

Effects of Language Attrition on Tonal Changes in Taiwanese

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The study investigated a correlation between a recent tonal change and language attrition in Taiwanese. A mid level tone was found to merge into a low-falling tone among young Taiwanese speakers who speak Mandarin more frequently than Taiwanese in the recent decade (Luo, 2005). According to the Psycholinguistic Hypothesis of language attrition (Schmid 2002: 18), linguistic knowledge is not lost, but just misled by later language experience. The mid level tone could be misperceived as a low-falling tone due to dramatic decrease of Taiwanese exposure. In Taiwanese, there are five non-checked tones (i.e. tones in open syllables), 55, 24, 21, 51, and 33 (Chen, 1987; Peng, 1997); in Mandarin, there are four lexical tones, including 55, 35, 21(4), and 51 (Chao, 1968). According to Yeh (2010), the high level tone [55], low-rising tone [24], low-falling tone [21], and high-falling tone [51] in Taiwanese correspond to the high level tone [55], mid-rising tone [35], low-dipping tone [214], and high-falling tone [51] in Mandarin, respectively. Frequent exposure to Mandarin which has no mid level tone leads to confusion of the two similar tones, mid level tone and low-falling tone, in Taiwanese. Thus, the mid level tone is predicted to be misplaced in the experiments described below.

The current study examined perception and production of Taiwanese tones by 20 young adult Taiwanese native speakers who used to be Taiwanese-Mandarin bilinguals but now have Taiwanese conversation less than 1 hour per week in the current decade. In Experiment 1, Taiwanese participants were instructed to discriminate each pair of the five Taiwanese tones using an ABX paradigm. In experiment 2, Taiwanese tones were presented in isolation and the participants were requested to identify which tone they heard. In Experiment 3, the participants were asked to produce Taiwanese words with five different tones by an elicitation task. The mid level tone is predicted to be the least identifiable since it does not correspond well to any tonal category in Mandarin. In addition, it is more difficult to discriminate the tone pairs 33-24 and 33-21 due to their similar phonetic properties. More production errors of mid level tone are also expected, which may reflect the poor perception of mid level tone.

The preliminary results conformed with the prediction that the mid level tone is the most confusing category not only in the perceptual tasks, but also in the production test. The findings illustrate how changes in language, both in perception and in production, are relevant to language attrition in terms of the Taiwanese mid level tone, and suggest effects of use frequency and phonetic similarity on language change. Lexical frequency is thus predicted to have an influence on the merger of the mid level tone and low-falling tone in Taiwanese, too. In future research, the lexical frequency issue on Taiwanese tonal change will be investigated.