

**Boyd, Jeremy. 2003. Cognitive limits on natural language suppletion.** (Not published).

A paradigm-function morphology model, having predicted that radical suppletion is a possibility in a language, needs a way to explain why radical suppletion is not attested. The article suggests a functional explanation: suppletive paradigms are more difficult to learn. To check this, the authors create a model of ten artificial languages, each containing 60 verb forms and 10 paradigms. The first language has no suppletion, then the number of suppletive verbs increases in each language by one, so that the tenth language is 100% suppletive. The network's task was to assign each form to a paradigm after 180,000 learning trials (errors being corrected after each trial). Network performance degrades as suppletion increases. There is a threshold – a level, beyond which addition of new suppletive paradigms becomes prohibitive—i.e. languages with too much suppletion become unlearnable.