

A Review of the Influence of Wu Dialect on English Pronunciation Acquisition

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Abstract: The Wu dialect is widely spoken in Wu-speaking regions of China, which covers a considerable number of English learners. However, the phonetic system of the Wu dialect differs significantly from that of English, which greatly affects the English learning process of Wu-speaking learners, thus attracting numerous researchers to conduct related studies. This paper provides a comprehensive overview of research on the influence of Wu dialect on English phonological learning over the past two decades and presents a selection of twenty-seven papers to explore the theoretical framework, the research methodology, and the specific impacts encountered by English language learners who speak Wu dialect. Among them, the theoretical discussion centered on language transfer theory, Flege's Speech Learning Model and Best's Perceptual Assimilation Model; the research methodology consisted of qualitative analysis and empirical study; and the focus was placed on positive and negative transfer effects, i.e., the challenges posed by the absence or presence of phonological differences in the Wu dialect to the learners of English. The findings reveal significant segmental and suprasegmental influences in English pronunciation acquisition, with segmental challenges including differentiation of consonants and incomplete articulation of vowels, and suprasegmental challenges including stress placement, intonation patterns, and phonological rhythm. In addition, the discussion highlights the need for more empirical studies to supplement qualitative analyses, the consideration of regional variations within Wu dialect, and the exploration of teaching strategies informed by research findings. Therefore, the paper advocates for future research focusing on regional differences, deeper exploration of suprasegmental influences, integration of research into teaching practices, and diversified research methods.

Keywords: Wu Dialect, English Pronunciation Acquisition, Language Transfer Theory, English Phonetics Teaching

1. Introduction

Despite the popularization of Mandarin throughout the China, there are still a large number of Wu dialect speakers in the Wu-speaking areas who uses a different phonological system than Mandarin-only speakers. This influences their acquisition of English phonetics. Consequently, an investigation into the influence of Wu dialect on English pronunciation acquisition can inform the design of phonetic courses, thereby enabling the provision of targeted assistance to English learners who speak the Wu dialect. Over the past two decades, this subject has attracted numerous researchers to conduct

related studies. In this paper, a comprehensive overview of the relevant research on the influence of Wu dialect on the acquisition of English phonetics is provided. Twenty-seven papers, including twenty-two journal papers, four dissertations, and one conference paper, on the topic were selected from the past 20 years.

The paper begins with a discussion of theoretical frameworks, introducing theories commonly used in research. Subsequently, the paper analyzes the methodology adopted in the studies and the specific influence of Wu dialect on the acquisition of English phonetics. Furthermore, the paper discusses some current issues in research. Additionally, the paper highlights the necessity for further research and provides suggestions for future research directions and methodologies.

2. Primary Theories Used in These Studies

In the 1920s, linguists began employing the method of contrastive analysis to compare the structures and functions of two or more languages. In 1957, American linguist Robert Lado introduced the concept of language transfer. He proposed that learners, when communicating in the target language, extensively rely on their native language, transferring phonetics, semantics, structural rules, and culture into the process of second language acquisition. Such language phenomena are primarily categorized into positive transfer and negative transfer. Positive transfer refers to the beneficial influence of the native language on learning the target language, while negative transfer indicates the adverse effects. The occurrence of language transfer is influenced by various factors including language similarity, language type, learner's age, proficiency level, and learning environment. The greater the difference between the native and target languages, the higher the likelihood of negative transfer [1].

In terms of phonetic language transfer, Flege proposed the Speech Learning Model (SLM). SLM emphasizes the significant influence of the native language on second language acquisition. Adult learners have already established a stable phonetic system in their native language, acquiring specific phonetic features and pronunciation habits. When attempting to learn a new language, learners tend to apply phonetic features from their native language to the second language, resulting in inaccurate pronunciation or accent. SLM also considers the influence of the learning environment on phonetics acquisition. Factors such as exposure to the natural environment of the target language, opportunities for language communication, and learner's motivation affect their phonetic learning process. Second language learners need to possess the ability to distinguish certain phonetic differences between their native language and the second language. Only then can learners form new phonetic categories for the second language and differentiate them from the native language phonetics [2].

Another important model is Best's Perceptual Assimilation Model (PAM), proposed based on studies of infant speech perception, which can also be used to understand the perception and cognition patterns of non-native learners regarding second language phonetics. PAM organizes all possible phonetics (including native and non-native phonetics) into a perceptual space based on phonetic features such as resonant peak frequency and duration of vowels and consonants. Non-native learners undergo assimilation and contrast processes when perceiving and acquiring second language phonetics. When the phonetics in the second language are similar to those in their native language, they tend to assimilate them into existing phonetic categories, leading to the incorrect identification of non-native phonetics as native phonetics. However, when there are significant differences between the phonetics in the second language and those in the native language, learners engage in contrastive processes, categorizing them into different phonetic categories [3].

In studies on the influence of Wu dialect on the acquisition of English phonetics, researchers focus primarily on the positive and negative transfer effects of dialects on English phonetics. All relevant studies fundamentally revolve around these two aspects.

3. Research Methods Used in These Studies

Eleven of the twenty-seven selected papers are qualitative studies, which use language transfer theory to speculate on the effect of Wu dialect on English phonological acquisition by comparing the phonological systems of Wu dialect and English. Another sixteen studies used empirical methods, through methods such as phonetic testing. Fourteen of them used software such as Praat for audio analysis.

4. Main Influences of Wu Dialect on English Pronunciation Acquisition

4.1. Segmental Level

Wu dialect speakers struggle to differentiate some consonants in English. In certain regions, such as Changzhou, the distinction between /n/ and /l/ is absent, leading English learners of Changzhou dialect to have difficulty distinguishing /n/ and /l/ in English [4]. For instance, “night” may be pronounced as “light”. Additionally, in Wu dialect, the distinction between /n/ and /ŋ/, which exists in Mandarin, is absent. For example, in Mandarin, “民” and “名” are pronounced as /min/ and /miŋ/ respectively, but in some Wu dialect regions, both are pronounced as /min/, while in other regions, they may both be pronounced as /ŋ/. This leads Wu dialect speakers to merge the final /n/ or /ŋ/ in English words into one of the two sounds. According to Fang Xiaobing’s research, the phenomenon of merging into /n/ is more common [5]. Similarly, Wu dialect speakers encounter difficulties in distinguishing between /w/ and /v/. Furthermore, since Wu dialect lacks /θ/ and /ð/, Wu dialect speakers may mispronounce these two sounds as /s/ and /z/ respectively. The /ɪ/ sound in English also does not exist in Wu dialect, making it easy for Wu dialect speakers to replace it with /l/. Additionally, the /ʃ/ sound does not exist in Wu dialect, so Wu dialect speakers tend to replace it with /ɛ/, which is closer to the sounds in Wu dialect. However, due to the influence of Mandarin, there may also be occurrences of replacing /ʃ/ with /s/, although less frequently [5].

The main influence of Wu dialect on the acquisition of English vowels is that Wu dialect speakers often produce long vowels and diphthongs incompletely, as Wu dialect vowels generally have a smaller aperture and primarily consist of monophthongs. For example, the English diphthong /ei/ may be pronounced as /e:/.

4.2. Suprasegmental Level

At the suprasegmental level, Wu dialect has three main effects on the learning of English phonetics. First, difficulty in placing stress properly, sometimes resulting in unstressed or misassigned stress [6]. This is because English is stress-timed, with alternating stressed and unstressed syllables, while Wu dialect is syllable-timed, with each syllable having consistent duration. Second, Wu dialect speakers tend to use a rising intonation when reading special interrogative sentences, influenced by the intonation patterns of Wu dialect. Wu dialect speakers generally have no problem with intonation when reading declarative or imperative sentences, as English and Wu dialect are largely consistent in the use of falling intonation in expressing simple sentences with affirmative meanings [7]. Third, due to the absence of complex vowels in Wu dialect, Wu dialect English learners tend to pause more frequently compared to native speakers.

5. Discussion

Previous studies have provided a fairly rich understanding of the influence of Wu dialect on the acquisition of English phonetics, yet several issues persist. Firstly, there is a prevalence of qualitative studies that lack extensive examination of real samples to derive patterns. Instead, conclusions are

often inferred based on transfer theory or the researchers' own experiences, resulting in studies lacking in persuasiveness and practicality. In recent years, with the advancement and proliferation of experimental phonetics research methods, there has been a gradual increase in relevant empirical studies. For instance, researchers such as Wang Hongjun and Tian Guomin have also suggested that due to the frequent lack of distinction between /h/ and /w/ in Wu dialect, which is distinct in Mandarin, such as “胡” and “吴” pronounced as /hu/ and /wu/ respectively in Mandarin but as /wu/ in Wu dialect, Wu dialect speakers find it challenging to differentiate between /w/ and /h/ in English [4][8]. However, according to the analysis by Gu and Xie, based on reading audio extracted from Read English Speech Corpus of Chinese Learners (RESCCL) by 62 Wu dialect-speaking students, no variation in the pronunciation of /h/ was found, indicating that Wu dialect English learners are not significantly affected by this negative transfer [9].

Another issue is the regional variation within the Wu dialect, which means that different regions may have different effects on the acquisition of English phonetics. For example, confusion between /n/ and /l/ is only observed in areas like Changzhou, whereas Wu dialect speakers in other regions do not exhibit such phenomena.

To date, no comprehensive study has been conducted that systematically summarizes the effects of the Wu dialect on English pronunciation acquisition across different regions. Some studies introduce their study simply as the influence of the Wu dialect on English pronunciation acquisition, but their findings only work on one certain region of Wu-speaking areas.

In addition, most of the studies focus only on the segmental level, while relatively few explored the suprasegmental level, although such explorations have gradually increased in recent years. Of the twenty-seven papers selected, only three specifically explored the effect of the Wu dialect on English pronunciation acquisition at the suprasegmental level.

Though the majority of studies acknowledge the significance of these studies for English phonics teaching, there is a paucity of research on the utilisation of these studies to enhance English phonetics teaching or to develop novel teaching methodologies. Many researchers have expressed their views on how to improve English phonetics teaching, but their suggestions, which include improving teachers' language competence and paying attention to students' dialect background, are rather general and lack specific, practical methods. Even fewer researchers have explored the feasibility of using teaching experiments to guide English phonetics instruction based on this research. Only Yin Xiao proposed the use of dialects to assist English phonetics teaching [10]. For example, Kunshan dialect (A branch of Wu dialect) shares the same three pairs of voiceless and voiced consonants as English: /b/ and /p/, /d/ and /t/, /g/ and /k/. Since these three voiced consonants do not exist in Mandarin, non-Wu dialect speakers may encounter learning difficulties. However, if the similarities between dialects and English are directly pointed out to Kunshan dialect speakers, they may find it easier to understand and mimic English /b/, /d/, /g/. In terms of teaching experiments, researchers such as Zhao Chenyang have built a visualization platform for teaching English intonation while studying Wu dialect-speaking English learners' intonation [11]. Through the experiment of visualized intonation teaching, the results showed significant improvement among learners who received visual intonation teaching, while there was no significant improvement in the control group. This represents a commendable attempt to apply relevant research findings on the influence of dialects on English pronunciation acquisition into practice.

6. Future Outlook

First and foremost, future research should systematically examine the influence of Wu dialect on English pronunciation acquisition in different regions. Since different regions' Wu dialects may have varying effects on English pronunciation acquisition, it is necessary to gain a deeper understanding

of these differences to better provide effective teaching methods and support for English learners in different areas.

Secondly, in addition to research at the segmental level, there is a need for greater attention to be paid to research at the suprasegmental level. In the future, the influence of the Wu dialect on the acquisition of English pronunciation can be further explored in terms of rhythm and intonation. This will enable a fuller understanding of the mechanism of the influence of the Wu dialect on the acquisition of English pronunciation.

Moreover, in the future, more attention can be paid to how the research results can be applied to the practice of teaching English phonetics. By developing new teaching methods and tools, it can help English learners in Wu dialect areas better acquire English phonetics, improving their pronunciation accuracy and communication skills.

Finally, diversified research methods can be used, including a combination of qualitative and empirical research, as well as the use of experimental studies, questionnaire surveys, etc., to obtain more comprehensive and reliable research results, thereby better addressing practical issues.

7. Conclusion

This paper has provided an examination of the influence of the Wu dialect on English pronunciation acquisition, synthesizing research from the past two decades.

In these studies, theoretical analyses are discussed to emphasize the significance of language transfer theory, Flege's Speech Learning Model, and Best's Perceptual Assimilation Model in understanding the positive and negative transfer effects experienced by Wu-dialect speakers in their English learning journey. Empirical studies, both qualitative and quantitative, provide insights into segmental and suprasegmental influences, including challenges in consonant differentiation, vowel production, stress placement, intonation patterns and rhythms. Through an analysis of theoretical frameworks, research methodologies, and specific influences encountered by Wu-speaking English learners, the paper has shed light on the complexities and challenges inherent in this linguistic interplay.

Despite the advancements in research, several issues persist, including the prevalence of qualitative studies lacking an extensive examination of real samples and regional variations within the Wu dialect that necessitate further exploration. The limited focus on suprasegmental influences and the gap between research and teaching practices underscore areas for future investigation and improvement. Therefore, future research should consider regional differences within the Wu dialect, delve deeper into suprasegmental influences, explore innovative teaching practices informed by research findings, and employ diversified research methods to obtain comprehensive and reliable results. By addressing these areas, researchers can better support English learners in Wu-speaking regions, enhancing their pronunciation accuracy and communication skills.

In essence, this paper can provide some references for future studies aiming to bridge the gap between theoretical understanding and practical application, ultimately facilitating more effective English phonetics teaching methods tailored to the unique linguistic background of Wu-dialect speakers.

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