

A COMPARISON OF LOW AND MIDDLE LEVEL TONES IN CANTONESE WITH TONES IN MANDARIN CHINESE

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The aim of this paper is to investigate what tones Mandarin Chinese words pronounced with low and middle level tones have in Cantonese. The starting-point is the Cantonese pronunciation.

Ramsey writes:

Cantonese is particularly rich in tones. There are nine basic tones, three of which belong to the so-called 'entering tone' category and thus end abruptly with a -p, -t, or -k stop at the end of the syllable. (Ramsey 1987: 102-103.)

Ting (1982: 629), however, states that Cantonese may have more than nine tones. But other scholars identify fewer tones because the entering tones are often not regarded as separate tones 'because tones are recognized by pitch contours rather than by consonantal endings' (Cheung 1969: 106). In this way we get six different tones. Cheung Yat-shing has confirmed Tsung Fu-pang's suggestion that the two variants of Upper Even tones (53 and 55)¹ are actually two independent tones. This means that one of the six tones is divided into two, and that Cantonese has seven independent tones. (Cheung 1969: 106-107.) This paper uses the seven-tone system according to the Yale romanization.

By comparing the Cantonese and Mandarin pronunciations one can easily claim that there is a certain correspondence between the Cantonese and Mandarin Chinese tones. The Cantonese high falling and high level tones often correspond to the Mandarin high level tone, the Cantonese low falling tone to the Mandarin high rising tone, the Cantonese high and low rising tones to the Mandarin low rising tone and the Cantonese middle and low level tones to the Mandarin falling tone. There

¹ These tones are recognized by pitch contours. This is Y. R. Chao's numerical notation. In it 'the numbers represent the approximate musical contour of a tone on a relative scale from 1 low to 5 high, the first and last digits standing for the starting and ending points of a tone' (Sagart 1983: 155). Cantonese also has at least one special tone which is generally not included. This is the tone of the ending *WoH*, which is a low rising and falling tone, written according to Chao's system 131. Capital H indicates the low tone in the Yale romanization system of Cantonese.

are some exceptions to these relationships or mutual correspondences. It seems natural that the Cantonese high end tones correspond to the high level tone in Mandarin and that the Cantonese rising tones correspond to the Mandarin rising tone. A greater difference is that the Cantonese low and middle level tones correspond to the Mandarin high falling tone and that the Cantonese low falling tone characters are pronounced as high rising in Mandarin Chinese, as exactly opposite tones. In the following we shall take a closer look at the correspondence between the Cantonese low and middle level tones on the one hand, and the Mandarin high falling tone on the other. We shall also see what kind of exceptions appear from this correspondence. This means that we shall see the quantity of exceptions and which tone these exceptions are pronounced with in Mandarin Chinese.

Janey Chen's dictionary is used primarily because it has both Cantonese and Mandarin romanizations and because the author has long experience of teaching both languages and can be relied upon, especially with respect to the Cantonese tones. Some of the Mandarin neutral tones have been checked from the dictionary of John S. Barlov.

The words which are formed mostly by one or two Chinese characters are selected by using the table of random numbers (Herva, Vartia & Vasama 1973: 24-25). The page is selected from Chen's dictionary according to the random numbers. The first low/middle level Cantonese tone word is seen on every selected page. If that page has no such word, then the first one from the following page is chosen. If the same page occurs a second time, the second such word from this or the following page is selected, etc. The size of the sample is 300 characters. All characters are accepted, those which appear first or second in the disyllabic words and those which are free monosyllabic words. After this we limit the words to the free monosyllabic words only.

The total number of selected words is 300. All of these have low level tone in Cantonese. 259 characters have a falling tone in Mandarin. 34 have a high rising tone in Mandarin, four a neutral tone, two a falling-rising tone and one a high level tone. Thus 41 characters do not have a falling tone in Mandarin.

Cantonese low falling and low level tones are close to each other in terms of pitch. Thus it seems natural that most of the exceptions are the same tone which corresponds in Mandarin to the Cantonese low falling tone. One may say that in a way the most common exception is 'borrowed' from the closest correspondence.

Most of the words are combinations of two characters. The position of the high rising exceptions in the words of our random sample are as follows: in the first syllable 14 cases, in the second 19 cases and in one case a free monosyllabic word. The only high level exception is a free monosyllabic word. The two exceptions are of falling rising tone: one in the first syllable and the second is a free monosyllabic word. The four exceptions of a neutral tone occur in the second syllable. Since the

sample has so few free monosyllabic words, we are able to see more clearly how the exceptions appear in them.

The dictionary has only 229 free monosyllabic words with low level tone in Cantonese. Among these there are 40 exceptions of the falling tone in Mandarin. Of these exceptions 31 have a high rising tone, 6 a high level tone and 3 a falling-rising, or 'mid-low rising' tone. No high level tone occurred. Neutral tones appeared only in Mandarin disyllabic words which are combinations of two characters. The result resembles one where all words are included. There are some quite common words which have a rising tone in Mandarin and a low level tone in Cantonese: 'ten', 'to learn', 'to read', 'to combine', 'thin', 'straight' and 'white'. 'Five' should also be mentioned as a common special exception with low level tone in Cantonese and a falling rising tone in Mandarin.

The corresponding figures for Cantonese middle level tone in relation to Mandarin falling tone are as follows: 247 of 300 words have a falling tone in Mandarin. The 53 exceptions are distributed in the following way: 13 cases have a high rising tone in Mandarin, 22 a high level tone, 14 a falling rising tone, and 4 a neutral tone. 21 exceptions are in the first syllable, 8 are monosyllabic words and the remaining 24 are in the second syllable.

Regarding free monosyllabic words with a middle level tone in Cantonese, we shall choose 40 exceptions in order to see how they differ from the exceptions of the free monosyllabic words with a low level tone in Cantonese. To find these 40 exceptions of free monosyllabic words to the general rule that a Cantonese middle level tone is pronounced as a falling tone in Mandarin, we need 178 Cantonese middle level words. These 40 exceptions are distributed in the following way: 10 cases have a high rising tone in Mandarin, 20 a high level tone, 10 a falling rising tone, and none a neutral tone.

Concerning the low level Cantonese tone, a rule of thumb is that characters which are pronounced low level in Cantonese are most often pronounced with a falling tone in Mandarin, with the exception of about 13 to 17 per cent, or about 15 per cent. We find the higher percentage in free monosyllabic words. The lower percentage includes all words. Of the exceptions about 80% (78% and 82%) have a high rising tone.

The second general rule is that characters which are pronounced with the middle level tone in Cantonese are most often pronounced with the falling tone in Mandarin with about 53 exceptions out of 300, or 17.6%. Single monosyllabic words have 40 exceptions out of 178 words or 22.5%. Here, too, we find a higher percentage for single monosyllabic words. The number of exceptions is greater than in the case of Cantonese words which are pronounced with a low level tone. In the exceptions of the Cantonese middle level tone in relation to the Mandarin falling tone the distribution of tones is divided more evenly amongst different tones than in the case of the Cantonese low level tone in relation to the Mandarin falling tone.

However, in this case, too, comparatively more exceptions have a high level tone in Mandarin, 41% in all words and 50% in free monosyllabic words.

The material shows that the exceptions group themselves in the following way: the 41 exceptions of the Cantonese low level tone in relation to the Mandarin falling tone, all words: six of these have a vowel ending in the Cantonese pronunciation. One exception ends with *n*, one with *m*, and two with *ng*, and the remaining 31 with a voiceless close *k*, *p*, or *t*. If we take the free monosyllabic words of the same tone, three of the 40 exceptions end with *ng*, and the rest with the voiceless close *k*, *p*, or *t*.

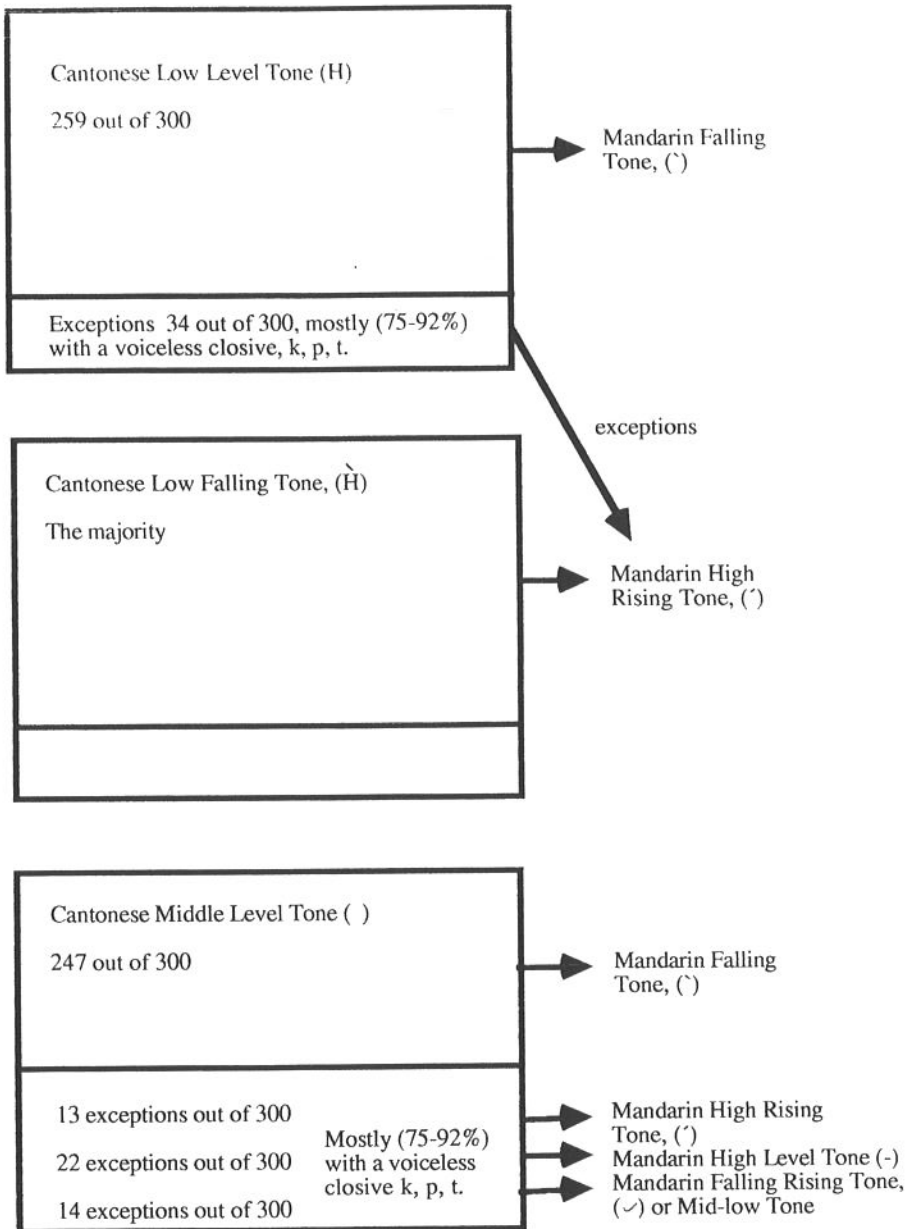
The endings of 53 exceptions, including all words, of the Cantonese middle level tone in relation to the Mandarin falling tone in Cantonese pronunciation, are vowels in two cases, *m* in one, *n* in three, *ng* in one and the voiceless close *k*, *p*, or *t* in all other cases. If we take the free monosyllabic words of the same tone, the endings are a vowel in one case, *m* in one, *ng* in one and the voiceless close *k*, *p*, or *t* in all other cases.

The Cantonese low falling tone is often pronounced as a high rising tone in Mandarin. The low falling tone in Cantonese is closer to the low level tone than to the middle level tone. Consequently, the exceptions of the low level tone to Mandarin pronunciation follow the general rule of the Cantonese low falling tone in relation to the Mandarin high rising tone. In a way this general rule is reflected in the exceptions here. For a similar reason there are comparatively fewer exceptions of the Cantonese middle level tone in relation to the Mandarin high rising tone. In this case the tone exceptions go quite evenly in two directions: to high rising and to mid-low rising tones.

The results show that there is a general rule according to which Cantonese middle and low level words are pronounced in Mandarin as a high falling tone. Then there are exceptions. The distribution of the exceptions show certain reflections from the other general rules of tone correspondence between these two Chinese languages. The exceptions group themselves in the following way: their Cantonese pronunciation ends with the voiceless close *k*, *p*, and *t*, between 75% and 92% of cases, seldom with *m*, *n*, or *ng*, and generally even more seldom with a vowel.

To improve the result one could perform a field study and interview Hong Kong Cantonese-speaking persons who do not speak Mandarin and then Peking Mandarin-speaking persons who do not speak Cantonese. Using dictionaries only gives a rough result. The differences between dictionaries are not statistically important. But to improve reliability, a field study combined with consulting dictionaries would give the best results.

TABLE: A Comparison of the Tones



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