

The English Intonation Influence on Chinese Lexical Tones Produced by English-speaking Students of Chinese

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Introduction

For Chinese as Foreign Language (CFL) learners, tones are one of the most difficult aspects to master, especially for students whose first language (L1) is not a tonal language, such as English. There could be many reasons that may cause these English-speaking CFL learners' tonal errors, but among them a very influential factor may be a prosodic feature in their L1 —English intonation.

In White's 1981 paper, she notes that English also contains tones. The major difference between English and Chinese tones is the unit size. Chinese language's monosyllabic characteristic is also present in its tonal features. Each Chinese syllable contains one single tone, but in English, on the other hand, tones can occur across syllables. She also discusses some English intonation patterns that transfer to Chinese tones, such as contrast, question ending, imperative, and a statement of listed items (White, 1981). White's study, however, lacks the empirical data to support her claims.

The stress placed upon the prosodic features of Chinese and English spoken languages differ. English stress can be shown by duration, amplitude and pitch (Crystal, 1969; Hyman, 1973). In Chinese, on the other hand, pitch is not the dominant feature to show stress (Kratochvil, 1969). Contrary to English, duration and amplitude play a more important role in Chinese. Following these arguments, we predict that the prosodic features of English will interfere these English-speaking CFL learners' Chinese tonal production on sentence level.

Schack also compares English and Chinese intonation patterns (2000). She contrasts a Chinese subject's speaking both English and Chinese sentences. When speaking English, the subject emphasizes a word by making it longer, which is a typical way of stressing in Chinese. Schack, however, only investigated one subject, which may not be statistically convincing.

Chen criticized previous studies' problems in researching Chinese tonal errors of CFL learners. He mentions most of the previous research does not collect data from natural speech but from an unnatural citation format. In the same article, he also criticized the size of the subjects is often too small (Chen, 1997). Though Chinese tonal errors have been widely discussed among scholars of Chinese phonetics, no study has established a paradigm for how foreign speakers mistake and correct their pronunciation of tones. In this paper, though it is a short term project, we hope to begin such a study that will hopefully turn into a future research project. From many of the aspects of the tonal errors made by English-speaking learners of Chinese, we would like to focus on the interference from their L1's intonation.

Hypotheses

From these previous studies, we expect these subjects will unconsciously transfer the English intonation to Chinese tones, especially in these sentence types: yes/no question, contrast, imperatives, and statement of listed items. We expect that the subjects

will raise sentence-final syllable's tone in yes/no questions. For contrast sentences, the subjects will stress the contrast item by a rising tone. Also, English imperative sentences have the tendency to have a falling tone in the end. We predict that the subjects will reflect these characteristics when speaking sentences with equivalent meanings in Chinese. Lastly, the statement of listed items in English usually has a falling tone on the last item. As a result, we presume that the subjects will have similar production as in English.

Subjects

We plan to recruit the CFL students in EALC department. Since this is a pilot study, we plan to begin with four subjects. We would like to screen out as many extraneous factors as possible. The lower level CFL learners may have other vocabulary or syntax problems, and the higher level may have been exposed to Chinese for too long so their inter-language cognition would have been corrected during the process. As a result, we intentionally avoid beginning and higher Chinese proficiency level subjects. In this study, the subjects' native language should be English and in the intermediate-low proficiency level of Chinese.

Proposed Method

We would like to ask the subjects to say some designed Chinese sentences on a printed sheet. We would select the closest equivalent Chinese sentences to English in terms of sentence semantics, syntax and structure. All of these sentences will be given in context, such as dialogue, so that we can elicit the subjects to produce the intonation in the designed context naturally. The test sheet will provide the Chinese Romanization (Pinyin), tone marks, Chinese characters and English translation so that the subjects will probably not be stuck by the lack of orthographic knowledge.

We would like to test the subjects in Chinese sentences of four categories, including yes/no question, contrast, imperative, and statement of listed items. Each of the four categories will have four sentences. It is because we hope to test four different tones in the target syllable in every sentence type. We will also give the subjects a separate test on the production of specific words individually to test whether their problems come from the word itself or the interference of sentence intonation. Therefore, we will collect totally about 64 sentences within context and some single Chinese words that appear in the sentences.

Here are the sample sentences in our test:

- Rising pitch in yes/no question endings:
 - 你喜不喜歡爬山?
ni xi bu xi huan pa shan
Do you like mountain-climbing?
 - 你喜不喜歡打球?
ni xi bu xi huan da qiu
Do you like playing ball?
 - 你喜不喜歡跳舞?
ni xi bu xi huan tiao wu
Do you like dancing?
 - 你想不想當護士?

ni xiang bu xiang dang hu shi
Do you want to be a nurse?

■ Rising pitch on the focus in contrast sentence:

- 我的書不是紅的，是黑的。
wǒ de shū shì de shì de
My book is not red; it is black.
- 我的書不是黑的，是紅的。
wǒ de shū shì de shì hóng de
My book is not black; it is red.
- 我的房間不是大的，是小的。
wǒ de fang jian bu shì da de shì xiao de
My room is not big; it is small.
- 我的房間不是小的，是大的。
wǒ de fang jian bu shì xiao de shì da de
My room is not small; it is big.

■ Falling pitch in the end of imperative sentences:

- 請你給我那本書
qǐng nǐ gěi wǒ nà běn shū
Please give me that book.
- 請你給我那雙鞋
qǐng nǐ gěi wǒ nà shuāng xié
Please give me that pair of shoes.
- 請你給我那支筆
qǐng nǐ gěi wǒ nà zhī bǐ
Please give me that pen.
- 請你給我那幅畫
qǐng nǐ gěi wǒ nà fú huà
Please give me that painting.

■ Falling pitch on the last item in a list:

- 我買了書、衣服、鉛筆、還有外套
wǒ shū yī fu qiān bǐ hái yǒu wài tào
I bought a book, clothes, a pen, and a coat.
- 我買了外套、書、衣服、還有鉛筆
wǒ wài tào shū yī fu hái yǒu qiān bǐ
I bought a coat, a book, clothes, and a pen.
- 我買了鉛筆、外套、書、還有衣服
wǒ qiān bǐ wài tào shū hái yǒu yī fu
I bought a pen, a coat, a book, and clothes.
- 我買了衣服、鉛筆、外套、還有書
wǒ yī fu qiān bǐ wài tào hái yǒu shū
I bought clothes, a pen, a coat, and a book.

Analysis

The subjects' production of the given Chinese sentences will be recorded by our laptop computer in a quiet room and afterwards analyzed with Audacity and Microsoft Excel. Since fundamental frequency (F_0) is the major measurement of tones and intonation, we will analyze all the data we collect and contrast the Chinese sentences with English intonation patterns by examining F_0 of the tokens. We also will have native speakers to judge whether the produced tones are considered as errors. We will compare the F_0 of the stressed words in each designed sentences. If the rising tone occurs in the places where normally Chinese native speakers will pronounce as a falling or falling and rising tone, we will see whether that is in the stress-rising intonation in English sentences. We also will contrast the individual Chinese words that produced by the subjects with what they produced on sentence level. The purpose is to see whether they make errors because they have problem with the individual word or because they are influenced by English intonation on sentence level. Ideally the elicited data will support our hypothesis.

Division of Labor

Yu-hua will be responsible for recruiting subjects since she is an AI of one Chinese course in EALC department. As for other tasks, we three people will perform them together:

1. Design the test.
2. Interview the subjects.
3. Grade and organize the data.
4. Discuss and analyze the results.

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