

Understanding the Meaning of the Hand Movements through the Iconicity of Taiwan Sign Language

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We investigated the influences of embodied experiences and language-dependent knowledge on comprehending the iconic signs of Taiwan Sign Language (TSL), and the method of judging the possible meanings of iconic signs by naïve signers. In Experiment 1, we manipulated the degree of iconicity categorized by TSL experts and asked naïve signers to do a subjective iconicity rating task. The results showed similar judgments of iconicity degree between experts and naïve signers. In Experiment 2, iconicity was investigated by a 5-possible-meaning ranking task and a confidence rating task for each meaning. These results revealed that the meanings of the high iconic (HI) signs are easier to correctly determine, and the ranking performance of low iconic (LI) signs is influenced by the semantic categories. In Experiment 3, we assessed the representations of iconicity (manipulation-based/M, vision-based/V). While correctly ranking HI meaning, naïve signers can tolerate meanings from different semantic categories when viewing the M signs. In Experiment 4, naïve signers were asked to do picture gesturing of concrete nouns and the time from the onset of the picture to the release of the button was analyzed. The data suggested that manipulation-based and HI pictures are faster to gesture than others. Drawn from these observations, we demonstrated that the degree and the representations of iconicity in TSL can cross culture boundaries. Our bodily experience plays a prominent role in comprehending gestures.

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