## 'Evolution' of writing systems in terms of typological and other criteria: Cross-linguistic observations from the German and Japanese writing systems

Terry Joyce<sup>1</sup>, Dimitrios Meletis<sup>2</sup>

<sup>1</sup>Tama University, Japan, <sup>2</sup>Karl-Franzens-Universität Graz, Austria <sup>1</sup>terry@tama.ac.jp, <sup>2</sup>dimitrios.meletis@outlook.com

Well-known typologies of writing systems (Gelb 1952; Daniels 2018; Sampson 2015) are primarily synchronic in nature, but the basic approach is not, however, without inherent quagmires (Joyce 2016). Principally, they include fallacious assumptions about teleological transitions (Gelb 1952) and base their classifications on the dominant level of graphematic representation (i.e., morphemic, syllabic, or phonemic). However, as these levels and their spelling principles (representational mappings) combine in complex ways, in reality, most writing systems are, to varying degrees, mixtures of phono- and morphographic principles.

In order to move beyond dominant (synchronic) spelling principles, writing system typologies need to adopt a more diverse set of criteria (Share & Daniels 2016), which can be organized beneficially under three categories: (a) *linguistic fit* (match between writing system and language), (b) *processing fit* (both physiological and cognitive) and (c) *sociocultural fit* (communicative and social functions) (Meletis 2018). Naturally, such diverse categories interact dynamically and are often in conflict, but, crucially, they can afford valuable insights into the diachronic 'evolution' of writing systems.

Our paper elucidates these criteria with observations from both the German and Japanese writing systems. Japanese is a complicated mixture, consisting of morphographic kanji, syllabographic kana, and alphabetic Roman script, and although generally classified as an alphabet, German is also more accurately analyzed as a mixed system, due to its pervasive morphography (Schmidt 2018; Berg 2019). Moreover, their respective grapheme inventories are highly contrastive, and a number of inventory-related criteria have direct implications at various levels of graphematic representation. These, in turn, are of particular significance for many processing factors, such as syllabification and the saliency of syllables (cf. the emergence of the graphematic syllable in German; Fuhrhop & Schmidt 2014).

Of profound relevance to writing systems typology, the diverse criteria explored in this paper are particularly promising for cross-linguistic investigations of writing systems and for illuminating their diachronic changes.

References: Berg, K. (2019). Die Graphematik der Morpheme im Deutschen und Englischen. Berlin: De Gruyter. Daniels, P. T. (2018). An exploration of writing. Bristol: Equinox. Fuhrhop, N. & K. Schmidt (2014). Die zunehmende Profilierung der Schreibsilbe in der Geschichte des Deutschen. Beiträge zur Geschichte der deutschen Sprache und Literatur 136(4), 538-568. Gelb, I. J. (1952): A study of writing. Chicago: University of Chicago Press. Joyce, T. (2016). Writing systems and scripts. In A. Rocci & L. de Saussure (eds.), Verbal communication (287–308). Berlin, Boston: De Gruyter. Meletis, D. (2018). What is natural in writing? Prolegomena to a Natural Grapholinguistics. Written Language and Literacy 21(1), 52-88. Sampson, G. (2015). Writing systems: a linguistic introduction (2nd ed.). Bristol: Equinox. Share, D. L. & P. T. Daniels (2016). Aksharas, alphasyllabaries, abugidas, alphabets and orthographic depth: Reflections on Rimzhim, Katz and Fowler (2014). Writing Systems Research 8(1), 17-31. Schmidt, K. (2018). Phonographie und Morphographie im Deutschen. Tübingen: Stauffenburg.