

## The Ruhlen's "mother tongue" theory subjected to the test of probabilities

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In some approaches, the demonstration of a relationship between languages can rely on finding words of similar phonetic shape and roughly equivalent meaning in the languages in question. Among such approaches, the Multilateral (or mass) comparison is the best-known: "looking at (...) many languages across a few words 'rather than' at a few languages across many words" (Greenberg, *Language in the Americas*, 1987 : 23), where the lexical similarity shared "across many languages" alone is taken as evidence of genetic relationship. For about fifteen years now, Merritt Ruhlen's works in genetic typology of languages, based on multilateral comparisons of sound shapes and meaning similarities for all the languages of the world, have tried to validate the existence of global roots. Recent advances in biological taxonomy serve to confirm this author's classification of macro-families, and by implication, monogenesis of all languages. With *The Origin of Languages. Studies in Linguistic Taxonomy* (1994) and *The Origin of Languages. Tracing the evolution of the mothertongue* (1994), he gave further data supporting his thesis. According to him, his theory is backed up by a methodology which enables him to look for and find phonological and semantic equivalencies between words of different languages. In the end, these equivalences enabled him to make comparisons from a set of 32 families. He finally proposes 27 global etymologies and, for each of these mother tongue roots, he provides the most general meaning and the phonological shape

But in order for these global etymologies to be accepted, it must be shown that the similarities observed could not have arisen by chance. That is to say, it must be shown that the null hypothesis can be rejected. We demonstrate, by a single application of probability theory, that the world roots proposed by Ruhlen for a Proto-Sapiens language are the result of random chance. The null hypothesis cannot be rejected. The author used too few roots, too many equivalent meanings, too many languages per family and too many phonological equivalences for a too small number of different phonological shapes.