

Indo-European languages emerged roughly 6,500 years ago on Russian steppes, new research suggests

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Linguists have long agreed that languages from English to Greek to Hindi, known as 'Indo-European languages', are the modern descendants of a language family which first emerged from a common ancestor spoken thousands of years ago. Now, a new study gives us more information on when and where it was most likely used. Using data from over 150 languages, linguists at the University of California, Berkeley provide evidence that this ancestor language originated 5,500 - 6,500 years ago, on the Pontic-Caspian steppe stretching from Moldova and Ukraine to Russia and western Kazakhstan.

"Ancestry-constrained phylogenetic analysis supports the Indo-European steppe hypothesis", by Will Chang, Chundra Cathcart, David Hall and Andrew Garrett, will appear in the March issue of the academic journal *Language*.

This article provides new support for the "steppe hypothesis" or "Kurgan hypothesis", which proposes that Indo-European languages first spread with cultural developments in animal husbandry around 4500 - 3500 BCE. (An alternate theory proposes that they diffused much earlier, around 7500 - 6000 BCE, in Anatolia in modern-day Turkey.)

Chang et al. examined over 200 sets of [words](#) from living and dead Indo-European languages; after determining how quickly these words changed over time through statistical modeling, they concluded that the rate of

change indicated that the languages which first used these words began to diverge approximately 6,500 years ago, in accordance with the steppe hypothesis.

This is one of the first quantitatively-based academic papers in support of the steppe hypothesis, and the first to use a model with "ancestry constraints" which more directly incorporate previously discovered relationships between languages. In future research, methods from this study could be used to study the origins of other [language](#) families, such as Afro-Asiatic and Sino-Tibetan.

More information: A pre-print version of the article is available on the LSA website - [www.linguisticsociety.org/file ...
hangEtAlPreprint.pdf](http://www.linguisticsociety.org/file...hangEtAlPreprint.pdf)

Provided by Linguistic Society of America

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