

Glottometrics 35

2016

RAM-Verlag

ISSN 2625-8226

Glottometrics

Glottometrics ist eine unregelmäßig erscheinende Zeitschrift (2-3 Ausgaben pro Jahr) für die quantitative Erforschung von Sprache und Text.

Beiträge in Deutsch oder Englisch sollten an einen der Herausgeber in einem gängigen Textverarbeitungssystem (vorrangig WORD) geschickt werden.

Glottometrics kann aus dem **Internet** heruntergeladen, auf **CD-ROM** (in PDF Format) oder in **Buchform** bestellt werden.

Glottometrics is a scientific journal for the quantitative research on language and text published at irregular intervals (2-3 times a year).

Contributions in English or German written with a common text processing system (preferably WORD) should be sent to one of the editors.

Glottometrics can be downloaded from the **Internet**, obtained on **CD-ROM** (in PDF) or in form of **printed copies**.

Herausgeber – Editors

G. Altmann	Univ. Bochum (Germany)	ram-verlag@t-online.de
K.-H. Best	Univ. Göttingen (Germany)	kbest@gwdg.de
R. Čech	Univ. Ostrava (Czech Republic)	cechradek@gmail.com
F. Fan	Univ. Dalian (China)	Fanfengxiang@yahoo.com
P. Grzybek	Univ. Graz (Austria)	peter.grzybek@uni-graz.at
E. Kelih	Univ. Vienna (Austria)	emmerich.kelih@univie.ac.at
R. Köhler	Univ. Trier (Germany)	koehler@uni-trier.de
H. Liu	Univ. Zhejiang (China)	lhtzju@gmail.com
J. Mačutek	Univ. Bratislava (Slovakia)	jmacutek@yahoo.com
G. Wimmer	Univ. Bratislava (Slovakia)	wimmer@mat.savba.sk
P. Zörnig	Univ. Brasilia (Brasilia)	peter@unb.br

External academic peers for Glottometrics

Prof. Dr. Haruko Sanada

Rissho University, Tokyo, Japan (<http://www.ris.ac.jp/en/>);

Link to Prof. Dr. Sanada: [http://researchmap.jp/read0128740/?lang=english](http://researchmap.jp/read0128740/?lang=english;);
<mailto:hsanada@ris.ac.jp>

Prof. Dr. Thorsten Roelcke

TU Berlin, Berlin, Germany (<http://www.tu-berlin.de/>)

Link to Prof. Dr. Roelcke: http://www.daf.tu-berlin.de/menue/deutsch_als_fremd-_und_fachsprache/personal/professoren_und_pds/prof_dr_thorsten_roelcke/
[mailto:Thosten Roelcke \(roelcke@tu-berlin.de\)](mailto:Thosten.Roelcke@tu-berlin.de)

Bestellungen der CD-ROM oder der gedruckten Form sind zu richten an

Orders for CD-ROM or printed copies to RAM-Verlag RAM-Verlag@t-online.de

Herunterladen/ Downloading: <https://www.ram-verlag.eu/journals-e-journals/glottometrics/>

Die Deutsche Bibliothek – CIP-Einheitsaufnahme
Glottometrics. 35 (2016), Lüdenscheid: RAM-Verlag, 2016. Erscheint unregelmäßig.
Diese elektronische Ressource ist im Internet (Open Access) unter der Adresse
<https://www.ram-verlag.eu/journals-e-journals/glottometrics/> verfügbar.

Bibliographische Deskription nach 35 (2016)

ISSN 2625-8226

Contents/ Abstracts

Ekaterina Shmidt, Hanna Gnatchuk

German compounds in the texts of technical science

1-5

Abstract. The present investigation is engaged with a quantitative study of German compounds in the text of technical science. We have analyzed word classes for German compounds in Book “Wirtschaftsinformatik” by H. R. Hansen et al (2015). In such a way, 20 pages of the above-mentioned book have been studied with a sample of 221 German compounds. The data have been processed statistically. The results can be of great use for typological studies of compounds.

Tayebeh Mosavi Miangah, Mohammad Javad Rezai

Persian text ranking using lexical richness indicators

6-15

Abstract. The adequacy of some quantitative parameters mainly based on frequency of lexical items (types and tokens) are to be demonstrated in this study through an experiment. The main purpose of the present article is to rank some Persian texts according to various indicators of vocabulary richness proposed in the state of the art literature. It is the first attempt towards a quantitative study of lexical characteristics of Persian texts to show the possible relationship between specific formal features of texts and vocabulary richness. The results show that journalistic texts in which repetition of certain words is inevitable are less rich in terms of vocabulary than poetry and literary texts, and that the type-token ratio and lambda indicators could well be able to distinguish genres in Persian language.

Lyubov Rimkeit-Vit, Hanna Gnatchuk

Euphemisms in political speeches by USA Presidents

16-21

Abstract. The present study deals with the study of lexico-semantic groups (LSGs) of euphemisms in the political speeches of four USA presidents. The corpus of our study is represented by 16 political speeches. We have studied the public speeches by G. Bush Senior, B. Clinton, G. Bush Junior and B. Obama. The selected euphemisms have been classified into 14 lexico-semantic groups. The proposed classification has been captured by the power function

Lin Wang, Radek Čech

The impact of code-switching on the Menzerath-Altmann Law

22-27

Abstract. Based on the Chinese-English code-switching corpus and Modern Chinese corpus, the impact of code-switching on the Menzerath-Altmann law is observed. Specifically, the relationship between the sentence length and the clause length is analysed. Both code-switching and monolingual sentences abide by the Menzerath-Altmann law, however, differences are found in values of the determination coefficient R^2 and parameter b of the

function expressing the law. As for the determination coefficient R^2 , code-switching sentences evince worse fit of the model to the data than the monolingual ones. Further, the lower value of b in the case of code-switching sentences expresses lower diversification (and a higher entropy) of the system.

Ramon Ferrer-i-Cancho

The meaning-frequency law in Zipfian optimization models of communication 28-37

Abstract. According to Zipf's meaning-frequency law, words that are more frequent tend to have more meanings. Here it is shown that a linear dependency between the frequency of a form and its number of meanings is found in a family of models of Zipf's law for word frequencies. This is evidence for a weak version of the meaning-frequency law. Interestingly, that weak law (a) is not an inevitable property of the assumptions of the family and (b) is found at least in the narrow regime where those models exhibit Zipf's law for word frequencies.

Peter Zörnig, Gabriel Altmann

Activity in Italian presidential speeches 38-48

Abstract. We analyze the activity of New-Year-Speeches of Italian presidents evaluated over the period from 1949 to 2012. The activity is measured in terms of Busemann's indicator. The results are used both to compare the speeches of a given president and to describe the alteration over the analyzed 64 years. Some possible interpretations of the formal analysis are outlined.

Germán Colomá

An optimization model of global language complexity 49-63

Abstract. In this paper we develop a theoretical model of global language complexity, based on a constrained optimization approach. We assume that language is a system that chooses different levels of complexity for its different domains (i.e., phonology, morphology, syntax, vocabulary) in order to minimize a global complexity function subject to an expressivity constraint (which also depends on non-linguistic variables related to geographic, phylogenetic and demographic factors). The model is illustrated with the aid of a dataset based on a short text translated into 50 languages, for which global complexity is measured using a version of Kolmogorov complexity. That dataset is used to run simultaneous-equation regressions, which represent different relationships between language complexity measures.

Sergey Andreev, Ioan-Iovitz Popescu, Gabriel Altmann

On Russian adnominals 64-83

Abstract. The aim of the article is to show that the class of adnominals in Russian behaves regularly and abides by a strict rank-frequency distribution, a fact giving them the status of "legal" linguistic units. It will be shown that there is a left-right asymmetry in placing adnominals.