

The Evolution of Jin Chinese Entering Tones: Evidence from Lǚliáng and Bìngzhōu

By examining the phonetic and phonological nature of Lǚliáng and Bìngzhōu Jin Chinese entering tones, especially from the perspectives of acoustics, tonal typology, and tonal evolution, this paper demonstrates the evolution of Jin Chinese entering tones.

It is generally assumed that Yīn tone has a higher pitch than Yáng tone within the same Middle Chinese tone category. However, the Bìngzhōu entering tones have a “Yīn-low vs. Yáng-high” contrast, which is opposite to the Lǚliáng “Yīn-high vs. Yáng-low” contrast. This study reconstructs a path that shows how this “flip-flop” phenomenon (Wang 1967, Yue-Hashimoto 1986), namely, the Lǚliáng “Yīn-high vs. Yáng-low” entering-tone contrast changed to the Bìngzhōu “Yīn-low vs. Yáng-high” contrast.

The “multi-register and four-level” tonal model (Zhu 1999, 2005), the universal tonal inventory, and the evolutionary comparative method (Zhu 2014, 2018) are the main methodologies applied in this study. 34 native Lǚliáng and Bìngzhōu Jin Chinese speakers’ recordings have been acoustically and phonologically analyzed.

This study, by providing the illustrative examples of Lǚliáng and Bìngzhōu entering tones, exhibits a four-stage evolutionary path to explain how the Lǚliáng “Yīn-high vs. Yáng-low” contrast finally becomes the Bìngzhōu “Yīn-low vs. Yáng-high” contrast. We claim the “flip-flop” that happened in Jin entering tones is a gradual phonetic change rather than a sudden reversal. At the first stage, the T4a is a short high tone while the T4b is a mid-short low tone with a dipping contour. In stage two, the T4a begins to lower its height and lengthen its duration, to gradually become a mid-tone with a falling contour. From stage three, as the T4a continues lowering, the T4b starts changing as well to avoid merging with each other. The T4b, originally a low-dipping tone, becomes a back-dipping tone by raising its tonal head. For the final stage, the T4a becomes a mid- or low-falling tone, and the T4b becomes a high-falling tone. By the end of these four stages, the two entering tones have finished the “flip-flop” process from Lǚliáng “Yīn-high vs. Yáng-low” to Bìngzhōu “Yīn-low vs. Yáng-high”.

We have two arguments to interpret how the Lǚliáng “Yīn-high vs. Yáng-low” entering tone contrast has evolved to the Bìngzhōu “Yīn-low vs. Yáng-high” contrast. First, pushed by the tendency to become non-entering tones, the two entering tones of Jin follow the changes of certain non-entering tones which have similar contours with themselves. Secondly, although the two entering tones follow the changes of non-entering tones, to maintain themselves as independent tonal categories, they keep their short duration to distinguish themselves from non-entering tones.

References:

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