

# Taizhou Chinese Dialect Transfer in English Acquisition- Preliminaries to an investigation

Beili Yan

*Hangzhou Wanxiang Polytechnic*

## **Abstract**

Second language acquisition is often affected by first language skills. The role of local Chinese dialects on the acquisition of English is no exception, but has not received the attention that it deserves. This paper will present a preliminary investigation of the potential effects of native (L1) Taizhou dialect on L2 English. Based on recorded data and existing literature, it, first, aims to present the phonological features of the Taizhou dialect and finds, in comparison to Modern Standard Chinese (Standard Mandarin), that there are differences in the segment inventory, syllable structure and tone system. The second aim, based on these differences, is to predict the transfer effects for Taizhou learners of English.

**Keywords:** Taizhou dialect, Chinese, transfer, second language acquisition, ESL.

## **1 Introduction**

As is well known, the modern Chinese language consists of seven dialect groups: the Northern dialects (which Mandarin is based on), the Wu dialects (e.g. Suzhou dialect), the Xiang dialects (e.g. Changsha), the Gan dialects (e.g. Nanchang), Hakka (e.g. the dialect in Mei County, Guangdong Province), the Min dialects (e.g. Xiamen) and the Yue dialect (e.g. Guangzhou), although details of the division remain controversial (Li Xiaofang, 2005). This paper will present the phonetic features of the Taizhou dialect, especially in comparison to Standard Mandarin, and speculates on positive and negative transfer effects when Taizhou dialect speakers acquire English as their L2 or L3.

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Taizhou Chinese is a Wu dialect spoken in Taizhou, Zhejiang Province with about 5.8 million speakers, as illustrated in Figure 1.



Figure 1. The red shape represents Taizhou (<http://www.reachtoteachrecruiting.com/teach-english-in-taizhou>).

Compared to many other dialects in China nowadays, Taizhou Chinese is not acquired by many younger Taizhounese as a result of the successful popularization of Mandarin Chinese.<sup>1</sup> The Taizhou dialect can be generally divided into Northern and Southern Taizhou Chinese. Southern Taizhou Chinese includes Jiaojiang (the administrative center of Taizhou), Huangyan, Luqiao, and Wenling (see Figure 2 on the next page). Speakers from these districts can comprehend each other's dialects without much difficulty since these dialects differ only slightly in their tonal systems, while the dialects spoken in other districts of Taizhou differ in more profound ways. Taizhou Dialect is not mutually intelligible with Standard Mandarin, and only partially intelligible with other Wu dialects (see also Wang 2014). The status of Taizhou within the Wu dialect family, i.e. whether it belongs to Northern Wu or Southern Wu dialect

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<sup>1</sup> <http://zjnews.zjol.com.cn/05zjnews/system/2011/11/10/017985764.shtml>.

has been an issue of great controversy (see Fu et al., 1985, 1986, Qian 1992, Cao 2002, Wang 2014), but this is not relevant here and we will not discuss it further.



Figure 2. Districts of Taizhou ([https://en.wikipedia.org/wiki/Taizhou, Zhejiang](https://en.wikipedia.org/wiki/Taizhou,_Zhejiang)).

This contribution is divided into two parts: in the following section we will describe the phonological features of the Taizhou dialect (in comparison with Mandarin for ease of exposition) focusing on its segments, syllable structure and tones. As explained above, Taizhou is composed of several districts and counties where slightly different dialects are spoken. In this paper, I follow the existing literature about the Taizhou dialect, which is mainly based on the local variety of Huangyan. In section 3, I will briefly speculate on the implications of these phonological characteristics for the acquisition of English by Taizhou speakers. This research is part of a renewed interest in the role of dialects in second (or third) language acquisition, as also discussed in many of the contributions to Sloos & van de Weijer (2015), Wu (2015), Ran & van de Weijer (this volume).

## 2 Background

This section will concentrate on three aspects of Taizhou phonology: initial consonants (section 2.1), vowels (section 2.2) and tones (section 2.3).

### 2.1 Initial consonants

Wu dialects have preserved the full Middle Chinese set of voiced initials, which no longer exist in Mandarin (Chao 1967). Like all Wu dialects, the Taizhou dialect thus has three types of initial consonants: voiceless aspirated, voiceless unaspirated, and breathy voiced, resulting in a large total of 34 initial consonants (Mandarin has 22) (Chao 1967). Table 1 presents the initials in Standard Mandarin, so that we can contrast them with the Taizhou initials in Table 2.

*Table 1. Initials in Standard Mandarin.*

|                      | Labial           | Alveolar           | Retroflex          | Palatal            | Velar |
|----------------------|------------------|--------------------|--------------------|--------------------|-------|
| Aspirated plosives   | p <sup>h</sup> p | t <sup>h</sup> t   | k <sup>h</sup> k   |                    |       |
| Unaspirated plosives |                  |                    |                    | n                  |       |
| Fricative            | f                | s                  | ʂ                  | ç                  | x     |
| Affricate            |                  | tʂ <sup>h</sup> tʂ | ʈʂ <sup>h</sup> ʈʂ | tç <sup>h</sup> tç |       |
| Nasal                | m                |                    |                    |                    | ŋ     |
| Liquid               |                  | l                  | ɭ                  |                    |       |

Table 2. *Initials in Taizhou Dialect (according to Qian, 1992).*

|           | Labial             | Alveolar           | Retroflex          | Palatal               | Velar              | Glottal |
|-----------|--------------------|--------------------|--------------------|-----------------------|--------------------|---------|
| Plosive   | p <sup>h</sup> p b | t <sup>h</sup> t d |                    | c ɟ                   | k <sup>h</sup> k g | ʔ       |
| Fricative | f v                | s z                | ʂ                  | ɕ ʑ                   |                    | h ɦ     |
| Affricate |                    | tʂ <sup>h</sup> tʂ | ʈʂ ʈʂ <sup>h</sup> | tɕ <sup>h</sup> tɕ ɟʑ |                    |         |
| Nasal     | m                  | n                  |                    | ŋ                     | ŋ                  |         |
| Liquid    |                    | l                  | ɭ                  |                       |                    |         |

## 2.2 Rhymes

Taizhou dialect, like other Wu dialects, has been less faithful in retaining its finals, having truncated most diphthongs and triphthongs still found in Mandarin into monophthongs. The rhyme system includes eight monophthongs (including two nasal vowels) /a e i u ɛ̃ o ɔ̃ ɛ/, two diphthongs, and four vowel-nasal sequences /au əu aŋ ɔŋ oŋ əŋ/. Besides, there are five checked rhymes /æʔ aʔ əʔ ɔʔ oʔ/, which co-occur with entering tones. According to Qian (1992), Huangyan Taizhou has six tones. Tones in Middle Chinese are named even or level (Tone 1), rising (Tone 2), departing (Tone 3), and entering or checked (Tone 4). Partly maintaining the categories of Middle Chinese, these four tones are divided into a high and a low register. Registers are related to voicing properties of the onset obstruent consonants: the low register tones typically co-occur with voiced obstruents, though some onsets can exist in both registers such as nasals and approximants. Table 3 presents the tones in Huangyan Taizhou dialect.

Table 3. *The Tonal system of the Huangyan Dialect (according to Qian, 1992).*

|                     | Ping level | Shang rising | Qu departing | Ru entering |
|---------------------|------------|--------------|--------------|-------------|
| Yin (High register) |            | 53           | 44           | 55          |
| Yang (Low register) | 31         |              | 13           | 12          |

### 3 Transfer of Taizhou to English in second language acquisition

The fortis voiceless aspirated plosives /p<sup>h</sup> t<sup>h</sup> k<sup>h</sup>/ in Taizhou dialect are equivalent to English /p/ *pen* [p<sup>h</sup>en]), /t/ *tell* [t<sup>h</sup>el] and /k/ *kite* [k<sup>h</sup>ait]. The fortis voiceless unaspirated plosives /p t k/ in the Taizhou dialect are equivalent to English /p t k/ when these consonants follow /s/, such as in *spy*, *style* and *sky*. Whereas these voiceless aspirated and voiceless unaspirated consonants also occur in Mandarin—the speakers' second language—this is not the case for the voiced plosives. The lenis voiced plosives /b d g/ in Taizhou dialect are, however, equivalent to English /b d g/, as in *boy*, *dog*, and *girl*. Furthermore, the voiced palatal affricate /tʃ/ is similar (but not identical) to English <j> in *Jack* or *George*.

From the characteristics of Taizhou phonetics and phonology presented here, we can make some predictions about transfer in English acquisition. The Perceptual Assimilation Model (PAM), proposed by Best (1994), predicts that non-native contrasts are perceived in terms of their phonetic similarity to the phonological categories present in a listener's native language (Harnsberger, 2001). Since Taizhou has a three-way laryngeal contrast in its stop system, with breathy voiced consonants, unlike Mandarin, it is predicted that Taizhou speakers will acquire the voicing contrast in English plosives and affricates easier than monodialectal Mandarin speakers.

The voiceless fricatives /f s/ are equivalent to the English /f/ (*fiber* ['faɪbə]) and /s/ (*Suzy* ['suzi]). The voiced fricatives /v z/ do not occur in Mandarin. These are equivalent to English /v/ *viper* ['vaɪp<sup>h</sup>ə(r)] and /z/ *zoo* [zu:]. Since Taizhou has voiced fricatives like /v z/, unlike Mandarin, it is predicted that these sounds will be easier to acquire for Taizhou speakers in languages like English than for monodialectal Mandarin speakers.

Besides, voiced fricative palatal /ʒ/ is close to but not the same as /ʒ/ in English *measure* ['meɜə(r)]. There is no Mandarin equivalent, but monodialectal Chinese speakers often substitute English /ʒ/ by the retroflex rhotic. According to the Speech Learning Model (Flege 1986 et seq) and the Phonological Assimilation Model (Best 1994 et seq.), similar sounds are more difficult to acquire than clearly different sounds. We therefore expect Taizhou speakers to have difficulties in the acquisition of English /ʒ/ which differs from the difficulties monodialectal Mandarin speakers have in learning /ʒ/ (see also Chen & Sloos, forthcoming). In

addition, the voiceless glottal fricative /h/ is equivalent to the English /h/ (high) and distinctively different from the Standard Mandarin /x/ (as in 害 hai<sup>4</sup> ‘to do harm to’). We suggest that Taizhou speakers are more likely to correctly acquire English /h/.

Unlike Mandarin Chinese, Taizhou dialect has a vowel length distinction of sorts: vowels that end in a glottal stop are perceived markedly shorter than vowels in open syllables may due to the effect of glottal sounds. The relation between vowel length and syllable structure and tone in Mandarin is much more complicated. We very tentatively predict that Taizhou speakers may acquire vowel length distinctions in English (or other languages) easier than speakers who have only a Mandarin L1 background.

Taizhou dialect has a fully developed (or preserved) tone system with six to eight tones (unlike Mandarin, which has only four lexical tones). It will be interesting to observe if Taizhou speakers have larger prosodic control in learning English stress and intonation, or whether its extensive tone system means there is fewer scope for intonation (see also Ran & van de Weijer, this volume, Zhang, this volume, for discussion).

It is important to point out that these predictions are preliminary and very tentative. One of the reasons is that Taizhou speakers (especially if they are learning English) are also usually Mandarin speakers. Still, this permits us to investigate the question whether their L1 (Taizhou) has a greater effect on acquisition of English (as L3) than their Standard Mandarin (L2) (cf. Wu 2015). On the basis of these speculations, I intend to carry out an experiment to verify the idea that English vowel duration contrasts are better acquired by Taizhou speakers. A perception test will be carried out to investigate if Taizhou speakers outperform Mandarin speakers.

#### 4 Conclusion

In this preliminary investigation of the Taizhou dialect, some contrastive phonological features of the Taizhou dialect and Standard Mandarin were presented: initials, vowels and tones. As a result of this contrastive analysis, we presented a number of expected transfer effects in English acquisition. Further research will have to determine whether these effects indeed occur in the L2 acquisition of English by Taizhou learners.

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