

Chinese Characters and Speech Perception

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This study focused on Taiwan Mandarin speakers' awareness of sociophonetic variations (Labov 1966, 1994, 2001). A total of 316 participants listened to the same acoustic stimuli, but were separated into two groups: the traditional-character-reading group (TCR) and the simplified-character-reading group (SCR). Traditional characters are currently used in Taiwan, while simplified characters are used in Mainland China. The hypotheses were that (a) the social identity of either a Taiwan Mandarin speaker or a Beijing Mandarin speaker could be inferred by the type of character employed and (b) speech perception would be affected by listeners' expectation activated by the suggested social identity.

This paper extended the works of Niedzielski (1999), Hay, Nolan, and Drager (2006a), and Hay and Drager (2010) in examining how the social factor of nationality affects speech perception. One notable sociophonetic variation found commonly in Taiwan Mandarin is the merging of retroflex consonant initials (/tʂ/, /tʂʰ/, and /ʂ/) with the dental series (/ts/, /tsʰ/, and /s/). Using a consonant matching task, participants were given different transcripts of the same audio stimuli, either in traditional (TCR) or simplified characters (SCR). The prediction was that TCR participants are more likely to match the retroflex sounds they hear to the dental series than SCR participants. SCR participants, on the other hand, were predicted more likely to match the retroflex sounds they hear to the actual retroflex consonant initials.

Chi-square test results indicated that while written characters have an effect across all ages of female Mandarin speakers in Taiwan, only younger male Mandarin speakers, thirty and under, were affected. Female speakers under thirty showed a different trend of response toward the variation in written characters from female speakers over thirty. The findings also suggested that where there is a conflict between two modalities of input, audio and visual, the result of the cognitive processes vary across age and gender. When audio input does not correspond to the expectation from visual input, younger speakers show a higher tendency to make perceptual judgments according to the visual input than older speakers. In addition, within the group of older participants, male speakers show a higher tendency of ignoring the modality conflict than female participants.

This work was a large-scale study examining the interaction between social identity and speech perception in Mandarin. The priming of social identity was fulfilled by the writing system, which variants are used by different dialects of Mandarin Chinese. It demonstrated that even with such a subtle hint of nationality, by using orthography, listeners' expectation would be effected by what is actually being visually perceived.

References

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