Glottometrics 28, 2014
(including abstracts)

Fan Fengxiang, Wang Yaqin, Gao Zhao

Abstract. This contribution examines the macro quantitative features of 15 low- frequency word classes. The relationship between word frequency classes and the sizes of the frequency classes obeys Altmann's power law, and the sizes of low- frequency word classes increase along with the increase of text length. The relationship between text length and the sizes of low-frequency word classes also obeys Altmann's law. For text of the same length, the relationship between vocabulary size and the sizes of hapax legomena and dis legomena is linear, but this sort of relationship does not hold for other low-frequency word classes. The relationship between vocabulary/low-frequency word class ratio and text length can be captured with reparametrized Tuldava's model.

Ioan-Iovitz Popescu, Gabriel Altmann

Abstract. The aim of this article is to analyze clause centrality and perform some elementary comparisons both within the same text sort and between two different text sorts. Various indicators and their relations are scrutinized.

Doina Tatar, Mihaiela Lupea, Gabriel Altmann

Abstract. The aim of the article is to show the hreb-like construction of poems of the Romanian poet M. Eminescu. Hrebs are constructed, ranked, and their stratification. denotational properties (topicality, concentration, diffuseness, compactness) as well as text concentration and hreb chains are scrutinized.

Abstract. In the article, complexity is defined as the combination of *form*, *joining* and *level of strokes*. Two scripts, the very simple Celtic *ogham* along with the very complex *rongorongo* of Easter Island, are analyzed. Given the restricted number of *ogham* letters, they are all accounted for, while a large-scale scrutiny of *rongorongo* glyphs is subject to future tests. Complexity is not identical with distinctivity.

Abstract. The paper attempts to explain the existence of compounds by its function as a means to reduce syntactic complexity in cases where a loss of semantic information is acceptable. A mathematical model is set up using Altmann's difference equation method. It is combined with a second model on the basis of a diversification approach for those compounds in a text which were no ad-hoc constructions but lexical elements. The result is a mixed Poisson distribution, which is successfully tested on data from a German text. Then, an alternative model is presented, which is based on the Popescu-Altmann function. It is assumed that the trend to reduce complexity can be considered as a continuous quantity. So, a differential equation can be justified as a model of compounding tendency. Finally, a perspective on a more complex model is presented, which could cover syntactic and morphological complexity as functional equivalents.

Bibliography

Book Review