

Phonological thumb configuration and iconicity in American Sign Language

Amelia Becker
Georgetown University

ab3082@georgetown.edu

Iconicity is known to shape signed language lexicons (eg. Taub 2001; Occhino 2016). This study examines iconicity's role in the *synchronic* phonology of American Sign Language (ASL), a still under-explored topic. The native, non-initialized ASL lexicon is traditionally considered to conform to well-formedness constraints without regard to iconic motivation (Eccarius 2008; Brentari 1998). I ask whether this is true of thumb configuration. Brentari (1998) proposes a binary [opposed]/[unopposed] thumb configuration feature, in which alignment of the thumb and index finger (an articulation between these two options) is predicted only when the thumb contacts another finger. Results indicate, however, that thumb-index alignment can also be specified absent this contact and that this configuration is activated by iconic motivation.

Thumb configuration was coded for all non-numeral signs in ASL SignBank (Hochgesang et al. 2018), a usage-based database of 2,281 (at time of analysis) core ASL signs. Ninety-five total signs were specified for thumb-index alignment. Thirty-four were initialized; fifty-one closely resembled their depictive origins but would be considered core signs. The remaining ten derive from metaphorical extension (Taub 2001). Five of these have the "claw 5" handshape, which Occhino (2016) found contributes semantic content to signs even when non-morphemic.

Based on these findings, I propose a third category of thumb configuration which is made available in the grammar when the thumb participates a sign's iconic form-meaning mapping. The role of iconicity therefore cannot be confined to diachronic development. Rather, iconicity must be accounted for on a sign-by-sign basis by taking into account both literal and metaphorical iconic mapping. In other words, iconic mapping must be accessible to the synchronic grammar.

References: • Occhino, C. 2016. *A cognitive approach to phonology: Evidence from signed languages*. (Doctoral dissertation). Retrieved from digitalrepository.unm.edu. • Eccarius, P. N. 2008. *A constraint-based account of handshape contrast in sign languages*. (Unpublished doctoral dissertation). Purdue University. • Taub, S. F. 2001. *Language from the body: Iconicity and metaphor in American Sign Language*. Cambridge: CUP. • Brentari, D. 1998. *A prosodic model of sign language phonology*. MIT Press. • Hochgesang, J., O. Crasborn & D. Lillo-Martin. 2017. *ASL Signbank*. New Haven, CT: Haskins Lab, Yale University.