

Phonetic Realizations of Metrical Structure in Tone Languages: Evidence from Chinese Dialects

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In tone languages, some case studies showed that the word-level tonal representation was closely related to the underlying metrical pattern. Based on different tonal patterns in prosodic units, the metrical structures could generally be divided into the left- and right-dominant types in Chinese dialects. Yet the cross-dialectal phonetic realizations (e.g., duration and pitch) between or within these two metrical structures were still unrevealed. The current study investigated the duration and pitch realizations of disyllabic prosodic words in Changsha and Chengdu dialects (the left-dominant structure), and in Fuzhou and Xiamen dialects (the right-dominant structure). Results showed that not all the duration patterns across four Chinese dialects were sensitive to different metrical structures, indicating that the duration might not be the universal cue for metrical prominence in Chinese dialects. In terms of pitch realization across all the four Chinese dialects, level tones (sometimes falling tones) generally appeared in the metrically weak unit, while underlying pitch forms appeared in the metrically strong unit. Compared with duration, pitch might be more robust for prosodic realizations of metrical structures in Chinese dialects. Furthermore, there was an interaction between duration and pitch patterns in Chinese dialects, which could shed new light on the phenomenon of “metrical tone sandhi”. Meanwhile, this study also provides some references for the judgment of the metrical stress and prosodic realizations in other Chinese dialects.