Comparison on the Sound Systems between Sichuan Dialect and English (Part One)

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This paper analyzes the differences of the sound systems between Sichuan Dialect and English from the following two aspects: phonemes and sound combinations (We will discuss the other aspects of their sound systems in another paper). We are convinced that if language teachers have some knowledge of the transfer theory and if they know clearly the similarities and differences of mother tongue and English, it would be much easier for them to know the language focuses and difficulties for the learners and their teaching would be more effective.

Keywords: Sichuan Dialect; English; Comparison; Phoneme; Sound Combination; Language Transfer

Introduction

What kind of influence would mother tongue has on foreign language acquisition has long been the concern of linguists and language teachers. According to the contrast analysis hypothesis which was put forward in the 1950s (Fries, G. & Lado, R.), mother tongue habits would influence foreign language acquisition. It is positive transfer if the learner’s native language helps in learning the second language, otherwise, the negative transfer (Wang Chuming, 1990). Despite the conflicting views on the significance of language transfer in historical linguistics, there is a widespread acceptance of the idea that native language influence could greatly influence second language acquisition (Terence Odlin, 2001), especially when learning the pronunciation. The differences of two languages are usually the difficult points for learners (Rod Ellis, 1994).

Most learners in China begin to learn English from the first year in middle school, so they miss the best time for learning the second language, which is from 6 to 12. The sound system, grammatical system and syntax have already rooted in their knowledge long before they get contact with the second language. Some linguists believe that language acquisition is a process of getting into habits, not that of learning. If learners drill repeatedly in listening, speaking, reading and writing, they would gradually master the second language. But the result goes against the prediction of the theorists. The Chinese students in fact spend a lot of time in learning English before entering colleges. They are excellent in listening and reading comprehension, but very poor in oral English, especially in Sichuan dialect area. Due to the negative transfer of mother tongue, students’ poor pronunciation seriously influences their spoken English. In this paper, we will compare the sound systems of Sichuan dialect and English so as to find out the similarities and differences of them. We are convinced that if language teachers have some knowledge of the transfer theory and if they know clearly the similarities and differences of mother tongue and English, it would be much easier for them to know the teaching focuses and difficulties for the learners and their teaching would be more effective.

Mandarin is the common language of the Han people, while Sichuan dialect is a sub-dialect in the southwest area of modern Chinese north dialect. However, Sichuan dialect differs to some extent from modern Chinese in their pronunciation, vocabulary and grammar. Sichuan dialect usually refers to the official dialect used by the natives in Sichuan Province, Chongqing Municipality and nearby areas. According to the classification in Language Atlas of China (1988/1990), Sichuan dialect belongs to the south-west official dialect. Besides the official dialect in Sichuan and Chongqing, there are some other non official dialects, such as, “Tu-gong-dung-va”, another name for “Hak-ka-va”, and “Old Hu-Guang Words” of “Xiang Dialect” (Cui Rongchang, 1996), but the speakers in these areas can easily communicate with each other in Sichuan Dialect. Sichuan dialect is characteristically “foreign exclusive”. In its system, the sounds, vocabulary and grammar are mostly in agreement, and the inhabitants have little difficulty in communication, but Sichuan dialect has a large population of speakers in a large range of areas, there remains some discrepancies. In the three years between 1956 and 1958, Sichuan University, South-west Normal University and Sichuan Normal University joined their effort to have made a key-point investigation on the 150 places representative of Sichuan dialect. In 1960, the working team of dialect investigation of Sichuan University published The Sound System of Sichuan Dialect (1960) (Hereafter called: The Sound System), in which the researchers listed the brief sound systems of 150 dialect representative places. The time of investigation is not very far from present and at the same time,
and in the recent few decades, Sichuan dialect is relatively steady, especially its sound system, so in this paper we take **The Sound System** as the standard and clear up the consonant table, vowel table and the regular combination patterns so as to make a comparison with English sound system.

English belongs to Indo-European language family and Chinese belongs to Sino-Tibetan language family, so they differ greatly from each other in their pronunciation, vocabulary and grammar. In the following, we will describe the phonetic features, the similarities and the differences of the two languages from several aspects.

### Comparison on the Phonemes

There are complete different ways for the two languages to distinguish meanings, and the analysis of their phonemes reflects their distinctive features of the different nationalities. As far as English syllables are concerned, linguists classify the vowels and consonants according to the nature and property of their articulation, on which they summarize the vowel phonemes and consonant phonemes. Linguist D. Jones lists 44 phonemes, among which 24 are consonants and 20 are vowels in his English Pronunciation Dictionary (D. Jones, 2006). They are as followed:

Consonants: /p, b, t, d, k, g, f, v, s, z, j, q, tʃ, dʒ, m, n,ŋ, j, w/. (Some textbooks include /ts, dz, tr, dr/)

Vowels: /i, ɪ, e, ə, æ, a, ɑ, ɔ, ʌ, u, ʊ, ʌ, aɪ, eɪ, ɔɪ, au, ai, ei, iæ, uæ, iə, uə, iɔ, uɔ /

Syllables in Chinese consist maximally of an initial consonant, a glide, a vowel, a final, and tone. Not every syllable that is possible according to this rule actually exists in Mandarin, as there are rules prohibiting certain phonemes from appearing with others, and in practice there are only a few hundred distinct syllables (San Duanmu, 2007).

In **The Sound System (1960)**, linguists generalized 23 “Initial” (zìjié shēngmù), in another words, 23 consonants in total. If we consider the representative places as different “sets” in math, then, the 23 consonants are the “union” of Sichuan dialect. See the following formula:

{Consonants in Chengdu dialect} ∪ {Consonants in Chongqing dialect} ∪ {Consonants in Zigong dialect} ∪ {Consonants in Leshan dialect} = {p, p’, t, t’, k, k’, ts, ts’, tʃ, tʃ’, dʒ, dʒ’, m, n, n̩, ŋ, j, w, tʃ, dʒ, m, n, ŋ, j, w}.

#### Table 1.

<table>
<thead>
<tr>
<th>Sichuan dialect</th>
<th>English</th>
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<tbody>
<tr>
<td>p `</td>
<td>p'</td>
</tr>
<tr>
<td>f</td>
<td>v</td>
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</table>

#### Table 2.

<table>
<thead>
<tr>
<th>Sichuan dialect</th>
<th>English</th>
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<tbody>
<tr>
<td>ɭ</td>
<td>i</td>
</tr>
<tr>
<td>ia</td>
<td>iæ</td>
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</table>
The Chinese syllable pattern “C(M)V(E)” is very steady and most of the dialects in China follow the rule. There is no exception for Sichuan dialect. The general rule for the Chinese syllable pattern is as followed:

C: All the consonants; zero consonants.
M: i, u, y; zero head vowel.
V: All the single vowels.
E: i, u, n, ə; zero tail vowel.

Based on the general rule, we can summarize the patterns of word initial and final phoneme sequences of Chinese:

V: MV; VE; MVE; CV; CMV; CVE, etc.

Sichuan dialect, as one of the most important dialects in China, follows the general rule of the sound combination of Chinese, but differences exist. In this paper, we focus on the analysis of nasal finals and compound vowels in order to show the distinctive features of Sichuan dialect from those in English.

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The possibilities of “vowel + nasal” combination.

<table>
<thead>
<tr>
<th>Vowel</th>
<th>Nasal final</th>
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<tbody>
<tr>
<td>a</td>
<td>+</td>
</tr>
<tr>
<td>o</td>
<td>+</td>
</tr>
<tr>
<td>ø</td>
<td>+</td>
</tr>
<tr>
<td>i</td>
<td>+</td>
</tr>
<tr>
<td>y</td>
<td>+</td>
</tr>
</tbody>
</table>

Table 4.
The possibilities of “head vowel + nasal final” combination.

<table>
<thead>
<tr>
<th>Head vowel</th>
<th>Nasal final</th>
<th>an</th>
<th>on</th>
<th>in</th>
<th>yn</th>
<th>an</th>
<th>og</th>
</tr>
</thead>
<tbody>
<tr>
<td>i</td>
<td>+</td>
<td>+</td>
<td>-</td>
<td>-</td>
<td>+</td>
<td>-</td>
<td>+</td>
</tr>
<tr>
<td>u</td>
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<td>+</td>
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<td>y</td>
<td>+</td>
<td>+</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>+</td>
</tr>
</tbody>
</table>

In The Sound System, linguists generalize 42 finals (韵母) and they distribute unevenly in the different parts (see Part II: Comparison on the phonemes). There are 19 compound vowels, among which, 10 of them are diphthongs beginning with glides i, u, y: [ia, ie, iæ, ui, iɔ, iɔu, iɔi, iɔy, iɔu, iɔi]; 4 of them are diphthongs ending in /an/ and /æ/ [ai, ei, au, au] and 5 of them are triphthongs: [iæi, iäu, iau, uai, uai]. Tables 5-7 show the possibilities of their combination.

From the analysis above, we summarize the differences of the sound combination of the two languages as follow:

1. The patterns of sound combination in English are much more complicated than those in Sichuan dialect. In addition, the positions for the phonemes in English are mostly free, while in Sichuan dialect, the positions are usually steady and simple.

2. It is very common to see consonant clusters in English and most of the consonant clusters can appear at the beginning, in the middle or at the end of a syllable. Most of the consonants except for [ŋ] can appear at the beginning of a syllable, and most consonants except for [r,h,j,w] can appear at the end of a syllable. In Sichuan dialect, there is no consonant cluster. Consonants only appear at the beginning or at the end of a syllable, but never in the middle. Only two consonants [n,ŋ] can appear at the end.

3. Most consonants in English can freely combine with vowels, except for [s,d,t, z, j] with some vowels. But in Sichuan dialect, the rules for consonant and vowel combinations are much more restricted and many consonants cannot be combined with some vowels. For example, [s, z, z, c, f, g, k, k’, t’s, t’s’, t’s t, s, s’, x, ɔ, ŋ] never goes together with vowel [i].

4. There is no triphthong in the real sense in English. Five diphthongs [ei, ai, si, au, au] can be followed by [ə]. Some linguists consider the compound vowels as triphthongs, but in fact, they are not phonemes as the diphthongs. [ə] belongs to the next syllable (Xu Tianfu et al., 1985). They are completely different from the triphthongs in Sichuan dialect.

**Conclusion**

In this paper, we analyze the differences of the phonemes and sound combinations of English and Sichuan dialect. It is self-evident that the two sound systems differ greatly, and their differences will certainly bring a lot of difficulties to the students in Sichuan dialect area when they are learning English pronunciation. If language teachers in dialect areas pay attention to the differences between English and their dialects, it would be much easier for them to find the language focuses and difficult points. We suggest that teachers introduce some basic knowledge about phonetics to students and make them know how to correct their pronunciation self-consciously and spend more time drilling on them.

**REFERENCES**


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