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Impact of Chinese Dialects on Language Transfer in Second Language Acquisition

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Abstract: The phenomenon of language transfer has long been a core topic of investigation in the fields of applied linguistics, second language (L2) acquisition, and language teaching. Due to the vastness of China, there is a wide variety of dialects that are spoken throughout the country, each with distinctive traits that set them apart from standard Chinese in terms of vocabulary, phonology, and syntax. It is evident that these dialects, such as Cantonese and Hokkien (Min dialects), exhibit notable differences in phonology and pronunciation. Moreover, they are distinguished by their unique expressions, grammatical structures, and idioms. In the process of learning English as a second language (ESL), native Chinese speakers studying English are susceptible to the influence of dialects, which may result in either positive or negative language transfer effects. In this paper, through the method of literature review, the development and current status of transfer theory in second language acquisition are discussed in depth, with emphasis on the positive and negative transfer effects of dialects in the process of second language acquisition. Furthermore, the paper explores the practical impact of the transfer phenomenon on students' English phonological learning and teachers' English phonological teaching, aiming at optimizing learning strategies and helping learners to enhance their language learning ability and improve the efficiency of language learning.

Keywords: Positive Transfer, Negative Transfer, Chinese Dialects, Second Language (L2) Acquisition.

1. Introduction

The role of language transfer has consistently been a significant area of inquiry within the field of second language acquisition. In recent years, with the rapid development of the economy, politics, culture, and the increasingly frequent international communication, coupled with the improvement of English education, English learners pay more attention the mastery of English pronunciation and pursue "standard" English pronunciation. However, China is a vast country with a large number of Chinese dialects , which are generally divided into seven categories: Mandarin dialects, Cantonese dialects, Min dialects, Wu dialects, Hakka dialects, Gan dialects, and Xiang dialects. And Mandarin dialects encompass Beijing Mandarin, Northeastern Mandarin, Lanyin Mandarin, Southwestern Mandarin, and other eight regions, each with different and deep cultural connotations. English learners from different dialect areas exhibit distinct features in English pronunciation. Many studies have focused on and investigated the negative transfer effect of different regional dialects on second

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language phonological acquisition, and proposed corresponding solutions and effective teaching methods. Nevertheless, most of the studies only dealt with the negative transfer effects of different dialects on English pronunciation, and how to avoid these effects and related teaching strategies and methods. Only a few studies have explored the positive transfer effects in this regard. Therefore, the paper considers it necessary to sort out and summarize the positive and negative transfer effects of dialects on second language speech acquisition, clarify the different effects of different dialect areas on learners, and generalize and classify them, so as to provide a basis for subsequent experimental studies, theoretical discussions, and the implementation of related teaching strategies and methods.

2. The Theory of Transfer in Second Language Acquisition

Language transfer refers to a phenomenon where learners utilize the linguistic rules (such as pronunciation, word meanings, etc.) of their native language to express themselves when learning a second language [1]. The acquisition of a second language is generally based on the learner's first language. Linguistic research has shown that learners often apply the knowledge of the previously acquired language system to the new language learning process during second language acquisition [2]. Lado first introduced the concept of "language transfer" in 1957 [3]. In 1969, Selinker officially proposed the language transfer[4]. Due to the similarities and differences between languages, native language habits often have various effects on the process of second language acquisition in terms of pronunciation, vocabulary, and grammar, which are often referred to as language transfer effects. In terms of pronunciation, it is generally recognized in related studies that the mother tongue affects second language learners' perception and production of second language pronunciation. However, due to the different understanding of the nature of language itself and second language speech acquisition, research contents, methods and theoretical analysis are different [5]. In this process, classical theories of language transfer have emerged, such as behaviorist theory, contrastive analysis theory, Chomsky's theory of transformational generative grammar, as well as markedness theory. In language transfer, it can be divided into positive and negative transfer. When the linguistic rules of the learner's native language are the same or similar to the rules of the second language they are learning, the native language rules will have a positive impact on the learning of the target language, which is known as positive transfer. In contrast, this is referred to as negative transfer.

3. Analysis of Positive Transfer Phenomena

3.1. Positive Transfer Impact of Different Dialects in Second Language Acquisition

Extensive research on the positive transfer effects of different Chinese dialects on second language acquisition has revealed that Chinese English learners tend to utilize the syllable-initial /l/ (i.e., light /l/) in their second language speech production [6]. In the Gan dialect region, previous studies have shown that English learners from the Poyang dialect area exhibit little difference in pronunciation when learning vowels /i/, /ɛ/, /ʌ/, /aɪ/, /aʊ/ compared to native American speakers [7]. Additionally, in the Ji-Lu dialect area of the Mandarin dialect region, the monophthongs of Shandong dialect have also exerted a positive transfer impact on the learning of English monophthongs. Specifically, the /a/ sound in Shandong dialect is close to the /ɑ/ and /ʌ/ sounds in standard English, resulting in varying degrees of positive transfer on the intermediate English /ɑ/ and /ʌ/ [8]. Furthermore, Shandong dialect also facilitates the learning of vowels /i/ and /æ/ [9]. In studies focusing on other dialect regions, English learners from the Fuzhou dialect area do not significantly differ from American English learners in their pronunciation of /i/ and /ʌ/, indicating a positive transfer effect of Fuzhou dialect in the learning of /i/ [10]. Prior research has focused on analyzing the similarities between dialect and English vowels in an effort to elucidate how these similarities positively contribute to positive transfer

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during the acquisition of English pronunciation. Although the current focus is on the positive transfer effects arising from phonemic similarity, future research avenues could be broader and more diverse.

3.2. Relevant Causes and Case Studies

First, the tendency of Chinese English learners to utilize the syllable-initial /l/ in second language speech production is attributed to the existence of such a pronunciation in Mandarin Chinese, which facilitates second language phonological acquisition and produces a positive transfer effect. Second, English learners from the Poyang dialect area in the Gan dialect region exhibit little difference in pronunciation when producing vowels /i/, /ɛ/, /ʌ/, /aɪ/, /aʊ/ compared to native American speaker, as these vowels are also found in the Poyang dialect. The learning mechanisms and processes that learners use to acquire their native language can still be used for second language acquisition, thus producing a positive transfer effect on the second language speech production of English learners in this region. Third, Wang conducted a descriptive analysis of the vowel learning situation of English learners from the Shandong dialect area and found that Shandong dialect has a positive transfer effect on the learning of vowels /i/ and /æ/ [9]. Sun analyzed the learning of English monophthongs by English learners from the Fuzhou dialect area and discovered a positive transfer effect of Fuzhou dialect in the learning of /i/ [10]. The positive transfer effect of dialects on English pronunciation is primarily manifested in the similarities between their respective pronunciations. When learners have already become accustomed to certain pronunciation patterns in their dialects, these similarities can potentially facilitate their quicker mastery of corresponding English pronunciations. Furthermore, most students, when initially encountering English, are often intrigued by the novelty of the language, and the similarities between their dialects and English pronunciation may stimulate their interest and motivation in learning, alleviating anxiety associated with acquiring a wholly new language. As learners discover similarities between their dialectal pronunciation habits and English pronunciation, they may experience greater self-confidence and a sense of accomplishment, thereby motivating them to engage more actively in the learning of English pronunciation.

4. Analysis of Negative Transfer Phenomena

4.1. Negative Transfer Caused by Different Dialects in Second Language Acquisition

In academic research, the discussion of the negative transfer effects of Mandarin dialects in the process of second language acquisition has become a topic of profound interest to many scholars, leading to numerous significant research outcomes. In the Ji-Lu Mandarin dialect region of the Mandarin dialect group, Wang Yuting found that when subjects pronounced the sounds /e/ and /ə/, they were negatively influenced by their dialects compared to RP English vowels [11]. Additionally, in the Beijing Mandarin dialect region, Chinese English learners exhibit significantly different phenomena in pronouncing the high vowels /i/ and /u/ compared to native English speakers [12].

Southern Shanxi belongs to the Central Plains Mandarin dialect region, while a small area in Shanxi Province belongs to the Jilu Mandarin dialect region. Research has shown that the consonants in Shanxi dialects have a negative transfer effect on English consonants, including the inability to distinguish between nasal sounds /n/ and /ŋ/, pronouncing both as the latter, confusion between /ʃ/ and /s/, /tʃ/ and /c/, unclear distinctions between level and retroflex consonants, and confusion between alveolar consonants /θ/, /ð/, and apical consonants /s/, /z/. There is also confusion between /n/ and /l/, and between /f/ and /h/, with /f/ often replaced by /h/. Additionally, confusion between /t/ and /tʰ/ occurs. The vowels in Shanxi dialects also have a negative transfer effect on the learning of English vowels, resulting in the inability to distinguish between /ai/ and /ei/, /au/ and /ɔ/, /e/ or /æ/ and the central vowel /ə/, and the overemphasis of the central vowel /ə/ [13]. When English learners of Chongqing dialect in the Southwest Mandarin area pronounce /ʃ/ and /tʃ/, there are significant

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differences from native English speakers, specifically in duration and spectral centroid [1]. In the Poyang dialect of the Gan dialect region, there are significant differences in the pronunciation of vowels /ɪ/, /ae/, and /ɑ/ between English learners in this area and native American speakers [7]. Similarly, English learners from the Nanjing dialect region of the Wu dialect area are also influenced by their dialect to varying degrees. This is mainly reflected in the inability to distinguish between nasal sounds /n/ and /ŋ/, pronouncing both as the latter, confusion between /n/ and /l/, both pronounced as /l/ in the dialect, and confusion between /θ/ and /s/, /p/ and /b/, /v/ and /w/, pronouncing /r/ as /ʐ/ or /l/, and confusion between /tʂ'/ and /tʃ/ [14]. Many of these phenomena are similar to the negative transfer effects observed in the Shanxi dialect mentioned earlier.

4.2. Reasons for and Case Studies of the Negative Transfer of Different Dialects in Second Language Acquisition

First, in the Ji-Lu dialect area of the Mandarin region, Chinese English learners tend to produce /e/ and /ə/ with a more forward and lower tongue position. Similarly, in the Beijing Mandarin region, Chinese English learners exhibit significantly lower tongue positions for the high vowels /i/ and /u/ compared to native English speakers. Furthermore, in Shanxi dialect, due to the absence of the /n/ sound and the rarity of retroflex consonants, the central and northern regions tend to pronounce both anterior and posterior nasal sounds as posterior nasal sounds, namely /ŋ/, and to pronounce both level and retroflex initials uniformly as level initials, specifically /s/ and /c/. Since Shanxi dialect lacks dental-alveolar fricatives, for English learners in Shanxi, apical consonants are the most common examples of negative transfer. In the central region of Shanxi, the distinction between /f/ and /h/ is blurred, with /f/ often being replaced by /h/ in the dialect. Shanxi English learners often confuse /t/ and /tʰ/, struggling to differentiate between them. The negative transfer effect of finals in Shanxi dialect on English vowel pronunciation primarily stems from the dialect's pronunciation habits. Specifically, in the northern part of Shanxi, both /ai/ and /ei/ are uniformly pronounced as /ei/, while the indistinction between /au/ and /ɔ/ arises from different mouth shapes during pronunciation, leading to pronunciation deviations. The inability to distinguish /e/ or /æ/ from the central vowel /ə/ is attributed to the fact that these three sounds are similar in Chinese pronunciation, albeit with slight differences. In Chinese, they are habitually pronounced as the final a, which corresponds to the central vowel /ə/ in English. Additionally, in some Shanxi dialects, there exists the phenomenon of stress on the central vowel /ə/. In analyzing the consonant systems of English and Chongqing dialect, it is evident that the fricative sound /ʃ/ and the affricate sound /tʃ/ are absent in Chongqing dialect. Consequently, speakers of Chongqing dialect may substitute /ʃ/ with sounds of similar articulation positions, such as /ɕ/ or /s/, and /tʃ/ with sounds like /tsʰ/ or /tɕʰ/, which occupy adjacent articulation positions. Lastly, in the Poyang dialect of the Gan dialect region, when pronouncing the vowel /ɪ/, the tongue position is more anterior and higher compared to native American speakers. When pronouncing /æ/, the tongue position is higher, and for /ɑ/, the tongue position is lower and more anterior. Consequently, this characteristic is also manifested in the English pronunciation of English learners from the Poyang dialect area.

Not only in the Nanjing dialect within the Wu dialect region, but also in most southern dialect regions of China, it is difficult to distinguish between the sounds /n/ and /l/. Furthermore, due to the absence of the sound /ŋ/ and the alveolar voiceless fricative /θ/ in the Nanjing dialect, learners tend to replace /ŋ/ with /n/ and erroneously equate /θ/ with the similar sound /s/ in their dialect during second language acquisition. Additionally, one of the primary characteristics of the Nanjing dialect is the devoicing of initial voiced consonants. Influenced by this dialect, learners often substitute the phonemes /b/, /d/, and /g/ with their unaspirated counterparts /p/, /t/, and /k/, respectively, and this tendency also manifests in their second language acquisition process. Besides, due to the absence of the initial consonant /v/ in the Nanjing dialect, English learners from this dialect area tend to replace

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the target language phoneme /v/ with the similar phoneme /w/ found in their dialect. Additionally, the lack of the phoneme /r/ in the Nanjing dialect leads to pronunciation deviations among English learners from this background. The English phoneme /tʃ/ shares a similar pronunciation with the Chinese phoneme /tʂ'/, thus under the influence of their dialect, Nanjing dialect English learners may substitute the encountered /tʃ/ with the similar phoneme /tʂ'/.

5. The Implications of Transfer Phenomena for Instruction

The fact that many errors in second language acquisition can be attributed to the transfer effect of dialects reveals the complexity of language learning and provides valuable insights into its underlying mechanisms. Second language acquisition is not a simple imitation, but a profound cognitive process that involves reorganizing the first language model and adjusting linguistic cognitive connections, which requires learners to have a keen ability of language perception and mind shift in order to build an effective bridge between the two languages.

5.1. Adjustment of Teaching Strategies

In the teaching of English phonetics, teachers should utilize the phenomenon of positive transfer to promote its effects and encourage students to transfer beneficial elements from their dialects into their second language learning. At the same time, teachers must be vigilant against negative transfer and avoid its impacts and correct pronunciation errors caused by dialect interference in time. Firstly, teachers should gain a thorough understanding of students' dialect backgrounds, find out the similarities between students' dialects and English phonetics, as well as other aspects of dialects that positively influence English phonetic learning, and adjust teaching strategies accordingly. The commonalities, such as the possible similarity between the vowel pronunciation of certain dialects and English vowels, can be utilized to help students pronounce the sounds accurately, facilitating positive transfer. In addition, teachers can guide students to discover the positive connections between dialect and English phonology to increase confidence and interest in learning. By emphasizing the positive cases, students can realize that dialects can be a resource rather than an obstacle in learning English. Meanwhile, teachers need to be aware of the negative transfer effects of dialects on English speech. Systematic explanations of the organs of articulation and methods of pronunciation, as well as distinguishing the similarities and differences between dialect and English pronunciation, enable teachers to help students develop an accurate perception of English speech. To mitigate the negative effects, teachers should regularly assess pronunciation, correct errors in a timely manner, and provide accurate examples. Designing targeted comparison exercises will help students consolidate correct pronunciation habits [15].

5.2. Innovation in Teaching Methodology

Educators need to gain a deeper understanding of the phenomenon of migration and its effects in order to innovate teaching methods. First, teachers can adopt situational language teaching method to create real contexts in combination with students' daily life to help them practice pronunciation and oral expression. Second, multimedia-assisted teaching can provide standardized pronunciation models and rich speech materials through audio and video resources, which are convenient for students to imitate, practice and evaluate, so as to improve students' participation and pronunciation accuracy. Third, teachers should make individualized teaching plans for the dialect characteristics and pronunciation habits of students in different dialect areas. Fourth, teachers should pay attention to students' individual differences and provide personalized guidance and assistance to each student's pronunciation strengths and weaknesses. For students who struggle with pronunciation, additional attention and support should be provided via extra pronunciation drills, individualized instruction,

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and psychological counseling to help them overcome these difficulties and improve the accuracy of their pronunciation. In addition, students' phonological awareness should be cultivated to promote self-monitoring and correction of pronunciation and enhance independent learning. Group discussion and peer-assisted learning can also enhance mutual support and progress among students.

6. Conclusion

This paper delves into the positive and negative transfer effects of dialects on the second language phonological acquisition process among Chinese learners, noting that these effects vary across different regions. Based on a review of relevant theoretical and empirical studies both domestically and internationally in recent years, and a thorough understanding of the development and current status of transfer theory in second language acquisition, this paper discusses the implications of the transfer phenomenon for students' English phonological learning and teachers' English phonological teaching. By promoting positive transfer effects, avoiding negative transfer effects, cultivating English phonological awareness, and enhancing autonomous learning abilities, this paper aims to assist learners in better mastering English learning capabilities. However, there is limited research on the individual differences in the effects of dialects on English phonological acquisition among Chinese English learners. Future studies can further explore the in-depth relationship between dialects and second language acquisition, pay attention to individual differences in the process of second language acquisition, and provide more scientific theoretical support and practical guidance for second language teaching.

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