

Word Recognition Barriers in English Listening Comprehension Among Chinese Fee-Free Normal English Majors

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Abstract

Listening comprehension has been a great challenge for most Chinese students, mainly because English and Chinese belong to different language systems. Therefore, the different phonetic features and phonological rules between English and Chinese will affect their listening comprehension. And Chinese fee-free normal English majors are the special studying group because they will shoulder the task of teaching English to students in the rural areas of China. Based on the survey conducted among fee-free normal English majors in Inner Mongolian University, this study finds out that fee-free normal English majors’ listening obstacles are mainly from the following two aspects, that is, phonological barriers and word segmentation barriers. So based on the related phonetic and phonological linguistic theories, this study also offers some suggestions on word recognition in English listening comprehension among Chinese fee-free normal English majors. Chinese fee-free normal English majors.

Key words: Word recognition; Listening comprehension; Phonological barriers; Word segmentation barriers; Fee-free normal English majors

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INTRODUCTION

Language is based on phonetic symbols to convey its meaning, and those phonetic symbols must follow some phonological rules which cover the categories like phonemes, syllables, intonations, stress and so on. English, as a new language for Chinese students, is difficult to master the phonetic system. However, in order to learn English well, the most important and basic function is to master the pronunciation and the underlying phonological rules. English language listening, as one of the most important means of language input, is not only essential in communication but also in language acquisition. And word recognition is the basic element in listening comprehension. Due to the different sound features between English and Chinese, Chinese learners of English must deal with the unique sound features and its relationship with English listening comprehension, the influence of Chinese language on students’ sensitivity of English sounds, as well as the potential obstacles on word recognition and its effect on listening comprehension.

1. THE RELATIONSHIP BETWEEN THE SOUND FEATURES AND ENGLISH LISTENING COMPREHENSION

1.1 The Different Sound Systems in English and Chinese and Its Correlation With English Listening Comprehension

The process of language listening involves three elements: speaker, information and media of voice transmission. And accordingly, there are six factors that influence English listening comprehension, that is, obstacles of the mother tongue, grammar, vocabulary, comprehensive understanding, psychology, and culture. So linguistic knowledge, phonological knowledge, schematic knowledge, and pragmatic knowledge are all essential for a smooth listening process. Among them, the

phonological knowledge is the most basic and intrinsic factor for listening comprehension, therefore, it's of great importance for the successful decoding a perceivable sound, especially for second foreign language listening. As we know, to achieve a successful listening comprehension in English, we must, first of all, get to know the unique characteristics of English sound and compare it with our mother tongue so that we can overcome the barriers caused by the negative transfer of our native language, And based on this, we can also further explore the relationship between the English sound segments and the formation of meaning, so it is of great importance for Chinese students to make a distinction between the sound features of English and Chinese.

As we all know, Chinese and English are completely different language systems. Chinese belongs to Sino-Tibetan language family, while English belongs to Indo-European language family. When one is in his or her childhood, he or she may speak differently caused by the differences in language pronunciation habits, place of articulation, the opening and closing of the mouth, the quality of pronunciation. Recent research shows that 56% of the mistakes made by Chinese student come from negative transfer of their mother tongue. There are many complicated and various situations in the process of second language learning. Clear distinction on some sound features like Chinese Yunmu and English vowels, Chinese Shengmu and English consonants, and different characteristic on some suprasegmental features between English and Chinese will all have essential role in helping Chinese students' listening comprehension. And failure to do so will inevitably incur negative transfer of Chinese phonemes in mastering the mechanism of English phonemes, and also affects their English listening comprehension.

1.2 The Comparison of the Sound Features of English and Chinese

In Chinese, there are 44 phonemes, 22 Shengmu (initial consonant of a Chinese syllable), 39 Yunmu (simple or compound vowel of a Chinese syllable). While in English, there are 48 phonemes, 28 consonants, 20 vowels. Chinese is a typical tone language which focuses on pitch, while English is a typical intonation language which focuses on the degree of stress. So seen from the above difference between English and Chinese sound system, it's inevitable that some negative transfers will occur because of the mother tongue of Chinese students on English pronunciation and gradually for a fossilized interlanguage (Xu, 2002), and it will eventually add to the difficulty of their listening comprehension.

1.2.1 The Differences Between Chinese Yunmu and English Vowels and Its Negative Transfer on Listening Comprehension

"A vowel is defined as a voiced sound in forming which the air issues in a continuous stream through the pharynx

and mouth, there being no audible friction (Jones, 1961). Monophthongs, the individual vowel, also called pure vowel. Including eight short vowels which consist of [i] [e] [æ] [ʌ] [ə] [u] [ɔ] [a] and five long vowels which consist of [i:] [ə:] [u:] [ɔ:] [a:]. Vowel sounds can be classified by some factors: the openness of the mouth, the length, the position of the tongue and the shape of lips of the vowel. Diphthong refers to speech sounds that consist of two individual vowels and by moving one vowel position to another by intervening positions (Dai, 2010). There are eight diphthongs in English, including [ei] [ai] [ɔi] [əu] [au] [iə] [eə] and [uə]. For example, the diphthong [iə], pronounces in word "ear" which consists of monophthongs [i] and [e]. When this word is produced the part of [i] sounds are much louder and longer than the sound [e]. The diphthongs can also be divided into two parts: short-distance diphthongs [ei] [au] [uə] [eə] and [iə] and long-distance diphthongs [ei] [ai] [ɔi] and [au].

Similar to the function of vowels in English, there are a total number of 24 Yunmu in Chinese. According to the structure Yunmu can be classified into three parts: single Yunmu, compound Yunmu and nasal Yunmu. When a Chinese student studies English vowels it's very difficult for them to distinguish between Yunmu in Chinese and vowels in English. He will mostly often make mistakes which are caused by the negative transfer of his mother tongue.

Firstly, some English vowel phonemes do not exist in Chinese, for instance, the back vowels [ɔ:] [ɔ], the central vowels [ʌ] [ə] and the front vowels [e] [æ]. These speech sounds are not existing in Chinese, so it is difficult for students to pronounce [ə] as [e]. Secondly, English can be classified according to the length of the speech sound. The long vowels are tense vowels while the short vowels are lax vowels. For example, [ɔ:] and [ɔ], [i] and [i:], [u:] and [u]. [ɔ:] [i:] and [u:] are called lax vowels, while [ɔ] [i] and [u] are called tense vowels. It is a common phenomenon of Chinese students, they usually pronounce short vowels as long one, [i] as [i:], [u] as [u:], [ɔ] as [ɔ:], so they often pronounce big [big] as [bi:g], should [ʃud] as [ʃu:d] and oil [ɔil] as [ɔ:il]. Thus, they always use tense vowels instead of lax vowels. Thirdly, diphthongs are also a very difficult part for English learners. English learners cannot pronounce [i], [ʌ], [u] and [æ], for the negative transfer caused by their mother tongue. When the pronounce [i] and [i:], they use Chinese word "衣 (yi)" instead these two sounds and also without the vibration of the vocal cords. For example, when we pronounce pit, [pi] sounds like "闭". When they pronounce word "east" the sound of the word is much more likely the word "yeast". So Chinese students must pay more attention to the sounds [i] and not pronounce it as [yi] and also make a distinction between [i:] and [i]. We should also know that the sound [i:] is pronounced much more longer than [i] sound.

A diphthong is a sound which produces by moving one vowel positions to another through inventing positions, that is, a diphthong combines two individual vowel and

produce through a glide. Chinese students pronounce diphthong without a clear glide. “ei” in Chinese students is different from /ei/ in English. Chinese students often ignore them and believe that the two sounds are equal, so diphthong such as /ei/ is voiced as “ei” (诶). Most of Chinese cannot be well pronounced the sound that the diphthong [əu] followed by [n] sound, so they use Chinese word “昂” instead. For example, they pronounce “town” as “烫”, “downtown” as “当烫”. Learners cannot distinguish the pronunciation of these words and may feel confusing, such as bound [baund] and bond [bɒnd].

1.2.2 The Differences Between Chinese Shengmu and English Consonants and Its Negative Transfer on Listening Comprehension

Different from English vowels, “Consonant are sounds produced by constricting or obstructing the vowel tract at some place to divert, impede or completely shut of the flow of air in the oral cavity”. (Hu, 2010). Consonants can be divided into two parts: manners of articulation and place of articulation.

In Chinese Shengmu, there are similar sounds like those consonants in English, but there are distinctive differences between the two. When a Chinese student studies English consonants he will make mistakes which is caused by the negative transfer of his mother tongue. **Firstly, some English consonants do not exist in Chinese, such as: English speech sounds [θ] [ʃ] [ŋ], so when students learn Chinese, such as e ideccrodito pronucfor e these speech sounds they will seek help from their mother tongue,** for example, they often use Chinese consonants [s] instead Chinese Yunmu [θ] [ʃ], so they pronounce thank [θænk] as [sænk], sing [siŋ] as [sin] and shy [ʃai] as [sai]. **Secondly, English consonants can pronounce with [f] [h] [w] [i:], while in Chinese these consonants cannot be pronounced together.** Students tend to pronounce it as [ei], so they pronounce fee [fi:] as [fei], he [hi:] as [hei] and we [wi:] as [wei]. **Thirdly, there is no consonant cluster exist in Chinese,** so students always add a vowel to a consonant cluster. This is mainly caused by the differences of syllable structure between the two languages. So they pronounce fly [flai] as [fə'lai] and simple [simpl] as [ˈsimplə]. **Finally, English words often end up with a consonant while Chinese words often end up with a vowel. Consequently, Chinese learners always add a vowel at the end of English word.** So they pronounce make [meik] as [ˈmeikə] and red [red] as [ˈredə]. English learners cannot be well pronounced consonants, such as [θ] [ð] [v] [g] [b] [d] [t] [n] and [ŋ] which are not exist in Chinese, they use Chinese Shengmu [s] and [z] instead of [ð] and [θ]. For example, if a Chinese wants to express appreciation, he will say “thank [θænk] you”. They pronounce “thank” [θænk] as “thank” [sænk]. But this will cause misunderstanding for the native speaker who does not know what he is talking about. In some area, their accent do not exist the sound [v] so they pronounce

[v] as [w] which will cause mistake. For example ‘vest’ as ‘west’. And the obscurity in pronunciation between English consonants and Shenmu in Chinese will naturally affect the accuracy of Chinese students’ distinction of English sounds.

1.2.3 The Differences on Some Suprasegmental Features Between English and Chinese

Besides the differences between vowels and consonants in English and their counterparts in Chinese, some suprasegmental features like tone, intonation and stress also play an important role in students’ listening comprehension.

“Tone defines as pitch variations same as phoneme which can distinguish meaning, so tone is a suprasegmental feature” (Dai, 2010). English is not a tone language, but Chinese is a tone language. Chinese include four tones and different tones can represent different words. However, In English, whether the sentence is rising tone or falling tone, the stress always falls in the final part of a sentence, such as “where is `exactly the `hospital is?” English is not a tone language. Taking the word “tape” for example, no matter how we pronounce this word, the word still cannot change the meaning of “磁带”.

“Intonation, defines as when pitch, stress and sound length are tied to the sentence rather than the word in isolation, they are collectively known as intonation” (Dai, 2010). Intonation occurs almost in every language, which plays an important role in conveying meaning. English is an intonation language and when we use different intonations to express the feelings in the same sentence, the meaning of each is totally different. For example, “you are so clever.” If the speaker expresses it in a happy and exciting way, this sentence conveys a positive attitude towards the hearer. If the speaker expresses it in an indifferent and ridiculous way, the meaning of this sentence conveys a negative attitude. In terms of function, structure and meaning, English is different from Chinese. English has three types of intonation. The first one is falling tone, it is a tone used in a statement to express general declarative sentences and in imperative sentences to express command. The second one is raising tone, it is a tone used in questioning and asking for advice. The last one is fall-rise tone, apart from what is said literally, there is an implied message and someone may say something with ridicule. For example:

g. Helen is your teacher not your father.

h. Is this your AUDI A6?

Stress is a difficult and an important part when students study English as a second language. Some words have two kinds of stress: main stress and secondary stress. There are some words that have different stress locations, the location of the stress can distinguish meaning, for example:

`import n.-im`port v. `permit n.-per`mit v.

`produce n. -pro`duce v. `convict n- con`vict v.

ˈcombine n- comˈbine v. ˈinsult n- inˈsult v.

Form above examples, we can obtain that a shift in stress may change the part of speech of a word from a noun to a verb, even if the two words' spelling are remained the same. For example, the word "content", when the stress falls on the first element and the secondary stress falls on the second part of the word, the meaning of the word is "内容". While when the stress falls on the second part of the element and the secondary stress falls on the first part, the meaning of the word is "满意".

Stress may also occur in the compound words and noun phrases which made up by the same elements. It is acknowledged English rule that stress always falls on the first element. For example, the compound word "redcoat" which consists of two elements – "red" and "coat". When we pronounce it we give the stress to the first element "red". "redcoat" refers to a coat and its color is red. It differs from the phrase "red coat". As the core of the word is "coat" and the word "red" is the modifier. Such phenomena can also be found in the word: blackbird, greenhouse and hotdog.

From above, we can see that the differences of suprasegmental features between English and Chinese are also important factors that may affect students' listening comprehension. Without a clear knowledge of suprasegmental features between English and Chinese, Chinese students often feel they can't follow native speakers' fast speed. Actually, it's not that they don't know the words, but they just can't get used to the intonation and stress pattern of English.

2. THE CONCRETE OBSTACLES ON WORD RECOGNITION AND ITS EFFECT ON LISTENING COMPREHENSION

In order to find out some concrete obstacles on word recognition in English listening comprehension that extensively exist among Chinese students, this study selects all the 84 fee-free normal English majors who are in the second year of their study in Inner Mongolian University for Nationalities. The age range, the language proficiency, and the medium of learning for this group of students are representative of those of the students in the same academic year. Based on a listening test of the English word recognition and a following questionnaire to find out their attitudes and strategies on English listening, this survey finds out some obvious obstacles mainly from the following two aspects, that is, phonological barriers and word segmentation barriers.

2.1 Phonological Barriers and Its Effects on Listening Comprehension

Phonological barriers found in students' listening comprehension are mainly caused by the poor phonological memory. Phonological memory is the ability to recognize and remember the Phonological elements

and their order of occurrence.(O' Brien, et al, 2007) The ability to encode phonological sequences into working memory is important for ESL learners' word recognition and will lead to better listening comprehension, for this involves perceiving phonemes from the continuous speech and then arranging them into meaningful units. In English learning, many Chinese students are facing challenges such as unfamiliar sound system and heavier loads in identifying words and phrases, which are not automatically acquired in L1. So those students with poor knowledge of English phonological sequences will find more difficulties in language learning. Call (1985) once reported the findings of a study which examined the relationship between auditory short-term memory and listening skill. Her study was designed to assess the construction of short-term memory to differences in standardized listening scores. And she found out that memory span for target language input is shorter than for native language input. So Phonological barriers do exist in ESL learners, which affect their word recognition and listening comprehension accordingly.

According to the survey conducted among the the 84 fee-free normal English majors in Inner Mongolian University for Nationalities, 82% of them said that while listening, they couldn't find clear and reliable cues to the location of word boundaries, and found it difficult in distinguish some minor differences between some English words. The findings coincide with that of Lado (1957) that it is easy for learners to acquire the similar components shared by native language and foreign language, and vice versa. Without the formal exercises of contrastive analysis to enhance Chinese students' sensitivity about the unique sound features of English, it's very hard for them to avoid the potential errors caused by the phonological barriers. For example, in Chinese, there are no such sound like diphthong and triphthong, so Chinese students may find it difficult to distinguish "quite" [kwɑrt] from "quiet" [ˈkwaɪət]; expect [ɪkˈspekt] and except [ɪkˈsept], etc. Besides, the distinction between the long/tense vowels and the short/lax vowels is also a main obstacle for Chinese students, for there is no such distinction in Chinese. So in the questionnaire, nearly 78% students say that they find it difficult for them to distinguish long/tense vowels from short/lax vowels in words like sheep [ʃi:p] and ship [ʃɪp]. And the deficiency in the knowledge of English phonology will also hinder Chinese students' efficiency in memorizing new words, for they can't find the usual phonological rules that will help them to memorize English words. In the survey mentioned above, nearly 80% the 84 fee-free normal English majors have no sense of English phonological rules, and their way of memorizing English words is mainly rote memorization, therefore their vocabulary is very limited, and naturally it will affect their listening comprehension as well.

In Jacquemot and Scott (2006)'s mode of working memory, phonological decoding is the first step for listening comprehension. Phonological decoding involves

the translation of acoustic information into discrete segmental categories. Then word form selection involves the comparison of the speech sounds of phonological input with those stored in lexical entries. Ellis and Bywater's study found that adult learner with better phonological memory ability also perform better in vocabulary learning knowledge. In both word form selection and lexical retrieval, it requires the comparison of the speech sounds of phonological input with those stored in lexical entries. In accordance with the phonological barriers in students' English learning, students should do a large amount of effective training under the guidance of the teacher. During the process of training, students should pay attention to the following three tips:

Firstly, phoneme training should be conducted that focuses on the comparison between the different sound features between English and Chinese. During the class, students should be taught to master the basic rules about English sounds, and through contrastive analysis, get to know the innate differences between English and Chinese sound system so that the negative transfer of the mother tongue of Chinese students can be avoided as much as possible. Secondly, the phonological rules that will help students to memorize English words should be taught systematically so that students can internalize the rules of English sounds combination and process the seemingly random sounds into meaningful units automatically. Thirdly, strengthen the training of tone and intonation, the word stress. Students should pay more attention to the suprasegmental features of English and their connection with word meaning and sentence meaning as well. Students should make a deep understanding of the different ideographic functions of intonation and stress. Finally, "Students in the classroom can learn more language, but only in the natural environment can get the authentic atmosphere of language, and learn how to use language." (Gui, 1997). Therefore, it is very necessary for students to learn English as a natural way through the whole class. So school should provide more chances for students to learn English, for example, organize English Corner regularly, make full use of the radio station on campus, provide adequate time for students to practice oral English and correct the errors in pronunciation, hold speech contest, imitation show and speech competitions, etc. And authentic listening material for both the intensive listening exercises in the class and the extensive listening exercises after class is also very important for students to get used to the sound features of standard English.

2.2 Word Segmentation Barriers and Its Effects on Listening Comprehension

Word segmentation barriers refers to the deficiency in "the ability to identify or locate word boundaries in connected speech". (Al-jasser, 2008). So word segmentation skill reveals the learner's basic knowledge of phonetics and phonology. It has been suggested that word segmentation

is one of the most important elements in successful decoding a language, therefore is an essential element for a better listening comprehension.

According to Anderson (1995), language comprehension can be analyzed into three stages, the first stage is the perceptual processes by which the acoustic or written message is initially decoded. A major problem of the perceptual processes is the segmentation of the objects to be recognized. He pointed out that

A cessation of speech energy is likely to occur within a word as between words. This property of speech is particularly compelling when we listen to someone speaking in an unknown foreign language. The speech appears to be a continuous stream of sounds with no obvious word boundaries. It's our familiarity with our own language that leads to the illusion of word boundaries. (p.57)

So a listener's ability of word segmentation is a basic factor for an effective listening comprehension. During this stage, a listener attends carefully to the listening input, thus the sounds are retained in echoic memory. His attention mainly focuses on discriminating sounds, words, and sentences, and at the same time, storing them in his short-term memory. However, determining where word boundaries fall and the meaning group formed is a great problem for the non-native English learners. According to the survey conducted among the 20 non-English majors in Inner Mongolian University for Nationalities, a major cause of the segmentation problem is the lack of between-word pauses, other causes include liaison, elision, and assimilation and so on. In General there are three kinds of word linking: 1). linking final consonant sounds to initial vowel sounds. For example, read-aloud ; think-of-it ; a cup-of tea; 2).r-linking: In a sense group if the preceding word ends with the letter "r" and the following word starts with a vowel sound, then "r" is usually pronounced. For example, read after-it; over-and over-again; more-or less; 3).linking final vowel sounds to initial vowel sounds. And there are two cases for linking between vowels:

When a word ending with the front vowels /i:/ I/ or with the diphthongs /eɪ ai/;

i/ is followed by a word starting with any vowel sound, a gentle /j/ is used to link the two. for example: my-eyes /maɪ-jaɪz/; the-old /ðl-jəʊd/; grey-and blue /greɪ-jənd blu:/;

When a word ending with the back vowels /u:/ u/ or with the diphthongs /əʊ au/ is followed by a word starting with any vowel sound, a gentle /w/ is used to link the two. For example: to ask /tu-wa:sk/; to answer /tu-wa:nsə/. (Liu, 2012).

In accordance with the word segmentation barriers found in the survey mentioned above, training in the following three aspects seem to be essential to improve students' word segmentation ability, 1) identification of words in liaison; 2) identification of words in assimilation; 3) identification of words in elision and reduction/contraction.

Based on the findings of previous studies (Al-jasser, 2008; Filed, 2003; Rost, 2002), word segmentation is one of the most important elements in successful decoding and is the basis of spoken language comprehension. Segmenting the sound stream into linguistic units is the basis of further processing. The results also indicate that a listener's ability for L2 word segmentation affects L2 listening comprehension. Listeners who have a higher word segmentation ability tend to have more knowledge of prototypical sounds and more sensitization to the sound variations of these prototypical sounds, which are mainly brought about through co-articulation process of assimilation, reduction and elision.

In effect, phonological knowledge and word segmentation ability are two correlated factors in word recognition. As Field (2003) stated that the skill of lexical segmentation is not phonetics from the perspective of pronunciation but that through the ear of the listener. Therefore, by nature, word segmentation ability reflects the learner's knowledge in phonetics and phonology in language comprehension.

CONCLUSION

Based on the survey conducted among the 84 fee-free normal English majors in Inner Mongolian University and related linguistic knowledge, this study finds out that the 84 fee-free normal English majors' mother tongue has obvious influence on the way they acquire a second language. This effect often appears negative, yet Chinese English learners always tend to seek help from their native language when they meet difficulties. For example, Some English phonemes do not exist in Chinese, Chinese learners always use similar sound instead, for they do not know what the exactly differences between them. Gradually, they will become insensitive to the sounds of English native speakers and be fossilized in the stage of interlanguage. Naturally it will affect their ability to perceive and exact pronunciation and segment the sounds into meaningful units. And this will have a long-lasting negative effect on their listening comprehension. So in the process of English teaching, a reflective pedagogical thinking should be adopted about English listening comprehension teaching and some countermeasures should be taken to avoid negative transfer of students' mother tongue. Teachers should take more efforts to distinguish the sound features of English from those of Chinese so as to avoid the possible negative transfers the mother tongue of Chinese students on English pronunciation and word recognition in listening comprehension. Besides, more attention should be paid on the teaching of phonological forms of English words. Students should be encouraged to learn new words through listening, memorizing the phonological forms and matching them with the meaning. Last but not the least, the training of word segmentation skill is also very necessary in promoting students' listening comprehension. More

exercises on examples of assimilation, liaison, elision and reduction should be done in the real life listening material, and in the mean time, the related underlying regulations should be explained clearly, for a good word segmentation ability will help students process the language input more quickly and in a long run, contribute to the improvement of their listening comprehension. Especially for Chinese fee-free normal English majors, who will shoulder the task of teaching English to students in the rural areas of China, their systematic mastery of word recognition barriers in English listening comprehension will also improve their teaching skill and eventually benefit the students in the rural areas of China.

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