

# How does language experience affect the perception of lexical iconicity in a sign language?

## Evidence from HKSL signers, DGS signers and Hong Kong non-signers

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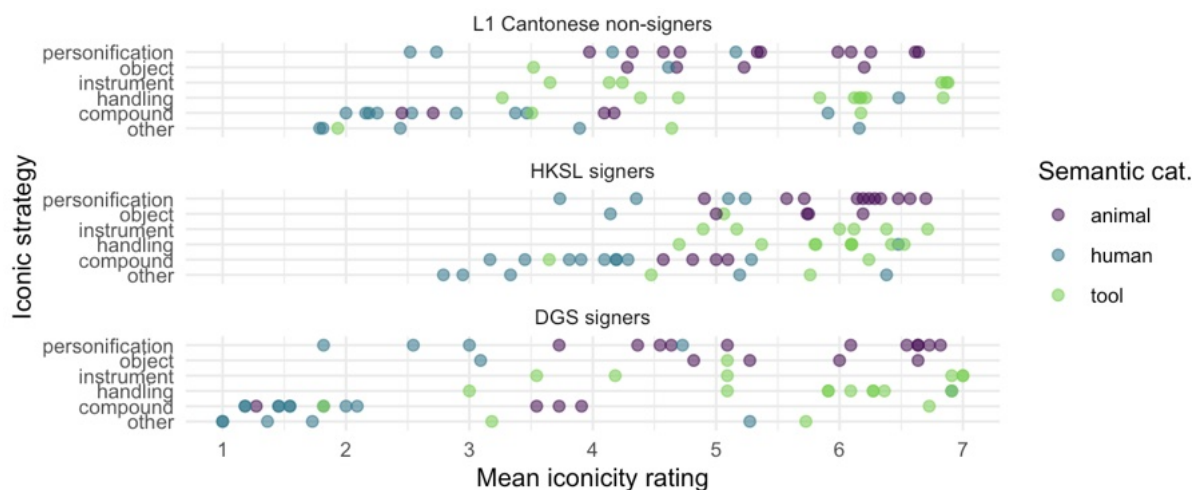
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Studies on sign languages have highlighted the affordances of the visual-spatial modality for a high potential for iconic representation (Hou 2018; Hwang et al. 2017; Padden et al. 2015; Perniss, Thompson & Vigliocco 2010). The perception of iconicity, measured for instance by degrees using iconicity ratings (Dingemanse et al., 2020), is not objectively defined, however, but dependent on an individual's language experience (Occhino et al. 2017; Sevcikova Sehyr & Emmorey 2019).

The present study investigates the perception of iconicity in the Hong Kong Sign Language (HKSL) lexicon by participants of different linguistic backgrounds: HKSL signers, German Sign Language (DGS) signers and L1 Cantonese non-signers. 60 HKSL signs from three semantic categories (*animal*, *human* and *tool*) were selected for an iconicity rating task. They were categorised by the iconic mapping strategy (e.g., *handling* for depicting how an object is held) and an additional category for *compounds* due to their high prevalence in HKSL signs. We asked participants to rate, on a scale of 1 to 7, the degree of similarity between the sign and its meaning. The study examines (1) the extent to which iconicity ratings depend on the semantic category and mapping strategy of a sign; and (2) how language experience impacts one's perception of iconicity in signs.

HKSL signers who are native users of the language show the highest average degree of iconicity ( $M=5.26$ ,  $SD=1.84$ ), followed by non-signers ( $M=4.48$ ,  $SD=2.14$ ), and DGS signers ( $M=4.27$ ,  $SD=2.37$ ) where the greatest variation is observed. Although to a differing degree, certain couplings of semantic category and mapping strategies of signs are preferred by all groups (Figure 1). Major patterns observed (e.g., higher ratings for *animal* with *personification* strategy) are in line with findings of previous cross-linguistic studies, likely due to the shared embodiment and perceptual experience humans engaged (Perniss & Vigliocco 2014). Interestingly, when non-native HKSL signs, such as loan translations and signs with Chinese character depiction (Figure 2), are excluded, the overall rating for DGS signers ( $M=4.74$ ) is slightly higher than for non-signers ( $M=4.67$ ). The results further exemplify and support the notion that iconicity is mediated by one's language experience in the spoken, signed, and also written modality. This study provides insights into how signers and non-signers construe form and meaning in signs. In particular, it sheds light on the role of Chinese character depiction and loan translation as non-native components, which is currently an understudied aspect, in sign language iconicity.



**Figure 1.** Mean iconicity ratings of 59 signs between groups



**Figure 2.** HUMAN (人) in HKSL

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