Impact of Chinese Grammatical Knowledge on Translation on Think-Aloud Protocols

Yiqin Zou¹

Correspondence: Yiqin Zou, School of Foreign Studies, Nanjing Agricultural University, Nanjing, Jiangsu, China. E-mail: 2015815029@njau.edu.cn

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Abstract

This paper presents the validity and feasibility of Chinese grammatical knowledge in translation competence. Based on empirical research and think-aloud protocols, details of our research design include questionnaire, pretest and posttest, teaching procedure and verbalization recording process. Pretest and posttest testify that twelve participants' translation competences are improved after Chinese grammatical knowledge is taught. Verbalization recordings demonstrate that participants' translation competences are improved after Chinese grammatical knowledge teaching only because of the grammar. Implications and limitations for further study to translation teaching are discussed.

Keywords: Chinese grammatical knowledge, translation competence, think-aloud protocols, translation teaching

1. Introduction

With the implementation of "The Belt and Road Initiative", Chinese culture "Go Global" spurs a new high-wave of translation. In light of that, it becomes pressing to increase translation competences of students' in institutions of higher education in China. So, how to improve their translation competence? No matter English class in secondary school or college, it just focuses on English itself but neglects Chinese that owns an invisible but an overwhelming impact on English-Chinese (EC) and Chinese-English (CE) translation processes. As a native Chinese speaker, there have no difficulties in reading Chinese but indeed not means that there have no difficulties in analyzing Chinese. It is undeniable that Chinese competences of students are weak (Tu, 2009, p. 76; Tu, 2010, p. 5; Cu & Yan, 2008, p. 227). Given that, Chinese competence seems to be ignored. While, the interest Pedagogical Grammar or Grammar (PG) reflects a growing sensitivity to the role which grammars play at the point of interaction between the learner, the material to be learned, and the teacher (Lier & Corson, 1997, p. 11). So, is the Chinese grammatical knowledge beneficial for translation competence? The research hopes to seek for a path fitting to the trend for English majors in China to improve their translation competences.

2. Literature Review

Translation competence has already been researched in Applied Linguistics for a long time. However, Translation Studies have not yielded a generally accepted definition of translation competence in written translation (Orozco & Albir, 2002, p. 375). Translation researchers, like Bell (1991), Nord (1991) and James & Garrett (1991b) (Faber, 1998, p. 10), managed to define translation competence. Since PACTE (Note 1) group has researched translation competence as early as in 1997, and has published articles (2000, 2002, 2003, 2005a, 2005b, 2007a, 2007b, 2008, 2009, 2010, 2011, 2014), we adopt the definition of translation competence defined by the group. Translation competence: (a) is expert knowledge; (b) is predominantly procedural; (c) comprises different inter-related sub-competences; and (d) includes a strategic which is of particular importance (PACTE GROUP, 2009, p. 208). As to PACTE GROUP, translation competence model comprises six sub-competences components: bilingual sub-competence, extra-linguistic sub-competence, knowledge about translation, instrumental sub-competence, strategic and psycho-physiological competence (PACTE GROUP, 2009, pp. 208-209). In 1982, Ursula Sandrock, a German scholar was the first one who applied TAPs in research translation process. Tirkkonen-Condit (1989) made a contrast experiment of translation process between professional and non-professional by the way of TAPs. Séguinot (1989), Lörscher (1991), Jonasson (1998) and Fraser (2000) analyzed and described translation process through TAPs (Jääskläinen, 2002, p. 135; Guo, 2007, p. 117). Aly (2003) and Tabataba'lan & Zabihi (2011) researched translation strategies and strategies in EFL

¹ School of Foreign Studies, Nanjing Agricultural University, Nanjing, China

learners through TAPs. Güvendir (2014) studied the factors that caused foreign language reading anxiety through TAPs.

Domestically, Huang (1997), Mu (2006), Miao (2007), Wen (2004), Tong (2010), etc. have made researches on translation competence. Huang (1997, p. 26) indicates grammar-translation competence and grammar-point-oriented translation exercises are common in textbooks of overseas and home. It is an indication of grammar-translation competence playing an important role in translation competence. Wen (2004, p. 1) summarizes translation competence containing linguistic/textual competence, strategic competence and self-evaluation competence. Miao (2007, p. 48) categorizes translation competence into cognitive competence, linguistic competence and communicative competence. Guo & Liu (1997), Wen & Guo (1998), and Wang & Wen (2002) analyze the impact of mother tongue on writing in second foreign language by TAPs (Guo, 2007, p. 3). Jiang (1998), CAI (2000) and Li (2004, 2005) discuss the application of TAPs in researching translation process (Guo, 2007, p. 117). Tan (2011) studies the selection of translation units by TAPs. Shen (2012) researches the translation process through TAPs. Wen & Yin (2010) and Zeng, Gu, & Ye (2013) research the translation strategies through TAPs.

No matter what translation competence is analyzed by researchers, linguistic competence is contained. As many scholars before have made researches through TAPs on translation strategies, translation units, translation process, and the relationship between translation and cognition but not on Chinese grammatical knowledge. Moreover, Tu (2009), Tu (2010), Cu & Yan (2008) have made study as an indication of weak Chinese competence of Chinese students both secondary schools and universities. Grammar-translation competence is an ignored pinpoint to research. Therefore, we want to explore the impact of Chinese grammatical knowledge on translation competence based on TAPs.

3. Methodology

3.1 Research Questions

- (1) Will participants' translation competence be improved after Chinese grammatical knowledge is taught during translation teaching?
- (2) Does the improvement of participants' translation competences indeed attribute to the Chinese grammatical knowledge?

3.2 Participants

Voluntarily, participants involved were 12 sophomore English majors (females containing the majority), 1 female and 11 females, from 19 to 20, averaging 19.6. They had already studied English about 9 years to 14 years, averaging 11.25 years.

3.3 Instruments

First of all, the questionnaire (seen in Appendix A) was designed with reference to An Empirical Study of Translation Competence: A Case Study of MTI Students (Li, 2011, p. 109), In Research of an Approach to Translation Education—Based on Translation Competence Development (GAO, 2009, p. 61), and The Application of Peer Review to Translation Teaching of English Majors (Chen, 2013, p. 68). Then, the two translation competence tests whose 24 sentences adopted in were from Course of New Chinese-English Translation (Fan, 2006), New Comparison and Translation between Chinese and English (Liu, 2010), and A Short Course in English-Chinese Translation (Zhuang, 2012).

3.4 Research Procedures

First, TAPs training. Participants were told what needed to be thought-aloud was everything that went on in their minds while translating. Second, pretest aimed to test participants' translation competences and to acquire their thinking procedures. Third, questionnaire was designed to know participants' attitudes to Chinese grammatical knowledge in translation teaching. A much more suitable teaching plan for the research could be figured out for that. Fourth, teaching procedures lasted 6 weeks, with one topic in one week. Details of it were as Table 1. Fifth, posttest aimed to test participants' translation competence after the series of Chinese grammatical knowledge teaching and to know their thinking processes just the same as pretest. Last, digital recordings were faithfully transcribed for the further analysis.

Table 1. Teaching procedures

Information	Date	Topic
Class I	Nov. 18	An general comparison of English and Chinese grammatical knowledge
Class II	Nov. 25	Comparison of English and Chinese subject and verb
ClassIII	Dec. 02	Comparison of English and Chinese verb and objective
ClassIV	Dec. 09	Comparison of Chinese and English tense, aspect, passive voice, and subjunctive mood
Class V	Dec. 16	Discrepancies of sentence structures in English and Chinese

3.5 Data Collection

The present study was carried out from November 11 to December 23 of 2015. Participants did pretest and posttest independently in a same normal classroom. Only when the former participant begun verbalizing through a computer the next one could see the translation material. Each participant had no time limitation until he/she finished his/her report. After that, they wrote down their translations and then handed in. Total recording process of each test was lasted for 3 hours. Pretest and posttest digital reports were transcribed by the researcher into written ones faithfully before they were analyzed. Then, questionnaires were finished within 5 minutes and returned at a full rate.

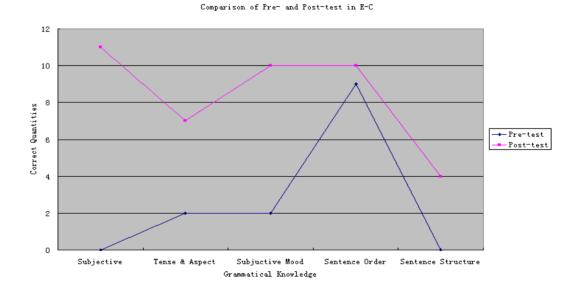
3.6 Data Analysis

First, the questionnaire consisted of ten multiple-choice questions with two having subjective item. The choice-chosen proportion of each question was calculated. The further study of teaching procedure was rearranged according to that. Then, the correct quantities of participants' pretest and posttest translations reflecting the grammatical topic of teaching procedure were taken as the score, which could avoid subjective inclination. According to the score, we could make a direct comparison of participants' translation competences in pretest and posttest. Last, transcriptions of pretest and posttest were compared to find out participants' thoughts of Chinese grammatical knowledge in which could be embodied.

4. Results and Discussion

4.1 Improvement of Participants' Translation Competences

Pretest and posttest were designed to test participants' translation competences in grammatical knowledge. The results as Figure 1 and Figure 2 showed that participants' performances of posttest were superior to those of pretest. Details were analyzed as following three sections.





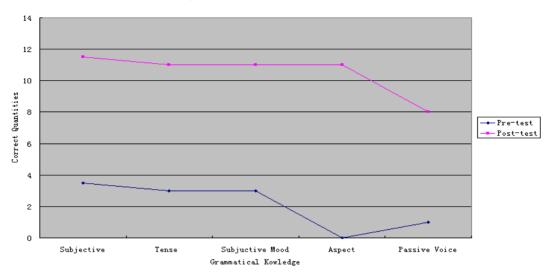


Figure 1 and Figure 2. Comparison of pretest and posttest in E-C and C-E

4.1.1 Subject

Example I : Original: **His arrival** proved to be of much help. (Pretest 1)

Version: 事实证明,他来了,确实帮了很大的忙。

Original: His name escaped me for the moment. (Posttest 1)

Version: 我一时想不起他的名字。

In English sentence, subject is prone to be noun instead of pronoun because of its objectivity. It must be nominal. Chinese, however, is much freer. Its subject is a theme or a topic for it inclines to narrate a matter from subjectivity. So the subject of "his arrival" and "his name" should be translated into "他" and "我" in order to make the translation readable and idiomatic. The participants' translations are as Table 2.

Table 2. Participants' versions of pretest 1 and posttest 1

Pretest	His arrival	Posttest	His nameme
他来了	0	我他的名字	11
他的到来	12	他的名字我	1

It can be seen from the Table 2 that all participants translate "his arrival" into "他的到来", while eleven participants translate "his name...me..." as "我......他的名字" instead of "他的名字......我". This subject transformation indeed makes good and idiomatic translation. Of pretest 1, participants just refer "his arrival" into "他的到来", "proved" into "证明是", "to be of much help" into "有很大帮助或是很多帮助". To be honest, the sentence indeed conveys this meaning, but the translation is actually awkward. However, of posttest 1, 91.67 percentages of versions have gotten increased. Those participants do not transform the subject "his name" into subject, but object, which makes translations more readable and idiomatic. The improvement also can be seen in CF

Example II: Original: 人们常说: 活到老, 学到老。(Pretest)

Version: **It is** often said that **it is** never too old to learn.

Original: 老跟着别人,就不能独立行事了。(Posttest)

Version: If you follow somebody else all the time, you cannot be able to be your own man.

Example II is the typical Chinese zero-subject sentence, which must not be happened in English with exception of imperative sentence. The subject "人们" in the pretest fully shows the subjectivity of Chinese. However, when it is referred as "it", it meets the objectivity of English. It makes "it" as the formal subjective which is

indispensible in English structure so as to balance the sentence. There is another feature of English sentences that is the consistency which is embodied in subject. That can be seen in versions above as "it is ... that it is..." and "if you ... you..."

Excerpts of participants' versions:

Pretest:

- 1) People often say, "study until get old".
- 2 People often say: It is never too old to learn.
- ③ It is said that you should continue learning as you grow old.
- 4) As is often to say "learning in your whole life".

Posttest:

- 1) You can not be independent if you always follow others.
- 2 If always following others, you can not get somewhere independently.
- 3 People could not live independently if they were always following others.
- ④ If always follow others, we won't be able to take action on our own.

There have no subjects in sentences of "活到老,学到老"and "老跟着别人,就不能独立行事了" which should be amplified a subject if they are translated into English so that they can comply with the English grammar. Though participants except ① and ④ have chosen a subject to translate the English sentence in pretest, they overlook something nuance—the consistency—between English and Chinese. In posttest, 75 % participants keep that in mind resulting in better translations.

4.1.2 Tense, Aspect and Subjunctive Mood

Example III:

Original: I would have been able to write a new book if I had had time. (Pretest 3)

Version: 那时我如果有时间,我就写完一本新书了。

Original: If you had told us a bit earlier, we should have met him before he left. (Posttest 2)

Version: 如果你早一点告诉(**了)**我们,我们**本可以**在他走以前见到他。

Example III are subjunctive mood with past tense and perfect tense. These grammars, however, do not exist in Chinese. It should be amplified characters like "那时", "了", and "本可以" to show when the action happens and whether it is finished or not. The two sentences should be paid more attention to their mood, tense and aspect. Thus, the versions above are good ones. Participants' translations are listed below:

Table 3. Participants' versions of pretest 3 and posttest 2

Pretest 3	Would have beenhad had	Posttest 2	Had toldshould have met
有时间能	4	告诉,就能了	4
有时间会	1	告诉,就可以了	2
有时间 本可以	4	告诉的话,本可以	4
那时有时间写	1	告诉,本能够	1
有时间(写完)了	1	告诉, 会在	1
有时间愿意	1		

From Table 3, we can see that in pretest only one participant renders "had had" as "那时" and only one participant renders "would have been written" as "已经写完了", which translates the past sense and the past perfect respectively. And, obviously, this kind of translation is much better than others' who have not. It also can be seen that six translations of posttest have "了", which is an indication of perfect aspect. It should be noted that all participants amplify characters like "就能", "就可以", and "的话". This amplification verifies that they think deeply when translating, which is benefit for translation process. Then, let's keep eyes on Chinese to English translation.

Example IV:

Original: 那天你来个电话,我就不去了。(Pretest)

Version: If you had phoned me that day, I would not have gone to meet you.

Original: 早吃了药,就不会得这场病了。(Posttest)

Version: If you had taken the medicine, you would not have been fallen ill.

These two Chinese sentences are composed of two short sentences whose renderings are covertness and need to be analyzed so as to meet the hypotaxis of English. Actually, the actions of "来个", "去", "吃" and "得" are already happed in the past. Because Chinese has no inflexion to show the tense, so it only can be rendered as "那 天" and "早". Translations of participants ①-④ are various as bellow:

Pretest:

- ① Call me that day and I won't come.
- ② I would go there if you had a call.
- ③ I wouldn't have gone if you had called me that day.
- 4 That day, you give me a phone call and I won't go.

Posttest:

- ① If you had taken pills earlier, you could have not gotten sick.
- ② If I had had the medicine, I would not fall ill.
- ③ You wouldn't have got sick if you had taken bills earlier.
- ④ If I had taken medicine, I wouldn't have gotten this illness.

By comparison translations of pretest and posttest above, it is undeniable that the pretest ones are much worse than the posttest ones. Let's look at translation ① of pretest "Call me that day and I won't come". It is a thorough Chinglish that doesn't fit English expression, because it neglects the logic located in the original sentence. Only 16.67 percentages of them have translated this sentence correctly in pretest, but 83.33 percentages of them have made the translation correctly in posttest. So, participants' translation competences indeed have gotten an improvement after Chinese grammatical knowledge are taught in translation teaching,

4.1.3 Passive Voice Level

Example V: Original: 一胎生了三个女儿。(Pretest 10)

Version: Three daughters were born at one birth.

Original: 文章总算**写完**了。(Posttest 10)

Version: The article has been at least hammered out.

These two are short sentences with the subject of "一胎" and "文章" which cannot be actors in English. It is obvious that the logic connection of actor and action in Chinese are not in line with that in English. Therefore, it should use passive voice to translate those two Chinese words. The versions above are good ones. Participants' translations are various:

Table 4. Participants' versions of pretest 10 and posttest 10

Pretest 10	生了	Post 10	写完
gave birth to	5	is done	1
had	1	is finished	1
born	2	Was finished/accomplished	3
are given birth to	1	finished	3
has	1	Have finished (by me)	1
give birth to	2	Has/have been finished	2
		Have finished	1

In China, passive voice is once named "unfortunate voice" in history because of its negative meaning in terms of the patient subject. Result from that, it is seldom used. So, the passive voice is covert in Chinese grammar without the character "被". But, in English it is just the opposite because of its objectivity. From Table 5, we can see that only one participant utilizes the passive voice to translate the sentence "一胎生了三个女儿", while other eleven ones just make translations as the original linearity. It can also be seen that nine participants use passive voice to translate the sentence "文章总算写完了". This is an improvement. The following is the EC translation.

Example VI:

Original: The cooperation invariably was everything that **could be hoped for**. (Pretest5)

Version: 这种合作正是我们所期待的,希望可以一如既往地进行下去。

Original: All the parcels were dispatched by me. (Posttest4)

Version: 所有的包裹都是我寄出的。

As the CE translation analysis before, it is noted that the passive voice of Chinese is conveyed by characters like "遭", "受", "由", "让" and "给" and by sentence structures like "……是……的", "……的是……", "…… 为……所" instead of "被" owning to the historical reason. So, versions of above two sentences are good for reference. Participants' translations are seen in the following.

Table 5. Participants' versions of pretest 5 and posttest 4

Pretest 5	Could be hoped for	Posttest 4	were dispatched by me
被期望	2	我把送了	6
是期望的	3	我配送/分拆了	2
其它	7	被我送了	2
		是我送/发出的	2

From Table 5, two participants have translated the passive voice into "被", and three into "是……的", but seven have not even translated the voice. This could be said that most participants have no idea to deal with the grammar transformation and are limited by the source language. However, although versions of posttest translations are more than those of pretest, they are both acceptable. What's more, ten participants' versions are fit for Chinese expression.

According to the analysis of pretest and posttest translations, it can be said that the performance of posttest are better than that of pretest. Participants' translations in pretest are full of translationese which reflect insufficient bilingual understanding, and are made of just word for word without arrangement. After teaching procedure, they are confident in breaking down the structure of source language which means that they make a deeper analysis when translating. They pay more attention to grammar and lingual functions of words in the task instead of their meanings. In another words, the connotation but not the denotation. Translation units became bigger than pretest. As the previous study of translation competence says, participants' translation competences have gotten strengthened.

4.2 Translation Competence Improvement Attributing to Chinese Grammatical Knowledge

Table 6 was the recordings information of pretest and posttest. According to *Think Aloud Protocols* (Guo, 2007), silent time of a valid recording must not be greater than the proportion of 10 percentages of the total verbal time. In the context of that, pretest recordings of participant 7 and participant 10 were not qualified. Pretest recording of participant 5 also could not be as a qualified case because of its poor results. So, 21 cases were of qualifications.

Table 6. Proportion of pause time to total time in pre- and post-recordings

Information	Pretest/ Pause(S)	Total(S)	Percent (%)	Posttest/ Pause(S)	Total(S)	Percent (%)
Participant 1	12	601	2.00	5	409	1.22
Participant 2	28	475	5.98	9	297	3.03
Participant 3	7	871	0.83	7	729	0.96
Participant 4	32	402	7.96	2	374	0.535
Participant 5	Poor case			43	698	6.24
Participant 6	42	724	5.80	8	425	1.88
Participant 7	99	864	11.46	10	332	3.01
Participant 8	24	745	3.22	4	411	0.97
Participant 9	9	435	2.06	13	430	3.02
Participant 10	73	715	10.21	18	534	3.37
Participant 11	10	989	1.01	2	598	0.33
Participant 12	6	518	1.16	9	261	3.45

Note. S: second; Percent: Pause/Total.

4.2.1 Chinese Grammatical Knowledge Not Embodied in Pretest Recordings

Participants incline to make word to word and phrase to phrase translation, and to focus on the meaning of single word.

Two excerpts of the first sentence said that "His arrival proved to be of much help. 额(hmm), be of 加上名词 (with a noun), 额 (hmm), 等于形容词 (equals to an adjective), 所以 (so) be of much help 应该和 very helpful 是一样的 (should be the same with very much), 所以可以替换应该是 (so be of much help can be substituted for very helpful). 他的到来证明了(his arrival proved), 额 (hmm), 会给我们提供很多帮助 (to be of much help)." and "英译汉 (English to Chinese), 第一句 (first sentence), his arrival 他的到来 (his arrival), proved to be of much help, 证明 (prove), 证明有了 (was proved), 证明有了很大的帮助 (proved to be of much help). 这里都符合汉语的语序 (the English sentence structure is in line with the Chinese sentence structure), 所以我认为直接译比较好 (so I think literal translation is better), 他的到来证明有很多的帮助(his arrival proved to be of much help)." From this excerpt we can see that participants pay attention to the meaning of one word or two words but not the connection of those words. There a point should be noted that a participant said that "这里都符合汉语的语序,所以我认为直接译比较好 (ibid)." He or she believes that the sentence structure of original one is conformity with that of Chinese. From the analysis above, the subject should be made a change in order to make the translation readable and idiomatic. From that, we have words to say that even if they are Chinese native speaker, participants are not good at Chinese grammatical knowledge.

Some other recording excerpt can also convey that phenomenon. Like "额 (hmm), 这个合作的 (this cooperation), (3s) 不变性 (invariability)? 是值得我们期望的原因 (is the reason of worthwhile looking forward to)? 是他值得更期待的原因 (is the reason of more than worthwhile looking forward to for him)? 哦 (oh), 这个合作的稳定性 (the stability of this cooperation). Invariably 是不变的 (means unchanging), 不变的 (unchanging), 额 (hmm), 所以 (so), 可以译成这样子 (it can be translated as like). That could be hoped for 我觉得他是在修饰 (I think "that could be hoped for" modifies) everything. 所以就是 (so it is), 是值得 (is worthwhile doing so)".

Those excerpts above show that participants cannot organize and arrange a Chinese sentence as the same as an English one, which has negative impacts on translation. And these impacts can be also seen in CE translation process. Those excerpts are said "额 (hmm), is often, as is often said that, 额 (hmm), learning should, 额 (hmm), learn should, learn, learn should when, learn should when, learn in your life. 嗯 (hmm), 因为我不知道怎么说活到老学到老 (for I don't know how to express it is never too old to learn/one is never too old to learn), 然后我觉得就是 (so in my opinion), 他的意思就是要一直学嘛 (the sentence means that one should keep learning). 然后就 (so I translate as), learn in your life." And "人们常说: 活到老,学到老 (It is always said that it is never too old to learn). 人们常说 (It is always said), people always says, people always say. 额 (hmm), 活到老,学到老 (it is never too old to learn), life long dying? 额 (hmm), 这样是个短语 (it is a phrase). People always say, 额 (hmm), people always said study until die". From those transcripts, we can see that when translating from Chinese to English, they don't take collocation and consistency into consideration at all.

Another excerpt of CE translation in pretest can be looked, "第二句 (the second sentence),那天你来了个电话,我就不去了 (if you had phoned me that day, I wouldn't have gone to meet you). 应该是**因果关系** (it contains causal relationship),然后 (then), I, I didn't go there, because of you,because of your call." The "因果关系 (causal relationship)" in the excerpt proves that this participant just make a wrong analysis of the original sentence. So, it is noted that participants' Chinese competence is weak.

From translations above, we can clearly see what is conveyed is that they just make the word-to-word translation whether EC or CE translation without considering the collocation. That is to say, they hardly analyze the grammar of original and target sentences. Moreover, twelve participants, although they are Chinese native, they have difficulties in grasping their mother tongue.

4.2.2 Chinese Grammatical Knowledge Embodied in Posttest Recordings

One participant verbalized that "嗯 (hmm), his name escaped me for the moment. 额 (hmm), 这句话 (this sentence), 我一时忘记了他的名字 (his name escaped me for the moment). 嗯 (hmm), 这句话用英语表示时是他的主语是 (the subject of this sentence in English is) his name, 但是 (but), 额 (hmm), 嗯 (hmm), 翻译的时候要注意一下主语的转换 (it should be reminded of subject transformation in translating)." It is obvious that the thought pattern of the participant has changed when translating, and this change results in the improvement of translation competence. By comparison with the subject of English and Chinese, he or she can make a better translation. Another participant's improvements can be seen in the following excerpts: "His name escaped me for the moment. escaped me 他是用的是 (the sentence is used), 额 (hmm), 一个名字做主语 (a

name as its subject), 然后 (then), 比较 (compare with), 所以 (so), 和汉语的 (Chinese), 那个 (hmm), 感觉不是很一样的一个 (I think that the subject of English sentence is not the same as that of Chinese one). 和汉语的那个习惯不一样 (it is different by comparison with Chinese collocation), 所以我们要把那个 (so, we should), 人称换一下 (transform the subject). 然后就不能用他的名字做主语 (that is to say, we cannot use his name as the subject of a Chinese sentence), 所以用我那个来做主语 (so, I use "我" as the subject). 额 (hmm), 所以 (so), 额 (hmm), 翻译的话 (I will translate it as), 我暂时想不起他的名字 (his name escaped me for the moment)."

In posttest, participants no longer keep minds on words meaning only, but on the expression on the basis of grammar. They pay more attention to the target language instead of source language.

Another excerpt can be seen as below, "第三句 (the third sentence), I will be waiting for you tomorrow at this time, (·2·) 嗯 (hmm) 翻译的时候 (when translating), 嗯 (hmm), 应该先调整一下语序 (we should adjust the sentence order), 先翻译时间吧 (we should translate the time first), 这样比较符合我们的表达习惯 (because it is in line with the Chinese idiomatic). 明天这时候 (tomorrow at this tome), 我会在 (I will), 额 (hmm), 我会在等你 (I will be waiting for you). 额 (hmm), 第四句 (the fourth sentence), all the parcels were dispatched by me. 嗯 (hmm), 这句话很显然是被动语态 (it is obvious that the sentence is a passive voice), 额 (hmm), 翻译的时候 (when translating), 额 (hmm), 主语要翻译成人 (we should translated me as the subject), 我配送了所有的包裹 (I dispatched all the parcels)". From their verbalization, it can be seen that their thought patterns have been changed. In posttest, they focus more on the organization of target language and analyze the Chinese grammar.

Those are excerpts of EC translation recordings. We now can have eyes on those of CE translation. One verbalized that "第二句,早吃了药,就不会得这场病了 (the second sentence, if you had taken the medicine earlier, you wouldn't have been fallen ill). 额 (hmm), 这里的主语我选择了 you (I choose you as the subject when translating), 就是说 (that is to say), 有一点 (something like), 对别人说你要是早吃了这个药 (you tell other people that if you had taken the medicine earlier), 就不会得这场病了 (you wouldn't have been fallen ill). 还是选择了用 if 来连接 (I use if to connect the two short sentences). 然后 (then), 这里是 (here), 很明显他现在是生病了 (it is obvious that he is ill now), 所以这个是跟过去相反 (which is in the opposite of past), 就是用过去完成时 (it should be used past perfect tense here). 就是 you wouldn't have gotten sick, if you had taken bills earlier." From this, it is easy for us to see the difference. The participant doesn't only concentrate on the word translation at all, but from a more comprehensive perspective to express the target language. And through translation teaching with Chinese grammatical knowledge, the participant's translation quality actually have gotten improved with bearing the grammar discrepancies in mind.

Another verbalized that "第五句 (the fifth sentence), 额 (hmm), after, a, asking for a leave, he visited, 额 (hmm), he went back to hometown visiting, 额 (hmm), parents, 额 (hmm), by train. 嗯 (hmm), 我觉得时间过程是先请假, 然后再坐火车回去 (In my opinion, asking for leave occurs before taking train to see family). 然后 (then), 额 (hmm), 这里有个去了 (it has *qule*), 然后就是有个"了"就是过去时 (the *le* in here manifests that the past voice should be used here)". From analyzing the character "了", the tense of the Chinese sentence could be figure out, which could be conveyed in the English sentence. So, the Chinese grammatical knowledge is an important factor which can have positive influence on the translation performance.

From one thing, to analyze a sentence meaning through its grammar was able to save time which could be showed by Table 6. Then, according to the analysis of pretest and posttest transcriptions, it is learned that participants bear idiomatic in mind, took grammar function into consideration, and make better and more accurate analysis. In light of participants' verbalizations, compared to pretest ones, posttest ones are manifested more deep structure analysis instead of surface only. So, we are able to believe that strengthening Chinese grammatical knowledge can in turn reinforce translation competence, which has great benefits for translation process. To sum up, after the teaching procedure, Chinese grammatical knowledge becomes a major translation strategy to resolve obstacles occurring in translation process. So, we can say that the translation competence improvement actually benefits from Chinese grammatical knowledge acquisition in the research.

5. Conclusion

From what have said above, the author can safely conclude that the application of Chinese grammatical knowledge in translation teaching based on TAPs is feasible and effective.

Two implications have been figured out from the findings of this research. Theoretically, Chinese grammatical knowledge could be taught in translation teaching. The bilingual competence is a vital translation sub-competence. Students in China are obtained a systematic English grammar education, but are neglected the Chinese grammatical knowledge acquisition, which roots a trouble for further translation study. Therefore, it is

necessary to teach Chinese grammatical knowledge in English class in higher education. Pedagogically, translation teaching is just as a part of English class in universities. During the teaching procedure of the research, TAPs is utilized as a method to explain how and why a sentence is translated as it should be. Participants verbalize their minds more clearly in their posttest recordings, which illustrates that their translation thought patterns become more logically. And their translation performances are in line with that. So, this kind of method, TAPs, could be applied widely in English class of translation teaching.

Although this empirical research though has been carefully designed and conducted, it is with its limitations. First, it is time limitation. For that, Chinese grammatical knowledge cannot be taught in full. Then, the recording instrument is just a PC instead of a professional recording device that more or less has little impact on the quality of recordings. Third, the questionnaire has not been examined its validity and feasibility for time case. But, given that the questionnaire doesn't have significant influence on our research, it is not serious for that absence. TAPs actually itself is a controversial method. For one thing, there exist a number of scholars who believe that think-aloud changes, to some extent, the original cognitive process of participant. Moreover, a few cognitive processes by being automatically dealt with and in subconsciousness cannot be spoken out. That is to say, it is impossible to verbalize all psychological activities through think-aloud for not all those activities can be spoken in language. For another, the state, the gender and the personality of participants and the recording circumstances all may have impacts on participants' verbalization. But, any research methods like TAPs contain limitations. So, what we should do is to consistently make the TAPs improved and promoted for further study.

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Note

Note 1. PACTE (Proceso de Adquisición de la Competencncia Traductora y Evalucación) GROUP was set up in 1997 at the University of Barcelona. Its aim is to investigate Translation Competence and Acquisition in written translation in order to improve the teaching of translation.

Question naire			
Gender:	Age:	Major:	Time (years) for learning English:
1. As Chinese c	ourse is ta	aught since p	mary school, do you like the Chinese course?
A. Yes, very mu	ıch.	B. Just so-so	C. No, not very.
2. Do you have	a good pe	erformance in	Chinese course?
A. Yes.		B. Just so-so	C. No.
3. Do you know	well abo	ut Chinese g	ammatical knowledge?
A. Yes.		B. Just so-so	C. No.
4. As English co	ourse is ta	ught since pr	mary or secondary school, do you like the English course?
A. Yes, very mu	ıch.	B. Just so-s	. C. No, not very.
5. Do you like t	he transla	tion exercise	in the English class?
A. Yes, very mu	ıch.	B. Just so-s	. C. No, not very.
6. Which obsta please write on			translation? (There may be more than one correct answer. Implements,
A. comprehensi	ion	B. words	C. grammar D. expression E
7. Will you ana	lyze Chin	ese grammar	n translation procedure?
A. Yes.	B. So	metimes	C. No, just depends on language intuition.
8. Do you think	Chinese	grammatical	nowledge acquisition is beneficial for translation?
A. Yes, of cours	se.	B. Maybe	C. No, even negative.
9. Do you think	it is signi	ificant to ana	ze Chinese grammar in translation teaching?
A. Yes, of cours	se.	B. Maybe,	out only a little bit. C. No.

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A. Yes, very much.

part.)

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B. Just so-so.

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10. Are you satisfied with your current translation teaching? (if not, please write your suggestions on underline

C. No.

D. _____