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Xiaxing Pan, Haitao Liu

Abstract. Relations between noun modifiers or adnonimals and their head nouns, along with their distribution features, differentiate the stylistic features among languages, and distinguish text genres in a given language. Following a systematic and comprehensive description of adnominal constructions in modern Chinese, this paper explores their rank-frequency distribution properties against three models: the original Zipf's law, the Zipf-Alekseev law and the Popescu-Altmann-Köhler (PAK) function, with acceptable result for the first and good results for the latter two. The PAK function as a function for stratified texts works well. The research findings validate the categorization in the paper and further prove that adnominals in modern Chinese are normal language units.

Peter Zörnig, Tomi S. Melka

Abstract. We study the *pintaderas* of Gran Canaria (Canary Islands, Spain), a pre-European system of baked clay and occasionally of wooden stamping seals, with surfaces covered in a number of stylized and abstract drawings. There is no unique theory, accepted by all scientists with respect to the function of *pintaderas*; explanations range from property and identity markers, to a decorative system, or to a multi-functional use.

The purpose of this paper is twofold: (1) draw attention to *pintaderas* as one of the pre-linguistic systems of the world, with designs standing for visual metaphors, (2) present a novel elementary measure for symmetry which might be useful to discover hidden information in artifacts.

Gabriel Altmann

Abstract. Morphological complexity of a text is measurable by using a special scaling method based on historical, grammatical and phonological criteria. The results yield a picture of language. The measurements can be used both for comparisons of languages, text sorts and individual writers.

Ioan-Iovitz Popescu, Radek Čech, Gabriel Altmann

Abstract. Descriptivity of texts is measured by means of a modified Busemann indicator. Text can be classified statically or dynamically in six categories, text or authors or text-sorts can be compared statistically. The measurement of descriptivity yields both frequency distributions and sequences which can be further evaluated.

Heng Chen, Haitao Liu

A diachronic study of Chinese word length distribution 81-94

Abstract. An investigation of diachronic texts in one language would be appropriate in order to track down the background of the individual parameters of the word length distribution models. The present article investigates how word length evolves based on the analysis of texts from ancient Chinese within a time span of 1000 years. The results show that the parameter a in Zipf- Alekseev's function increases with time, but it is influenced by language policy in modern times, which causes it to decrease a little, but a predictive estimate of the word length distributions shows that the parameter a really increases with time, which means it is an element of a self-organizing system. A deeper investigation into the historical changes of each word length class as well as four statistical indexes of word length distributions reveal that the increase of multi-syllable words is the main trend in historical developments of word length distributions, which may be inter-correlated with the diachronic increase of parameter a. What is more, the diachronic synergetic relation between word length and mean word frequency also reveals the increasing use of multi-syllable words in communications which can be seen from the decrease of the absolute value of the negative parameter b in the function $y = ax^{b}$.

Panchanan Mohanty, Ioan-Iovitz Popescu

Word length in Indian languages 95-109

Abstract. The research concerning word length is extended here to 13 Indian languages. Instead of searching for different probability distributions we prefer a unified approach based on continuous functions. It will be shown that the Zipf-Alekseev function which is an extension of Zipf's power function yields a satisfactory model for all cases (cf. Popescu et al. 2014).