Speech-like signature’: Chimpanzees’ lip-smacks rhythm may offer clues about how we learned to talk

The [evolution](#) of speech is one of the longest-standing puzzles of evolution. However, inklings of a possible solution started emerging some years ago when monkey signals involving a quick succession of mouth open-close cycles were shown to exhibit the same pace of human spoken language.

In the paper ‘Chimpanzee lip-smacks confirm primate continuity for speech-rhythm evolution’, published [May 27], in the journal *Biology Letters*, a consortium of researchers, including St Andrews University and the University of York, led by the University of Warwick, have found that the rhythm of chimpanzee lip-smacks also exhibit a speech-like signature—a critical step towards a possible solution to the puzzle of speech evolution.

Just like each and every language in the world, monkey lip-smacks have previously shown a rhythm of about 5 cycles/second (i.e. 5Hz). This exact rhythm had been identified in other [primate species](#), including gibbon song and orangutan consonant-like and vowel-like calls.

However there was no evidence from African apes, such as gorillas, bonobos and chimpanzees—who are closer related to humans, meaning the plausibility of this theory remained on hold.

Now, the team of researchers using data from 4 chimpanzee populations have confirmed that they too produce mouth signals at a speech-like rhythm. The findings show there has been most likely a continuous path in the evolution of primate mouth signals with a 5Hz rhythm. Proving that evolution recycled primate mouth signals into the vocal system that one day was to become speech.

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