

The Influence of Stress Position on English Vowel Pronunciation and Its Significance for Phonological Acquisition of Chinese Students

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Abstract: Pronunciation is an important part of English learning. Vowel pronunciation, in particular, is an obstacle that learners often encounter. Various literature and experiments have suggested that when Chinese students learn English, they often make pronunciation deviations or errors because of the differences between their native vowels and English vowel pronunciation. Therefore, it is of far-reaching significance to study the influence of the position of stress in words on the pronunciation of English vowels. The purpose of this study is to explore the influence of the position of stress in words on the pronunciation of English vowels, and to apply the results to the acquisition of English pronunciation by Chinese students. Through data and information analysis, a method is expected to be found to improve the quality of English pronunciation acquisition, and provide theoretical and practical support for English teaching. The results of this study show that the stress position in a word has a certain influence on the pronunciation of English vowels, and the pronunciation of vowels in different positions is obviously different, through which practical suggestions for Chinese students' English pronunciation acquisition can be provided, such as more targeted training for different vowel pronunciation.

Keywords: English vowel pronunciation, word stress position, pronunciation acquisition, Chinese students

1. Introduction

English vowels play a critical role in oral English teaching. Whether learners can pronounce English vowels correctly directly affects their oral English level [1]. However, Chinese students have great difficulty with English vowel pronunciation. In order to understand the phonetic acquisition process of Chinese students and explore the problems of Chinese students in English vowel pronunciation, it is of great value to carry out this study.

Up to now, many scholars have studied phonological acquisition. It has been pointed out that the greater the difference between mother tongue and foreign language, the more difficult it is to learn. Yet, there has been little systematic research on Chinese students' problems with English vowel pronunciation.

Therefore, the research was launched in an attempt to find out the problems of Chinese students with English vowel pronunciation and their causes based on theories through analysis.

This study is to provide a basis for English pronunciation teaching, and help Chinese students better grasp English vowel pronunciation skills. In the meantime, it will also provide new ideas and methods for phonetic acquisition research.

2. The Influence of Stress Position in Words on English Vowel Pronunciation

2.1. Definition and Classification of Stress

According to phoneticians, in order for the phonetic meaning to be clear in English, every word must have a syllable with a stronger sound, higher pitch, and higher volume [2]. This syllable is called stress. In accordance with the rule that the first syllable of an English word is a stressed syllable, some syllables in the word are stressed and others are unstressed, that is, they are not considered stressed. Thus comes the stress rule of English words. English words are usually composed of one or more syllables, among which there is a certain stress rule. The syllables of a word can be divided into reduced syllables and stressed syllables in keeping with the syllable they are pronounced.

In terms of the classification of stress, phoneticians divide stress into primary stress, secondary stress, and unstressed [3], in which the primary stress is pronounced in volume and pitch, the secondary stress is weaker than the primary stress, and the non-stressed stress is basically silent. Depending on the word type, the stress position may also change. Nouns, for example, generally follow the principle of antecedent stress, which means that important words in nouns are stressed.

In order to better master English phonetic system and correct pronunciation, special attention should be paid to the stress position when learning English words. For Chinese students, English stressed syllables are very different from Chinese stress [4], so they need to strengthen the understanding and mastery of English stress rules so that they can better adapt to the English phonetic system and speak fluent English.

2.2. Influence of Stress Position on Vowel Pronunciation

Stress position has a major effect on vowel pronunciation in English. The pitch, length, turbidity and vowel quality of vowel pronunciation will change along with the stress position.

Take the word 'politics' as an instance, if the stress is placed on the first syllable of the word, the letter 'o' will be pronounced as a back short rounded [ɒ] and the letter 'i' will be pronounced as a front short vowel [ɪ]; if the stress is placed on the second syllable, the letter 'o' will be pronounced as a round-lipped vowel [əʊ], and the vowel 'i' will be pronounced as a long vowel [i:].

In addition, the difference in stress position affects the length of the vowel. The same vowel will be longer in an accented position than in an unaccented position. For example, the letter 'a' in the word "captain" is pronounced shorter in unstressed syllables, while it is pronounced longer in stressed positions.

Furthermore, the position of the accent affects the clarity of the vowel. In general, vowels in a stressed position are more likely to be pronounced as turbid, while vowels in unstressed syllables are more likely to be pronounced as clear. For example, in the word "chocolate", if the stress is placed on the second syllable, the letter 'o' will be pronounced as a central short vowel [ɔ], which is a turbid sound; while if the stress is placed on the third syllable, the letter 'o' will be pronounced as an ornamental vowel [əʊ], which is a clear sound.

Plus, a large number of word samples indicate that vowels in the unstressed position tend to be reduced, and their sound is distinct from what they will be pronounced in the stressed position [5], to the final stage as a weak /ə/. All vowels(a, e, i/y, o, u) fit this pattern.

In a word, stress position is closely related to English vowel pronunciation. Many rules can be concluded through lexical analysis, and having a good command of these can assist learners to pronounce more accurately.

3. The Problem of English Vowel Pronunciation in Phonetics Acquisition of Chinese Students

3.1. Status Quo of English Vowel Pronunciation of Chinese Students

Vowel pronunciation has always been regarded as a very important phonetic unit in Chinese students' English learning. Nevertheless, due to the discrepancies between Chinese and English phonetic systems, Chinese students often have various problems with English vowel pronunciation.

First of all, most Chinese students often do not have a good sense of language when they pronounce vowels, and it is difficult to distinguish the timbre and pitch of vowels, which makes it difficult for them to achieve accuracy when imitating English vowels. In addition, Chinese students usually bring the phonological habits of their mother tongue into English phonetic learning [6], resulting in various deviations in vowel pronunciation. For example, many Chinese students fail to distinguish between front vowels and back vowels in English and pronounce them as similar sounds, which gives people the impression that their English pronunciation is not standard enough.

Secondly, the difference in phonetic standards is also an important factor affecting Chinese students' English vowel pronunciation. In courses of different English pronunciation standards, diverse ways of pronunciation are taught corresponding to the textbooks. For Chinese students, these standards are often difficult to distinguish. And a lack of proper guidance and introduction also leads to their inability to form an explicit comprehension.

3.2. Factors Affecting Chinese Students' English Vowel Pronunciation

The pronunciation of English vowels in the oral English of Chinese students has always been a concern, so in this chapter, the factors that affect the pronunciation of English vowels in Chinese students will be mainly discussed.

Initially, each Chinese character has only one syllable, so there is no such concept in the system of Chinese as stressed vowels or unstressed vowels. This means that students do not have good pronunciation awareness when learning English, and it is difficult for them to judge which syllables are stressed based on the experience of their mother tongue. Some of the same root words have different spellings due to different parts of speech, so the stress position may change accordingly. In such cases, it is scarcely possible for Chinese students to make corresponding adjustments, resulting in inaccurate pronunciation which may even affect comprehension when serious.

The difference in phonemes is another major reason impacting students' English vowel pronunciation. Compared with Chinese, English vowel pronunciation position, pitch and opening degree are obviously different [7], which requires students to put more energy into forming a good grasp.

Next, the interference of the Chinese mother tongue is also one of the contributing factors. When reading a word, some students may pronounce vowels improperly, fuzzily, or even put the stress on wrong syllables. These questions require a more detailed explanation, otherwise, it is tough for them to be aware and take measures to make corrections thereupon.

Moreover, students' lack of adequate oral muscle exercise will also affect the accuracy of English vowel pronunciation, through which the muscle strength inside the mouth can be increased, the sensitivity and reaction speed of the oral muscle can be improved, and the pronunciation of English vowels can be more accurate and natural.

Last but not least, the lack of language sense and sound sense is also one of the causes. This can be cultivated by reading more works written in English, and listening to and imitating the speaking and pronunciation habits of native speakers.

In brief, there are many reasons(including but not limited to the mentioned ones) why Chinese students' English vowel pronunciation is not accurate enough, which can to a large extent be attributed to the intrinsic disparities on the phonetic side between the language of English and Chinese. Cooperation and efforts are demanded, including the reform of teaching mode(optimization of pronunciation teaching and the construction of pellucid pronunciation standards) on the educators' side, as well as multi-channel practice and appropriate reflection by the learners.

4. Enlightenment for Chinese Students' Acquisition of English Vowel Sounds

4.1. Focus on the Position of Stress in English Words

The position of stress in English has an important effect on the pronunciation of vowels. Hence, it is very necessary for Chinese students to learn English vowel pronunciation and attach importance to the position of stress in words.

Specifically speaking, the stress position of different words has a significant effect on the pronunciation of vowels, just as what has been introduced in the previous section. So when learning vocabulary, students ought to pay special attention to their stress position and vowel pronunciation. They should also learn to consciously and spontaneously summarize the rules and gradually improve their cognition of the pronunciation of words. A word is a single unit of language, just as the Cambridge Dictionary defined, only by starting with these foundational ones can their subsequent reading and oral expression be fluent and articulate.

4.2. Cultivate Listening and Pronouncing Ability

Listening and pronunciation skills are a crucial part of English learning, which is particularly the case for Chinese learners. First of all, students should be exposed to English context as much as possible [8], through listening training to improve their listening ability. On this basis, we should often practice imitating standard English pronunciation, especially English vowel pronunciation. While practicing pronunciation, students should also learn to distinguish whether they've put stress on the right syllable. For long or difficult words, students can do more listening exercises based on specific tasks or practice pronunciation by looking up phonetic symbols and other tools to ensure correct pronunciation [9].

Not only that, students also need to pay attention to their pronunciation in daily English listening and speaking communication. It's of great value for them to be encouraged and guided to make full use of multiple resources that are available in this information age, and gradually improve and enhance their pronunciation through repeated practice and correction through online or offline communication [10].

At the same time, after mastering correct pronunciation skills, students should begin to gradually expand their own phonetic models. Learn a wide range of English words and contexts, and try to use standard English pronunciation. This sort of accumulation can be achieved through daily readings and regular summary [11]. Doing so can not only improve students' oral fluency but also help students better understand and grasp the influence of stress position on vowel pronunciation in English words.

To say it concisely, it is of great importance for students to develop listening and pronunciation skills and master correct phonetic model to acquire English vowel pronunciation. Only through continuous practice and practice can students improve their pronunciation and finally achieve the goal of mastering the vowel sound, finally the entire word [12].

4.3. Establish a Correct Speech Model

During the process of learning English vowel pronunciation, the establishment of a correct speech model is a major step forward. It is unrealistic, though, to expect students at all levels to have access

to and fully comprehend the relevant content in the field of phonology. However, some introduction can be made to teach students the pronunciation rules and characteristics of English vowels, such as the opening and closing degree of vowels, the mouth shape(round or flat), the height of the tongue, etc., supplemented by appropriate exercise. At the same time, students should try their best to learn a variety of English pronunciation skills, and deliberately change the pronunciation habits of their mother tongue, so as to overcome negative factors and accurately pronounce English vowels. This process can be realized in the cycle of practicing, speaking, and listening, which is especially suitable for English learners in rural areas with relatively backward development levels and relatively backward infrastructure [13]. Moreover, the establishment of the correct phonetic model also requires active participation in various oral exercises, such as on-the-spot oral communication, reading exercises, phonetic alphabet training and so on, overcoming the mentality of being afraid to speak and shy, and constantly consolidating their caliber of pronunciation. However, young learners usually lack initiative, so these activities need to be carried out under the organization, supervision and mobilization of teaching staffs to play their roles [13].

To summarize, the establishment of the right phonetic model is exceedingly critical, which can not only improve the accuracy of English vowel pronunciation but also help students better integrate into the English context.

5. Conclusion

In summary, this study has found that the position of stress in words has an important influence on the pronunciation of English vowels. The difference in stress position leads to the difference in pronunciation of the same vowel in different words. It is specifically manifested in vowel pitch, length, turbidity and vowel quality. The study also assumed that vowels in unstressed syllables tend to be reduced to an /ə/ sound.

These phenomena do not exist in Chinese, so it is quite a challenge for Chinese English learners to be aware of them, and therefore inevitably unable to master the correct vowel pronunciation. What makes the situation worse is that these contents are far from enough in our English education. Students do not receive timely guidance, so students struggle to develop systematic knowledge and correction.

To cope with the problems, several solutions are put forward in this paper including attaching sufficient emphasis to the position of stress in words, developing listening and pronunciation skills, and establishing correct phonetic models. These methods can be selected in the light of the specific situation(teaching condition and students' level) so that the English pronunciation of Chinese students can be improved.

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