

**Comparison of Vibrato Rates between Chinese Peking Opera Singing  
Tradition and Western Bel Canto Singing Tradition**

Kelly Ye

Westminster Choir College, Rider University

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Dr. Sean McCarther

## **Comparison of Vibrato Rates between Chinese Peking Opera Singing Tradition and Western Bel Canto Singing Tradition**

The purpose of this study is to compare the use of vibrato between traditional Chinese Peking Opera singing and Western traditional Bel Canto singing. The use and the appearance of singing vibrato often change when singing in different styles. By comparing and contrasting the Chinese traditional Peking opera singing style and the Western Classical Bel Canto singing style, it provides a deeper understanding of the stylistic differences, thus the performers may be able to employ different styles and techniques related to vibrato usage for expressions in different music genres.

Peking Opera, as known as Beijing Opera, or Jingju, is the most representative classical theatrical art form in China, which originated in the 17th century (Han & Zhang, 2017). Unlike the traditional Western Classical Fach system, Peking Opera distinguishes different voice characteristics by four roles: Sheng, Dan, Jing, and Chou (Han & Zhang, 2017). Sheng is a male role, Dan is a female role, Jing refers to a middle-aged male role, Chou refers to a young or middle-aged male role that “says or does funny and silly things to amuse the audience” (Han & Zhang, 2017).

In this study, different recordings found on the internet are being imported into the VoceVista Video program to measure the vibrato rate in a chosen moment. In this first comparison, a recording of Mei Lanfang’s *Gui Fei Zui Jiu* (1956) is compared to James Bowman’s recording of *Salve Regina* by Antonio Vivaldi (1987). In these two examples, Mei Lanfang, a male performer, is performing the Dan role, which is a female role, while James Bowman is performing as a countertenor. At the moment chosen to be observed for vibrato, both singers are singing a Bb 4. The result of this observation shows that on this particular note, Mei’s vibrato rate is at around 5Hz, while there is

almost no vibrato found in Bowman's recording (Fig. 1).

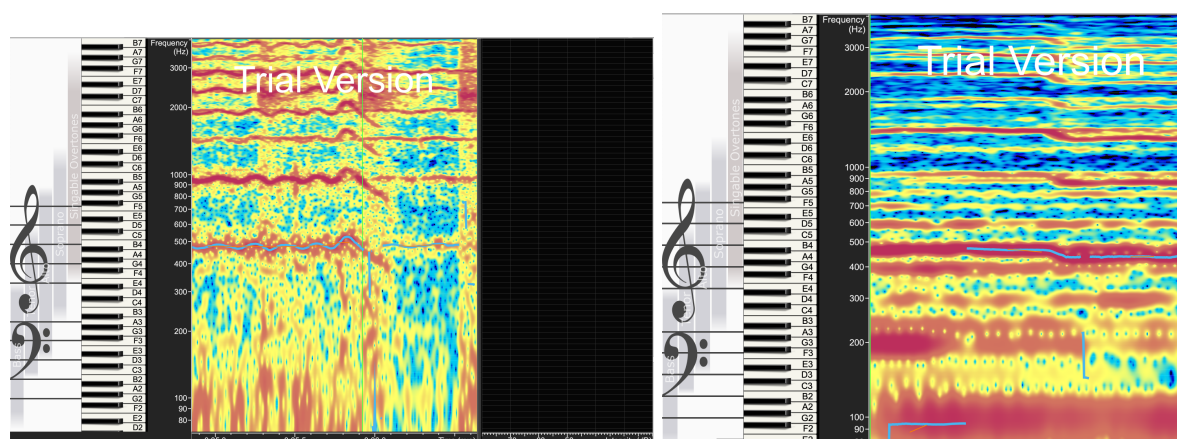


Fig.1, Mei's image (on the left) and Bowman's image (on the right) produced by VoceVista.

In the second comparison, a recording of Tan Gaoxi's *Wu Zixu* (n.d.) is being compared to Luciano Pavarotti's *Nessun Dorma* by Giacomo Puccini (1994). In these examples, both are male singers singing male roles in the lower voice. In the moment that is being observed, both singers are singing a D4. In this observation, Tan's vibrato was at 8Hz while Pavarotti's vibrato was at 6 Hz (Fig. 2).

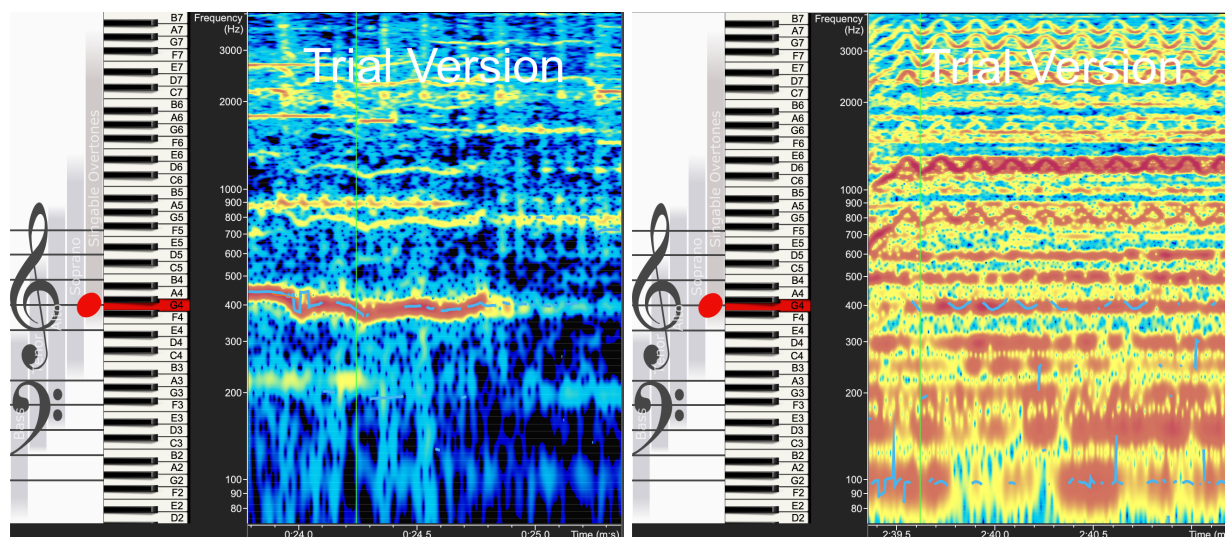


Fig.2, Tan's image (on the left) and Pavarotti's image (on the right) produced by VoceVista.

In the third comparison, a recording of Ding Xiaojun's *Xie Yao Hu* (2016) is being compared to Renée Fleming's *Casta Diva* by Vincenzo Bellini (n.d.). In these two examples, both are female singers singing female roles in the treble voice. At the moment that is being observed, both singers are singing a B4. In this observation, Ding's vibrato was at around 4Hz while Fleming's vibrato was at 6 Hz (Fig. 3).

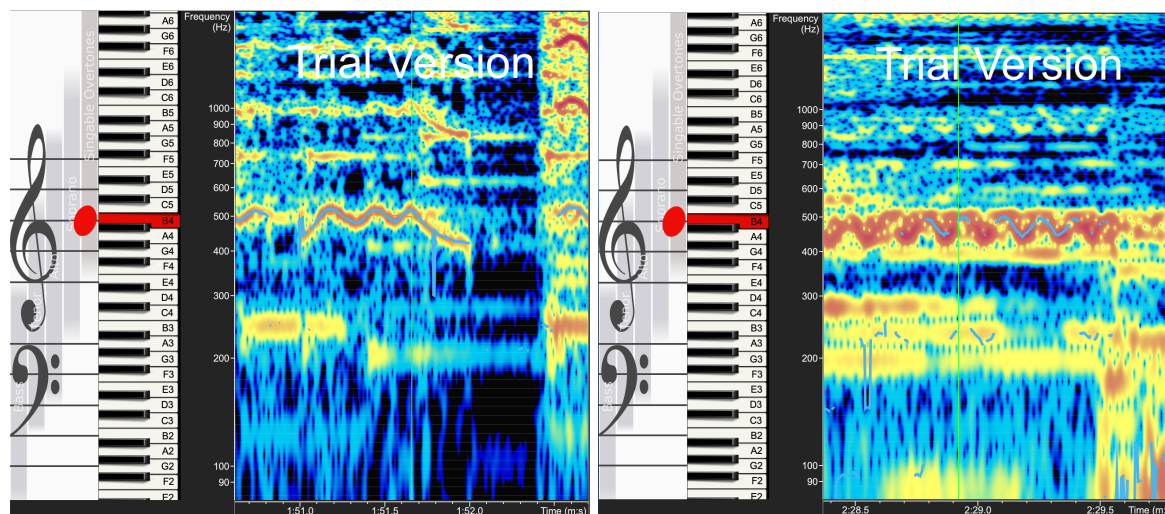


Fig.3, Ding's image (on the left) and Fleming's image (on the right) produced by VoceVista.

In Han & Zhang's findings, they concluded that the average vibrato rate of the Peking Opera singing style is lower than the Western Classical singing style when compared as a whole. In contrast to their conclusion, in this study, in 2 out of the 3 observations that were made, the Peking Opera singers had a faster vibrato rate than the Bel Canto singers.

It is also important to keep in mind that this study has its own advantages and limitations. In this study, similar voice types are being compared to each other, which eliminated some of the factors that might influence the vibrato rate due to the range and the registration of the singing voice. This study also attempts to observe available

recordings from different decades in recent history, which tries to eliminate the confounding variables that may be produced by stylistic changes in each genre throughout history. However, there were only 3 pairs of comparisons made in this study, and the data result might change when more samples and artists are being included. The moments that were chosen in the examples also land in different parts of their phrases, which was a necessary decision in order to compare vibrato rates across the same pitches. However, the artists may have also made stylistic choices to change their vibrato when approaching different parts of the pieces and phrases.

One difficulty in making a comprehensive study of comparisons between the Western Classical singing style and the Peking Opera singing tradition is that, unlike the Fach system used in the Western Classical singing, which covers a large range of voices' tessituras, all Peking Opera's roles tend to land on the higher end of the lower voices and the treble voices. Thus, it was not possible to compare the bass, baritone, or the mezzo-soprano voice in the Western Classical tradition to the Peking Opera Style.

In this study, it was able to conclude that, in the countertenor singing voices, the Peking Opera singer has a faster vibrato rate than the Western Classical singer; in the tenor singing voices, the Peking Opera singer also has a faster vibrato rate than the Western Classical singer; in the soprano voice, the Peking Opera singer has a slower vibrato rate than the Western Classical singer. It is also observed that Western Classical singers tend to have a steadier vibrato than Chinese Peking Opera singers, which is caused by different stylistic requirements and choices.

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