

Negative Effects of Language Transfer in Nanjing high school students

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Abstract. Pdevious studies focus on exploring the extent of native language influencing second language learning. Therefore, language transfer takes place under this condition. In general, the influence of language transfer on bilingual learners can be divided into positive and negative perspectives. But in the context of Chinese students learning English, language transfer often only brings negative effects. This study will focus on the phenomenon of language transfer among senior high school English learners in Nanjing, Jiangsu Province, China. Both participants' oral communication and writing skills are tested and analyzed to study the main influences of language transfer. After that, some suggestions will be made to Chinese high school English learners.

Keywords: Language transfer, Negative transfer, Writing tasks.

1. Introduction

In the English learning process of Chinese senior high school students, most students have the habit of thinking in Chinese, and translate complete Chinese sentences into English when speaking or writing. Gas pointed out that language learners often transfer elements of their mother tongue to the use of foreign languages [1]. In China, Chinglish is always been discriminated. This phenomenon in students' English use is not only reflected in vocabulary, but also in grammar. Chinese vocabulary and logic have had a profound impact on high school bilingual learners. Therefore, some students propose that there are grammatical errors in English sentences, but Chinese logic is correct. A similar situation occurs in writing. Also, the same meaning can be expressed in different words, which happens to both Chinese users and English users. This means that when Chinese students try to use English in daily or academic life, it will be more confusing.[10] In addition, sometimes the use of words defined in the same dictionary may be limited by specific occasions or atmospheres. In order to prove the specific role of negative transfer in Nanjing senior high school English learners, senior high school students English compositions with the same topic were collected. After that, the results will be analyzed.

2. Literature Review

Transfer is a concept in psychology, which has a different definition when it enters the field of linguistics. The definition of language transfer is the influence of a person's knowledge of one language on that person's knowledge or use of another language [2].It is also defined by Zhao that transfer is a term that describes the change from previous learning to later learning,and negative transfer happens when the former task interrupts the execution of the latter task [3]. Gu pointed out that there are essential differences between adults learning foreign languages and children learning their mother tongue [4]. When children learn a language, they have not established any connection with any language in their minds. For them, the process of learning their mother tongue is a process of developing their thinking ability. When adults learn a foreign language, they have basically mastered their mother tongue. This leads to the language habits of their mother tongue which inevitably interfere with their learning of new languages, especially when the gap between the second language and their mother tongue is not small. Ellis proposed a view containing similar ideas [5]. There are two factors that affect second language acquisition, one is the environment, the other is the stage of learning. When a language learner is a beginner, he will rely more on the original language

knowledge, which will have a negative impact on second language acquisition, that is, negative transfer. Zhou suggested that reasons for the negative transfer of Chinese and English include cultural differences [6]. Chinese language thinking is characterized by more image and euphemism, while English language is more inclined to abstract thinking and direct expression. According to Karim, first-language writers often incorporate their second language into their writing [7]. They employ their first language as a writing method to make up for any potential weaknesses in their second language ability and as a tool to speed up the writing process. For idea generation, topic research, concept development, information organization, and planning, they employ their first language. Studies have also demonstrated that learners successfully transfer a variety of other first language-based methods, such as metacognitive, cognitive, and social/affective strategies, to writing in a second language [7-8]. From Fu's review, the participants in language transfer research must be relatively single language learners, such as Chinese native speakers learning English [8]. Odlin pointed out that language transfer is related to all the acquired languages, not just the mother tongue [9]. Therefore, the participants in this research are all Chinese students who learn only English as a second language.

3. Research Design

This study will mainly focus on the writing of Chinese high school students, which requires students to write articles based on a fixed topic. In order to ensure that the cases obtained will not be difficult to analyze because of too many variables or too broad scopes, all articles will have the same topic, and the summary of the article content has been listed for students' reference. Through this control measure, the research focus can be placed on the level of students' word choice and sentence formation, rather than the specific content of the article itself. In this study, 20 senior high school students' English compositions on the same topic have been collected. The title of the article is "Whether nuclear energy should be used by humans." The advantages and disadvantages of nuclear energy for human development and environmental protection are provided to participants. They were asked to complete a short composition of no less than 150 words within an hour to discuss whether human beings should use nuclear energy as a source of energy on a large scale. After all participants submit the completed articles, all of the 20 articles will be gathered for manual statistics on all grammar and vocabulary use errors in the articles. To ensure the accuracy of error judgment, after all, obvious low-level errors are eliminated, and the remaining questions about the appropriateness of the use of phrases and vocabulary are queried in the corpus. This study uses the Corpus of Contemporary American English to verify the correctness of doubtful phrases or sentences [10]. If the tested phrase or sentence is recorded in the corpus and used more than 10 times, it will be considered correct. Errors from various articles will be grouped together and classified. If the error under the same category comes from more than 5 different articles, the error will be considered typical.

As shown in the figure above, 'tiny issue' is taken as an example. If the frequency of query in the COCA corpus exceeds 10, then it can be basically considered that there is no error in the queried phrase. The result of the 'tiny issue' is frequency 11, which means that the phrase is correct. All typical mistakes will be analyzed emphatically, because they may represent the common mistakes of high school students. The cause of the error will be proved to be related to the negative impact of language transfer, and possible solutions will be found according to the results. It is worth mentioning that in order to ensure the universality of the results, the participants in this study come from two different schools. One is a high school that studies Chinese local courses, while the other is an international high school that mainly studies international courses and has foreign teachers. Moreover, the level of participants is also specially controlled according to the level of transcripts. There are 5 participants in each school whose scores are often higher than the average of their schools, and 5 participants in each school whose scores are lower than the average. There were 10 participants whose English level was higher than the average level of their school, and 10 participants whose English level was lower than the average level of their school. The experiment is designed in this way to ensure that the results obtained are better applicable to students at all levels. After the specific analysis of all the articles,

some interviews will be involved according to the errors and overall quality of each article. The specific number of interviews depends on the number of students who make fewer mistakes in the final results. Only students with better results will be interviewed.

4. Results

4.1 Writing Analysis

A total of twenty articles were collected. To show the mistakes in these articles, two tables are drawn. One table shows the survey results of ordinary Chinese high schools, and the other table shows the survey results of international Chinese high schools. These include each error type and the frequency of such errors. All errors have been confirmed in the COCA corpus.

Table 1. Frequency analysis

High School	Type of Error	Frequency
Chinese High School	Improper collocation of words	7
	Improper collocation of phrase	7
	Spelling mistakes	2
	set-phrases mistakes	4
	Wrong part of speech	6
High School	Type of Error	Frequency
International High School	Improper collocation of words	6
	Improper collocation of phrase	7
	Spelling mistakes	4
	set-phrases mistakes	4
	Wrong part of speech	3

Table 1 illustrates that the frequency column refers to how many articles of this type of error have occurred in the participants' articles of the high school. From the table, some conclusions can be summarized. The errors of "improper collocation of words" and "improper collocation of phrases" are frequent in both high schools, which means that these two types of errors will be considered typical. The frequency of "Spelling mistakes" and "Set phases mistakes" in the two high schools is less than five, which means that these two types of mistakes will be considered personal and atypical. "Wrong part of speech" type errors show different rules in two different high schools, which is different from the other four types of errors. Except for "Wrong part of speech", the results of the other four kinds of mistakes in the two high schools are very similar. This special type of error occurs slightly more frequently in ordinary high schools than in international high schools.

A preliminary analysis of the chart shows that the correct collocation of vocabulary and grammar is a common problem for high school students. Such errors often involve a deep understanding of English grammar, as well as a correct understanding of English logic and the special use of various words. Unlike word spelling and set phrases, this in-depth knowledge is not well understood by Chinese students. The relatively fixed and more basic knowledge is usually better mastered by Chinese senior high school students, which may be due to the continuous emphasis and consolidation of such basic knowledge in English education in China's primary and junior middle schools. However, this repeated emphasis and practice on basic English knowledge does not seem to have effectively improved students' mastery of English thinking and logic, which involves language transfer. For most Chinese students, even those studying in international schools, the influence of native Chinese on a second language English cannot be ignored. Almost all Chinese students show obvious Chinese logic and the habit of constructing sentences in Chinese when writing articles. There is an interesting phenomenon here. In the case of improper words or phrases, almost all sentences are correct in Chinese logic. Especially when inharmonious words and phrases are translated into Chinese and put back into sentences, the original wrong sentences seem very reasonable. Here is an example, "Waste

of nuclear energy can't appear in a short time". In this sentence, "dispose" instead of "dispose of" may be more appropriate for English speakers. However, in Chinese, "waste appears" and "nuclear waste is disposed of" have similar or even the same meaning. This gives a preliminary hypothesis and will be asked as a question in the subsequent interview to verify whether there is such a situation, that is when Chinese students write English sentences, they first write Chinese sentences in their minds and then translate them into English. This assumption may be able to explain the improper collocation of words or phrases by most participants. The participants' habit of Chinese has become so deep-rooted that it has affected their English learning, which is the phenomenon of negative transfer. The gap between Chinese and English is not small, so the impact of negative transfer is not small.

4.2 Interview Analysis

Although the research of participants' articles shows that most participants have common problems, there are also several participants who have not been found to have these errors, and they basically have almost no errors, or only two to three small errors. Two participants from ordinary high schools and international high schools were selected for interviews. They were all students who made few or no mistakes in writing tasks. According to prior statistics, the four students' scores in their respective schools were above the average level. Except that the questions about the participants' personal information will not be listed, all the questions in this interview will be listed below and analyzed one by one. All interviews were conducted in Chinese and the recordings were later translated into English.

In the question "In your class, does your English teacher teach in English or Chinese?" two students from ordinary high schools have the same answer, that is, the teacher uses both Chinese and English in teaching. The answers of the two students from international high schools are similar to each other but different from those of ordinary high school students, that is, the teachers teach in English. It is also learned from the participants' supplement that English teachers in ordinary high schools are usually Chinese while English teachers in international high schools are usually native English speakers. Although the other three did not have similar words, a student from an international high school made it clear that native English speakers taught themselves.

In the question "When learning English, are there any problems that you think are difficult to solve?" all participants mentioned the need for English vocabulary. All four participants agreed that memorizing words is a difficult and necessary element of English learning. Two participants, from ordinary high schools and international high schools respectively, mentioned that it was difficult to master the choice of words when constructing sentences and the grammatical collocation when constructing long and difficult sentences, although they did not have a lot of such problems in their articles. Therefore, the interviewer asked about the way to overcome this difficulty. When asked about the way to avoid such mistakes, the interviewee appeared uncertain and confused and said that there was no special way to consolidate basic knowledge. One interviewee mentioned "sense of language" and said that training "sense of language" is a way to reduce mistakes. However, when asked how to cultivate a sense of language, the interviewees did not give clear and referential answers.

In the question of "When writing English sentences, do you have the habit of thinking in the combination of Chinese and English?", all four interviewees gave a positive answer. Although all four interviewees clearly stated that they knew that this way of thinking would affect the accuracy of sentences, especially when writing sentences with a big gap between their ideas and Chinese, no one gave a better solution. All three interviewees said that they naturally translated English sentences into Chinese first when reading them. However, a subject from an international high school said that when reading English, he did not translate English into Chinese first, but directly understood the meaning of the sentence. However, when writing, it is still inevitable that he will first construct a complete sentence in Chinese and then translate it into English. The interviewee also proposed that when looking up dictionaries, one should not use a Chinese English dictionary but an English English dictionary to cultivate the same way of thinking as a native English speaker.

In the question of "Can you talk about your usual English learning style?", the four students all talked about reading textbooks, watching English movies, and doing more English exercises such as

reading and listening. Two interviewees from international high schools mentioned reading original English books and watching original English movies without translation. Two ordinary high school students mainly emphasized using English more and doing more questions. From this, it is obvious that the difference in ideas. One prefers to use English more, and the other prefers to do more written exercises. These two different styles may be due to the different future plans of ordinary high school and international high school students. Compared with international senior high school students, ordinary senior high school students have less use of English, most of them use English in exams, while international senior high school students are mostly prepared to study abroad or settle overseas, so they use English more frequently and have higher requirements. In this case, it is surprising that the influence of language transfer of international students is not significantly lower than that of ordinary high school students. This may indicate that the negative impact of language transfer on students is so great that just six years of learning is not enough to get rid of it.

5. Conclusion

Although Chinese students usually have good performance in school writing, their performance is not so satisfactory when they are given materials and content that they have hardly contacted as writing materials. Perhaps this is because they are unfamiliar with new knowledge, but it may also indicate that English education does not have a deep impact on them and does not make students really think and output like English speakers.

After the research, some solutions to the negative transfer of language transfer have been proposed. According to previous studies, children who do not have fixed thinking in their first language are less likely to be affected by language transfer. In China, students begin to learn English formally from the age of 10, which is the third grade of primary school. English learning before the third grade is very simple. If students can be taught English to the first grade in advance, they may be more likely to form the habit of English language. Students should use English English dictionaries instead of Chinese English dictionaries to reduce their dependence on Chinese when learning English, so as to reduce negative transfer.

References

- [1] Gas, Susan. "Language transfer and universal grammatical relations." *Language learning* 29.2 (1979): 327-344.
- [2] Jarvis, Scott, and Aneta Pavlenko. *Crosslinguistic influence in language and cognition*. Routledge, 2008.
- [3] Yanan, Zhao. "Negative transfer of mother tongue in English." *Creative Education* 10.05 (2019): 940.
- [4] Gu Shicai Mother tongue transfer and foreign language learning [J] *Journal of Shanghai Ocean University*, 1998 (1)
- [5] Ellis, Rod, and Rod R. Ellis. *The study of second language acquisition*. Oxford University, 1994.
- [6] Zhou Shibao Negative Transfer of Mother Tongue and Chinglish in Writing [J] *Journal of Shaoxing University of Arts and Sciences: Philosophy and Social Sciences Edition*, 2002, 22 (1): 51-56
- [7] Karim, Khaled, and Hossein Nassaji. "First Language Transfer in Second Language Writing: An Examination of Current Research." *Iranian Journal of Language Teaching Research* 1.1 (2013): 117-134.
- [8] Fu Huiying Negative Transfer of English Lexical Collocation by Non English Majors' Mother Tongue: A Study Based on Chinese Learners' English Corpus [J] *Examination Weekly*, 2013 (31): 3
- [9] Odlin, Terence. "Cross-linguistic influence in third language acquisition: Psycholinguistic perspectives." *Studies in Second language acquisition* 26.3 (2004): 474-475.
- [10] Corpora: Coca. English. (n.d.). Retrieved December 1, 2022, from <https://www.english-corpora.org/coca/>