

Dipping-Tone Contrasts in A Multi-Dipping-Tone System:

A Case Study of Jin Chinese

By examining the phonetic and phonological nature of Lǚliáng Jin Chinese tones, especially from the perspectives of acoustics, tonal typology, and tonal evolution, this paper demonstrates how dipping tones contrast in a multi-dipping-tone system.

A dipping tone has a falling-rising contour. The most familiar case is Shǎngshēng in Běijīng Mandarin, which is transcribed as [214] using Chao tone letters. Dipping tones appear in a number of Chinese dialects. Zhu et al. (2012) first classified seven types of dipping tones under the framework of the “multi-register and four-level” tonal model. In their system, there are four dipping tones in the modal register, which are low-dipping /323/ (低凹調), back-dipping /523/ (後凹調), front-dipping /324/ (前凹調) and double circumflex /3232/ (兩折調); and three in the lower register, which are creaky low-dipping /202/ (嘎咧低凹調), creaky high-dipping /404/ (嘎咧高凹調) and breathy dipping /213/ (弛聲凹調).

Jin is a major variety of Chinese; it is spoken in Shānxī province (山西省) and neighboring regions. In certain dialects of Jin Chinese, there are multiple dipping tones, but with subtle variations. The Lǚliáng dialect is a major sub-dialect of Jin. This study, by analyzing 22 cases of Lǚliáng dialects, finds that there are 13 cases maintaining a three-dipping-tone contrast, and nine cases having a two-dipping-tone contrast.

Among the three-dipping-tone contrast cases, (1) there are nine speakers maintaining a “low-dipping vs. back-dipping vs. mid-short low-dipping” contrastive pattern. This is the most common dipping-tone contrastive pattern in Lǚliáng dialects. In this contrastive pattern, T1a is the low-dipping tone and T2 is the back-dipping tone, both of which are long tones; and T4b is the mid-short low-dipping tone. (2) There are three cases displaying a “low-dipping vs. back-dipping vs. mid-short back-dipping” contrastive pattern, in which T1a is a low-dipping tone, T2 is a back-dipping tone, and T4b is a mid-short back-dipping tone. (3) One case presents that T1a has a front-dipping or rising contour, T2 is a back-dipping tone, and T4b is a low-dipping tone.

Among the two-dipping-tone contrast cases, (1) five speakers display a “back-dipping vs. mid-short back-dipping” contrast; (2) three speakers present a “low-dipping vs. mid-short low-dipping” contrast; (3) and one speaker has a “low-dipping vs. back-dipping” contrast.

We argue that the two-dipping-tone contrast systems evolved from the three-dipping-tone contrast systems. In most of the three-dipping-tone contrast systems, T1as are low-dipping tones, and T2s are back-dipping tones. T1a and T2 have merged into one tone, while the merged dipping tone might be either low-dipping or back-dipping, and formed a two-dipping-tone contrast system.