

Quantitative linguistic analysis of Czech sign language

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ISBN: 978-80-244-5727-7 | ISBN online: 978-80-244-5728-4 |
DOI: 10.5507/pdf.20.24457277

Reviewed by Petr Vysuček

This book has two main goals. The main goal seems to be to give further proof through qualitative analysis that signed languages are natural languages. The secondary goal is to provide more tools to support pedagogical methods for teaching signed languages, specifically, Czech sign language.

The book has 10 chapters that flow fairly well in a step-by-step fashion. From the table of contents, one can easily find the topics without any confusion. Chapter one describes and defines the topic of signed languages. It gives perspectives from hearing society and hearing researchers. Chapter one talks about the deaf community to a lesser degree focusing on their native signed languages and cultural identity. This chapter also discusses created communication systems but does not discuss the debate about whether such systems have worked for their purposes or whether they are actual useful compared to using natural languages only.

Chapter 2, 3 and 4 describe the tools the team used in their study to perform the methods of research. They discuss quantitative linguistics and how it has not been fully applied to signed language studies yet to prove that they are indeed natural languages as many qualitative studies have. Chapter 3 describes Menzerath-Altmann law (MAL) and how they use this in their research. Chapter 4 gives a good review of language fractals and how they believe it can be used for studying signed languages.

Chapter 5 lays out their methodology, and chapter 6 discusses the statistical results and how they verified them. Chapters 7 and 8 show clear examples of two experiments. In the first example, they look at how to do a fractal analysis of Czech Sign Language. The second example shows how the Hurst formula is applied. Chapter 9 gives future possibilities for research, studies, or ideas in this vein. Chapter 10 reveals their conclusions and recommendations.

From a linguistic point of view, the methods and analysis employed are somewhat innovative, but as the authors point out, fail to achieve the desired results. It is now

clear to the authors that just applying the same laws and theories used when analyzing spoken languages to Czech Sign language, is not an automatic solution to this dilemma. The sampling shown in this book seems to allow for good analysis on the surface, but there are pieces of the linguistic puzzle missing. The missing pieces are frequently missed by non-native speakers of Czech Sign language or of any signed language. These missing parts are often dismissed as not part of the language, but rather nonverbal components as listed in the first chapter. However, as many studies have pointed out these elements are indeed part of the language, such as nonmanual movements (mouth morphemes), eyebrow movements, head tilts, torso tilts-turns, eye gaze, spatial location of the sign, hand movement within the space, movement away from another sign shown in the passive hand, etc.

This author notes that many of the shortcomings in the methodology and subsequent lackluster results could have been avoided. This study and many studies have suffered from this problem. The solution is to involve the native speaking community in the study. One of the authors in the team should have been Deaf, not only deaf, but a person whose identity is Deaf. A Deaf whose first language is CZJ and whose first culture is Deaf. Such a person would be able to point out language connections and any discrepancies in the study or analysis.

This book is a good read for those in the field of linguistics or Deaf studies. However, the content may be too technical for the average layperson. This book is a good stepping off point for further studies to learn and improve such research in the field of signed language linguistics.

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