

## **The Significance of the Acoustic Signature in Chinese Narrative Performance: New Discoveries Through Praat Acoustic Analysis Software**

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This Poster explores both a musicological and an acoustical approach to recordings of vocal renditions from two schools of Chinese narrative singing that were differentiated by gender during the first half of the twentieth century: The “male” or Liu school after Liu Baoquan 刘宝全 (1869-1942), and the “female” or Luo style after Luo Yusheng 骆玉笙 (1914-2002). The musicological analysis is based on transcriptions of recordings representing singers from the two schools, comparing melody, rhythm, ornamentation, and tonality. The acoustic analysis compares pitch and duration at the phrase and syllable level for four different recordings (two recordings for each school of singing) using Praat acoustic analysis software (version 6.0.05; Boersma & Weenink, 2015). In addition to the automated voice extraction provided by the Praat analysis software, a visual analysis of the sound waveform is used to calculate the duration of each phrase, syllable, and sound segment to the nearest millisecond. While the original goal of the research was to ascertain subtle differences between male and female vocal performances, the data overwhelmingly demonstrates that the desire of performers to create an individual acoustic signature far outweighs any stated obligation to strictly maintain the vocal traditions of one’s teacher—an obligation that is one of the recognized hallmarks of the Chinese narrative arts. This research concludes that looking into the kinds of nuances detectable through acoustic software enables researchers (1) to discover hidden aspects of performance unattainable through traditional ethnomusicological methods and (2) to underscore the significance of producing a signature voice pattern for a professional singer.