

Analysis on the Mandarin Vowel System and the English Vowel System

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Abstract: A large number of second-language learners, no matter Chinese learners of English or English learners of Mandarin, find it hard to pronounce different sounds from different language systems. This is a vital issue to be solved in language speaking and especially in language teaching. There is an interesting phenomenon that most Chinese learners of English are poor at speaking, although they might get good grades in reading and listening. For English learners of Mandarin, it is also tough since some sounds in Mandarin do not appear or appear infrequently in English. This paper introduces the two vowel systems of Mandarin and English and compares and explains the differences between them by reviewing previous research. All the data come from quoting materials. To conclude, the English vowel system and the Mandarin vowel system are different in classification and tone, and both languages have some sounds that are not involved in the other language. There are some methods that make it easier for language learners to pronounce better.

Keywords: vowel system, Mandarin, English, learning, speaking

1. Introduction

There are large differences among some dialects in China. For instance, compared to Cantonese, the Wu dialect is totally a different language. So, it is better to only focus on Mandarin in this paper, as Mandarin is the most common type of language Chinese people are using. It is also a language that is most likely for other language learners to learn since the Chinese government is advocating the use of Mandarin.

At the same time, pronunciation is an indispensable part that everyone should learn when studying a language. Knowing how sounds vary from the manners and places of articulation helps second-language learners better pronounce a word. Many Chinese learners of English and English learners of Mandarin suffer from the discrepancy between the two languages. Articulation is vital since it is how people distinguish different sounds. Misunderstanding will happen if learners pay less attention to articulation. However, Mandarin learners who are unfamiliar with Mandarin and English learners who are unfamiliar with English might have trouble pronouncing some particular sounds that are not common in their languages. If people can pick them out and learn about the right articulation, they might no longer suffer from pronunciation issues.

The vowel system plays a crucial part in distinguishing vocabulary and understanding conversations. Current studies seldom compare the vowel systems of Mandarin and English. Therefore, this paper concentrates on the articulation and classification of vowels, so as to help Chinese learners of English and English learners of Mandarin understand how the two vowel systems work.

2. Basic Information about the Vowel System

Before comparing the two unique languages' vowel systems, it is necessary to figure out what a vowel system and a consonant system are. The consonant system and vowel system are two main systems in Mandarin and English. They both play important roles in phonetics.

Consonants are phonetic terms that rely on articulation. Phonetic terms are born to depict consonants. Vowels are speech sounds in which no obstruction is created during the pronunciation. Vowels first come out from the lungs, so if people can not imagine and figure out how vowel sounds are created, it will be hard for them to pronounce the correct sound. When pronouncing vowels, instead of knowing the direct position where they come from like people do when pronouncing consonants, what people can rely on is only their hearing. Therefore, studying vowel systems helps people understand how accurate sounds are, thereby helping them speak more fluently.

3. Vowel Systems of Mandarin and English

3.1. English Vowel System

First, the author focuses on the English vowel system, which is a large and essential system in English. Compared to other systems, there are much more variations in the English vowel system. Vowels also varied with different accents. For example, there are significant differences between Standard American and British English. Therefore, the number of vowels is not one hundred percent fixed. Currently, around 18 vowels are existing in the English vowel system. Opposite to what people usually consider, since the number of consonants is more than that of vowels, a considerable change has been created in the vowel system instead of the consonant system.

To be specific, it is also necessary to concentrate on the articulation of vowels in English. There is a contrast in the vowel length in the English vowel system. The contrast is between short and long vowels. It is interesting that although people always use “short” and “long” to describe vowels, to professor Crawford, who studied the Massoretic vowel system and taught in Harvard University, it was misleading because it is not the way people utter vowel sounds. The vowels in English do not differ in length [1].

However, there is no specific research on how this description is wrong in the English vowel system, so people still use “short” and “long” to distinguish different vowels in English. For instance, the /e/ in “bed” and /i/ in “bit” are short monophthongs while the /ɑ:/ in “calm” is a long monophthong. According to the research from two professors from China [2], it is quite common for Chinese people who learn English to wrongly assume that all it needs to pronounce a long monophthong is to pause and extend, and all it needs to pronounce a short monophthong is to ensure that it is quickly spoken. However, this is not supposed to be the way English speakers distinguish the short monophthong and the long monophthong.

Actually, they have differences not only in length but also in tone quality. Since the types of vowels are different in Mandarin and English, students often forget that there are differences between /i/ in short monophthongs and /i:/ in long monophthongs. This is easy to conquer, the only thing they need to do is to remind themselves that there are differences. According to McMahon [3], although vowels and consonants might be produced by the same egressive pulmonic airstream,

vowels are different from consonants in the way of movements. An experimental analysis made by Wu Chao also shows the result that knowing the differences in movements does help people understand how to pronounce vowels and consonants better [4].

3.1. Mandarin Vowel System

Like English, Mandarin also contains a large vowel system. Firstly, there are monophthongs and diphthongs. Written monophthongs in Mandarin are similar to English vowels. However, the types of diphthongs in Mandarin are divided into three different groups, and this is much more different from English vowels. When learning diphthongs, people need to make sure that they could distinguish the differences among the three groups of diphthongs. The first one contains “ai, ei, ao, au”. The second one includes “uai, uei, iao, iou”. They are the most complex and integrated vowels. The last one contains “ie and üe”. “ü” is special in Mandarin. It is a vowel that does not exist in English. So it might be hard for English people who are trying to learn Mandarin to understand and correctly use it.

In addition to the classification, it is interesting that different from the vowels in English, vowels in Mandarin are added with four different tones. The tone is also known as the pitch of voice, and it is mainly about the quality of voice. When focusing on the nature of vowels, the complicated vibration of sounds mainly determines the timbre of the voice [5]. There are four tones in Mandarin, which is quite different from English. In other words, the same vowel may sound different because of the difference in tone. According to the experiments of Liang, the tone changes with the length of a syllable in Mandarin and that determines how people get information and understand sounds that are made [6].

To make it easier to study diphthongs in Mandarin, two professors in China suggested three methods that might help to improve the pronunciation of diphthongs. The three methods are the circular training method, the exaggerated training method, and the split training method, respectively [7]. In their suggestions, connecting all these three types of methods together can help Mandarin learners create a belief that correction leads to success. All these three methods were tested by researchers during their teaching, and the improvements in students were dramatic. There is other research studying how to learn a second language, and like it is mentioned by Best, the importance of perception and production should also be considered [8].

Examples are given by Lively and Pisoni to compare Japanese learners of English and Korean learners of English [9]. They are somehow similar to Chinese learners of English and English learners of Mandarin. It is found that the environment takes a great part in influencing the sound of vowels, so the environment should be considered when learning a new language. Dialects also affect the sounds, as vowels will change infants' cognition with vocabulary but consonants will not [10]. This emphasizes the vital part vowels play in different languages and people should pay attention to them.

4. Conclusion

This paper mainly introduces the English vowel system and the Mandarin vowel system. The author also analyzes the differences between these two vowel systems and finally summarizes some methods to improve the pronunciation of vowels for Mandarin learners of English and English learners of Mandarin. According to previous research, the vowels in English and Mandarin are different in classification, especially in the classification of diphthongs. Besides, they are also different in tone. The vowels in Mandarin are always added with a tone. There are four different tones in Mandarin. Last but not least, to improve the pronunciation of vowels for second-language learners, factors such as correction, perception, and environment should be paid attention to.

Consequently, future studies can focus more on these factors and related experiments can be conducted to explore better and more efficient ways for Mandarin learners of English and English learners of Mandarin to pronounce vowels correctly.

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