

Triangulating sound symbolism: Where to find it and how to create it

Niklas Johansson

Lund University

niklas.johansson@ling.lu.se

Sound symbolism is a universal, yet flexible component of language. However, most previous cross-linguistic studies have been small in scope or lacked crucial phonetic distinctions, and experiments have investigated ready-made sound symbolic words, rather than investigating how sound symbolism develops among language users. It is thus natural to investigate the phonetic and semantic features involved in sound symbolism from a bottom-up perspective. First, by investigating 344 near-universal concepts (Goddard & Wierzbicka 2002) in 245 language families, 125 statistically significant sound-meaning associations were found. Secondly, 23 macro-concepts, e.g. basic descriptors, deictic distinctions and kinship attributes, were identified based on cooccurring shared semantic and phonetic features between the significant concepts. Furthermore, the macro-concepts were grounded in unimodal imitation, cross-modal imitation, relational diagrammatic mappings or bio-cultural circumstantial mappings (Johansson & Carling 2015). Thirdly, four sound symbolic concepts were further investigated through iterated learning experiments (Kirby et al. 2015). Naïve participants were divided into five condition groups which contained ten chains of 15 participants each. They either received no information about the meaning of the word they were about to hear, or that it meant BIG, SMALL, ROUND or POINTY. The first participant in each chain was then audially presented with a phonetically diverse word and asked to repeat it. Thereafter, the recording of the repeated word was played for the next participant in the same chain. After 15 generations, the SMALL-condition showed increases of voiceless sounds and the ROUND- and BIG-condition showed increases of stops. These findings show considerable cross-linguistic sound symbolic effects on basic vocabulary, that sound symbolism is an active part of language, and that sound symbolism is based in the human perception of the body and its interaction with the surrounding world. Thus, it is likely that sound symbolism has originated as a bootstrapping mechanism for human.

References: • Goddard, C. & A. Wierzbicka (eds.) 2002. *Meaning and universal grammar: Theory and empirical findings*. Amsterdam: John Benjamins. • Johansson, N. & G. Carling. 2015. The de-icorization and rebuilding of iconicity in spatial deixis: A Indo-European case study. *Acta Linguistica Hafniensia: International Journal of Linguistics* 47(1). 4–32. • Kirby, S., M. Tamariz, H. Cornish & K. Smith. 2015. Compression and communication in the cultural evolution of linguistic structure. *Cognition* 141. 87–102.