

## A perceptual approach to the derivation of ChaoShan dialect

The absence of the alveolar stop in coda position in ChaoShan dialect, where the phenomenon serves as a counter example to the generalization ( $p > t > k$ ) proposed by Chen (1973) is an interesting case that calls for explanation. The claim proposed by Ohala (1989, 1993) that the source of the sound change lies on the misperception of the listeners, which can be replicated in the laboratory looks promising in providing a feasible account of the sound change. Thus, the goal of the study is to explore the correlations between the misperception and the loss of the alveolar stop of ChaoShan.

Two perceptual experiments, gating and noise-masking, were conducted, while the stimuli were manipulated into fragments or with different degrees of noises. The participants of the two experiments were from different language groups. The results indicated that the nature of the vowel, the nature of the consonant and the language background of those subjects affect the coda identification. First of all, /t/ can be mis-identified mostly and across language groups, the coda /t/ is disfavored by the vowel /a/, while it is preferred to in the company of the coda /k/. That is the loss of the coda /t/ may possibly initiate from the rhyme of /at/ because of listeners' misperceiving it as /ak/. After a span of time of lexical diffusion, all the alveolar stops turn out to be velar ones under all conditions. The historical documents confirm the above argument as well. The results of two experiments reflect the possibility of misperception as a possible cause of sound change and how in this particular case the misperception of /at/ as /ak/ can adequately explain the loss of the terminal alveolar stop in ChaoShan. Our study is in accord with Ohala's proposal about the role of the listeners in a sound change and has taken a step in the direction of explaining the derivation of ChaoShan codas.