

**Studies on the evolution and function of FoxP2, a gene  
implicated in human speech and language, using  
songbirds as a model**

**DISSERTATION**

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## Language and Genes can be represented by Letters

The letters of the Phoenician script shown on top of the DNA sequence of the FoxP2 gene from *Taeniopygia guttata* (Zebra finch). The Phoenician script which emanated during the 14th century BC was one of the first truly abstract alphabets. Modern alphabets thought to have descended from Phoenician include Arabic, Greek, Latin (via the Old Italic alphabet), Cyrillic (via the Greek alphabet) and Hebrew (via Aramaic). FoxP2 is the first gene known to be involved in human speech and language.

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