

# Case Study on Positive Effects of Forward Transfer on Chinese College Students' English Writing, based on the Common Underlying Proficiency Hypothesis

Hanqing Lou\*

Institute of Foreign Languages, Northwest University, Xi'an, Shaanxi, China

\*1542099679@qq.com

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**Abstract:** When many scholars in China already examined the impact of native language transfer on second language acquisition, they typically focused more on the disadvantages brought by reverse transfer, and then demonstrated how to facilitate second language acquisition by mitigating such effects. In contrast, this paper, based on the Common Underlying Proficiency Hypothesis, delves into the influence of college students' native language writing proficiency on their writing abilities in English, emphasizing the positive influence of conceptual foundation on cognitive academic linguistic proficiency. Jim Cummins came up with the Common Underlying Proficiency Hypothesis which contains two major ideas. The first differentiates between Basic Interpersonal Communicative Skills and Cognitive Academic Linguistic Proficiency. The second is called Linguistic Interdependence Hypothesis, which highlights the potential mutual reinforcement between mother tongue and second language. Based on the above theory, this work analyses in detail five sets of samples collected, that is, five Chinese and English essays by Chinese university students, to find examples of the positive influence that mother tongue can have on second language learning, i.e., the occurrence of forward transfer. Then, through these concrete examples, this work analyses a way to actively make forward transfer happen and they both deal with the differences and similarities between Chinese and English, since they are the trigger of mother tongue transfer. The feasibility of this approach is supported by analysis of the five couple of samples.

**Keywords:** Common Underlying Proficiency Hypothesis; Forward Transfer; Writing Skills.

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## 1. Introduction

Learners are influenced by their mother tongue in the process of second language acquisition, transferring linguistic habits and knowledge structures from their mother tongue to the second language. It's the phenomenon known as mother tongue transfer, which contains two aspects, Forward Transfer and Reverse Transfer. The research findings of Chinese scholars on native language transfer in Chinese students' English writing have been extensive, yet there are also limitations. One significant shortage is the uneven distribution of research and analysis between the two perspectives of the concept. In comparison to research on reverse transfer, domestic scholars often provide overly general summaries of the influence given by forward transfer [1].

However, back to 1979, Jim Cummins came up with the Common Underlying Proficiency Hypothesis (CUP Hypothesis), highlighting the differences between Basic Interpersonal Communicative Skills (BICS) and Cognitive Academic Linguistic Proficiency (CALP). Then he further emphasized that the cognitive linguistic proficiency of the native language and that of the target language are interdependent during the process of second language acquisition, indicating that the native language has a more significant positive influence than negative impact [2].

Based on this theory, case analysis of the Chinese and English essays of five undergraduate students is undertaken to investigate the favorable impacts of mother tongue on English composition, encompassing three dimensions: lexical, syntactic, and cognitive. Also, In recent years, domestic research on mother tongue transfer in China has undergone three stages of transition, evolving from a purely linguistic

perspective to linguistic pragmatics, cultural pragmatics, and ultimately reaching the conceptual level of cognition and context [3]. Therefore, the case study presented in this paper will not be limited to the pragmatic level alone, but will further extend to the cognitive level. At a time when domestic scholars are saturated with research on how to avoid negative feedback appearing with reverse transfer and prevent it from hindering English learning, this study focuses on how to explore and even actively create positive feedback brought by forward transfer, and make good use of the advantages accumulated in using mother tongue to promote the improvement of English writing ability.

By exploring the causes of forward and reverse transfer respectively, it is clear that what kind of similarities and differences exist between Chinese and English. While the similarities are able to help learners understand English vocabulary and grammar based on their cognition of mother tongue, the differences are also going to make sense since they can be treated wisely. Listing potential mistakes learners may make while writing in English and offering them corresponding corrections is not a reasonable solution. Because those mistakes vary from each other. It's impossible to cover all of them in a limited time. As a result, though this paper is also going to analyze reverse transfer, but doesn't aim at coming up with corrections but methods on how to counteract the negative impact of reverse transfer with the help of the basic cognition and linguistic foundations laid down by their mother tongue.

## 2. Studies on Each Cases

### 2.1. Materials and methods

This paper mainly focuses on two questions: What are the

specific manifestations of the influence brought by forward transfer in college students' writing? How should we use our native language as a resource wisely to improve Chinese university students' English writing skills? So by adopting case study, this paper comparatively and analytically examines the English and Chinese essays of five Chinese undergraduate students at four distinct levels, including words and phrases, sentences and grammar, meanings of words and sentences and discourse. Four out of the five undergraduate students who contributed to the study sample were English majors, ranked in order from the front to the back based on their grade is ADBE. The other student, C, is a law major. The primary objective is to identify the striking strengths in their writing abilities in Chinese and subsequently, determine the constructive influence these strengths have had on their English compositions. What's more, to investigate the role of mother tongue in language cognition, interviews were also conducted to determine its influence on the learning progress of the five students in English.

## 2.2. Results and Discussions

### 2.2.1. Words and Phrases

Student A, who is meticulous in her Chinese writing, also exhibits this trait in her English paper. This is evident from the juxtaposition of words and phrases with similar meanings, conveyed in a precise and concise manner. In other words, her Chinese paper features a high frequency of the comma and the conjunction "and". For instance, when describing the ecological protection measures implemented by the Communist Party of China, the student writes: “从思想、法律、体制、组织、作风上全面发力,全方位、全地域、全过程加强生态环境保护”。The juxtaposition here emphasizes a kind of "comprehensiveness" reflected in the measures. This is also reflected in her English paper. In expressing and introducing the sentiment conveyed in one of Thoreau's lines from *Walden*, she wrote, “The word ‘despair’ can evoke feelings of disillusionment, sadness and a sense of loss”. These words, although sharing the same negative connotations, possess distinct specific meanings, and are aptly selected and arranged to precisely articulate the emotions she experiences.

Based on the statistics, the conjunction "and" and the preposition "with" altogether appeared 31 times in the Chinese paper provided by student A, accounting for approximately 1.3% of the total word count. The comma, on the other hand, appeared 50 times, representing about 24.5% of the total number of punctuation marks. However, in English writings, it is uncommon for a word to be used repeatedly due to the need to avoid repetition and the word "and" is employed in two possible ways, parallelism or conjunction. Nonetheless, "and" appeared 72 times in A's English essay, with nearly 90% of them used to indicate parallelism.

Student D's approach to ensuring detail was similar to that of Student A, yet she employed adjectives or expanded modifiers to achieve her goal. Consequently, the character "的" appeared frequently in her Chinese paper, with the modifiers preceding it always striving to describe the nature of the entity as comprehensively as possible. Due to the influence of this native language habit, her English paper was also replete with numerous modifiers. For instance, within her academic paper concerning ancient Chinese mythology, there are sentences like “善良的人们不愿这样一个有勇有谋的

忠贞女子就这样被帝王迫害致死,也不希望未来可能到来的斗争会以失败告终,就安排龙王这种神通广大的人物来拯救她”“故而将原本故事中的‘城墙’替换成更为雄伟的‘长城’,并以此作为剥夺其丈夫生命的罪魁祸首,将杞梁妻的悲伤和伤痛进一步放大成了孟姜女的受压迫之苦”. Almost every noun in each sentence gets its own modifiers. And the preponderance of adjectives preceding those nouns render the sentence's meaning particularly complete. A large number of similar constructions appear in her English essay, such as “However, this is only a milestone achievement, not an equivalence to a signal of ultimate triumph” and “China's unique landmarks also epitomize the spirit of Chinese civilization”.

It is then observed that students who attach great importance to meticulousness in their mother tongue also demonstrate a similar level of attention to detail when utilizing a second language, such as English, to convey the comprehensiveness of their intended message.

Unlike these two students, Student B prioritized the richness of the content, that is, minimizing the occurrence of words with similar meanings or numerous modifying elements, and instead concentrates on concise and precise descriptions of a broad array of diverse content. In an effort to guarantee the accuracy of the content in her Chinese paper, she made extensive use of adverbs. The data indicates that the presence of the primary-level adverbs within the fundamental vocabulary compilation specified in *The International Chinese Language Education Chinese Proficiency Standard (2021 Edition)*, was observed 121 times in Student B's Chinese composition, amounting to a sum of 3.5% of the entire word count. And in her English paper, in order to be informative without being wordy, she leveraged her advantage in adverbs to enhance its content. Sentences like “secondly, it severely damaged talents and restricted the development of Chinese science” and “If we want to smoothly implement the strategy of strengthening the country with talents, we must...” highlight the fact that her mastery and use of adverbs when using her native language significantly affects her English writing.

Student C's writings, on the other hand, are similar to Student B's, and even exceed them in terms of emphasis on the expression of meanings of the content. In her Chinese paper, the usage of modifiers and modifying elements is almost nowhere to be found. And the vocabulary in her paper was relatively simple and conversational, resulting in a concise and distinct overall content. Concurrently, a plenty of correlative words and logical phrases ensure a stringent connection between the sentences, maintaining a clear and rigorous logic in the writing. Here are some examples: “在这种模式下,劳动者的隐私开放可能会不断扩大。主要表现为用人单位.....”“远程办公劳动者自选工作场所的特点使劳动者工作与生活场景几乎重合,这导致了‘上下班制度’的不确定性”“因此在工伤认定中,可要求用人单位和劳动者共同举证”. The vocabulary present in these sentences, excluding terminologies, mostly consists of simple words. Modifiers have been deliberately excluded as they do not contribute to the conveyance of her perspectives. Influenced by such native language habit, she consistently employs simple words when composing English texts while emphasizing logical connections through the use of connecting words. For instance, “At the beginning of the novel, the author describes the peace and beauty of the place where the story takes place, but the actual events are cruel and

terrible” ”The Lottery is regarded not only as an excellent short story, but also as a modern fable”.

However, it is undeniable that simple vocabulary may result in drawbacks such as repetitive use of same words and failure to express ideas well. In this regard, Student E is similar to Student C. However, due to the broader knowledge Student E mastered, there are many references in his Chinese paper, such as quoting expressions from Jean-Paul Sartre's *L'Être et le Néant* (Being and Nothingness) to explain the ideas he himself put forward. It can be said that he is accustomed to utilizing references to other people's expressions to facilitate readers' understanding of the content of his ideas. Influenced by this, there are also numerous references in his English paper, such as "Although Camus's friend Rochette Grenier noted in *Sunlight and Shadow* that Camus's opinion of the character was very positive". This indicates that it is the habit of expression in his mother tongue that prompts him to consult and read relevant English works when he needs to write in English. Thus, even though the richness of his vocabulary is not particularly high, the combination of previous research results and his own thoughts has helped him a lot in expressing his own views. Another typical habit of him in choosing the words and phrases is that he's inclined to be more colloquial instead of formal. His Chinese essay characterizes a high frequency of first person, and are more down-to-earth instead of being objective. It also contains a large number of emotive words such as "无可奈何" and subjective words which serve to express his own judgement such as "独具匠心". And in his English paper, there is a similar vocabulary. Like in the sentence "The book, be honest, is just a story of an ordinary man who kills a man and", "to be honest" is used to express his feelings, while "just" is to show his own comment. Meanwhile, English writers often use the passive voice to express objectivity, but it hardly appears in student E's English paper.

Many scholars hold the believe that because of the differences between Chinese vocabulary rules and that of English, Chinese students tend to be influenced by reverse transfer when learning English, which in turn hinders their learning progress. Because when learners encounter difficulties in the process of acquiring a second language, they always apply what they have learned in their mother tongue to the second language, resulting in reverse transfer from the mother tongue[4]. However, this kind of problem arises only when students fail to understand the fact that the language they are learning is different from their mother tongue in almost all the aspects. In other words, their understanding of English as a language is insufficient and they have a one-sided view that English is the same as Chinese, so when they write in English, they are not really writing but translating. One similarity that exists in the papers of the above five students is that they will learn the appropriate English vocabulary and rules of word usage in order to maintain what they are accustomed to when they write in their native language or to satisfy what they are accustomed to achieve when using mother tongue. This practice makes the negative effect caused by reverse transfer which could have been happened cleverly transformed into positive influence brought by forward transfer.

### 2.2.2. Sentences and Grammar

As mentioned earlier student A strives to express all the meanings completely when she writes in her mother tongue.

Driven by this quest, she often uses long sentences or short sentences with similar syntax. For example, "新时代的到来,总是以新思想为标志;历史性成就的取得,总是以新思想为支撑". According to statistics, the full text of the Chinese paper provided by her totaled 2,261 words, but it was only divided into 40 sentences, with an average of 57 words per sentence. By observing her English essay, it is not difficult to find that she also tries her best to expand sentences. As a result, the proportion of long sentences is much higher than that of short ones, which is obviously influenced by her mother tongue. In other words, it is the sentence-making habits formed during her usage of mother tongue that prompted her to learn enough about English grammar and syntax so that she can write long and well-organized sentences in English. The methods she uses can be roughly categorized into two, one is to use linking words or phrases, and the other is to add subordinate clauses. For example, "By analyzing the language style of 'Where I lived, and what I Lived For' from three key perspectives-word choice, syntax and the implementation of rhetorical devices and providing interpretation of Thoreau's views on the news, this paper aims to explore a deeper understanding of the significance of Thoreau's writing and demonstrate how his ideas continue to influence modern-day readers".

Student D also made a conscious effort to expand the information in her sentences when she was writing in her native language. Her Chinese essay contains 5,377 words in total, with 93 sentences and then an average of 58 words per sentence. For example, "所依靠的女子无从展现自己的忠诚,因为她们没有能够服侍的对象,那么她们自然也无法树立守节的名声,这时她们便失去了存在的意义,最后的选择就是结束生命来体现自己最后的价值——名节". However, unlike Student A, she's inclined to use simple sentences and shorter compound sentences in her English writing, while long and difficult sentences or complex and varied sentences are rarely found. But because of this, the logical relationship between neighboring sentences is very close and clear, and what is expressed goes from shallow to deep, from simple to complex. In contrast to her native writing habits, she tends to split long sentences in English writing. As a result, she pays more attention to the way sentences connect with each other, and thus masters the related grammar required to achieve her goal. The sentence "China boasts a great number of culture resources and natural scenery. So like festivals, China's unique landmarks also epitomize the spirit of Chinese civilization" is a good example.

This is not the case with student B. Throughout her Chinese paper, although the proportion of long sentences is also high like student A does, which serves to express as much content as possible, each sentence is separated by many commas into short clauses. Take this sentence as an example, "一直以来,对于'信'和'达',翻译界都是没有什么争议的,但在'雅'这一方面,则是意见不一". If student A or student D is asked to write a sentence like this, it may go like "一直以来对于'信'和'达'翻译界都是没有什么争议的,但在'雅'这一方面则是意见不一". Then there is a sentence in her English paper that has a similar structure. "The imperial examination system originated during the Southern and Northern Dynasties (420-589), was established during the Sui Dynasty (581-618), perfected during the Tang Dynasty (618-901) and continued through the Yuan Dynasty (1206-1368) and Ming Dynasty (1368-1664), before coming to an end during the

Qing Dynasty (1616-1911), lasting for a period of 1300 years.” At first glance this sentence appears to be a very complex long sentence, but due to the use of the accompanying gerund, three commas appear throughout the sentence, cutting the long sentence apart, which is clearly influenced by the habit she formed while using native language.

Compare and contrast students A and B: both of them are good at using long sentences, but to avoid being dull, student A prefers various sentence structures while student B tends to split long sentences with commas. And in English writing, student A often uses subordinate clauses to extend sentences, while student B tends to use accompanying gerunds.

In their Chinese papers, both student C and student E tend to be reluctant to focus on sentence pattern and syntax because they were more concerned with the presentation of the content. As a result, the whole compositions appear to be more plain compared with the other three students because there are fewer changes in sentence pattern. But also because of this, the logical relationship between sentences turn out to be clearer. For example, “要保障远程办公劳动者权益, 就必须制定相应的法律法规, 形成统一的裁判标准和依据” and “那些难懂的外来词汇都变成了本土已有的读者所熟悉的词汇, 将理解的难度拉低, 令读者能够简单地理解原文的大致意思”. However, this does not mean that there is no difference. In comparison, the number of long sentences used in student E's Chinese essay and the length of those long sentences exceeded those of student C. And in their English papers, such distinctions still exists.

### 2.2.3. Meanings of Words and Sentences

Polysemy is a widespread phenomenon in linguistics under the influence of a number of objective conditions. There are three reasons for the appearance of this phenomenon, the principle of economy of language, structural features of language and metaphorical conceptual cognition. As a communication tool, language shows a tendency to simplify in the process of development, and people try to convey more information with fewer linguistic units; the structural characteristics of horizontal distribution of linguistic symbols lead to a variety of combinations of horizontal combinations, and different combinations bring different meanings; at the same time, metaphors can make sentences have derived meanings.[7] Therefore, the polysemous nature of language tends to cause ambiguity. To prevent such ambiguities, it is effective to put a polysemous word or sentence into a specific context so that the reader can understand what the word or sentence means in this context. But that means when writing in English, if someone do not have a thorough understanding of the possible meanings of polysemous words and sentences as he do in his native language, he is likely to cause ambiguities due to inadequate presentation.

The word flow itself means the steady and continuous movements of something or somebody in one direction. However, the metaphorical use of the word adds a lot of meanings to it, so it is needed to judge the meaning of the word in context when using it. As mentioned earlier, Student A has developed the caution of expressing the content as completely as possible when writing in her mother tongue, so it is natural for her to try to avoid ambiguities in her English paper as well. In A's English paper, the word flow appears in this sentence "On the other hand, the combination of short and long sentences was made full use of by Thoreau to vary the rhythm and flow of his writing". It can be seen that flow does not appear alone. Prior to this, rhythm and flow, connected by

and, are juxtaposed so that the reader understands that the two words refer to the same level of concepts; after this, there is of-guided explanatory content, which further narrows down the lexical meaning of flow.

And in cognitive linguistics, a word is polysemous if it has more than two different yet related meanings[7]. That is to say, a large proportion of words in both Chinese and English are polysemous, such as "丰满" in Chinese and "float" in English. In Student D's Chinese paper, there is a sentence that reads:“逐渐使孟姜女这一人物形象丰满起来”, which means "Gradually, the character of Meng Jiangnu has been fleshed out" in English. The word "丰满" originally means to be heavy but even-looking, but here in this sentence it is clearly used in its derived meaning, i.e., full and complete. This shows that she has a deep understanding of the various meanings and parts of speech of polysemous words in her mother tongue and is therefore able to use them wisely. Then by observing her English essay, in the sentence goes like “It is said that, the Lunar New Year, or Spring Festival, has been officially listed as a UN floating holiday in its calendar of conferences and meetings as from 2024”, the meaning of floating in floating holiday obviously not to move slowly on water or in the air. This phrase is a fixed collocation, or can be called a jargon.

### 2.2.4. Discourse

Some scholars believe that there are similarities between Chinese and English in terms of discourse structure patterns. Specifically, the Chinese pattern of "起承转合" and the English Analytical Thinking Pattern fit each other to a large extent[5].

Of the five sets of papers studied in this paper, the one that best demonstrates this similarity is student A's work. First of all, it is very obvious that her Chinese thesis sets a topic sentence at the beginning of each paragraph. Then each section follows the pattern of a general introductory paragraph, a specific expository paragraph, a paragraph that conclude the last paragraph and opens up the following content or a summarizing paragraph. She clearly adopted the techniques of organization of Chinese classical writing, or “起承转合”. It can be seen that she has intentionally ensured the flow of her writing. Her English paper also has a very obvious TDC structure, i.e. from Topic Introduction to Development and ends with Conclusion. Given the similarity of the two structures, it can be said that A, who has been paying attention to the structure of the discourse while writing in her native language, has tried to continue this habit in her English paper. However, she did not copy the Chinese model, but chose a structure that is more suitable for the English language, which allowed positive feedback to develop and take effect.

### 2.2.5. Causes and Reasons

Forward transfer happens because of the similarities between mother tongue and second language in aspects like grammar, language pattern and communication. These similarities not only help learners grasp some basic knowledge about second language but also bring them positive feedback which encourages them to step forward. Consequently, this is one of the main reasons explaining why the advantages are transferred to second language writing through the observation of five couple of samples here. The other is to maintain their writing habits, learners will actively learn the corresponding language rules. In a word, forward transfer encourages learners to pick up basic language skills

about the second language.

### 2.3. Further Analysis based on the Common Underlying Proficiency Hypothesis

The CUP hypothesis consists of two elements, one distinguishing between basic interpersonal communicative skills and cognitive academic linguistic proficiency, and the other being the linguistic interdependence hypothesis.

The results of many existing studies show that children acquire a high level of communicative competence in their second language after only two years in the target language environment. In literacy, however, it takes about five years to reach the same level as native speakers[6]. This strongly suggests that the so-called requirements on "listening, speaking, reading and writing" are not all at the same level, as the first two are broadly speaking basic interpersonal skills, while the latter two are related to cognitive linguistic competence. The writing skills examined in this paper fall into the latter category, i.e. the ability to make complex and abstract meanings explicit in spoken or written form with the help of language itself rather than contextual and paralinguistic factors. A certain extra-linguistic environment develops sufficient communicative competence, which means it's cognitive undemanding. But reading, writing and more formal, academic expression require a certain amount of effort made on cognition to achieve.

The specifics of the linguistic interdependence hypothesis are that the linguistic cognitive abilities of the mother tongue serve as the cognitive foundation in the process of second language acquisition. In other words, the better the learner's conceptual foundation in his native language, the more likely he is to learn a foreign language well, because he can grasp much of the conceptualized content of that foreign language more quickly with the benefit of his native language experience.

#### 2.3.1. According to Cognitive Academic Linguistic Proficiency

From the cognitive linguistics proposed by G. Lakoff and M. Johnson to the idea that "language is a tool for cognition" proposed by Xu Guozhang, a scholar in China, it is emphasized that language is a part of human cognitive ability. The formation and development of language is inextricably linked to human physical experience and cognition. As a matter of facts, language is a result of the cognitive process of the objective world and a symbolic expression of the conceptualization of objective reality by human[8]. Thus, cognition must have preceded the production of language. It follows that the first thing to develop in order to get equipped with a certain cognitive academic linguistic proficiency is the learner's knowledge of the language and even the various related knowledge behind it, such as the cultural background. Writing, especially academic writing, requires more than just communicative skills, but more importantly, the ability to express complex knowledge or ideas accurately without the help of body language and other non language elements.

When faced with English as a foreign language, the first cognitive step for many Chinese learners is to directly memorize words and learn grammar. The result of this is that most of them have strong test-taking skills in listening, reading and grammar, but are very weak in writing and speaking. In other words, they are strong in receiving input but weak in output. This is because they do not see language as language. Language is in their minds a few scattered parts of knowledge, not a whole. By laying such a foundation in the

early stages of cognition, it is surely difficult for them to avoid developing such erroneous ideas later in their studies.

Similarly, many learners fail to recognize that English is a different language from Chinese. Even though they are exposed to a lot of words and grammar from the very beginning, many of them are not writing but translating when they are required to write in English. They compose phrases in their minds in Chinese and then translate them directly into English. Even in the field of translation, there are many different translation strategies and techniques that are distinct from direct translation. The root of the problem is that there are quite a lot differences between English and Chinese, from differences in vocabulary to differences in culturally based metaphorical expressions. As mentioned before, cognition is the basis of language.

Many learners would go through such a phase called Interlanguage Fossilization while learning another language. Interlanguage Fossilization means that learners are influenced by their mother tongue or other languages in the process of second language acquisition, leading to an intermediate form of language which has some nativization and foreignization features[9]. Although interlanguage is regarded as the second language in a broad sense, there are actually a plenty of differences between them. So interlanguage fossilization also means interlanguage stops evolving into the target language. In terms of grammatical structure, the phenomenon of Interlanguage Fossilization is manifested in the emergence of features in the grammatical structure of the target language that are similar to those of the learner's native language. This kind of mixing can in turn lead to hesitation, confusion and even error. In terms of vocabulary, this phenomenon can be found in the use of direct translation, lexical errors and incorrect fixed collocations. Learners will apply vocabulary from their native language directly to the foreign language they are learning. So all the three kinds of mistakes can be concluded as the result of direct translation. It follows that Interlanguage Fossilization is the stagnation of the learners' learning progress. Applying the linguistic rules of the mother tongue is precisely an indication that the learners do not have a correct perception of English, or that they believe there is no distinction between the languages of the world at all.

There are several typical examples found in the samples of this study.

Firstly, there are several instances of confusion between the grammatical structures of the native and the target language in student E's paper. For example, "The book, be honest, just is a story of an ordinary man who kills a man and finally he was judged to death". This sentence is obviously a direct translation from Chinese. During the interview, it is known that he himself do have the habit of thinking in Chinese before translating when writing in English. That means a very important requirement in the process of second language acquisition is to be cautious. The reason why the process of learning a foreign language is hard work is that one has to be careful about what his or her outputs and cannot conclude that they are necessarily correct. Checking is necessary. For those who like Student E, being equipped with strong logical thinking skills in their own native language, it is important to develop the ability to carry out the same thought process in English, otherwise they will only be able to translate directly and not really write. Carrying over the strengths formed during the process of using the mother tongue into a second language is not simply a matter of applying them, but of going out and actively learning to utilize these strengths in a way

that is consistent with the corresponding laws of that language.

Similar to student E, student C is accustomed to pay special attention to discussing briefly but to the point at the same time, instead of using delicate and even flowery words and expressions or various sentence patterns. Then the same is true of her English writing style. There is no beautiful expressions but concise ones. Although simple language and tight logic can make it easier for readers to understand the text, it also means that many simple words may be repeated in English papers. Not having enough vocabulary means not having enough synonyms.

Compared to student C and student E, student B pursues objective discourse without giving up the refinement of her words. In her Chinese paper, there are sentences like “朱生豪先生的“艺术倾注”在全剧伊始便让人惊叹”, in which the word “伊始” is a more elegant alternative of “开头”, while they both share the same meaning with “beginning”. Then in her English essay, there are sentences also formed with fine words. For example, “The wheel of history rolled towards modern times, and the feudal autocracy must withdraw from the historical stage”.

Secondly, there is the phenomenon of direct translation in terms of vocabulary. In student C's English paper, a very distinctive feature is that the word "the" occurs very frequently, but at the same time, the accuracy is not as high as it is expected especially when she's trying to indicate cause and effect. For example, in the sentence “Mrs. Hutchinson's husband, Bill, drew the note with the black dot on it, which was the ‘lottery ticket’”, the word “that” before “black dot” is not accurate enough here. In English, the definite article the is used when something is mentioned in the preceding text and when it is necessary to refer to it in the following text. In this case, the definite article a is a more logical choice, since it is clear that the which is followed by an explanatory element, and the black spot is not mentioned in the preceding text. The reason is that Chinese language does not contain such a distinction, but only distinguishes between "this" and "that". When discussing the causes and consequences, student C used to express emphasis with the help of articles. For example, “这导致用人单位滥用权利, 侵犯劳动者权利”, which means "This leads to the abuse of rights by the employer and the violation of workers' rights" in English. This shows that student C attaches great importance to logical expressions herself and will choose to emphasize important parts for the sake of clarity when expressing ideas. However, if such beneficial habits established during decades of using mother tongue are applied directly without acquiring a thorough understanding of the language rules in English, it will result in flaws such as this one. Then the loss will outweigh the gain.

### **2.3.2. According to the Linguistic Interdependence Hypothesis**

The main idea of Linguistic Interdependence Hypothesis is that the basic cognition of the mother tongue as a language itself form the foundation for everyone to generate cognition of a foreign language. Therefore, learning the mother tongue becomes the basis for learning a foreign language. The development of mother tongue proficiency brings cognitive and emotional advantages to foreign language learners. Moreover, efforts in developing mother tongue should not be neglected when learning a foreign language. In other words, what should be achieved when learning a foreign language is not the simple naturalization of the native language to the

target language, but the parallel development of these two languages. For example, when student D mentioned floating festival in her writing, it is then learned that she didn't understand the concept even after translating it into her mother tongue. Only after checking on the Internet did she understand what a floating festival was, which can be seen as a parallel development of the vocabulary and knowledge of both the mother tongue and the target language.

Student E has read a lot of different literature works from home and abroad and thus has a large knowledge base. He is good at quoting from the classics in the course of his exposition. Therefore, in the English paper, he also actively quoted a lot of famous writings to serve his own expression. And through enquiry, it is learned that what student E read are basically in Chinese, like Chinese works and Chinese translations of foreign works. Therefore, it can be asserted that it is the cognitive foundation he has built up in the environment of his mother tongue that helps him to think of the corresponding previous research results when he encounters difficulties in his English discourse.

The formulation of Embodied Language Cognition provides some theoretical and empirical support for this hypothesis. Embodied Language Cognition highlights a key element of second-generation cognitive science: that language is not body-independent but came into being with the help of perceptual-kinesthetic system[10]. During the process of second language acquisition, some scholars listed two potential reasons for the embodied language cognition effect which has an impact on the second language. They are Automatic Activation Theory and Native Language Mediated Theory[11]. Bai Yating and He Wenguang argued that the embodiment effect shown in the second language is not assisted by the cognition of mother tongue. Some experimental results showed that there is no obvious sequential difference in the emergence of embodied effects between the mother tongue and the second language. Therefore, they proposed that the perception of actions in the second language is able to arise spontaneously without the help of the mother tongue because such perception is based on the mother tongue. However, according to the experiments carried out by Bergen, Sheikh and Titone, It is the sufficient language experience that makes the linguistic representation of the mother tongue clearer. This is because people usually acquire their mother tongue by immersion in the linguistic environment. Native language knowledge is therefore sharing more similarities with the notion called procedure knowledge. Second language, on the other hand, is mostly acquired in a classroom environment and is more likely to belong to declare knowledge. When the second language is still unfamiliar to someone, what he or she reads or listens are still abstract linguistic symbols for their brain to process. Therefore, there must be a difference in the embodied perception of the mother tongue and the second language by learners at this stage. In the early stages of language learning, especially second language learning, learners are bound to be influenced to a large extent by their mother tongue because of the lack of sufficient knowledge of the language and the lack of basic knowledge such as vocabulary and grammar. It can even be said that they look to their mother tongue for help. It is difficult for beginners to explain what "I have an apple" means through their existing knowledge of English. To understand the meaning of this sentence, they must refer to their mother tongue, i.e. "我有一个苹果". But let's say there is a person who has never heard of the word "apple", then

even if it is explained to him in his mother tongue, he will not understand it. This is how the mother tongue lays the cognitive foundation for the second language. This influence exists everywhere and is unavoidable for beginners. Only when they have acquired enough knowledge of the second language will they be able to explain what an "apple" is in terms of "a round fruit with firm, white flesh and a green, red, or yellow skin". At this stage, the influence of the mother tongue is weaker, so that it can be argued that the embodied language cognition effect of the second foreign language may not need to be guided by that of the mother tongue.

### **3. Solution and Argumentation**

#### **3.1. Solution to Make Good Use of Forward Transfer**

The Common Underlying Proficiency Hypothesis firstly gives a brief description of the process of mastering mother tongue. And then, based on it, explains the cause of forward transfer of mother tongue by comparing the process of mother tongue acquisition with that of second language acquisition. Therefore, the co-development of mother tongue and second language is proposed. It provides theoretical help for learners to use positive transfer to help foreign language learning.

In order to make good use of the positive effects of forward transfer, or to even transform the factors that may cause reverse transfer into the switch of forward transfer, the first prerequisite is to establish the correct cognition. The first step in learning a second language is to memorize words and learn grammar, which is the choice of most learners. In doing so, however, they tend to separate the whole of language. The various levels of language knowledge do not correspond well. Embodied effects, for example, do not work because words are removed from perception and become dull symbols. Worse still, learning a language in isolation forces learners to turn to their native language for help.

There is no doubt that English as a language has a lot in common with Chinese. But this may mislead many beginners. And it will do harm to learners' understandings if they are unable to tell forward transfer from reverse transfer. If someone is not able to uncover similarities, it's impossible for forward transfer to occur or even to play a role in his learning process. *Vise versa*. If he misjudges differences as some points the same as those in mother tongue, he's going to make mistakes. It can be seen that learners need to correctly understand the reasons why each of the two situations of native language transfer occurs. And in order to treat the similarities and differences between the two languages more carefully, a solution is proposed in this paper.

The solution is to treat them in stages, i.e. to look at the similarities and differences between the two languages with different criteria at different stages of English learning. Pienemann came up with the Processability Theory. He believed that the development of a learner's language ability is limited by what is called the language processor. Not a single learner can acquire what he or she cannot process. And at all stages of language development, they can only understand and produce typical forms of language that they are capable of processing based on their current ability. Of course, there may be differences in language processability caused by differences between specific languages and learners' own abilities. However, as long as the features of the language being acquired can be processed by the learner at the current stage, differences in language type will hardly be

a burden in the acquisition of a second language. Based on this, the theory of language processability can be used to predict the sequence of learners' acquisition of a second language. In the first stage, learners' second language output is limited to the expression of single words or fixed collocations. These are not related to other linguistic components and therefore do not possess changes in linguistic form. In the second stage, learners begin to acquire some typical expressions of the second language, such as the plural form of nouns. And in the third stage, learners gradually understand the interrelationships of the components of a phrase. When they acquire the processing of sentences, it means that the learning progresses to the fourth stage. Finally, learners begin to pay attention to the complex relationships between main and subordinate clauses and even between sentences. So it's necessary for learners to deal with the similarities and differences between Chinese and English based on their current abilities.

For the beginner who is just starting out in English, the primary aim is to be exposed to as much knowledge of the target language as possible. And for such people, their own linguistic knowledge is only derived from years of experience in using their mother tongue. In this case, since native language cognition has laid the foundation for second language cognition, learners can use their native language to assist learning. For example, if one wants to know what "flower" means, it is wise for him to translate it into "花" in Chinese to make this word easier for himself to remember. After all, even in the face of the English explanation of the word, he's not going to understand what it means. Then after the accumulation of certain knowledge of the second language, including a certain amount of vocabulary, grammar and cultural background, learners should mainly face the problem of how to make their output content more in line with the standard expression of the second language. Therefore, they have to get rid of the influence of their mother tongue in all aspects. Apart from increasing the amount of input, it is very important to create a second language environment for themselves and cultivate the habit of thinking in their second language instead of mother tongue. For example, they can refer to English dictionaries when they encounter words they are not familiar with. In English dictionaries, "flower" means "The colored part of a plant from which the seed or fruit develops and usually grows at the end of a stem and lasts only a short time." At this stage, learners should be cautious of every possible similarity to their mother tongue and make good use of various learning tools for self-correction. At the same time, what is learned through their second language feeds back into the cognitive weaknesses of their mother tongue, ensuring that the mother tongue and the second language progress in tandem. This goes on and on until the learner has a relatively full command of the second language and is able to make his or her own judgement based on his or her own well-established objective perceptions.

#### **3.2. Argumentation with Examples**

In order to verify the validity of the methodologies mentioned just now, it is a reasonable choice to analyse them in conjunction with those samples.

The complex dynamic systems theory suggests that language complexity is an important indicator of the development of second language proficiency. So by adopting such criteria, it will be clearer in identifying which stage learners are currently at. Among the five couple of samples in

this study, the papers of the three students ABD had a higher level of linguistic complexity compared to the papers of the two students CE. Therefore, these five groups will be divided into two categories for case study analysis here.

For student C and student E who are at the second stage of learning English, their works are surly influenced by their mother tongue to a great extent. For example, the way how they form their sentences are still in line with the rules in Chinese. In student E's English paper, there are sentences like "The Outsider is not a thick book, only a few tens of thousands of words, but it graphically shows us the absurd philosophy he advocated.". Then for student C, there are also some sentences influenced by reverse transfer. For example, "The Lottery tells the story of an ordinary American village, a group of ordinary villagers in the way of lottery to choose the annual sacrifice, and the victim will be stoned to death". In these sentences, necessary connective elements to make sure every part of the sentence is connected with each other are nowhere to be found. That's mainly because in Chinese, even if some components are missing, the sentence may still be correct. English, however, focuses heavily on this point. So for these two students who are confused by similarities and differences between these two languages, being cautious about their own judgement is way to overcome such difficulties. That is to say, be skeptical of words and sentences that in their opinion are "right". This is because their output is often a paraphrase of what have already been collected in their mother tongue. It is also important to make a conscious effort to stop thinking in Chinese about what is expressed in English in the course of daily study. Instead, try to think in English.

However, for students like A, B and D, things are different. They have already been equipped with the ability to tell difference from similarities and then avoid the negative influence caused by reverse transfer. So it's time for them to make good use of similarities, or in other words, forward transfer, especially in the aspect of cognition. For example, student E writes an English essay talking about the ancient examination system in China. While analyzing such field of Chinese culture, she learned a lot by introducing it in English. Differences in perception make it unlikely that culturally relevant content will have a one-to-one correspondence between words or expressions in the two languages. It is for this reason that student B needs to have a deep understanding of the ancient Chinese imperial examination system in order to be able to break down and reorganize before reinterpreting the meanings of what are familiar to Chinese people but cannot be understood by native English speakers through direct translation. As a result, both of her cognition in Chinese and in English improve greatly and have beneficial impact on each other.

For the second approach, the examples needed are not horizontal comparisons of a few students, but longitudinal comparisons of each student's learning process. Only in this way can it be proved that identifying similarities and differences in various aspects of Chinese and English is beneficial for learners' to accelerate their learning process. This type of analysis cannot be performed in this paper due to the limitations of the type of samples.

## 4. Shortcomings

The samples for this study was limited in size. Moreover, this study lacked samples from English learners who are non-English majors because non-English majors rarely have the opportunity to write papers in full English.

## 5. Conclusion

This study actively observes five couple of essays in English and Chinese offered by five undergraduate college students. Among them, four students including A, B, D and E are English-majors, and student C majors in law. Their works are analyzed in four aspects which are words and phrases, sentences and grammar, meanings of words and sentences, and discourse, aiming at discovering their advantages which stand out in writing in Chinese. Then by comparing their English and Chinese works, it is clear that whether such advantages are also reflected in their English writings. It is clear that learners' advantages in writing in mother tongue can also be reflected and adopted while writing in second language. There are two main reasons. The first is the similarities between this two languages support learners to understand a foreign language with the help of their mother tongue. The other reason is that during the process of using other tongue for many years, most of the people formed unique expressing habits. So while writing in English, they are inclined to follow such habits. That means many of them would pay special attention to similar ways of expression in target language. It is then clear that forward transfer actually encourages learners by showing them the benefits brought by the sameness between two languages.

However, language learning is not just about learning language itself, such as part of speech and sentence pattern, but also about acquiring sufficient cognition. According to Jim Cummins's Common Underlying Proficiency Hypothesis, there are differences between basic interpersonal communicative skills and cognitive academic linguistic proficiency and mother tongue cognition lays the foundation for second language cognition during the process of second language acquisition. For language learners, it takes them more time to be capable of proficient academic writing and expressing in second language than to be able to communicate with others in second language. Because the former can be accompanied by non-verbal information like body language, while the latter requires the ability to articulate complex and abstract concepts through language, independent of context or paralinguistic cues. Tracing back to the origin of language, it is intimately tied to human physiology and cognition, emerging from our understanding of the objective world and symbolizing our conceptualization of reality. Cognition preceded language production, hence, to acquire cognitive academic linguistic proficiency, learners must first grasp associated knowledge, including cultural background. However, many Chinese students fail to do so. They don't see English as a language but a combination of fragmented pieces of knowledge. Many of them are even unable to realize that although they are both languages, Chinese and English are different in many ways. These attitudes are one of the causes of Interlanguage Fossilization, which occurs when learners are greatly influenced by their mother tongue while learning a foreign language, leading to an intermediate form of language that features of both mother tongue and target language simultaneously exist. So this phenomenon inflects that interlanguage stops improving into the target language due to the bad effects caused by native language and reverse transfer. Three examples of interlanguage fossilization are given in this paper, including direct translation, lexical errors and incorrect fixed collocations. These can all be found in the samples. Then Cummins also came up with the idea that the cognition learners form through years of exposing to the



mother tongue environment prepared the foundation for them to generate cognition of the second language. Meanwhile, the improvements of both native language and second language cognition bring mutual promotion. Language is closely related to thinking patterns. Differences between languages can also be found in the mindsets of their speakers. So instead of simple naturalization of native language to the target language, achieving the parallel development of them causes profound benefits and long-lasting improvements. It is realized because language mindset and cognition influence and reflect each other. Years of using native language formed unique way of thinking and cognition, which are useful in understanding the logic framework of the second language. Then being exposed to information that is expressed in the second language makes learners get to know different thinking patterns and brand new knowledge, which later helps to improve mother tongue cognition.

Based on the above viewpoints, this thesis proposes a method to avoid errors caused by reverse transfer, or even to use the elements that may cause reverse transfer to guide learners to make good use of the advantages of their mother tongue. This method pays special attention to the differences and similarities between Chinese and English and focus on how to deal with them. And it aims to treat them in different attitudes according to the current learning stage. According to Piensmann's Processability Theory, learners with different cognitive and processing abilities need different perspectives on how to view the similarities and differences between English and Chinese to support their learning.

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