An experimental investigation into the perception of Chinese sound symbolism

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Humans know instinctively which sounds are more appropriate than others for different categories of meaning. Native speakers could recognize a motivated association between the signifier and the signified in their language, and they could also identify the sound iconicity in a language that they do not know.

The current research investigates the perception of sound symbolism of speakers whose native languages belong to different language families. Under a cognitive framework, phonological space and semantic space reside in conceptual space as two aspects of human cognitive organization and are coordinated by a symbolic structure in a bipolar system. The symbolic structure resides in a link between a semantic structure and a phonological structure "such that either is able to evoke the other" (Langacker 1987; Langacker 2008).

Based on previous research using proper names in different languages (Sidhu & Pexman 2015; Kawahara, Noto & Kumagai 2018) and the results of sound-meaning association attested in corpus analysis concerning Chinese (Thompson 2018; Wang 2022), we developed an online experiment to test the perception of the association between sound and meaning with Chinese proper names among Chinese native speakers and Francophone participants (Klink 2000; Auracher, Menninghaus & Scharinger 2020).

The results indicate that both Chinese and Francophone speakers tend to associate specific phonological structures (phoneme and syllable combination) with certain physical characteristics (gender, volume, strength, and nature of the referent) and emotional characteristics (positive and negative) (see Fig. 1). However, we found different patterns for the two groups. Chinese speakers didn't recognize sound-emotion correspondence and Francophone speakers were less sensitive to sound-nature correspondence than other sound-meaning associations in Chinese proper names. Our result suggests a universal tendency of sound-meaning correlation perception referring to human bodily experience and certain language-specific characteristics which reflects the impact of cultures.
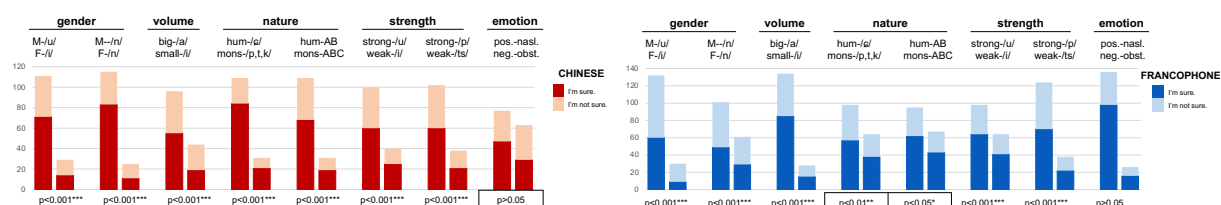

Fig. 1: Perception of sound-meaning correspondences by Chinese (left) and Francophone (right) participants.

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