

The morphemic research of the Czech language witnessed its largest boom in the 1960s and 1970s. Since the appearance of *Retrográdní morfematický slovník češtiny* (1975) by Eleonora Slavíčková and of Komárek's *Příspěvky k české morfologii* (1978), the interest of researchers in this area of linguistics has been waning. The leitmotifs of all nine chapters of this monograph are an attempt to defend morphemics as a stand-alone discipline, an evaluation of the theoretic and empirical knowledge gathered so far, and the justification of formal computer processing as the only promising approach for the future. The interdisciplinary character of the present work manifests itself in the search for impulses for proposing an algorithmic approach to morphemic analysis and synthesis – which is the culmination of the monograph – e.g. in cognitive sciences and general semiotics. An examination of the main principles of how the mental lexicon works, including the theory of activation of language units, shows that a computational approach to traditional linguistic topics and methods can borrow inspiration not only from theoretical fields. The central term, namely morpheme, which is realized as morph in the language usage, is widely believed to have been introduced by Jan Baudouin de Courtenay in the 1880s. Using the great personalities of the Czech linguistics such as J. A. Komenský, V. J. Rosa, J. Dobrovský and F. L. Čelakovský as examples, the present work shows that the concept of morpheme has a longer tradition in Czech than is generally thought. The principles of morphemic segmentation are discussed in much detail, specifically the initial principle of reproducibility, which is also used in computer science, complemented by a semantic criterion. Much attention is paid to the quantitative presentation of important characteristics pertaining to morphemic structure of contemporary Czech. The source of data is the well annotated dictionary of E. Slavíčková, which is elaborated in its original graphematic form but newly also in a transcribed phonemic form. Values regarding productivity of the system are compared with frequency data from large, synchronous corpora of the Czech language containing a total of 1.2 billion text words.