# Descriptiveness, Activity and Nominality in Formalized Text Sequences

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in cooperation with

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### Studies in quantitative linguistics

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### Preface

In the present book we study characteristics of language based on formalized text sequences. The study of text as a sequence of various entities is rapidly developing in form of articles, omnibus volumes and monographs. In fact, our linguistic study can be considered as a part of a very fertile interdisciplinary research activity devoted to the analysis of information sequences. Such sequences occur also in computational biology (e.g. in form of DNA strings), in coding theory and data compression. While qualitative linguistic analysis searches for rules which are important for language learning, quantitative analysis tries to capture hidden mechanisms which are not necessary for the understanding of language. Except for certain poetic phenomena, e.g. rhythm which can be produced consciously, these mechanisms cannot be learned and do not represent the core of standard linguistics.

In the present book, a group consisting of mathematicians and linguists – specialists for a certain language – attempts to discover textual phenomena which may seem to be strange for the "normal" linguistics but whose deciphering may help to reveal candidates for laws. Laws are the highest aim of science because without them no theories and no explanations are possible. Unfortunately, in linguistics the testing of a hypothesis is never finished, one can at most validate it to a certain degree. In practice, this validation will never terminate because one would be forced to analyze all languages and, in case of text laws, as many texts as possible. Here no corpuses can help because none of them contains the complete history of language, the evolution of an individual speaker or a complete collection of text sorts.

Hence our attempts merely reveal a few of the infinite number of facets of a text. We try to collect data, find models of their behavior in form of hypotheses, test them, compare the results in texts of eleven languages available to us and try to create a research domain which will never be satisfactorily explored.

We present all observed data in order to enable other researchers to analyze them applying other methods or other characterizations, and to formulate and test other hypotheses. We reduced the whole field to specific phenomena of description, activity and specifying, otherwise the study would be too extensive. Nevertheless, we show at some places the possibility of going into the depth of the hierarchy of phenomena.

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