

---

## Word Class Errors in English Acquisition Among Chinese EFL Learners: A Conceptual Transfer Perspective

Wenxin Geng<sup>1</sup>

### Abstract

Word class errors constitute significant speech errors in second language (L2) acquisition, yet researchers often overlook them. Previous studies have only briefly addressed this phenomenon, lacking a deeper exploration of the underlying cognitive aspects. Therefore, this study aims to analyze the acquisition of word classes, specifically nouns, by Chinese learners of English as a Foreign Language (EFL), using data from the TECCL corpus focusing on conceptual transfer. The research method involves corpus data analysis, focusing on word class errors made by learners. This study identifies systematic and regular patterns in these errors through a conceptual transfer approach, indicating the negative influence of conceptual transfer from Chinese grammatical categorization and conceptual attributes on English word class acquisition. These findings offer new insights into conceptual transfer in language acquisition, highlighting the importance of cross-linguistic conceptual influence in teaching English to Chinese speakers. Recommendations include adjusting English language curricula to account for conceptual transfer aspects and implementing teaching strategies that help reduce errors stemming from cross-linguistic conceptual categorization differences. This study is relevant for research on conceptual transfer and holds practical implications for enhancing English language instruction effectiveness among Chinese speakers.

**Keywords:** *Conceptual Transfer, TECCL Corpus, Word Class Errors*

### A. Introduction

Word class is an integral part of metalanguage and an essential instrument for analyzing the syntactic structure. Therefore, word class is the first step in dealing with grammar (Shen, 2009; Zyzik & Azevedo, 2009). Chinese English learners often commit errors in word class, which refers to a speech error with correct meanings in context but wrong word class (Yang, 2005). According to the previous research conducted by Gui & Yang (2003), errors in word class rank 7 (4.18%) out of 21 speech errors, behind spelling, diction, capital, structure defect, punctuation, and omission. They conclude that word class errors are among the most critical errors for Chinese English as a foreign language (EFL) learners and greatly hinder their EFL learning. Therefore, it is of significance to investigate errors in word class.

While considerable research has investigated errors in word class in L1 (Forbes & Farrar, 1995; Childers & Tomasello, 2006; Clark, 2010; Hupp, 2014), relatively few studies have focused on errors in word class by Chinese EFL learners. The current study accordingly focuses on this area, particularly concerning errors in word class acquisition of nouns. Conceptual transfer is an area of research in bilingualism and second language acquisition that deals with cross-linguistic differences in the mental construction and verbal expression of meaning (Jarvis, 2011). This is an area of research that has been garnering increased attention in recent years and whose goals and scope have been coming into increasingly more apparent view (Odlin, 2005; Jarvis, 2007; Jarvis & Pavlenko, 2008; Clark, 2010; Zhang & Liu, 2014; Wang, 2015; Cai & Li,

---

<sup>1</sup>Ocean University of China, Qingdao, China, [1241319909@qq.com](mailto:1241319909@qq.com)

2016). The current study requires conceptual transfer to explain the cognitive reason for word class errors.

This study aims to analyze word class errors, particularly in the acquisition of nouns, by Chinese learners of English as a Foreign Language (EFL). Additionally, it seeks to understand the cognitive factors underlying word class errors through the perspective of conceptual transfer. By utilizing data from the TECCL corpus, this study will identify patterns and characteristics of word class errors that result from the conceptual transfer of the Chinese grammatical categorization system.

Word class is a fundamental element in metalanguage and a crucial tool for analyzing syntactic structure, serving as an essential first step in understanding grammar (Shen, 2009; Zyzik & Azevedo, 2009). Chinese EFL learners often make word class errors, where the intended meaning is correct within context, but the word class chosen is incorrect (Yang, 2005). Research by Gui & Yang (2003) ranks word class errors as the seventh most common of 21 types of language errors, underscoring its significance as a persistent challenge for Chinese EFL learners and a significant obstacle in their language learning progress. While considerable research has examined word class errors in native speakers (Forbes & Farrar, 1995; Childers & Tomasello, 2006; Clark, 2010; Hupp, 2014), studies focusing on such errors in Chinese EFL learners remain limited. This study explicitly addresses word class errors with attention to the role of conceptual transfer—a framework that explains cross-linguistic differences in the mental construction and verbal expression of meaning (Jarvis, 2011). By adopting this approach, the research aims to provide a more profound cognitive understanding of the sources of word class errors and, ultimately, to offer recommendations for improving English teaching strategies tailored to Chinese learners.

## **B. Literature Review**

Though errors in word class account for a substantial part of speech errors, relatively few studies have thoroughly investigated this topic. Previous studies mainly stressed errors in L1 (Forbes & Farrar, 1995; Childers & Tomasello, 2006; Clark, 2010; Hupp 2014), but word class acquisition in L2 was largely overlooked. Only a limited number of studies have examined the word classes in SLA. For example, Zyzik and Azevedo (2009) respectively apply the method of “Forced-choice” and “thinking aloud” to investigate L2 learners of Spanish’s ability to distinguish the word class. The former discovered that learners have difficulty distinguishing between nouns and adjectives, which indicates that learners lack the knowledge of derivation that marks the conversion. At the same time, the latter found that learners attached more importance to the inflection than the derivation of word class. In another study of derivation, with the method of translations and interviews, Ward and Chenjundaeng (2009) also found that though Thailand English learners have a good command of roots, they are unsure about the meanings of derivatives.

At home, several scholars are focusing on word class errors. Lin (1994) briefly analyzed the differences between Chinese and English from the perspective of typology and Chinese EFL learners’ word class acquisition of nouns and adjectives based on 15 compositions, discovering that learners commit errors in both word classes. Cai (2002) and Zhao (2008) used data taken from the sub-corpora of Chinese Learner English Corpus (CLEC) to spot all kinds of word class errors. Based on their observation and data analysis, both attributed the word class errors to type differences. To explain these findings, previous researchers suggest that word class errors result from the form of word class or meaning transfer (Morgan & Bonham, 1994; Zyzik & Azevedo, 2009; Majed, 2010; Cai, 2002). However, these explanations only touch the surface and fail to have further insight into the cognitive domain. Therefore, this essay aims to investigate Chinese EFL learners’ word class errors from the cognition perspective to fill in the gaps.

This study examines word class acquisition through the lens of conceptual transfer. Linguistic relativity, often described as the hypothesized influence of language on thought, proposes that language shapes comprehension and production, potentially affecting second language (L2) usage. The Sapir-Whorf hypothesis, which underlies linguistic relativity, argues that learning to speak a foreign language in a native-like manner requires learners to perceive and process experiences in new ways, reshaping cognitive frameworks and offering a new perspective on worldview and mental categorization (Pavlenko, 2016). Building on these ideas, conceptual transfer in L2 acquisition suggests that language learning influences cognitive faculties, beginning with perception and extending to conceptual categorization, ultimately manifesting in the structure and form of L2 (Jarvis, 2011; Odlin, 2005). Based on these theories and specific insights into Chinese language learning, Zhang (2013, 2015) proposed the "Conceptual Transfer Theoretical Framework in L2 Learning," which includes three dimensions.

The first dimension explores the relationship among culture, language, and concept, addressing the interplay between culture and language, which influences thought and conceptual categorization, as Whorf (1956) noted. For example, Chinese culture's parataxis orientation affects its word class and grammatical attributes, shaping how Chinese speakers categorize and structure thought. These cultural, linguistic, and conceptual elements reinforce each other, creating a distinct grammatical and conceptual categorization system in Chinese. The second dimension considers the learning of English word classes, where English word class learning interacts with the learner's native language (L1) categorization system, impacting grammatical attributes and conceptual categorizations in L2. Transfer in this context involves three aspects: word class form transfer, word class meaning transfer, and grammatical conception transfer. These processes illustrate how English word class features can align with or challenge Chinese learners' cognitive and grammatical structures. The third dimension addresses how conceptual transfer manifests in L2 form and meaning. Although transfer occurs at a cognitive level, it often appears in L2 usage, with word class errors—such as confusion between categories—demonstrating the impact of underlying grammatical and conceptual transfers (Jarvis & Pavlenko, 2008). These errors highlight learners' difficulties as they integrate English word classes into their pre-existing conceptual and linguistic frameworks. This framework provides insights into the cognitive mechanisms of conceptual transfer and has practical implications for L2 instruction, especially in addressing systematic errors rooted in cross-linguistic conceptual influences.

## **C. Methods**

### **1. Research Design**

This study adopts a descriptive quantitative research design, focusing on the frequency and patterns of word class errors among Chinese EFL learners. The goal is to analyze these errors in noun usage compared to other word classes, examining the frequency across different proficiency levels and investigating the role of negative conceptual transfer in the acquisition process. The design is guided by three research questions that seek to quantify error types and frequency, identify conceptual grammatical differences between Chinese and English, and assess the influence of these differences on word class acquisition. The TECCL corpus, which contains a broad spectrum of writing samples from Chinese learners across educational levels, is the primary data source, allowing for a comprehensive analysis of word class errors within a large, representative dataset.

## 2. Research Procedure

The study involves several systematic steps to address the research questions. First, the participants in the TECCL corpus are categorized into three proficiency levels—beginner, intermediate, and advanced—based on the quality and complexity of their writing. This classification provides a basis for stratified sampling, ensuring the study includes a balanced representation across different learning stages. Then, using cluster random sampling, 51 compositions are selected to cover each proficiency level, allowing for an analysis that reflects the range of error types and frequency among diverse learner groups. Each composition undergoes initial data processing, where word classes are tagged using Treetagger software, which enables automatic categorization. A manual review and proofreading are conducted using PowerGrep to ensure tagging accuracy before proceeding to detailed error analysis.

## 3. Data Collection Techniques

Data collection centers on identifying and categorizing word class errors within the selected compositions. Three trained researchers with over 12 years of English education independently marked noun-related word class errors in the data. This method involves first marking word class errors individually and then comparing results to ensure consistency and accuracy in error identification. In cases of disagreement, a senior advisor is consulted to resolve discrepancies, ensuring high reliability in error categorization. The collaborative marking process provides a thorough and precise examination of errors, essential for understanding the types and patterns of word class issues faced by Chinese EFL learners.

## 4. Data Analysis Techniques

Data analysis focuses on calculating the frequency and distribution of identified word class errors using AntConc software, which assists in organizing and displaying quantitative data effectively. By tabulating error frequencies, patterns across proficiency levels are identified, highlighting how error frequency and type may differ depending on learners' stages of development. The data are then analyzed in light of the conceptual transfer hypothesis, examining whether the frequency and nature of errors support the hypothesis that negative transfer from Chinese grammatical structures influences English word class acquisition. Through this detailed quantitative analysis, the study seeks to provide empirical insights into the impact of conceptual differences on L2 word-class learning, facilitating more targeted pedagogical interventions.

**Table 1.** Frequency of Types of Word Class Errors

Number	Type of word class errors	Frequency	Percentage
1	N→ADJ	31	36%
2	ADJ→N	28	33%
3	V→N	15	17%
4	N→V	9	10%
5	ADV→N	2	2%
6	N→ADV	1	1%
7	Prep.	0	0%
8	Conj.	0	0%
Total		86	

We also calculated the frequency of word class errors committed by different levels of learners (Shown in Table 2).

**Table 2.** Frequency of different levels of learners

Level	Number of compositions	Frequency	Percentage
Beginners	17	56	65%
intermediates	17	23	27%
Advanced learners	17	7	8%
Total	51	86	100%

## D. Findings and Discussion

### 1. Frequency

From Table 1, statistics demonstrate that there are systematic and regular errors in the word class acquisition of nouns. Chinese EFL learners indeed have some difficulty in acquiring the word class, which is closely reflected in the results of Cai and Zhao.

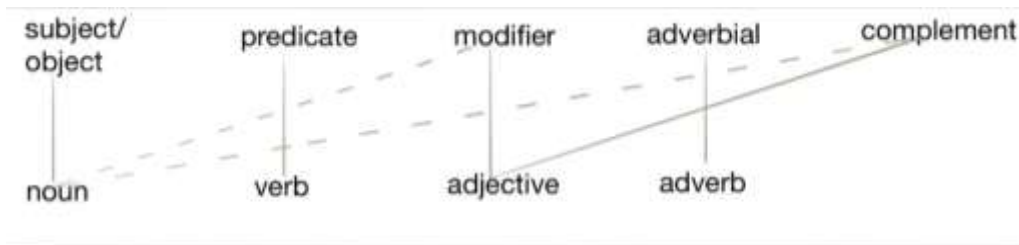
Among 6 types of word class errors, the confusion between nouns and adjectives is the most common, occurring 59 times in total and accounting for 69% (36% is “N→ADJ” and 33% is “ADJ→N”), followed by the confusion between verbs and nouns, which occurs 24 times in total and accounts for 27% (17% is “V→N” and 10% is “N→V”). The least common is the confusion between adverbs and nouns, only occurring 3 times and accounting for 3% (2% is “ADV→N” and 1% is “N→ADV”). The confusion generally concentrates on nouns with adjectives and verbs and fewer errors in adverbs and other parts of speech.

Regarding the frequency related to the level of learners, statistics show that beginners committed the most errors (over 50%), and advanced learners made the least errors (only 8%). The frequency decreases as the level of learners increases.

### 2. Differences between Chinese and English [Word Class] grammatical conceptual attributes

Word classes, such as nouns, verbs, adjectives, and adverbs, can be distinguished in Chinese and English. However, its grammatical attributes differ in morphological change and syntactic function.

English is an inflecting language with morphological change and morphological markers. Its word conversions are achieved by adding derivational affixes, such as -action, -ness, -ment, -ate, -if, -ize, -able, -ous, -ful, -ly, -ward, etc. Regarding syntactic function, there is a definite one-to-one relationship (shown in Figure 1) between English word class and syntactic function. Normally, nouns can function grammatically as subjects or objects, verbs as predicates, adjectives as modifiers or predicative, and adverbs as adverbials. Therefore, the grammatical attributes of English can be concluded (Hu, 1995):



**Figure 1.** Relationship Between English Word Class and Syntactic Function

English [Word Class]: <morphological marker and change><One word has only one word class><One word class serves as one specific syntactic function><One syntactic function corresponds to one specific word class>

Different word classes' syntactic functions can be concluded as:

[Noun]:<Subject/Object++++><predicative+><modifier+> (Acting as subject or object is typical case of nouns' syntactic function, but as modifier or predicative is seldom used.)

[verb]:<predicate+++>

[Adjective]:<modifier+++><predicative+++>

[Adverb]:<adverbial+++>

(The number of "+" indicates the frequency of the word class performing the syntactic function)

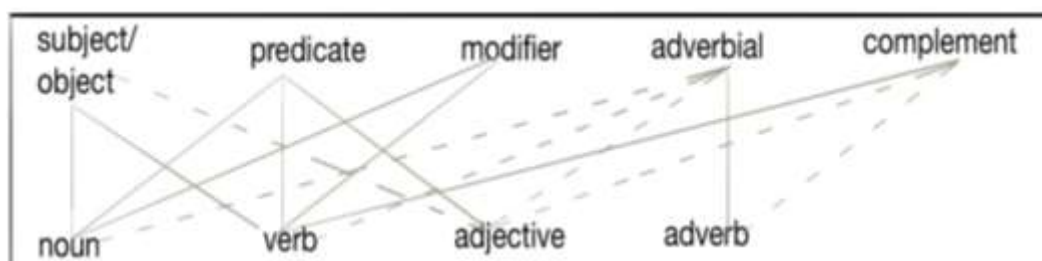
On the contrary, Chinese is an isolating language, lacking morphological change and morphological markers. It can achieve word conversions without any derivational affixes; in other words, Chinese conversion is zero-derivation or omission. For example, "success," "successful," and "succeed" all correspond to the Chinese word "Cheng gong," but "Cheng gong" could perform more than one syntactic function without any morphological change.

\*努力是获得成功(Chenggong)的必要条件。(pinyin: nuli shi huode chenggong de biyao tiaojian./ English: Hardship is essential for success.) --Noun

\*实验终于成功 (Chenggong) 了。(pinyin: shiyan zhongyu Chenggong le./ English: The experiment finally succeeded.) --Verb

\*这次会议开得很成功 (Chenggong)。(pinyin: zheci huiyi kaide hen Chenggong./ English: The meeting is successful.) --Adjective

Chinese word class also lacks fixed one-to-one relationship with syntactic functions(Shown in Figure 2). For example, nouns, apart from acting as subject and object, can also be used as modifier or adverbial. Therefore, Chinese grammatical attributes could be concluded as:



**Figure 2.** Relationship between Chinese word class and syntactic function

Chinese[Word Class]: <no morphological marker or change><One word may have one or more word class>< One-word class could serve as more than one syntactic function><One syntactic function corresponds to more than one-word class>

Different word classes' syntactic functions can be concluded as:

[Noun]:<Subject/object++++><modifier+++><predicate++><adverbial+> (Nouns are most commonly used as subject or object, followed by modifier and predicate, and least used as adverbial.)

[Verb]:<predicate+++><complement++><Subject/object++><modifier++><adverbial +>

[Adjective]:<modifier+++><predicate++><adverbial+><complement+><subject/subject+>

[Adverb]:<adverbial+++><complement+>

### 5.3 Results of conceptual transfer

The different natures of English and Chinese have made users form respectively specific mindsets and conceptual systems. Chinese speakers habitually focus on the meanings of words and ignore the word class; they are accustomed to using one word with multiple word classes regardless of morphology change, using one-word class to perform more than one grammatical function or vice versa. On the contrary, English speakers are taught the necessity of word class change. The traditional mindset is that a one-word form corresponds to a one-word class and performs only one function.

Such conceptual differences result in word class errors: When Chinese speakers acquire L2 English, negative transfer of original [Word Class], grammatical conceptual categorization system, and attributes appear. In other words, there is the transfer of the habit of thinking that [Word Class] does not matter and the transfer of Chinese [Word Class] <no morphological marker or change><One word may have one or more word class>< One-word class could serve as more than one syntactic function><One syntactic function corresponds to more than one-word class>.

Word class errors whose percentage of frequency is over 10% are selected to analyze in detail because errors below 10% don't reach statistical significance.

Confusions between adjectives and nouns

Among all word class errors, N→ADJ error and ADJ→N error respectively rank first (36%) and second (33%). We will analyze the root of errors with examples:

When\_CS we\_PPIS2 read\_VV0 literature\_NN1, I\_PPIS1 think\_VV0 the\_AT careful\_JJ is\_VBZ the\_AT most\_RGT importance\_NN1.

①N→ADJ

In the example (a), the noun “importance” is in the predicative position. As noted earlier, English [Adjective]'s syntactic functions include <predicative>, therefore, “importance” should be changed into its cognate adjective “important”.

The writer attempts to express the idea that “仔细最重要 (pinyin: zixi zui zhongyao. /English: carefulness is most important.)”, in which “重要 (zhongyao)” is an adjective as predicative; meanwhile, “重要 (zhongyao)” also is a noun in Chinese. That is, the form of “重要 (zhongyao)” bears two word class--noun and adjective and Chinese[Word Class]

possesses two grammatical attributes: <no morphological marker and change><One word may have one or more word class>. It can be expressed with symbols as: “重要 (zhongyao)”[adjective/noun]. Under such influence, there is no need for Chinese speakers to keep a watchful eye on the word class of “重要 (zhongyao)” because correct word forms are sufficient to express themselves. However, English [Word Class] possesses attributes of <morphological marker and change><One word has only one word class>, which requires two different word forms to correspond to two word classes--important [adjective] and importance [noun].

Such errors result from the transfer of Chinese [Word Class] <no morphological marker and change><One word may have one or more word classes>. Specifically, “重要 (Zhong Yao)”’s grammatical conceptual attributes [adjective/noun] negatively transfer, and as a result, Chinese EFL learners confuse two-word classes.

② ADJ→N

Similarly, in example (a), the adjective “careful” is in the subject position, and in English, only [noun] could perform the syntactic function of <subject/object+++>. So, the adjective “careful” should be changed into its cognate noun “carefulness.”

As mentioned above, the writer is expressing the idea that “仔细最重要 (pinyin: zixi zui zhongyao. /English: carefulness is most important.)” in which “仔细 (zixi)” can be not only a noun but also an adjective in Chinese. Therefore, the grammatical attributes <no morphological marker and change><One word may have one or more word class> can be expressed as: “仔细 (zixi)”[noun/adjective]. In English, its attributes <One word has only one-word class> can be expressed as carefulness [noun] and careful [adjective].

What lies at the root of this error is the negative transfer of Chinese [Word Class] <no morphological marker and change><One word may have one or more word classes> into English word classes. Consequently, Chinese EFL learners use adjectives in place of nouns.

Confusion between verbs and nouns

The confusion between verbs and nouns is also widespread, with V→N accounting for 17% and N→V accounting for 10%. We will analyze the root of errors with examples:

I\_PPIS1 will\_VM offer\_VVI my\_APPGE advise\_VV0.

(c) Perhaps\_RR he\_PPHS1 or\_CC she\_PPHS1 will\_VM company\_NN1 you\_PPY for\_IF your\_APPGE whole\_JJ life\_NN1.\_

In example (b), the verb “advise” should be changed into its cognate noun “advice,” while in example (c), the noun “company” should be changed into its cognate verb “accompany.” The source of both errors resembles example (a).

In short, Chinese [Word Class] includes grammatical attributes--<no morphological marker and change><One word may have one or more word classes>. “建议 (jianyi)”和“陪伴 (peiban)”are both nouns and verbs in Chinese and can be expressed as 建议(jianyi) [verb/noun] and 陪伴 (peiban) [noun/verb]. For Chinese speakers, no matter what kind of word class, the form is invariable. They don’t bother to concentrate on word class. On the contrary, English [Word Class] possesses grammatical attributes <no morphological marker and change> <One word has only one-word class>, which demands that different word classes should correspond to different word forms, such as advise [verb] and advice [noun].

In conclusion, word class confusions involving nouns and the other word class commonly result from the negative transfer of Chinese [Word Class] grammatical attributes into English [Word Class], especially <no morphological marker and change><One word may have one or more word class>.

## E. Conclusion

This study, grounded in conceptual transfer theory and based on the TECCL Corpus, explores the acquisition of noun word classes among Chinese EFL learners and examines the influence of conceptual transfer on L2 word class acquisition. The findings reveal that noun-related word class errors display systematic patterns, mainly due to negative conceptual transfer from the grammatical attributes of Chinese, such as the lack of morphological markers and the multifunctionality of words across word classes. These insights underline the cognitive challenges that Chinese learners face in acquiring English word classes due to the distinct conceptual framework of their native language.

To mitigate the effects of negative conceptual transfer, this study proposes targeted strategies for both teaching and learning. Language acquisition can be categorized into implicit and explicit learning: implicit learning occurs without conscious effort, leading to knowledge that learners may not be able to articulate, whereas explicit learning is conscious, requiring focused attention and enabling learners to explain learned content. For Chinese EFL learners, meaning, pronunciation, and spelling are often learned explicitly, while word class knowledge is typically acquired implicitly or incidentally. To improve word class acquisition, learners should treat word class knowledge equally, actively studying common roots and affixes and understanding the syntactic functions associated with different word classes. Shifting focus from individual word memorization to learning word families may also enhance retention and comprehension. Regarding instructional strategies, L2 teaching can also be divided into implicit and explicit methods. While implicit instruction involves minimal direct guidance on language rules, explicit instruction involves teaching language rules to aid in conscious language acquisition. Currently, Chinese teachers tend to provide explicit instruction for meaning, pronunciation, and spelling but often neglect explicit teaching of word class distinctions. Teachers should increase explicit instruction in word classes to address this gap, focusing on differences between Chinese and English grammatical structures and guiding students to understand word formation processes. Additionally, providing students with original English texts or corpora annotated with word class information could support incidental learning of word classes through reading.

## References

- Cai, H. (2002). On the mix-up of parts of speech in the compositions of Chinese college students. *Journal of PLA University of Foreign Languages*, (3), 58–61.
- Clark, E. V. (2010). Adult offer, word-class, and child uptake in early lexical acquisition. *First Language*, 30(3), 250–269. <https://doi.org/10.1177/0142723710370537>
- Gu, Y., & Chen, F. (2018). Chinese English learners' attainment of implicit knowledge and explicit knowledge. *Foreign Language Teaching and Research*, (6), 922–934.
- Hupp, J. (2015). Word learning and attention allocation based on word class and category knowledge. *Infant and Child Development*, 24, 44–61. <https://doi.org/10.1002/icd.1874>
- Jarvis, S. (2010). Conceptual transfer: Crosslinguistic effects in categorization and construal. *Bilingualism: Language and Cognition*, 14(1), 1–8. <https://doi.org/10.1017/S1366728910000155>

- Jarvis, S. (2016). Clarifying the scope of conceptual transfer. *Language Learning*, 66(3), 608–635. <https://doi.org/10.1111/lang.12154>
- Li, X. (2019). A study on word class acquisition of adjectives by Chinese EFL learners. *Journal of Northeast Normal University (Philosophy and Social Sciences)*, (5), 111–117. <https://doi.org/10.16164/j.cnki.22-1062/c.2019.05.014>
- Li, X. (2020). On the development of L2 word class acquisition by Chinese EFL learners from the perspective of typology. *Journal of Jilin Provincial Institute of Education*, 36(2), 113–116. <https://doi.org/10.16083/j.cnki.1671-1580.2020.02.026>
- Liao, G. (2019). A study of supernormal word-class shift in Chinese and the typicality. *Journal of Hunan University (Social Sciences)*, 33(1), 105–112. <https://doi.org/10.16339/j.cnki.hdxbskb.2019.01.014>
- Lin, R. (1994). The interference of L1 to the learning of target language—the misuse of word class. *Journal of Hunan University (Social Sciences)*, (1), 48–62.
- Odlin, T. (2005). Crosslinguistic influence and conceptual transfer: What are the concepts? *Annual Review of Applied Linguistics*, 25, 3–25. <https://doi.org/10.1017/S0267190505000012>
- Ward, J., & Chuenjundaeng, J. (2009). Suffix knowledge: Acquisition and application. *System*, 37(3), 461–469. <https://doi.org/10.1016/j.system.2009.01.004>
- Zhao, X. (2008). A corpus-based analysis of errors in parts of speech in Chinese learner English. *Journal of Beijing International Studies*, (8), 72–76.
- Zhang, H. (2019). On confusion errors between different word class categories by CBLE. *Foreign Language Learning Theory and Practice*, (4), 55–62.
- Zyzik, E. (2009). Noun, verb, or adjective? L2 learners' sensitivity to cues to word class. *Language Awareness*, 18(2), 147–164. <https://doi.org/10.1080/09658410902855847>