Increasingly Chinese students are pursuing their studies abroad in English speaking countries, such as the USA, the UK, Australia, and New Zealand. Despite the fact that they have studied English as a compulsory subject for a number of years and have passed multiple English proficiency tests, many still find it difficult to communicate well in spoken English. One of the major obstacles for oral communication is undoubtedly English pronunciation, which hinders many Chinese students’ ability to be understood by native speakers or English learners from other language backgrounds.

Foreign language (FL) learners’ mispronunciations are not random, as a foreign accent produced by learners largely reflects the phonetic features and intonation characteristics of their first language (L1) (Avery & Ehrlich, 1992; Ohata, 2004; Swan & Smith, 1987). This article first examines some of the differences between Chinese and English phonological systems and then summarizes some of the English pronunciation problems for Chinese learners. Ideally, this article will help TESOL practitioners become aware of the way in which learners’ L1 backgrounds may influence their English pronunciation. In particular, it is useful for English teachers with Chinese students to have some knowledge of the phonological differences between English and Chinese as well as the major problematic areas in terms of pronunciation.

Analysis of problems

Chinese learners of English have problems with English pronunciation both in segmental aspects and in suprasegmental aspects. Problems in segmental aspects are primarily concerned with the articulation of single phonemes or combinations of phonemes in both vowels and consonants. In suprasegmental areas, Chinese learners are found to have problems with stress and intonation. In the following paragraphs, these problems are presented by contrasting the phonology of Chinese and English. Additionally, possible causes are identified and detailed examples are provided to illustrate problematic pronunciation.

Problems with vowels

In comparing the phonological systems of Chinese and English, Chinese and English differ greatly in the number of vowels. While English has 15 vowels (Ohata, 2004), Chinese has only 5 vowels (San, 2007). Because of this difference, Chinese learners need to learn how to pronounce many new vowels when they start to learn English.

Even when a vowel exists in both Chinese and English, the sound’s manner of articulation and place of articulation is different from that in English. With respect to the manner of articulation, consider the Chinese vowel [i] and English vowels [iː] and [ɪ]. In Chinese, there are no minimal pairs of the long vowel [iː] and short vowel [ɪ], whereas in English the long [iː] and short [ɪ] form minimal pairs. This means that the length difference for articulating the two vowels changes the meaning of words in which the sound appears. Most Chinese learners do not distinguish the long [iː] from the short [ɪ] when they speak English. In-
stead, they tend to maintain the same length when articulating them in different words, such as ship /ʃɪp/ (sheep) and /ʃɪp/ (ship). It is also common for Chinese learners to replace both English [ɪː] and [ɪ] with the corresponding Chinese vowel, which requires a higher and more frontal position of the tongue for pronunciation. Hence, this illustrates how the location of articulation can be problematic, even when a vowel exists in both languages. A similar problem caused by differing locations of articulation between Chinese vowels and English vowels is evident in Chinese learners’ pronunciation of the English [ɑː] and [ʌ], which is similar to the Chinese vowel [ɑ]. Although the position of articulation for the Chinese [ɑ] is higher compared to English [ɑː] and [ʌ], Chinese learners only try to extend or reduce the length of the Chinese [ɑ] to produce [ɑː] and [ʌ] respectively. When Chinese learners pronounce the words “cart and cut”, which are minimal pairs, there is often only a difference in the duration of articulation, whereas English speakers change the tongue’s position to generate the two vowels.

Just as English monophthongs tend to generate problems for Chinese learners, the diphthongs can also cause difficulties. For instance, because of the mispronunciation of monophthongs [ɑ] and [ɪ], the diphthong [ɑɪ] resulting from [ɑ] and [ɪ] also tend to be misarticulated. In fact, Chinese learners often confuse [ɑɪ] with [æ] and [ɛ]. Consequently, native English speakers often find it hard to follow Chinese learners when they try to say “bide”, “bad” and “bed”. Likewise, the English diphthong [ɑʊ] tends to be mixed with [ɔ] and [ʌ]. Therefore, it can be hard to distinguish Chinese learners’ pronunciation of “house” and “horse”.

Problems with consonants

Chinese and English have roughly the same numbers of consonants. However, some English consonants do not exist in Chinese. This poses difficulties for Chinese learners trying to produce these consonants. As noted by Zhang and Yin (2009), one common strategy used by FL learners to produce phonemes that do not exist in their L1 is to substitute similar phonemes from their L1. Such substitutions by Chinese learners are frequently evident in their English pronunciation of consonants.

For instance, Chinese speakers generally have trouble with dental fricatives [θ] and [ð] in English as there are no dental fricatives in Mandarin Chinese (though there are dental fricatives in other Chinese dialects). Typically, the two dental fricatives [θ] and [ð] are substituted with two similar alveolar fricatives, [s] and [z]. In order to counter these problems, experienced teachers should always emphasize the differences between dental fricatives [θ] and [ð] and alveolar fricatives [s] and [z].

Sometimes Chinese learners will produce two English consonants interchangeably because the two consonants, which form a minimal pair, have only one similar consonant in Chinese. For example, in Chinese the consonant [v] only appears as an allophone of [w], therefore, altering the two does not create a difference in meaning. In English pronunciation, Chinese students often mix up the English [v] and [w] and consequently articulate “village”, as /ˈwɪlvɪdʒ/ or articulate “window” as /ˈvɪndəʊ/.

Although some English consonants have counterparts in Chinese, the manner of articulation is very different in the two languages. Chinese learners often attempt to use the Chinese method of articulating the consonants to produce the English consonants. Because of this practice, native English speakers always perceive such pronunciation as accented even though it does not influence
intelligibility. Alveolar glide [ɾ] is a problem of this kind. [ɾ] is a consonant in Chinese phonology. When producing Chinese [ɾ], the position of tongue is more forward and flatter compared to the position of tongue when producing it the English [ɾ]. The Chinese [ɾ] can be placed in both initial and final positions of a syllable. When it is placed in the final position in English it is a retroflex. When some Chinese learners try to imitate American English pronunciation, they add the retroflex [ɾ] randomly at the end of a syllable. The added retroflex [ɾ] moves the pronunciation of a previous syllable backwards in the mouth. Consequently, it is common to hear a Chinese student’s erroneous pronunciation of “early” as /ˈəɾlɪ/, which in fact does not need a retroflex even in American English.

**Phonotactic problems**

Not only do Chinese and English differ in phonemes, but the two languages are also different in terms of the combination of phonemes. In Chinese, each syllable commonly starts with a consonant and ends with a vowel, whereas in English a syllable can start with a consonant cluster and can end with either a vowel or a consonant. Due to this phonotactic distinction between the two languages, Chinese learners face difficulties when producing words ending with consonants.

Chinese learners tend to add a vowel after a stop consonant, such as after [p], [b], [t], [d], [k], and [g], as these consonants only appear in the initial spot in a Chinese syllable. For instance, Chinese students tend to pronounce “hot” as /ˈhɒtə/, “good” as /ˈɡʊdə/, and “map” as /ˈmæpʊ/. An observation of Chinese students’ pronunciation shows a tendency to add [ə] after [t], [d], [k], and [g], whereas they tend to add [ə] following [p] and [b]. This might be because there are similar words pronounced as /tə/, /də/, /kə/, /ɡə/, /po/, and /bo/ in Chinese. Similarly, since the Chinese consonant [l] is only articulated at the beginning of a syllable, Chinese students exhibit a tendency to replace final [l] with a vowel [ə]. As a result, the word “pool” is often confused with “poor”.

**Suprasegmental problems**

Suprasegmental aspects of pronunciation deal with rhythm, stress, and intonation in pronunciation (Ohata, 2004). Comparing Chinese and English phonology, it is evident that the two languages have distinct features in terms of rhythm, stress, and intonation. These differences are discussed in turn and potential difficulties in pronunciation that result are also discussed.

**Rhythm problems**

Depending upon the types of rhythm presented in pronunciation, a language can be classified as either stress-timed or syllable-timed (Ladefoged, 1982; Ohata, 2004). In a stress-timed language, the production of stressed syllables takes the majority of time for completing a sentence. On the other hand, in a syllable-timed language, each syllable receives an equal amount of time for production. To be more specific, to articulate an English sentence, the amount of time for completion of the sentence depends largely on how many stressed syllables are in the sentence, as “the intervals between stressed syllables in speech are either equal or at least more nearly equal than the intervals between the nucleus of each successive syllable and next” (Matthews, 1997, p. 355). In contrast, the time taken to generate a Chinese sentence depends upon the total number of syllables, and all the syllables contribute to the recurring pattern of rhythm in a sentence. Often one can hear Chinese learners devote equal time to each syllable when speaking English,
and as a result using a syllable-timed rhythm to produce English can make speakers sound strange to English speakers.

**Stress problems**

Another sharp distinction between Chinese and English in terms of the suprasegmental aspects of their phonological systems has to do with tone and stress in the two languages. Chinese is a tonal language, which means that a high-low pitch pattern is associated with a Chinese morpheme permanently. In Mandarin Chinese, the same syllable can be pronounced in four different tones; these tones are the high-level tone, high-rising tone, low-rising tone, and high-falling tone. English is a stress accent language, which marks a stressed syllable by lengthening the vowel in that syllable. A change of stress in a word can even alter the part of speech of that word. The feature of stress in English poses a great challenge for Chinese learners of English. Learners tend to ignore stress when first learning how to pronounce a new word. Even with a known word, learners generally appear uncertain when marking the stress in multi-syllabic words. Some Chinese learners try very hard to memorize the stress of a particular word, while unaware that shifting the stress could alter the word’s part of speech. For example, Chinese learners often say, “He broke the /riˈkoːd/” as opposed to “He broke the /ˈreɪkəd/. In order to overcome difficulties caused by the differences between a tonal language and a stress accent language, teachers of English learners, such as Chinese speakers, need to explain the differences explicitly and emphasize the importance of stress in English pronunciation.

**Intonation problems**

Although there are some similarities between Chinese and English in terms of intonation contour, differences can be found in the intonation of the two languages. Both Chinese and English use final rising-falling intonation in sentences such as propositions, imperatives, and wh-questions. However, in Chinese the final rising-falling intonation is also applied to yes-no questions. In contrast, English uses a final rising intonation in a yes-no question. Under the influence of the mother tongue, Chinese learners normally speak a yes-no question with rising-falling intonation. Such a situation is especially common among learners at elementary levels. Under intensive training and drills from English teachers, students are very likely to get used to using rising intonation in yes-no questions. However, they sometimes overgeneralize to include wh-questions as well. In fact, the most difficult types of questions, in terms of using appropriate intonation, for Chinese learners is alternative questions. Chinese learners either use falling intonation for both of the choices in those questions or speak with rising intonation for the two choices when generating alternative questions. Through practical training and repeated corrections made by English instructors, most Chinese learners are able to overcome this problem and articulate all types of questions with proper intonation when they reach the intermediate level and above.

**Implications and conclusion**

The current study presents contrastive analysis of phonological systems between Chinese and English and detailed examples of potential problem areas in English pronunciation among Chinese learners. The above information is valuable as it helps to raise awareness for English instructors of weaknesses in Chinese learners’ pronunciation. Teachers could explain some of the major differences between the phonological systems to students, and they could also utilize the above information to design teaching materials, classroom activities, and practical pronunciation drills to address these areas (Celce-Murcia, Brinton, & Goodwin, 1996; Kelly, 2000).
To deal with segmental problems, such as difficult and problematic phonemes, teachers could use proverbs to drill students so that learners have ample opportunities to practice a few phonemes extensively (e.g. A friend in need is a friend indeed. Haste makes waste.) To effectively counter suprasegmental problems, such as rhyme, teachers could use an activity recommended by Dauer (1993) --- Rhythmic Grouping: Pausing and Linking. Teachers could select a short passage or a few unrelated sentences and ask students to put a “/” in where they think pauses should occur. Then teachers could compare students’ answers and offer more appropriate solutions. Finally, teachers could ask students to practice reading the passage or the sentences by paying attention to pausing. For stress problems, teachers could use activities such as listening for stressed words. Teachers can read out prepared sentences or play recordings and ask students to underline stressed words. Then teachers could ask students to read out the sentences themselves by paying special attention to stressed words (Chen, Fan, & Lin, 1996). Teachers should always try a variety of activities to make teaching English pronunciation interesting, such as reading aloud poems, song lyrics and jazz chants.

It should be pointed out that emphasizing good pronunciation by no means guarantees fluent spoken English and effective communication (Ohata, 2004). In order to maintain fluent communication, learners also need to be equipped with other kinds of knowledge and skills, such as grammar, vocabulary, communication strategies, and discourse knowledge.

References

Feifei Han is currently a PhD candidate in TESOL, at the Faculty of Education and Social Work, the University of Sydney. She has taught English to Chinese EFL learners at the university level for several years. Her main research interests are foreign language reading and second language acquisition.