

# Language Transfer in Second Language Acquisition in the View of Cognitive Linguistics: A Case Study of German as Second Language Acquisition of Native Chinese with L2 English

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**Abstract.** Since the number of the German learners, who possess Chinese as native language and a certain level of English competence, ascends nowadays significantly, it is of great importance to research the pattern of their German as second language acquisition, especially the language transfer while learning German. This case study focuses on German as second language acquisition of native Chinese with English competence. Through analyzing the article of German interlanguage in the view of cognitive linguistics, the research indicates that the language transfer from L2 English is profounder than that from L1 Chinese and that the language distance plays an essential role in the language transfer.

**Keywords:** language transfer · German as SLA · cognitive linguistics

#### 1 Introduction

In China today, most learners of German possess a certain competence of English. Therefore, it is important to study the second language acquisition of German learners whose first language is Chinese and whose first foreign language is English. Only by researching more about the characteristics of second language acquisition of these learners, and by understanding their second language acquisition patterns, can we provide them with more appropriate language teaching materials and methods. The existing studies on language transfer focus on the phenomenon of language transfer between the first language and the second language, or the first foreign language, but there is little research on the language transfer between the first and the second foreign languages. In the following article, the first language is shortened to L1. The first-acquired foreign language is abbreviated to L2. Accordingly, L3 stands for the second-learning foreign language. This study takes German learners whose L1 is Chinese and whose L2 is English as the research subject. The research tries to explore the characteristics of language transfer by analysing the German interlanguage corpus of the subject under the perspective of cognitive linguistics.

# 2 Theoretical Introduction of Language Transfer

## 2.1 Definition of Language Transfer

Language transfer, also known as cross-linguistic influence, refers to the influence caused by similarities or differences between the target language and any language that has been acquired (or not fully acquired) [1]. Javis and Pavlenko divided the study of language transfer into four phases: the first phase is from the mid to late 1800s until the mid-1970s, in which language transfer is considered as an independent variable and its researches focuses on the identification and defining the scope of language transfer and the quantification of transfer effects. The second phase, which is from the 1970s to the present, remains focusing the points in the first phase and besides focuses on the sources, causes and constraints of transfer as well as the selectivity of transfer at the level of individual learners. In addition, in this phase, the verification and directionality of transfer efforts are also under the attention. The third phase starts from 1980s. During this phase, the researchers explored the social, situational and psychological constraints, structural concepts and processes of language transfer through a number of theoretical models, hypotheses and empirical studies. The fourth phase begins in the 21st century, in which researches on language transfer from the neurophysiological perspective develop gradually [2].

## 2.2 Interlanguage and Fossilization

It is generally accepted that the concept of Interlanguage was initiated by L. Selinker in 1972 [3]. It is a linguistic system produced by the over-generalisations about the rules of the target language made by the learners. The system differs from both their native language and their target language. It is widely believed that the interlanguage is a transition from the L1 to the L2 that learners have acquired and moves closer and closer towards the target language with the constant accumulation of the target language knowledge [4].

The concept of fossilization is an important component of the interlanguage theory. It refers to the failure to achieve the standard level of the target language and remaining at the current level during the acquisition of a foreign language [5].

## 2.3 Language Transfer in Second Language Acquisition

"Language Transfer is said to occur when there is evidence that the linguistic features of one language influence those of another language", according to Ellis [6]. However, the general studies of language transfer in the field of second language acquisition focus on the transfer from native language to target language. Studies of transfer between the second languages, for instance between the first-acquired second language (L2) and the second-acquired second language (L3) has rarely been conducted. This Chapter

introduces firstly the concepts of language transfer between L1 and L2. Then, the article shows the assumption relevant to the transfer between L2 and L3.

#### Positive Transfer

Sjöholm compared the second language acquisition of English among the Finns, who are divided into Swedish-speaking Finns and Finnish-speaking Finns. The language distance between English and Swedish is closer than that between English and Finnish. Sjöholm finds that Swedish-speaking Finns possess a larger advantage in learning English than those with Finnish-speaking. With positive transfer, second language acquisition can be easier. For instance, Chinese native speakers can remember the word "supermarket" quickly with the help of Chinese word "超市".

## **Negative Transfer**

Accompanied by the positive transfer occurs also the negative transfer, to which greater attention has been drawn by the researchers. It is generally acknowledged that the wider language distance is, the more difficult a language can be acquired [6]. That means, negative transfer occurs more likely when the language distance is long. For instance, in terms of phonetics, English native speakers are likely to mispronounce the German letter "r", which should be a uvular consonant, while in English, letter "r" as a consonant is pronounced as the voiced alveolar approximant.

#### Assumption

With the increasingly large number of L3 learner, the studies related to multilingual acquisition are to be needed. Considered that many of the Chinese native speakers who learn a L3 possess a certain level of English, the relationship and interaction between their L2 and L3 need to be researched. Based on the theories above, it is assumed that the closer the distance between L2 and L3 is, the more language transfer learners will encounter. When the distance between L2 and L3 is closer than that between L1 and L3, learners tend to be affected more by the L2 instead of L1.

# 3 Cognitive Linguistics

## 3.1 Introduction of Cognitive Linguistics

Cognitive linguistics is a linguistic discipline that combines cognitive psychology and linguistics. It emerged in the United States and in Europe in the 1980s, focusing on cognitive linguistic theories. With the development of cognitive linguistic theories, the achievements are applied to the study of second language acquisition and foreign language teaching, in order to solve problems arising in these fields. Cognitive linguistics advocates that the formation, use and acquisition of language is based on usage and that the process of language learning is a cognitive process. The scope of the studies in cognitive linguistics includes categorization, prototype, metaphor and image schema, of which categorization is the core [7]. In this chapter, the concepts of categorization, prototype and markedness are described as follows.

## 3.2 Categorization and Prototype

Categorization is a dynamic concept and a process in human cognition. Zhang Min defines categorization as "the process and ability of human beings to see similarities in diverse realities and to treat distinguishable differences as similar, thereby categorizing everything in the world and forming concepts [8]." That means that humans categorise things unconsciously in the process of learning about them, and this ability to categorise the knowledge is known as the ability of categorization. Categories are the concepts that cognitive subjects form in their minds based on their experience of external things [7]. The process of categorization is the process by which people understand the external world. The problem of categorization involves almost all the theories of cognitive linguistics [8].

Prototype is a typical member of a category that reflects the most typical features of that category. A category extends outwards around its core, prototype, in accordance with the degree of typicality. There are perceptible similarities between prototype and other members in the category. The degrees of the similarities between each member and the prototype are different, therefore the hierarchies of members within the category vary [7].

#### 3.3 Markedness

Markedness was first created by Trubetzkoy during his classification of various phonemic contrasts. Linguistic markedness displays a contrastive but asymmetric relationship. Components in opposition are divided into marked and unmarked. Jakobson advocates binary opposition, where a component is either marked or unmarked [9]. He argues that in phonology, marked and unmarked components are mutually exclusive, the marked component is the affirmation of feature A and the unmarked component is the negation of feature A. In morphology, however, the unmarked component includes the marked one, the marked component affirms feature A and the unmarked component neither affirms nor negates it [10].

# 4 Case Study

#### 4.1 Introduction of the Subject

Firstly, the researcher finds six subjects, who are now learning German on different stages and labelled as beginner, intermediate and advanced learner according to their L3 knowledge. All of them possess Chinese competence as their native language. They are divided into two groups according to their English level Table 1.

The classification of English proficiency levels is based on the College English Test Band 6 (CET-6), which is a universal English examination among Chinese university students, and IELTS scores, i.e., students who obtained a score of 600 or above in the CET-6 exam or an IELTS score of or greater than 7 belong to the higher level, and the rest belongs to the lower level. As the subjects are all university students who are native Chinese speakers, there are no beginners of English.

| English   German | Beginner | Intermediate | Advanced |
|------------------|----------|--------------|----------|
| Lower level      | IG1      | IG3          | IG5      |
| Higher level     | IG2      | IG4          | IG6      |

**Table 1.** The classification of the subjects

This Table is listed by myself.

Table 2. The category of errors in the compositions of German learners at different levels

|     | Noun     | Verb     | Auxiliary Verb | Conjunction  | Preposition | Adjective/Adverb |
|-----|----------|----------|----------------|--------------|-------------|------------------|
| IG1 |          | <b>√</b> |                |              |             |                  |
| IG2 |          |          |                |              | <b>√</b>    | √                |
| IG3 | <b>√</b> |          | ✓              | $\checkmark$ |             |                  |
| IG4 | √        |          | <b>√</b>       |              | <b>√</b>    | √                |
| IG5 | √        |          | <b>√</b>       |              |             |                  |
| IG6 |          |          |                |              |             |                  |

This Table is listed by myself.

The classification of German levels is based on the GeR (Der Gemeinsame europäische Referenzrahmen für Sprachen) and the Chinese PGG (Prüfung für das Germanistik-Grundstudium) and PGH (Prüfung für das Germanistik-Hauptstudium) examinations, i.e., the GeR A1 and A2 are for beginners, B1 and B2 are for intermediates and C1 and C2 are for advanced learners. Students who have passed the PGG examinations are classified as intermediate and those who have passed the PGH examinations are classified as advanced.

#### 4.2 Research Methods

First of all, the researchers interview their learning pattern of L3. The interviews focus on their subjective feelings and thoughts, when they are learning L3. The total procedure of the interviews is recorded and transcribed. Then, the researchers analyse the inner thoughts of the L3 learners according to the transcripts of the interviews. Then the researchers collect the German or Russian writing exercises of the subjects and analyse their lexical and grammatic mistakes and characteristics in terms of their L3 acquisition.

After interviewing the six subjects and analysing their compositions, researcher finds that the composition of IG4 contains all types of errors in the composition of others (see Table 2), which means, this subject achieves the data-saturation. Therefore, the article illustrates the analysis of the transfer in the composition of IG4 in detail.

#### 4.3 Analysis of the Subject's Composition

The subject IG4 is a native Chinese with a higher level of English and now learning German on the intermediate stage. There are totally 407 words in this composition. The

text is corrected by the native German teacher, so that it can be assured that all errors and corrections are reliable. This section analyses the compositions of subject IG4, which is the German interlanguage corpus, and attempts to explore the language transfer in German second language acquisition when L1 is Chinese and L2 is English.

Mehr als 66 Prozent der Deutschen haben keine Geduld, Verspätung zu ertragen, laut einer Umfrage.

The correct form of this sentence should be "Mehr als 66 Prozent der Deutschen haben keine Geduld, Verspätung zu ertragen." That means, the words "laut einer Umfrage" are redundant. The English translation of this sentence is "More than 66 percent of the Germans have no patience to endure delays, according to a survey." It is obvious that the original German sentence is influenced by English. It is normal to add an explanation in any place of the sentence, including at the end of the sentence. However, in German that tends to be grammatically incorrect. Because the structure of German sentences is very fixed. The explanation words cannot be directly added at the end of the sentence. If the meaning "according to a survey" must be expressed or even emphasized, then these words should be put right after the verb or at the beginning of the sentence. German sentences, except for imperative sentences, should obey the syntax principle that flectional verb should stand in the second place of a sentence.

Wenn es ein berechtigter Grund gibt, können fast Drittel der Befragungen eine 15-Minuten Verspätung akzeptieren.

When this sentence is written in English, then it should be "If there is a legitimate reason, almost a third of respondents can accept a 15-min delay." The correct German form of this sentence is "Wenn es einen berechtigten Grund gibt, können fast ein Drittel der Befragten eine 15-min Verspätung akzeptieren." The first wrong place in this sentence is the case of "einen berechtigten Grund", which should be accusative, but is wrongly written to the nominative form. Compared to English, where the changes caused by the case do not exist, it is likely to written into the nominative form, which is the original form in German. The second error of this sentence is "Drittel". The subject fails to add the word "ein", which corresponds with the English word "a". This error is obviously caused by the influence of the native language Chinese. Because the German word "Drittel" is translated in Chinese as "\(=\frac{1}{2}\frac{1}{2}\cdot\)", which already has the meaning of "a third". The third error is the word "Befragungen" in the original sentence, which means "investigations" in English. However, the correct word here should be "Befragten", which means "person questioned". This error is also caused by L1 Chinese, considering that in Chinese, it makes sense when the word "investigations" is used.

Die Umfrage zeigt auch Unterschiede in Bezug auf Verspätung zwischen verschiedenen Gebieten und Alter, wo z.B in Bayern vergleichen mit anderen Ländern weniger Menschen eine eineinhalb Stunde warten wollen, außerdem halten die Älteren Pünktlichkeit für mehr wichtig, dagegen nehmen die Jüngeren weniger ernst.

When the sentence is translated into English, it means "The survey also shows differences in terms of lateness between different areas and ages, where for example in Bayaria compared to other countries, fewer people want to wait half an hour, besides older people consider punctuality more important, while younger people take it less seriously." The first error in this sentence is "wo z.B", which should restart a new sentence and begin with "laut der Umfrage". Compared to English Translation, it is obvious that this error is caused by the transfer of L2 English. The second wrong place in this sentence is the word "vergleichen", which means "compare" in English. Here this word should be written in a form of participle "verglichen". The subject wrongly memorizes the participle form. Similarly, the phrase "eine eineinhalb Stunde" in the original sentence, which should be "eine halbe Stunde" and means "half an hour" in English is also false memorized. The fourth error in this sentence is that a new sentence should be built from the word "außerdem", instead of using the comma. This error is caused by the transfer of English, since in English people can make pause by using commas. Nevertheless, it is forbidden in German to combinate a long sentence with several subsentences, which have their separate SVO-structure in each. The fifth error "mehr wichtig", which should be "wichtiger", is also caused by the transfer of English. In English, "wichtiger" means "more important". The German word "mehr" corresponds exactly with the English word "more". The last error in this sentence happens in the last clause beginning with the word "dagegen", which should begin with the word "während". Since there is a comma between the two clauses, the last clause should change into comparative clause, which is one of the subordinate clauses in German. Besides, due to the rules of the subordinate clause in German, which the flectional verb should be put at the end of the sentence, the verb "ernstnehmen" should stand at the end of this sentence.

Übrigens, fast zwei Drittel der Befragten denken, dass ein paar Minuten früher Ankunft akzeptabel ist.

The correct form of the sentence should be "Übrigens denken fast zwei Drittel der Befragten, dass eine frühere Ankunft von ein paar Minuten akzeptabel ist." The correspondent English translation is "By the way, almost two thirds of interviewees think that arriving a few minutes earlier is acceptable." Firstly, the adverb "übrigens" is influenced by English and placed in a wrong position. In German, most of the adverbs occupy a place in the structure of a sentence. They cannot be placed in front of the whole sentence and followed by a comma, which is distinguish from English. Therefore, if people want the adverb "übrigens" to stay at the beginning of the sentence, it must be followed by the flexional verb "denken". Secondly, "ein paar Minuten früher Ankunft", which should be "eine frühere Ankunft von ein paar Minuten", is also affected by English, since the original wrong phrase is similar with the English phrase "arriving a few minutes earlier".

Ines erklärt, dass Verspätung ein normales Ding nicht nur für ihre Freude aber auch für sie selbst ist.

The correct form of this sentence is "Ines erklärt, dass Verspätung ganz normal ist. Dies gilt sowohl für sie selbst als auch für ihre Freunde." The corresponding English translation is "Ines explains that lateness is a normal thing not only for her friends but

also for herself." Firstly, the phrase "ein normales Ding" in the original sentence, which is influenced by the corresponding phrase "a normal thing" in English. Secondly, the phrase "nicht nur..., sondern auch" is falsely written to "nicht nur...aber auch". This error is influenced by English, since the corresponding English phrase is "not only...but also". The German word "nicht nur" and "auch" correspond respectively the English word "not only" and "also". The German word "aber" is equal to the English word "but". Therefore, this error is influenced by the English expression. Besides, the German word "Freunde", which means "friends" in English, is mistakenly spelled to "Freude". Lastly, distinguished from English, German sentence tends to be short and usually divided into separate sentences, if many points need to be expressed. In contrast, English sentences often combine a few clauses.

Obwohl hat er darauf acht gegeben, wird er manchmal wegen Stau oder Bus- und Zugverspätung noch später kommen muss.

The correct form of this expression is "Obwohl er darauf Acht gibt, rechtzeitig anzukommen, kommt er manchmal wegen Stau oder Bus- und Zugverspätung noch zu später." The English counterpart is "Although he has taken care of it, sometimes he will have to come even later because of traffic jams or bus and train delays." Here the conjunction "obwohl" is misused to adverb, which is influenced by the English word "although". Despite of the fact that "although" is also a conjunction, there is no special syntactical structure in the English adverbial clause of concession. Nevertheless, in German, the adverbial clause of concession led by the conjunction "obwohl", as a substantial clause, should follow the principle that flectional verb should stand at the end of the clause. Thus, this error is caused by the influence of English. In addition, as a noun, the initial letter of the word "Acht" should be capitalized. Secondly, In the first clause of the original sentence, the subject used the pronominal adverb "darauf", but did not add the infinitive with "zu" or the subordinate clause led by "dass". This is due to the influence of English language transfer. In the corresponding English translation, only the pronoun "it" is used in adverbial clause of concession, without any explanation of the word "it". Thirdly, future tense is rarely used in German, since the present tense in German can also express the meaning of future. That means, the use of "wird", which correspondents the English word "will", is caused by the transfer of English.

Wenn ich mit jemandem für einen Termin verabredet habe, werde ich mich bestimmt an der versprochenen Zeit halten.

The correct German sentence should be "Wenn ich mit jemandem einen Termin verabredet habe, werde ich mich bestimmt an die versprochene Zeit halten." Accordingly, the English translation is "If I have an appointment with someone, I will keep the time I have promised." Firstly, the subject mistakenly uses the transitive verb "verabreden" to the intransitive verb. That means, the preposition "für" should not appear in the adverbial clause of condition. Additionally, the use of the future tense and the verb "werde" reveal the transfer of English. Lastly, the preposition "an" led by the verb "halten" should lead the accusative word, whereas here it is mistakenly used in the dative form.

Allererste halte ich Pünktlichkeit für ein Zeichen, dass die beiden Respekt und Vertrauen gegenseitig haben.

The correct German form should be "Zuallererst halte ich Pünktlichkeit für ein Zeichen, dass die beiden gegenseitig Respekt und Vertrauen haben." Compared with the English translation of this sentence "First of all, I think punctuality is a sign that the two have respect and trust for each other", it is obvious that the confusion of the adjective or ordinal numeral "allererst" and the adverb "zuallererst" is due to the fact that the English word "first" possess the usages of determiner and ordinal numeral, adverb and noun. By using as a logical adverb in the text, it makes no difference between "first" and "firstly". The word "first" can also be used as an adjunct word positioning in front of the noun [11]. However, the German word "allererst" can only be used as an adjunct word and placed in front of the noun. Accordingly, the adverb "zuallererst" can only be used as a logical word. In addition, the unsuitable position of the word "for each other" in the original sentence indicates the transfer of English as well, since the phrase "for each other" follows the words "respect" and "trust".

Zwischen Freunden ist Verspätung scheinbar keine große Sache, aber schrittweise wird die Freundschaft wegen Unpünktlichkeit verletzet und unstabil sein.

The correct German sentence is "Zwischen Freunden ist eine Verspätung scheinbar keine große Sache, aber schrittweise wird die Freundschaft wegen Unpünktlichkeit verletzt und instabil." The English Translation of this sentence is "Between friends, lateness is apparently no big deal, but gradually the friendship will be hurt and unstable because of unpunctuality." To begin with, the indefinite article "ein", which equals to "a" in English, is missing before the noun "Verspätung". This reveals the influence of English, because the English counterpart does not need the indefinite article. Another evidence of the English transfer is the use of "wird...sein", which corresponds the English usage "will be". However, in German, the notional verb should be "werden", whose English translation is "become", and the tense should be present tense instead of future tense. Incidentally, the German words "verletzt" and "instabil" are mistakenly spelled.

#### 5 Conclusion

The analysis of the German interlanguage corpus shows the following conclusions.

- The errors in the German interlanguage corpus include both the transfer of L1 Chinese and the one of L2 English. Since the similarity between L2 and L3 is more significant than that between L1 and L3, the quantity of errors caused by the transfer of L2 is larger than that of L1. In other words, the phenomenon of language transfer is related to language distance.
- 2. English as L2, has an impact on the learning and the use of L3. This influence both facilitates and hinders the learning and the use of L3. English knowledge helps people to memorize a part of the German vocabularies and built the sentences, whereas it also leads to the misuse of German words and phrases as well as the morphological and syntactic errors.

Considering of the common view that L1 acquisition is under the control of universal grammar and L2 acquisition is less controlled by universal grammar, the research proposes the assumption that the similarity between languages may have a greater impact on second language acquisition than universal grammar.

However, this research has its drawbacks. Because of the limited sample, the results presented are only based on the available data and do not exclude the influence of other variables and the presence of randomness. It is hoped that quantified research can be done in the future. By means of analysing a large number of related corpuses of second language learners, more specific conclusions can be drawn.

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