Multi-Register Tone Systems and Their Evolution on the Jianghan Plain

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Abstract

On the Jianghan Plain of China, the non-clear phonation types, falsetto and breathy, are used for phonological distinctions and the dialectal varieties are uni-, di- or tri-phonational. We investigate five towns on the Jianghan Plain – Songzi, Gong’an, Shishou, Jianli and Shayang where the multi-phonational dialects co-exist with their corresponding uni-phonational ones. With the Multi-Register Four-Level Tonal Model, which distinguishes tones by both phonation and pitch, we define these tone systems and find their consecutive changes with the perspective of evolution. No matter whether the multi-register tone systems are the five- or six-tone ones of the Southwestern Mandarin or the eleven- or ten-tone ones of the Gan dialects, they are changing toward an Efficient Distributive Pattern (EDP), a uni-register system of four tones in which the tones are well distributed in terms of their relative distance in the tonal space.

In Songzi and Shayang, the uni-phonational dialects co-occur with the di-phonational ones. There are five tones in the di-phonational dialects where a falsetto rusheng or yangping is included. After a comparison of the tone systems of the di-phonational dialects and their corresponding uni-phonational ones, we find that the Middle Chinese (MC) rusheng merges ‘with’ yangping instead of ‘into’ yangping.

In Gong’an, falsetto occurs in the MC yinping category. This causes the split of this MC category into a clear-voiced group and a falsetto one. With the maintenance of rusheng, there are five or six tones in the southern and central varieties of Gong’an. In its northern varieties, the MC rusheng disappears and the tonal number is reduced to four where EDP appears. As for Shishou, though falsetto only occasionally occurs but the tone systems of its varieties also manifest the feature of being changing as the varieties of the other four towns do through the various re-categorization of the MC qusheng and rusheng.

In Jianli, from the south to the north, the phonation types are reduced from three (falsetto, clear voice and breathy), to two (falsetto and clear voice) and to one (clear voice). The tone numbers are reduced accordingly from eleven or ten in the south to seven or six in the middle and north
and then to five in the northernmost variety.

This study verifies that tone should be defined by both phonation and pitch and it also proves the efficiency of the perspective of evolution in the studies of variations. As for the evolution of tone systems, (1) the phonation change is an active factor in starting the process of evolution and (2) the tone systems proceed in an evolutionary circle of simplification by moving towards systems of four tones and of complication arising from the relative large distance between tones offered by EDP for free variations.