Sensitivity to sound symbolism in Japanese Hard-of-Hearing children

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Sound symbolism—a form of iconicity between speech sound and meaning—has shown to play a role for language acquisition (Imai & Kita, 2014), especially for young children. This scaffolding effect has long been assumed to be irrelevant for Hard-of-Hearing (HH)children in their learning of oral language. However, Eberhardt (1940) reported that deaf children are sensitive to some sound symbolism, relying more strongly on kinaesthetic iconicity than the hearing children. Thus, HH children might detect iconicity between sound and meanings through multi-modal mappings. This research examines this possibility by testing Deaf-or-Hard-of Hearing children, using the stimuli with which hearing Japanese and English speaking children and adults detected sound-meaning correspondence.

Study 23 HH children were tested. They were enrolled in a special school for the Deaf-or-Hard-of- Hearing (Grade 1-3). Twenty-seven hearing 4-year-olds were additionally tested on the same stimuli. Both groups of children went through 24 trials. In each trail, a novel mimetic and two videos of motion, one sound symbolically matching and the other non-matching, were presented. The children were asked to choose the video that matched the word. Novel mimetic words were created following Imai et al. (2008)'s procedure. Tothe HH children, the words were presented orally and in letters.

The HH children selected the matching video 71.4% of the time, which was highly significantly above chance level (<.001), and was not different from the performance by hearing children (70.8%). The pattern of success rate across items was similar between the HH and the Hearing children, $r=.704$, $p<.01$. The performance did not differ across children with cochlear implant and those with hearing aids ($p>.05$). This study thus established that HH children were able to sound-meaning correspondences in motion.

Reference

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