

A Study of Syntactic Transfer in Relative Clause Learning of Chinese College English Majors

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Abstract—Language transfer has long been a central issue in applied linguistics, second language acquisition (SLA) and language teaching. In the last few decades, its importance in second language acquisition has been reassessed several times. Based on the theoretical and empirical research findings in transfer literature, this thesis makes a study of syntactic transfer in English learning of Chinese learners. The research focuses on discussing the question: Are there any differences or similarities concerning syntactic transfer between students from different proficiency levels. The results of this study show that the extent of syntactic transfer is particularly large for complex target structures and among learners of lower proficiency level, though higher proficiency level learners may also have relied on the syntactic structures of their Chinese L1.

Index Terms—second language acquisition, syntactic transfer, relative clauses, error analysis

I. INTRODUCTION

Language transfer as an important characteristic of second language acquisition has long been recognized. A learner's second language or foreign language learning is largely influenced by the learner's previous experience in language learning or acquisition. The phenomenon that certain elements of a language are more likely to be transferred than others has been noted by such researchers as Gass, and Selinker. This has raised the question of viewing language transfer in a broader perspective. Kellerman (1977) proposed the notion of *psychotopology*, that is, the distance between the two languages as perceived by the learner. His work (1979, 1983) has figured prominently in the development of language transfer studies by focusing on the principles involved in what he calls the transferability of linguistic elements arguing that there are definite constraints on transfer which go beyond mere similarities and differences of the languages in question and which ultimately involve the learner as an active participant, who makes decision about transferability. The study of language transfer will facilitate language teaching by providing an insight of the differences and similarities between languages and the influence that previous linguistic experience will have on present language learning.

In the past few decades, language activities such as language acquisition, comprehension, and production have been described with increasing emphasis placed on the processual aspects and language learning is modeled as a cognitive process. One of the most important contributions to the understanding of human cognition concerning memory, inferential reasoning, language processing, and language acquisition has been the ACT model proposed by Anderson (1976), in which he makes the clear distinction between declarative knowledge and procedural knowledge. His work has given inspiration to numerous studies on language performance and language transfer. In terms of declarative and procedural knowledge, Anderson (1976) claims that as a result of its mode of acquisition and its nonreportability, our knowledge of our native language can be regarded as procedural, while the knowledge of a new language taught by classroom techniques often seems declarative. The activation of this type of knowledge is, according to Anderson, by using general rule-following procedures applied to the rules that the learner has learned and applying this knowledge is a much slower and painful process than applying the procedurally encoded knowledge of the native language. In L2 or foreign language production, the L1 knowledge often acts as a procedural constraint and this will help the learner to achieve an acceptable L2 fluency or fills a perceived or unperceived L2 knowledge gap.

There are other studies presenting evidence of syntactic transfer. Wode (1981), for instance, through a very detailed longitudinal study, offered insight about the development of second language syntax. Gass (1984) surveyed much of the work on second language syntax that had led to a reconsideration of transfer by many researchers in the 1980s. Odlin(2001), using a chapter in his book *Language Transfer* provided a good discussion on syntactic transfer.

To summarize, despite the fact that transfer in syntax is not so common as in lexis or phonology, transfer do figure as an important factor in the acquisition of some syntactic structures. But it often occurs in conjunction with other acquisition processes, some of which show hints of typological and universal influences at work.

II. METHODOLOGY

This part is the research design of the current study. It presents the research questions, participants and data elicitation techniques employed in this study and the rationale for using them.

A. Research Question

As discussed in the preceding part, there is little agreement among researchers as to the extent of syntactic transfer and to the role that language proficiency plays in transfer. As a result, the present research aims to investigate the following question:

Are there any differences or similarities concerning syntactic transfer between students from different proficiency levels?

B. Participants

The participants of the present study are 60 Chinese college English majors studying at Dezhou College.

At the time of this research, the students had begun their second year study at the college. These students were divided into two proficiency levels by the researcher, namely, proficient group and less proficient group, according to their English scores of the TEM4 model test. The participants have not taken the TEM4 exam when the research is carried out. To ensure the proficiency level, a pretest has been conducted among 70 English majors in two classes. The test is a TEM4 model test in which none of the subject has ever previously completed.

The test consists of five parts. Part One is Writing. It constitutes points. Part Two is listening comprehension consisting of 25 questions, each of which contributing 1 point. Part Three is Cloze with 15 blanks, also each for 1 point. Part Four is Grammar and Vocabulary. There are 25 questions. Each question is 1 point. Part Five is Reading Comprehension. There are 10 questions. Each question is 2 points.

Two English teachers with many years of teaching experience (one is 10 years and the other is 8 years) graded the test papers. The proficient group is composed of the first 30 participates in the test and the less proficient group the last 30 participates in the test. The mean score of the proficient group is 64.7. The mean score of the less proficient group is 53.2.

A detailed description of the two groups of subjects is summarized in Table 2.

TABLE 1
A DESCRIPTION OF THE SUBJECTS INVOLVED

Major	Subjects	Proficiency Level	Average Age	Sex	
				Male	Female
English	30	Less Proficient	20.7	4	26
	30	Proficient	20.5	7	23

C. Translation Test

With regard to direct translation, Taylor (1975:76) commented: (It) has the advantage of (1) forcing the experimental subject to attempt to form a desired target language structure, and (2) assuring that the subject understands the semantics of the structure which he is required to produce. Moreover, by forcing the subject to form a structure he has not completely mastered, the experimenter can gain insights into how he organizes new syntactic construction in his interlanguage. A translation test seems to be the most efficient way to elicit syntactic structures from subjects.

The material used in the study is a Chinese-to-English sentence translation test. The test contains 20 simple Chinese sentences. Among them, every five represents one type of relative clauses: SS, SO, OS, and OO types.

The simple Chinese sentences in the test material actually are the translation work done by the author. The author first reads a lot of English magazines like *Reader's Digest*, *People* and so on, and then chooses some good sentences containing relative clauses. The word "good" here means they are not so complex and the author can easily translate them into two simple Chinese sentences. After enough sentences are chosen, the author classifies them into four groups, that is, (1) whether the head noun is a subject or an object of the main clause, and (2) whether the relative pronoun functions as a subject or an object within the relative clause. Thus, these relative clauses are classified into four groups: SS-relatives, SO-relatives, OS-relatives, and OO-relatives. For each group, five sentences are left. Finally, the author translates each of the 20 English sentences into two simple Chinese sentences. The author asks several Chinese speakers to read these Chinese sentences to ensure they are idiomatic enough and have no trace of English.

III. RESULTS OF GROUP TRANSLATION TEST

Error analysis has been an important part in second language acquisition study. The errors made in using relative clauses by Chinese English majors have been used by Schachter (1974) to illustrate avoidance phenomenon in language transfer. The difference in the target and native linguistic forms can lead learners to avoid using some structures. In this part the error ratio would be analyzed first to see how often the participants in the research make errors in using relative clauses. Next, the various errors made by the participants are classified into several categories and analyzed.

A. Results of the Translation Test

In the translation test, the students were asked to translate 20 Chinese sentences into English. The results of this translation test echoed those of the translation test in the individual interview, confirming that a large number of students, irrespective of their proficiency levels, called upon their L1 when producing English output. The findings for the translation task are summarized in Table 2.

TABLE 2
RESULTS OF GROUP TRANSLATION TEST: NUMBERS OF RELATIVE CLAUSE USE

Subjects	N	Minimum	Maximum	Mean	Std. Deviation
Proficient	30	9	18	13.75	2.832
Less Proficient	30	3	14	9.1	2.682

Table 2 presents the mean values of the numbers of using relative clauses of the two groups. As presented in Table 3, the mean value of relative clause use of the proficient group is higher, which is 13.75, and that of proficient group is lower, which is 9.1. The minimum value of the proficient group (which is 9) is higher than the less proficient group (which is 3). The maximum value of the proficient group (which is 18) is also higher than that of the less proficient group (which is 14).

The results indicate that the students in the proficient group use more relative clauses than those in the less proficient group.

TABLE 3
NUMBER OF CORRECT USE OF RELATIVE CLAUSES

Subjects	N	Minimum	Maximum	Mean	Std. Deviation
Proficient	12	8	16	12.08	3.204
Less proficient	21	1	11	6.1	2.755

Table 3 presents the mean values of the number of correct use of relative clauses of the two groups. As presented in Table 4, the mean value of the number of correct use of relative clauses of the proficient group is higher, which is 12.06, and the mean value of the number of correct use of relative clauses of the less proficient group is lower, which is 6.1. The minimum value of the proficient group (which is 8) is higher than that of the less proficient group (which is 1). The maximum value of the proficient group (which is 16) is also higher than that of the less proficient group (which is 11).

The results indicate that the proficient group students generally use relative clauses more accurately than the less proficient group students do. All these results as well as the effects of learners' language proficiency on their processing of relative clauses will be explained in the following section.

B. Errors Types

The results of the use of relative clauses for each group have been presented and analyzed in the previous part. So the question as to how often the students make errors in the use of relative clauses has been answered, and then the next question is what the characteristics and the common types of these errors are. The errors have been analyzed and classified into six categories. They are: pronoun retention, wrong position of RC, *be*-verb omission, lack of relative pronoun, wrong use of pronoun, and subject omission. These six categories of errors will be analyzed in the following part.

a. Pronoun Retention

Pronoun retention, as illustrated in the following, refers to the maintenance of the pronoun in the relative clause which indicates the head.

- ¹(2a) *Tom bought a mobile phone which he lost *it* soon.
 (3a) *That bank is trustful which I just withdrew my money into *it*.
 (5a) *Maggie stands far away and just looks at me who she never see *me* before.
 (7a) *She has two beautiful rings which she usually show *them* off to her friends.

When the participants are translating sentences, they tend to make pronoun retention errors. Pronoun retention errors account for a large proportion of the relative clauses error types. The general viewpoint concerning pronoun retention is that it would be influenced by the learners' L1. English does not permit pronoun retention, so the sentence “*Tom bought a mobile phone which he lost it soon” is grammatically wrong. Chinese allows the pronoun retention as in the sentence “汤姆买了一个手机，不久以后他就把它弄丢了”. The learners, whose L1 permits pronoun retention, tend to accept the sentence such as “*Tom bought a mobile phone which he lost it soon” as grammatically correct. This kind of error can be attributed to L1 transfer errors.

b. Wrong Position of RC

The wrong position of RC, as illustrated in the following examples, refers to the situation where the relative clause, though correctly translated, is not embedded correctly after the head noun it modifies.

- (3b) *That bank is very reliable *to which I've just deposit money*.
 (3c) *That bank is very reliable *where I just put my money in*.
 (4a) *This message was told to Mr Li *which was told to Mr Wang later*.
 (13a) *Her old brother has studied in the university *who you just talked with*.

When the participants are translating sentences, they tend to embed relative clauses into the wrong position, as in the sentence “*That bank is very reliable *to which I've just deposit money*”, where the relative clause “to which I've just deposit money” should be embedded immediately after the antecedent “that bank”. It shows that the subject tried to avoid central embedding. In all the sentences given as example of this error type, the function of the antecedent in the

¹ Note: * means the wrong sentence the students produced in their test.

main sentences is a subject, and therefore, to be modified by a relative clause. Therefore central embedding is inevitable. But for the students who were not familiar with central embedding, they avoided this process and put the relative clauses needed to be center-embedded at the end of the sentence. This kind of error can be attributed to the difficulty of central embedding, which claims that central embedding is one of the obstacles for learners to understand relative clauses.

c. *Be-verb Omission*

Be-verb omission means the participants deleted the *be-verb* in the relative clauses as showed in the following examples.

(12a) *Regret that like arrow stabled into his heart deeply.

(19a) *This machine that bought last year is working perfect.

(19b) *This machine which working well is bought last year.

When the participants are translating sentences, they often omit the *be-verb* in the relative clauses. *Be-verb omission* is another most frequent error type which has been mentioned in a number of studies. The author attributes this kind of error to over-generalization of the rule of deleting relative pronoun and *be-verb*. The participants who knew the rule vaguely misapplied the rule and deleted the *be-verb* only.

d. *Lack of Relative Pronoun*

Lack of relative pronoun, as illustrated in the following, means the participants combined the two sentences only by deleting the subject of one sentence without adding the relative pronoun.

(11a) *John lives in Kansas is a horseman.

(15a) *Bedy, a Chinese born in Shanghai, left China at 8 years old, is his wife.

(17a) *A man talked with my teacher is my uncle.

When the participants are translating sentences, they tend to omit the relative pronouns. Two interpretations can be applied to the lack of relative pronoun. One interpretation is the same with the interpretation explaining the above *be-verb omission* error, that is, the over-generalization of the rule of deleting relative pronoun and *be-verb*. The participants, who knew the rule even more vaguely than those who made the *be-verb omission* errors, didn't know it is only when the relative pronoun and the *be-verb* appear at the same time can they be omitted both. Therefore, they sometimes tend to misapply the rule and delete the relative pronoun. Another interpretation is that the participants knew very little about relative clauses except the disappearance of the identical NP in one of the two sentences. So they simply deleted the identical NP of a sentence and then connected it to the other.

e. *Wrong Use of Pronoun*

One participant used a personal pronoun to join the relative clause and the main clause when translating Sentence 13. Please look at the following example:

(13b) *Her brother was a college student with *him* you had a conversation just now.

The interpretation of this kind of error is that the participant knew little about relative clauses. When he/she was creating a relative clause, he/she only put the identical NP at the beginning of the relative clause instead of using a relative pronoun to replace the identical NP.

f. *Subject Omission*

When translating Sentence 20, one participant has deleted the subject of the relative clause. Please look at the following example:

(20a) *The first time to be mother gave me a totally different views which can't learn from psychology course.

The occurrence of subject omission can be interpreted as mismatch of the antecedent. In this relative clause, the subject is "I". The participant has taken "the view" as the subject, so he has omitted the subject. This is the reason of mismatching the antecedent.

As presented above, the pronoun retention and the wrong position of RC account for the largest proportion of the errors. *Be-verb omission* is another frequent error. Another category is the lack of relative pronoun. Some learners even use pronoun to substitute relative pronoun, and some omit the subject in the relative clauses. This section has provided the types of errors detected in the participants' translation work.

IV. CONCLUSION

Data collected from the research show that the interlanguage of students from both proficiency levels presented certain kind of influence from their mother tongue, Chinese. However, data from the group translation test and writing test indicate that syntactic transfer from Chinese to English is more widespread among the less proficient students though many proficient students also produce strings that strongly resemble the structures of their L1. When the sentence structures concerned are considered more difficult or unfamiliar, both levels of students tend to rely much on their L1. This suggests that calling upon the L1 when producing output in the L2 is a fairly common compensation strategy among students to overcome their difficulties in the production of unfamiliar target language strings. In this way, transfer as a mental process in second language learning is manifest, that is, "L2 learners make strategic use of their L1 in the process of learning the L2, and in the process of understanding and producing messages in the L2" (Ellis, 1999, P.347).

Despite their more intensive and extensive exposure to positive evidence in the L2 than that of the intermediate group,

the students in the higher proficiency level group tend to rely on the L1 as well. Data from both the translation and writing test show that whereas transfer from Chinese to English is more widespread among less proficient students, many proficient students also produce strings that strongly resemble the structures of the L1. However, when the sentence structures concerned are considered more difficult or unfamiliar, the less proficient students tend to rely much more on the L1 than do the proficient students, suggesting that calling upon the L1 when producing output in the L2 is a fairly common compensation strategy among students of lower proficiency levels to overcome their difficulties in the production of unfamiliar target language strings. The psychological structure of the learners' L1s, their perception of the L1-target language distance, and their actual knowledge of the target language, all control their use of transfer (Kellerman, 1979).

Based on the theoretical and empirical research findings in transfer literature, the present research was designed to investigate the extent of syntactic transfer from Chinese to English. It also aimed to examine the differences or similarities of the nature and process of syntactic transfer between students from different proficiency levels. With three data elicitation techniques, the written production of Chinese college students was analyzed with the focus on relative clauses. The results of data analyses present confirmatory evidence for syntactic transfer from Chinese to English with regard to relative clause. The extent of syntactic transfer is particularly large for complex target structures and among learners of a lower proficiency level, though higher proficiency level learners may also have relied on the syntactic structures of their L1, Chinese.

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