

Negative Transfer in Chinese College Students' English Reading

Yajing Lu^{1,a,*}

¹*School of Civil Engineering, Hubei University of Technology, Wuhan, 430064, China*

a. lyj0204yz@hotmail.com

**corresponding author*

Abstract: Contrary to what most Chinese higher education researchers believe, teaching practice shows that Chinese university students still have some difficulty in reading academic literature in English, and this is not caused by a lack of vocabulary. To investigate the impact that Chinese-based reading habits produce on Chinese university students' understanding of the logic of English academic texts, 23 students were given a standardized English reading test covering ecology, zoology, economics, and cartography. Test results and post-test interviews reveal that most Chinese students were significantly better at understanding the meaning of single sentences than at sorting out the logic of the texts. When reading English literature, some students fail to correctly understand the role of logical adverbs and conjunctions, and even ignored logical words in the texts. As a result, the speed of reading English literature slows down and students fail to correctly understand the central content of the texts. This is caused by the different meanings and functions of different logical words in Chinese and English. The results of this study point out that there is a lack of training in the ability to sort out the logic of texts in Chinese higher English education and provide new teaching ideas for teachers who are struggling to improve students' ability to read English literature.

Keywords: negative language transfer, Chinese university students, reading

1. Introduction

Language transfer has been a popular topic of research in the field of second language acquisition. Researchers in different countries have conducted extensive research on the effects of negative transfer on language learning. Among Chinese scholars, studies on Chinese students' learning of English have mainly focused on the effects of negative transfer on Chinese students' writing and speaking skills, and have proposed corresponding solutions to these effects [1, 2]. However, based on the stereotype that Chinese students are better readers, research on the effects of negative transfer on Chinese students' use of reading in English is relatively lacking.

In this paper, a standardized reading proficiency test was administered to 23 Chinese university students to examine their ability to comprehend words and sentences, understand the structure of texts, and analyze minor and major points in English academic literature. Based on the feedback from the test results and post-test interviews with the students, the factors associated with negative transfer and the impact of negative transfer in reading are analyzed.

This paper fills a gap in the research on negative transfer in reading ability of university students in the field of second language acquisition in China and will provide a new perspective for teachers teaching English in China, so that Chinese scholars and English teachers can get out of the misconception that Chinese students are good at reading in English. Based on the research, it is hoped that teachers will make adjustments to their teaching arrangements and strategies to address the effects of negative transfer on students' reading ability.

2. Language Transfer

As a central issue in second language acquisition, language transfer theory has been a popular topic in applied linguistics research. Rod Ellis pointed out that when similarities exist between the first and second languages, L1 plays a positive role in L2 learning, and this assistance is known as positive language transfer. Conversely, negative language transfer occurs when there are differences between L1 and L2, meaning that the learner's L1 interferes with the learning of L2 [3].

With the growing population of English learners in China, language transfer has become a topic of concern for many linguistic scholars and front-line teachers. In studies where the subjects are mainly college or university students, the focus of research has been on the effects of negative language transfer on students' speaking and writing skills. A number of scholars have found that negative language transfer can be a problem for students in different aspects of their learning. In speaking, the inconsistency of some pronunciations in English and Chinese, as well as the pronunciation habits of various dialects of Chinese, can affect language learners' pronunciation [4, 5, 6]. In writing, introductory English learners are likely to feel the significant impact of negative language transfer early in their learning because of the lack of the concept of countable and uncountable nouns in Chinese and the differences in word order in Chinese and English sentences [7]. For college and university student groups, misuse of conjunctions in compound sentences, changes in verb forms, and misuse of tenses often occur in the process of learning English, even after they have crossed the beginner stage [8,9].

Among the large number of studies on Chinese students' learning of English, it is noteworthy that relatively little research has been conducted on their reading comprehension skills. Studies related to English reading learning have mainly focused on primary school students or young children groups[10]. This may be based on the misconception that university students can overcome the difficulty of reading English texts once they have built up the appropriate vocabulary, or it may be because English teaching in China places more emphasis on targeted problem-solving skills than on improving reading ability, so many scholars equate high reading scores with strong reading comprehension skills. In fact, however, based on feedback from front-line ELTs, Chinese students still have difficulties in reading academic English texts [11]. This study seeks to investigate the effect of negative language transfer on Chinese students' comprehension of English text logic, focusing on testing Chinese students' ability to understand the logical adverbs “however” and “but”, and the logical conjunction “whereas”.

3. Research Design

This study started with a random selection of 50 Chinese university students, 18 male and 32 female. In order to avoid the possibility that the students' English vocabulary and grammar knowledge would affect the accuracy of the subsequent study, the study pre-tested these 50 students on the ability of vocabulary and grammar. The tests included determining the subject of complex sentences, the predicate verb in the main clause of complex sentences, determining the objects of comparison in comparative sentences, selecting the interjection in complex sentences, and determining the object modified by non-predicate components in complex sentences. A total of 23 students got all questions

correct or only one question wrong on the basic test. Of these 23 students, 8 males and 15 females were asked to complete a further standardized reading test.

In the formal standardized reading test, to investigate the effect of negative language transfer on Chinese students' ability to sort out the logic of English texts, four short science texts were rigorously selected and a total of six multiple-choice questions were set. All of the short science texts did not involve knowledge of specialized fields. The details of the disciplines involved in the popular science short texts and the topic settings are as follows.

As can be seen from the question settings, two questions examined the understanding of the details of the texts; one question examined the judgment of the function of the sentences of the text; one question tested students' ability to extract the main content of the text; and two questions examined students' ability to infer the details of the texts in depth. Questions I and V were designed to test students' understanding of the meaning of single sentences; Questions II, III, IV and VI were designed to test students' understanding of the logic of sentences and the logic of the texts.

Table 1: Question Settings of the Reading Test.

Text No.	Subjects	Length of the Texts (words)	Questions
1	Ecology	117	I. According to the passage, which of the following is true?
2	Zoology	110	II. The passage is concerned primarily with...
			III. The author introduces ... primarily in order to...
3	Economics	75	IV. Which of the following can be inferred about ... ?
4	Cartography	125	V. According to the passage, which of the following is true?
			VI. Which of the following can be inferred about ... ?

Each student was asked to complete the six reading questions within 15 minutes and was interviewed after completing the test to confirm their understanding of the texts and the questions and to assist the researcher in determining their deficiencies in logical understanding of the English text.

4. Results

4.1. Results of Reading Test

After completing the reading test, the test results are shown in the Table 2 (students are indicated by serial numbers). Most students are significantly better at understanding the meaning of single sentences than they are at sorting out the logic of the texts. Both questions that examined the understanding of the details of the text were above 60% correct (95.65% for Ecology-I and 60.87% for Cartography-V), while the questions that examined the logic of the texts and sentences are significantly below 50% correct. The correct rate for Cartography-VI is only 17.39%.

Table 2: Results of the Reading Test of 23 Students.

Student No.	Question No.					
	Eco-I	Zoo-II	Zoo-III	Econ-IV	Cart-V	Cart-VI
1	√	×	×	×	×	×
2	√	√	×	×	√	×
3	√	×	×	×	×	×
4	×	×	×	√	×	×
5	√	√	√	×	√	×
6	√	√	×	√	×	×
7	√	×	×	×	√	×
8	√	×	×	×	√	√
9	√	√	×	×	×	×
10	√	√	×	×	√	×
11	√	×	×	√	×	√
12	√	√	√	√	×	√
13	√	√	×	×	√	√
14	√	×	×	×	√	×
15	√	×	√	×	√	×
16	√	×	√	×	×	×
17	√	√	×	√	√	×
18	√	×	×	√	√	×
19	√	×	√	√	×	×
20	√	×	×	√	√	×
21	√	×	√	×	√	×
22	√	×	×	×	√	×
23	√	√	√	√	√	×
Correctness	95.65%	39.13%	30.43%	39.13%	60.87%	17.39%

4.2 Post-test Interview

In order to further understand the students' understanding of the reading texts and questions, 23 students were interviewed after the test.

When asked whether there were unknown words in the four reading texts and whether these words affected their comprehension of the texts, 17 students clearly indicated that there were no words they did not know, while 6 students indicated that there were only a few unfamiliar words, but overall this did not affect their understanding of the meaning of the texts.

To investigate the students' understanding of the logic of the text, students were asked to explain their understanding of the meaning and function of the words "but", "however", and "whereas" in the texts, respectively.

Twelve students indicated that they did not notice the adverbs "however" and "but" in the second and third texts, so their understanding of the text relied entirely on their understanding of the meaning of the sentences. Of the other 11 students, 5 thought that "however" and "but" were logical adverbs used to express two opposing viewpoints, 4 said that "however" and "but" were used to reflect the opposite information of the two sentences, and 2 students could not accurately describe their understanding of these two logical adverbs.

Three students reported that they did not notice the logical word “whereas” while reading the fourth article. Another 18 out of 20 students thought that the meaning and function of “whereas” and “however” were the same, and only 2 students explicitly stated that “whereas” embodies the contrast of two objects.

The answers above indicate that a large proportion of students are still in the habit of reading English texts by understanding the meaning of each sentence, which not only slows down the speed of reading English texts, but also interferes with students' ability to extract the main logic of the texts. Also, the answers reveal more clearly that Chinese students are not proficient in the use of logical adverbs and conjunctions in English, and even confuse the meaning and usage of different logical adverbs. This is because, in this study, both “however” and “whereas” can be uniformly translated as “(danshi)”, and the most direct English equivalent of this Chinese word is “however.”

According to the above test results and interviews with students, the differences in the usage of logical words between Chinese and English has a great negative impact on Chinese students' understanding of the logic of English texts. Focusing only on vocabulary accumulation in the process of English learning does not meet the needs of Chinese university students in reading academic English texts.

5. Conclusion

To investigate the influence of English logical adverbs and conjunctions on Chinese students' comprehension of the logic of English texts, this study conducted a reading test on 23 Chinese university students.

The results of this study reveal that due to the different emphasis on logical words in Chinese and English, Chinese students largely do not pay attention to logical words when reading English texts, and will rely excessively on understanding the meaning of each sentence in the texts to comprehend the texts. This not only slows down students' reading, but also affects their ability to extract the central content of English literature. Further, it can also affect their logical sorting and expression in English writing and speaking. This study reveals that training in sorting out textual logic is still lacking in higher English education in China, and provides new teaching ideas for teachers who are troubled to improve students' ability to read academic literature.

Since the focus of this study is on the effect of negative language transfer on Chinese students' comprehension of English texts, and the reading test questions focus on the logical conjunctions and adverbs of “however”, “but”, and “whereas” only, the study is limited in perspective. It did not investigate the ways to instruct students to avoid the influence of different uses of these logical conjunctions in Chinese and English in the process of teaching English, so it has limited help for teachers' practical teaching.

In addition, only four short texts with less than 200 words were selected, and the subjects covered were limited to ecology, economics, and cartography, so it is difficult to reflect more comprehensively the various comprehension difficulties Chinese students face when reading long texts in English.

Further research could explore the impact of other logical connectives such as “conversely”, “while”, “instead”, “rather” that have more abstract meanings in Chinese on students' understanding of English logic, as well as explore new teaching methods to improve students' logical comprehension of English texts. Such a study will not only help English teachers to improve the efficiency of teaching, but also help students to get out of the misunderstanding of learning English and to read English literature more efficiently.

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