

Abstract

Cantonese tones have been studied many times; however, most of the studies are not deep enough. It is true that we lack detailed research on Cantonese tones and some fundamental questions are still not answered. In this thesis, an experimental study of Cantonese tones is done and these fundamental questions are answered. 10 informants from 19-23 years old were recorded and their recordings are analyzed and described with details.

We focus on the fundamental frequencies (F0) and durations of the collected data. The data are described in five aspects. To compare the F0s and durations of different informants, we firstly have the values of these components normalized. After the normalizations, we compare and analyze the F0s of different tones. Later on, the discussion moves to the relationships between F0s and main vowels, F0s and genders, durations and main vowels, and durations and genders. These four relationships and the description of F0s are the five aspects we deal with in this thesis.

Two extra experiments have been done. The first one is about the changed tone of some words in *Ru* tones. What we have found is that the tone of this kind becomes a rising tone. The recordings can provide more information about this changed tone. The second experiment is a discrimination test. Since the two *Qu* tones have similar F0, the informants are requested to listen and discriminate minimal pairs of the two *Qu* tones. The results show that the native speakers sometimes cannot distinguish them clearly.

The present thesis tries to find out the best tone letter system to represent the tones in Cantonese. Also, this thesis distinguishes the concepts tonetics and tonology, which are parallel to phonetics and phonology, for a better solution to the problem of *Ru* tone.