

# The Origin and Distribution of Complexity of Phonological Structure

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## ABSTRACT

Simple measures of phonological complexity have been shown to frequently correlate with each other such that greater elaboration of, say, the size of a consonant inventory or of a vowel inventory co-occurs with greater numbers of tone contrasts when a large ensemble of languages is studied. Further, these measures correlate positively with elaboration of the syllable canon. Most linguists would probably approve the suggestion by Comrie (1992), that it is easier to imagine that “earlier stages of human language [differed] qualitatively from those spoken today in being less complex”.

This talk will consider to what extent it is possible to usefully speculate about the origins of phonological complexity. One tool for such speculation is the examination of the patterns of distribution of measures of complexity around the world. If language originated with humans in Africa does a hypothesis of original simplicity suggest African languages should be the simplest? In fact, African languages have a higher mean basic vowel inventory than languages elsewhere, and the highest proportion of tone languages. These factors enable a correlation to be found between on the one hand a measure of complexity weighing these factors equally with consonant inventory size and on the other hand the distance from a presumed origin in Africa (Atkinson 2011), with complexity declining with distance. Atkinson’s suggested analogy to a genetic ‘founder effect’ is unconvincing for multiple reasons. Deep phylogenetic relationships between languages mirroring the population genetic patterns have not (yet) proved recoverable and the logic of phoneme-loss-by-distance is unpersuasive.

Various alternative hypotheses linking phonological patterns with external factors have been proposed. Those that will be explored include the effects of population size, social structure, language contact situation and environmental conditions. These ideas will be evaluated in light of data in a database assembling information on over 700 languages, as well as results from smaller projects addressing syllable structure and sonority patterns in selected language samples.

