

The Impacts of Mother Tongue Transfer on Chinese Students' English Reading and Writing

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Abstract: The paper reviews the impacts of mother tongue transfer on Chinese students' English reading and writing. The review is divided into four parts: a succinct explanation of the study's background and importance, a general review of the classic theories and terminology in the field of language transfer, a thorough examination of the previous empirical studies on the effect of mother tongue transfer on Chinese students' English literacy skills, followed by pieces of suggestion from the preceding review and analysis. From the review of studies focusing on various aspects of English reading and writing, a general conclusion can be drawn. Except for some exceptions, differences between Chinese and English will cause negative transfer, and similarities between these two may lead to positive transfer in Chinese students' English reading and writing. This study hopes to show the tip of the iceberg in terms of the impacts of mother tongue transfer on Chinese students' English literacy skills and to suggest effective and feasible solutions in terms of language transfer for Chinese students' English learning.

Keywords: mother tongue transfer, Chinese-English transfer, English literacy

1. Introduction

China has a large population of students whose second language are English. Among the four pillars of learning English, reading, writing, speaking and listening, English writing and reading often play a significant part in Chinese students' English learning, especially in examinations. Whether it is the English tests in college entrance exams and postgraduate entrance exams, which are crucial for every Chinese student, or some English proficiency tests such as tests for English majors. A good command of these two skills provides the basis for students to achieve satisfactory results. Therefore, a study of the factors influencing Chinese students' English reading and writing can optimize Chinese students' English learning and teachers' teaching methods and thus improve students' performance in the examinations.

The learning of a second language is significantly influenced by language transfer. This study aims to examine how mother tongue transfer affects Chinese students' English literacy skills based on theories related to language transfer and previous empirical studies. The rest of the review is divided into three parts: firstly, the development of theories of language transfer and some key terms related to language transfer will be introduced. Then, some previous research on the impact of mother tongue transfer on Chinese students' English reading and writing will be systematically and categorically summarized. Finally, conclusions about the impacts will be drawn, and suggestions

will be proposed.

2. Previous Studies on Language Transfer

In the subject of second language acquisition, language transfer is a recurring research issue. The definition of language transfer has developed over time. Lado first proposed the definition of “language transfer”. He considered language transfer as the tendency for people to incorporate aspects of their original language and culture, such as forms and meanings, into a foreign language and culture [1]. For Odlin, language transfer is the impact arising from parallels and contrasts between the target language and other languages previously acquired [2]. However, he thought language transfer only occurred among speakers with at least two mother tongues. In 1992, Selinker emphasized the comparison between one’s first language and their later acquired languages and defined language transfer as the L1 language patterns reappear in the interlanguage behaviors [3]. Besides the transfer from L1 to other languages, some studies are focusing on the transfer from later languages acquired to L1 and proposed that language transfer also includes the influences of later languages acquired to L1. Based on all the previous definitions, Jarvis further summarized and extended the notion of language transfer to be a phenomenon when a bilingual or multilingual speaker applies linguistic elements from one language to another and it occurs not only from L1 to languages later acquired, but also the other way around [4].

There are also many different classifications of language transfer, but this article will focus on the classification of language transfer into positive and negative transfer. Linguistic interference that can lead to accurate language output is called positive transfer, and language interference that can lead to mistakes is known as negative transfer. Over time, there have been many related theories in this field. Generally speaking, the likelihood of a positive transfer increases with the similarity of the two languages. Lado put forward the theory of Contrastive Analysis Hypothesis (CAH) [1]. He proposed that similarities between L1 and L2 would cause positive transfer and facilitate the acquisition of the second language. In terms of the acquisition of L2 literacy skills, Koda suggested that the linguistic distance between the two languages affects the degree of transfer from L1 to L2 literacy skills. Koda considered that the L1 language abilities are only marginally useful for L2 literacy skills acquisition when two languages differ significantly in many linguistic features [5]. This review will test how well these theories match the transfer from Chinese language skills to English literacy skills and mainly focus on the question of which aspects of Chinese produce positive and which aspects produce negative transfer to Chinese students’ English literacy skills.

3. The Impacts of Mother Tongue Transfer on English Reading and Writing of Chinese Learners of English

3.1. English Reading

The ability to read, process, and understand the information in an English article is an integral part of being proficient in English. Research has shown that for bilinguals, reading proficiency in L2 is closely tied to several L1 skills. Much of the research studying the impacts of Chinese on students’ English reading ability focus on the influence on their English word reading ability, including their ability to pronounce a word when reading it and also their word reading accuracy and fluency. Also, there is some research looking into its influence on students’ performance in reading comprehension.

To begin with, the difference between Chinese orthography and English orthography, as well as different ways of pronouncing a word, may influence how Chinese students read and understand English words. Chinese syllables have a significantly simpler phonetic structure than English syllables [6]. Syllabic tone, which doesn’t exist in English, is employed in Chinese to distinguish

between syllables with the same phonetic components but distinct meanings [7]. In addition, reading Chinese takes a different approach from the decoding strategy used for reading alphabetic languages such as English. Chinese readers need to map orthographic patterns to sounds [8]. Students' word reading skills are often tested mainly from two reading processes—phonological and orthographic processing. Phonological processing means the abilities related to pronouncing syllables and words. The capacity to represent the distinctive collection of letters that make up a written word as well as more general elements of the writing system, such as letter position frequencies and sequential dependencies, are referred to as orthographic processing. On whether mother tongue transfer occurs because Chinese and English have different phonological and orthographic systems, studies across time seem to derive similar conclusions. The following summarizes some studies in chronological order.

After examining the reading ability of 65 Chinese children whose first language was Chinese and second language was English, Gottardo and his co-workers concluded that good phonological processing skills in Chinese can influence their phonological processing skills in English positively and thus influence their English reading ability, regardless of children's L1 orthography [6]. Wang and his colleagues also proved the same thing. Forty-six Mandarin-speaking immigrant youngsters who took Chinese as their first language and English as a second were assessed on their ability to read Chinese and English words, including their phonological processing skills and orthographic processing skills [9]. After a series of experiments, they found that students' good Chinese phonological processing skills can contribute to their English word reading ability through a positive transfer from their Chinese phonological skills to their English phonological skills. On the contrary, English word reading did not appear to be predicted by Chinese orthographic ability due to the huge difference between Chinese and English orthography. That is to say, Chinese phonological-processing skills rather than orthographic processing skills would influence Chinese students' reading performance in English.

However, according to Keung and Ho [10], in terms of orthographic processing, the conclusion that no transfer occurred may be due to the high-English proficiency of the participants since the participants were immigrants who used English more often. Keung and Ho did a series of word reading tests with fifty-three Grade 2 Hong Kong students in both Chinese (L1) and English (L2). Similar with the conclusions of the above mentioned studies, they also concluded that children's Chinese phonological processing skills could facilitate their word reading in English by positively transferring their Chinese phonological skills to English. However, the findings of their study indicated that Chinese orthographic processing skills had little, or even a detrimental, impact on children's ability in English word reading. Compared with the previous studies, they suggested that less proficient English speakers seem to rely more on orthographic techniques in their first language to help their English word reading. Therefore, a negative transfer due to the difference between Chinese and English orthography may occur.

In 2015, Pasquarella and others conducted a more detailed research to see whether cross-language transfer may happen in Chinese learners of English in terms of word reading ability. They divided students' word reading ability into word reading accuracy and fluency. They discovered that in terms of word reading accuracy, no indication of a transfer from Chinese to English was present in 64 Chinese students with English as their second language. By contrast, the cross-language positive transfer could be found in word reading fluency tests results. They proposed that the L1 and L2 scripts' shared structural elements account for the transfer of word reading accuracy, namely, the transfer could only happen when L1 and L2 have the same orthography. Therefore, no transfer occurred in terms of word reading accuracy in this case, while there is positive transfer occurred in word reading fluency because the process of word reading fluency is mostly script-universal [8]. The findings of this study echo the conclusions of the previous studies

from another perspective.

In terms of English reading comprehension, studies over time have shown that good syntactic awareness has always been an important factor that facilitates the performance of reading comprehension through various mechanism [11]. Understanding grammar rules and having control over sentence construction in a language is known as syntax awareness [12]. The importance of L1 syntactic awareness to L2 reading comprehension has been explored in earlier research studying the transfer from L1 syntactic awareness to English reading [13][14]. However, L1 in these cases were languages such as Portuguese and Russian, which typologically related to English. But recently, studies have looked into whether transfer in terms of syntax occurred between Chinese and English, two languages with different typologies. Siu and Ho made several novel observations while researching how Chinese students' L1 syntactic awareness relates to their English (L2) reading comprehension [5]. They assessed the reading comprehension and syntactic knowledge of 413 Hong Kong students in both languages. The findings have shown that there was a positive transfer from their L1 syntactic awareness to L2 reading in all age groups. They also found a mediational link under this transfer, that is, the reason for this positive transfer is due to the positive transfer occurred in syntactic awareness from Chinese to English. In addition, they noticed that syntactic structures shared by Chinese and English have a greater significance in facilitating English reading performance than those unique to only one language. Their following longitudinal investigation makes this conclusion even more convincing. In their two-year longitudinal study [15], they found out that when the participants were retested after years, the positive transfer still existed.

3.2. English Writing

The process of writing is a complex activity that requires not only a combination of ideas, emotions, and imagination but also a certain level of language skill. It is widely acknowledged that many Chinese learners of English struggle with English writing [16]. When faced with difficulties in expressing themselves in English, Chinese students find it easy to apply their personally familiar native language patterns to complete their English writing tasks, and therefore the amount of native language thinking involved may have an impact on students' English writing. However, there are different views on whether a positive or negative mother tongue transfer occurred to Chinese student's English writing.

The majority of people consider that Chinese learners of English would occasionally make mistakes when writing in English since their native tongue, Chinese, would easily get in the way. They think mother tongue transfer may have a greater negative impact on Chinese students' English writing ability. There are several common mistakes made by Chinese learners in their English writing that researchers attributed to the mother tongue transfer, which include errors that occurred in terms of the usage of vocabulary, syntax, and discourse.

In terms of the use of vocabulary when writing, Zhang and Liu explored some systematic and regularly occurred errors in the usage of some most frequently used verbs such as "like" and "make" in Chinese students' English writing from ICCI(International Corpus of Crosslinguistic Interlanguage) and WCEL(Writing Corpus of English Learners) and blamed these errors on the negative transfer of Chinese to English [17]. They found out that many Chinese students use verb-verb collocations in their English writings. For example, students may use "I like eat" rather than "I like eating". They attributed this type of error to the grammatical differences between Chinese and English. The Chinese verb "like(喜欢)" can be directly followed by another verb, for example, "我喜欢(verb)吃(verb)面包(I like eating bread)." However, in English, the verb "like" should be followed by a non-predicative form (i.e., like + to do/doing). What's more, they also found that Chinese students may apply the context of the use of a verb in Chinese to its cognate in

English, leading to errors. They drew this conclusion from the exploration of Chinese verb “使” and its English cognate “make”. All in all, they concluded a negative transfer of Chinese to English in terms of usage of verb in writing. However, this study has mainly targeted a small number of high-frequency verbs and has not been systematic and comprehensive in its analysis of mother tongue transfer.

By analyzing composition samples from the corpus and using the linguistic theory Cognitive Grammar developed by Ronald Langacker in the mid-1970s as a supporter, Jia [18] covered more kinds of verbs and the collocation of nouns and verbs and has done a more comprehensive study. Results reveal that the discrepancies between Chinese and English account for roughly half of the verb-noun collocation errors in Chinese students’ English writing. The discrepancies mainly lie in two aspects, the language specificity and salience. For the difference between Chinese and English specificity, an example could be that there are different expressions for the Chinese word “到达 (arrive)” in English, such as “arrive at” “arrive in,” “reach out” etc. Another example would be that Chinese words like “金银财宝(Treasures)” “大米白面(Staple foods)” are specific, while their cognates in English are more abstract. If such Chinese words are transferred directly into English in writing, for example, “金银财宝(Treasures)” is translated as “gold, silver and treasure”, it is difficult to convey what the student wants to say. This may result in Chinese students’ confusion in using words when writing in English. The influence of the difference in Chinese and English salience may lie in the fact that Chinese highlights the parts while English highlights the whole, and when the transfer occurs, it usually results in poor expressions in English writing. For example, the English for “他打了她的脸(He hit her in the face)” may be appeared to be “He hit her face” in Chinese students English writing for Chinese highlights the part(face), and English highlights the whole(her).

What’s more, in a language system, the sentence is the basic unit of discourse. Only when every sentence in a discourse is correctly expressed can the discourse be logical and clearly expressed. Therefore, the standard use of sentences is a prerequisite for writing. In Yu ’s study, several kinds of sentences that Chinese students easily get wrong in their English writing were discussed and the reasons for them were explained [19]. For example, in contrast to Chinese syntax, English has many rules for the relationship between subject and predicate and predicate singular and plural changes, which poses many obstacles for Chinese students in learning and applying English sentence patterns. According to the study, when frequency of the mistakes is calculated, subjectless sentences take up 10.3% and come in first, the second (5.5%) are sentences with subject-verb inconsistency. Yu also pointed out that connectors are always needed to produce a compound or complex sentence or indicate the relationship between clauses in English. Chinese, however, “is soft and full of elasticity” [19], and Chinese paratactic sentence pattern results in no need for a connector between two sentences. The study’s findings revealed that Chinese students often transfer their Chinese paratactic sentence pattern into English and thus tend to produce wrong sentences with no connectors between sentences. In terms of discourse, many studies across time suggested that English writing tends to be straightforward and logical, often starting each paragraph with a topic sentence and then developing the argument further. Chinese sentences, on the other hand, are arranged in such a way that the topic sentence is not that clear in a passage [20]. This difference between English and Chinese expressions often has a negative impact on Chinese students’ English writing.

By contrast, there are also some people who propose that in some aspects, the native language would have a greater positive impact on Chinese students’ English writing. For example, some people found that the positive mother tongue transfer was greater than the negative in Chinese students’ use of certain sentence patterns due to some similarities between Chinese and English syntax. Lin and Cai found that more than 75% of the subjects (Chinese students) were able to use

temporal clauses, subject-verb-object structured sentences, and sentences with restrictive relations correctly because these sentence patterns have some shared features between Chinese and English [21]. What's more, in terms of discourse, according to Mohan and Lo's findings, most English composition courses in Chinese schools emphasized linguistic accuracy and neglected the development of the ability to organize the discourse [16]. Therefore, they proposed that the preference for "indirectness" in Chinese language, as mentioned above, is not the cause of Chinese students' difficulty in organizing essays in English. The main reason for this difficulty lies in the over-emphasis on linguistic accuracy in English composition courses in Chinese schools. Additionally, they found out that some cross-cultural parallels in rhetoric between Chinese and English discourse may even pose a positive impact on Chinese students' English composition.

4. Conclusion

To sum up, the impacts of mother tongue transfer on Chinese students' English reading and writing are various. In terms of English word reading, many studies have concluded that though there are differences in pronunciation systems for Chinese and English, students' Chinese phonological processing skills can still facilitate their English word reading ability through a positive transfer to their English phonological skills. Meanwhile, the difference in Chinese and English orthography prevents the positive transfer of Chinese to English orthographic knowledge and thus to English word reading. A negative transfer may even occur when relying too much on Chinese orthography to assist English word reading for beginners. In terms of English reading comprehension, studies mainly focus on transferring Chinese syntactic awareness to it. Results have shown that between these two languages with distinct typologies, Chinese syntactic awareness can still be positively transferred to English reading comprehension via a mediational link, and the positive transfer is more pronounced in syntactic structures shared by Chinese and English than those that are unique to only one language. In terms of English writing, most of the research proved the negative transfer of Chinese usage of vocabulary, grammar, sentence patterns, and features of the discourse to Chinese students' English writing due to the huge difference between Chinese and English in all aspects. However, there are still studies that explored some positive transfers under certain circumstances.

Although there are few exceptions, the difference between Chinese and English will cause negative transfer, and similarities between these two may lead to positive transfer in general in Chinese students' English reading and writing. This conclusion corresponds with well-known theories related to positive and negative language transfer. Therefore, to improve students' English literacy skills, more attention could be paid to improving children's Chinese phonological processing skills and syntactic awareness and try not to depend that much on Chinese orthographic processing skills when reading English. Also, when writing in English, students themselves should be careful not to apply too much Chinese thinking to avoid inappropriate or even incorrect English expressions. When writing in English, students might attempt to reduce the detrimental impacts of mother tongue transfer by increasing their English input and learning the variations between two languages.

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