

## **Phonological Comparisons between Taiwan Sign Language and Signed Chinese**

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This study compared the phonological patterns of Taiwan Sign Language (TSL) with those of Signed Chinese (SC, a manually coded Chinese). TSL has a grammatical system that is different from Chinese, whereas SC basically adopts the grammar of Chinese and was invented with the goal of improving deaf children's Chinese literacy. However, SC has not only failed to help improve literacy, but also cannot be well learned by deaf children. Possible reasons for SC's failures include incomplete SC input from teachers of deaf children and the complicated morphological properties of SC itself. However, at the sign-internal phonological level, it is unclear whether the composition of invented SC signs is similar to that of TSL, and it is also uncertain whether SC signs obey natural phonotactic constraints that hold true for TSL signs. Comparisons of handshape, location and movement patterns between TSL and SC showed that SC does adopt marked handshapes more frequently and adopt unmarked handshapes less frequently than TSL. Regarding phonotactic constraints, SC signs violate the Dominance Condition (by using the nondominant hand for articulating hand movement) and the Narrator Perspective (by depicting Chinese characters from the viewer's perspective) more frequently than TSL. These differences might make it difficult for learners to learn this system.

In order to test whether violations of the Dominance Condition and the Narrator Perspective cause learning difficulty, a difficulty judgment task was designed to test hearing nonsigners' preference regarding the choice of hand for making movement and the perspective taken for depicting Chinese characters. Another memory task was also designed with the goal to see whether signs violating these constraints would be more difficult to recall correctly. Results of these tasks confirmed that the use of the dominant hand for making movement is indeed preferred by novice learners. Nevertheless, nonsigners showed no clear preference as to how to sign a Chinese character. Thus, the Narrator Perspective might not be as natural a principle for signing as the Dominance Condition is. Overall results are summarized and discussed with implications to the design principles of SC signs and deaf education.