

Fundamental Frequency Splits in Qidong Xiang Chinese

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This study investigated the fundamental frequency splits in Qidong Xiang Chinese. In the data produced by the old-generation speakers, we observed ten distinct f₀ contours. Eight can be classified as the f₀ realization of the four MC tonal categories within two pitch registers, with the higher-register ones after voiceless unaspirated stop onsets and the lower-register ones after voiced stop onsets. Two additional f₀ contours are observed in the *Ping* 平 and *Shang* 上 categories after sonorant onsets (i.e. *cizhuoping* 次浊平 and *cizhuoshang* 次浊上). Data from the younger speakers, however, suggest that there are only nine distinct f₀ contours. While the others stayed similar to that of the older speakers, in the *Shang* 上 category, the f₀ contours after voiceless unaspirated and sonorant onsets (i.e. *cizhuoshang* 次浊上和 *qingshang* 清上) showed no significant difference.

For the *Ping* 平 and *Shang* 上 categories, we speculate that their f₀ contours after sonorant onsets were lowered as that after voiced stop onsets during the first splitting. Subsequently, two new f₀ contours *cizhuoping* 次浊平和 *cizhuoshang* 次浊上 (observed in the older-generation speakers) formed due to f₀ raising after sonorant onsets, which are new f₀ splits from that after voiced stop onsets. The merging of *cizhuoshang* 次浊上和 *qingshang* 清上 in the young-generation speakers is likely to have undergone three stages: 1) an earlier splitting of f₀ contours after voiced stop and sonorant onsets from those after voiceless onsets, 2) the emergence of a new f₀ contours (*cizhuoshang* 次浊上) via f₀ raising, as evident in the older-generation speakers; and 3) the continued f₀ raising in *cizhuoshang* 上 as well as the f₀ lowering of *qingshang* 清上 due to the influence of Standard Chinese. Fundamental frequency splits and mergers observed in synchronic Qidong Xiang can therefore be viewed as a result of diachronic sound changes, which are both internally and externally motivated.

Keyword: Growth curve analysis; laboratory phonology; experimental phonetics; Qidong Xiang Chinese; fundamental frequency splits.