



How diet helped develop sounds

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Neolithic advances in agriculture played a role in jaw evolution, says study

- Changes to the human diet prompted by Neolithic advances in agriculture played a role in human jaw evolution that allowed people to pronounce the consonants 'f' and 'v', researchers say.
- Their work — which combines linguistics, speech science and paleoanthropology — was published in the journal Science.
- The study indicates that language is not merely a random product of history but was also linked to biological changes at the time.
- The Neolithic era — from 6,000 B.C. to 2,100 B.C. — was when wheat and barley-based farming took root and animals such as goats, sheep and cows were domesticated.
- Man, before the Neolithic era, used his teeth quickly to chew the products of his hunting and gathering.
- While the upper incisors covered the lower ones in children, wear and tear led to an “edge-to-edge bite” in adults, prehistoric skulls show — positioning that made it difficult to make certain sounds.
- If one were to put the upper and lower incisors or “front teeth” directly on top of each other and try to say “f” or “v”, one would find it very difficult, the researchers said.
- The sounds are called labiodental consonants, which require the combined action of the lower lip and the upper teeth.
- Dental wear-and-tear was curtailed thanks to the softer diet, and the upper incisors maintained their adolescent position: over the lower teeth, as in today’s humans.

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