

## **What insights can we draw from universal and language-specific sound symbolism onto the Symbol Grounding Problem?**

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Language is a system of abstract symbols. To address the symbol grounding problem (Harnad, 1998), which is directly linked to key problems in language acquisition and evolution, we need to address not only 1) how children map their physical and sensory experiences to the first set of symbols but also 2) how they de-ground from “here and there” and climb the ladder into an inter-connected system of abstract concepts. Previous studies from my laboratory have demonstrated that sound symbolism plays an important role in the initial stages of lexical acquisition (Asano et al., 2015, Imai et al., 2008, 2015, Imai & Kita, 2008), addressing the first part of the problem. However, the second part—how children can de-ground from the body—has not been sufficiently addressed. Language-specific sound symbolism provides important insights onto this problem.

It has long been assumed that sound symbolism directly reflects multi-sensory mappings between the world and sound, so the mappings should be universally shared. However, in reality, sound-meaning correspondences are diverse across languages and the correspondences in a given language are difficult to detect by non-native speakers. This suggests that each language has its own choice in mapping meanings to sounds and have a language-specific system of sound symbolism. By looking at language universal and language-specific sound symbolism across different languages, we might trace how sound symbolism that had been directly anchored to the body and the world could grow into a complex language-specific system of sound symbolism that is iconic only to the native speakers. This will further provides us with clues for how children embody the language specific system of sound symbolism in their mother tongue. In this talk, I present the results of an experiment that elicited production of sound symbolic words in Japanese and English speakers and discuss how language-specific sound symbolism may arise within the constraints of the linguistic system of the given language. I will then discuss implications for the symbol grounding problem.