

Corpus-Based Study of Chinese EFL Learners' Use of Adverbial Ing-clauses

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Abstract

Based on the corpora TECCL (V1.1) and LOCNESS, the study investigates Chinese EFL learners' use of adverbial "ing-clauses" in writing and compares it with that by native speakers. The research findings suggest 1) Chinese EFL learners significantly underuse adverbial "ing-clauses" as a whole compared with native counterparts; 2) Both learners and native speakers prefer to use adverbial -ing clauses after subject-predicate structure, while native speakers are inclined to use more adverbial -ing clauses after the subject-predicate structure; 3) learners significantly underuse adverbial -ing clauses as circumstance adverbials as a whole and stance adverbials, but they tend to overuse circumstance adverbial "ing-clauses" denoting accompaniment or condition; 4) Learners underuse adverbial "ing-clauses" preceded by subordinate conjunctions or adverbs. The factors underlying what is found in learners' use of adverbial "ing-clauses" may be due to interlingual differences, transfer of learner's mother tongue and learners' inadequate proficiency in mastering adverbial "ing-clauses".

Key words: Corpus; Chinese EFL learners; Adverbial ing-clauses; Contrastive interlanguage analysis

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1. INTRODUCTION

Out of every ten words in spoken and written English there will be a lexical verb (Kenedy, 2008, p.22). Verbs are at the core of any language system, moreover, they may also be a major problem for learners of any age (Haley, 1986; Palmer, 1975). In Chinese Learners' English Corpus (CLEC), verb errors account for 15.03%, ranking first among the seven lexical categories errors, which indicate that the mastery of verbs is one of the outstanding difficulties in English learning (Yang, 2005, p.348). Verbs are complex and diverse in forms and usage, among which non-finite verbs may be tougher for learners. Although interlanguage contrastive analysis (CIA) is often conducted to study learners' language characteristics, there are few such studies about non-finite clauses. Based on the corpus, this paper studies the characteristics of adverbial "ing-clause" of Chinese EFL learners, analyzes how learners' use of adverbial "ing-clause" differ from that by native English speakers, exploring factors underlying research findings. Pedagogical implications of the present study are drawn and research suggestions are presented at the end of the paper.

2. THEORETICAL BASIS AND RELEVANT RESEARCH

Interlanguage, first proposed by Selinker (1972) on the basis of critical contrastive analysis and error analysis, is an important concept in the field of second language acquisition. It refers to the learner's independent language system, emphasizing the influence of learners' own factors on learning language and the system's transition characteristics from learner's mother tongue to the target language. With the development of interlanguage theory and learners' corpus, more researches touch upon the

comparison of language between native speakers and learners or between learners of different mother tongues, so as to find solutions to language learning difficulties. The Contrastive Interlanguage Analysis (CIA) aims to discover the inappropriateness of learners' writing and reflect the particularity of interlanguage (Granger 1996, 2004).

Based on Longman corpus of spoken and written English, Biber et al. (1999) compiled Longman Grammar of Spoken and Written English, a great work to describe English grammar. According to the book, the most fundamental distinction among English verb phrases lies between finite verb phrases and non-finite verb phrases (1999, p.452); there are three main types of non-finite clauses: infinitive clauses, ing-clauses and ed-clauses. Ing-clauses has a range of syntactic roles: subject, extra posed subject, subject predicative, direct object, prepositional object, adverbial, part of noun phrase, part of adjective phrase, and complement of preposition (ibid, p.199-200). Despite detailed classification in syntactic roles of ing-clauses, there is no corresponding description and further discussion except for two examples after each function. Among all these ing-clauses of different syntactic roles, adverbial ing-clauses are rather complicated in semantic category, which can be used to express time, place, reason, condition, concession, result, accompaniment etc, widely employed in the writing corpus of native speakers and learners, such as these in the following sentences:

1) Once there were a family which went sightseeing by plane, children pressed their face against window, *giggling and watching the scene in the sky...* (TECCL-V1.1, ing-clause as adverbial of accompaniment)

2) Over the years, tremendous changes, most of which we thought would never occur on the earth, have taken place around us continuously, *making our life more diverse, easier and so forth.* (TECCL-V1.1, ing-clause as adverbial of result)

3) *Having made physical contact by drilling the same tunnel and meeting half way,* we have created an area where it could be said, that we in Britain are no longer living on an island. (LOCNESS, ing-clause as adverbial of reason)

4) Then as the story progresses, the changes in attitude and thoughts can develop, *resulting in the way Voltaire believes.* (LOCNESS, ing-clause as adverbial of result)

Investigation shows that few study has been conducted to examine the usage pattern of adverbial ing-clauses from perspective of Contrastive Interlanguage Analysis, thus it is necessary to make a comprehensive analysis to identify how the learners and the native speakers use adverbial ing-clauses so as to better understand the learner's usage characteristics and discover instances that the learner may need to be aware of in language learning and application.

3. RESEARCH DESIGN

3.1 Research Questions

The present study is carried out to address the following research questions

- a) What are the Chinese EFL learners' s usage characteristics of adverbial ing-clause?
- b) How does learners' use of adverbial ing-clauses differ from that by native speakers?
- c) What contribute to the differences?

3.2 Corpus Sources and Analysis Tools

The learner corpus used in the present study is the Ten-thousand English Compositions of Chinese Learners (TECCL V1.1) (Xu, et al., 2015). TECCL is constructed by a group of researchers headed by Xu Jiajin at Beijing Foreign Studies University. It contains approximately 10,000 writing samples of Chinese EFL learners, with 1,817,335 words in total. The writers in the corpus run the gamut from elementary school to postgraduate students, undergraduates being the overwhelming majority. The corpus features a wide range of topics or prompts.

Louvain Corpus of Native Essay Writing (LOCNESS), the reference corpus in the study, is constructed by Professor Granger of the University of Leuven, Belgium. It is a corpus made up of English and American College Students' essays with a wide range of topics, totalling 324,304 words. In order to ensure the equivalence of corpus, this study randomly selects 708 college students' compositions from TECCL (v1.1) with 113,024 words, and 205 from LOCNESS with 112,995 words to make two sub-corpus respectively: TECCL sub-copus1 and LOCNESS sub-corpus2, which are similar in size and writing data.

The analysis tool of this study is AntConc 3.3.5, for retrieval of corpus. AntConc 3.3.5 developed by Laurence Anthony is used for item concordancing and text analysis. The software provides raw frequencies, collocates and contexts of the search items and the word list of the corpora.

3.3 Research Framework

Biber et al. (1999, p.762-892) holds that adverbials have three main functions: providing situational information for the proposition in a clause, expressing the speaker's or author's position in using the clause, and linking clauses. Based on the three functions, the adverbial ing-clauses can be divided into three categories: circumstance adverbials, stance adverbials and linking adverbials.

Circumstance adverbials, typically describe the circumstances or conditions of an action or state, which answer questions like "Where? When? How? Why? To what extent?" (Biber, 1999, p.131). As circumstance adverbials, ing-clauses can perform various functions. They may act as adverbials of place, time, accompaniment, cause, purpose, concession, condition, result and other

type. Adverbials of other type do not fit well within any of the aforementioned eight types, and in many cases, they indicate further explanation or juxtaposition relation, which are acknowledged as showing a circumstance that supplements the action or state in the main clause, for example,

5) Still however he remained optimistic views which Pangloss instilled in him, *believing everything to be ultimately beneficent purpose*. (LOCNESS)

6) He ranged across the nation for more than a third of his life, *experiencing different occupations*. (TECCL)

Stance adverbials (Biber 1999, 2006) are more loosely attached to the clause than circumstance adverbials. They are more mobile and are more often prosodically or orthographically separated from the rest of the clause. Unlike circumstance adverbials, they are not part of the predicate. They typically express the attitude of the speaker/writer towards the form or content of the message, such as

7) *Judging from the experience abroad*, the lottery was most popular with people... (LOCNESS)

Linking adverbials express the type of connection between clauses, and are more peripheral in clause structure than circumstance adverbials and are not part of the predicate. They are important devices for creating textual cohesion. However, ing-clauses can seldom be employed as linking adverbials.

3.4 Research Process and Statistical Results

First, all “v-ing” clauses before or after the subject-predicate structure in sub-corpora of TECCL (v1.1) and LOCNESS are retrieved, with 198 and 258 cases respectively. Then, adverbial -ing clauses are selected manually, with 51 cases and 104 cases respectively. Table 1 presents the total number of -ing clauses and the frequency of adverbial -ing clauses in the two sub-corpora. As can be seen from Table 1, the Chinese EFL learners in the current study use adverbial -ing clauses less frequently than the native speakers in writing, and there is a general tendency of underusing adverbial -ing clauses in learner’s writing.

Table 1
Frequency of Adverbial -ing clauses in the sub-corpora

	Sub-corpus size	Frequency of -ing clauses	Frequency of Adverbial -ing clauses
TECCL subcorpus1	113,024	198	51
LOCNESS subcorpus2	112,995	258	104

In order to fully describe learners’ usage characteristics, this study made further analysis of adverbial -ing clauses in the two sub-corpora in terms of position features, function distributions, semantic category and syntactic features.

Table 2 presents the position features of adverbial -ing clauses in the two sub-corpora of TECCL and LOCNESS.

As can be seen from Table 2, both learners and native speakers use adverbial -ing clauses less frequently before subject-predicate structure than after subject-predicate structure, while native speakers are inclined to use more adverbial -ing clauses after the subject-predicate structure (accounting for 88.46%, up 8.07%) than learners; The findings support the research of Biber whose study shows that final position (after the subject-predicate structure) is the unmarked choice for non-finite adverbial clauses in all registers. All the syntactic forms of non-finite clauses and all semantic categories typically occur in final position (Biber, 1999, p.831). Learners significantly underuse adverbial -ing clauses before or after subject-predicate structure.

Table 2
Position Features of Adverbial -ing clauses in the Sub-corpora

	Sub-corpus size	Adverbial -ing clauses before subject-predicate structure	Adverbial -ing clauses after subject-predicate structure
TECCL subcorpus1	113,024	10	41 (80.39%)
LOCNESS subcorpus2	112,995	12	92 (88.46%)

Table 3 is a comparison of the function distribution of adverbial -ing clauses in the two sub-corpora of TECCL and LOCNESS. No case of adverbial -ing clauses as linking adverbials are found in both sub-corpora, which demonstrates that -ing clauses are seldom used as a link between clauses or sentences. As can be seen in table 3, Learners significantly underuse adverbial -ing clauses as circumstantial adverbials and stance adverbials in general. This finding differs from the the research of Fang Xiucui (2013)¹⁰ who selects non-finite forms of five frequently used verbs and compare their adverbial -ing clauses on mini-corpus of WECCL (2.0) and LOCNESS, finding there was no significant difference between learners and native speakers in using adverbial -ing clauses as circumstance adverbials and native speakers tend to overuse stance adverbial, but he does not make a further detailed analysis. The different findings may be due to the fact that Fang’s research involves only 5 frequently used verbs.

Table 3
Function Distribution of Adverbial -ing clauses in the Sub-corpora

	Sub-corpus size	circumstance adverbial -ing clauses	stance adverbial -ing clauses	linking adverbial -ing clauses
TECCL subcorpus1	113,024	47	4	0
LOCNESS subcorpus2	112,995	97	7	0

Circumstance adverbial -ing clauses are most frequently used in both sub-corpora. Ing-clauses as

circumstante adverbials have a wide range of semantic roles, which can denote time, place, reason, condition, concession, result, accompaniment etc. Table 4 presents a comparison of the usage of circumstance adverbial -ing clauses in terms of semantic category in the sub-corpora of TECCL and LOCNESS. As shown in table 4, learners significantly underuse circumstance adverbial -ing

clauses as a whole compared with the native counterparts, but use of adverbial -ing clauses in the following nine semantic types are quite different between them. The learners significantly underuse adverbial -ing clauses of time, reason, purpose, concession, result and other type, however, they unusually overuse adverbial -ing clauses of accompaniment and condition.

Table 4
Circumstante Adverbial -ing clauses in terms of Semantic Category in the Sub-corpora

	AD of place	AD of time	AD of accompaniment	AD of reason	AD of purpose	AD of concession	AD of condition	AD of result	AD of other type	Total
TECCL subcopus1	0	2	14	1	2	0	3	10	15	47
LOCNESS subcorpus2	0	7	11	6	5	2	1	39	26	97
		-	+	-	-	-	+	-	-	-

The “+” and “-” signs indicate overuse and underuse.

Adverbial -ing-clauses can be preceded by subordinate conjunctions such as “when”, “while”, “though”, which can clearly indicate the semantic relationship between -ing-clauses and main clauses. Some adverbs can also be put before adverbial -ing-clauses to express consequence, degree, possibility or to show emphasis. Table 5 presents the different use of adverbial -ing-clauses preceded by

subordinate conjunctions, adverbs or negative words between learners and native speakers in the two sub-corpora. As shown in table 5, no cases of adverbial -ing clauses with negative words is found in both sub-corpora, while learners underuse adverbial -ing clauses preceded by subordinate conjunctions or adverbs.

Table 5
Adverbial -ing-clauses preceded by subordinate conjunctions, adverbs or negative words in the sub-corpora

	Sub-corpus size	Adverbial -ing clauses preceded by conjunctions	Adverbial -ing clauses preceded by adverbs	Adverbial -ing clause preceded by negative words
TECCL subcopus1	113,024	1	2	0
LOCNESS subcorpus2	112,995	3	9	0

4. DISCUSSION OF FINDINGS

The current study shows that Chinese EFL learners underuse adverbial -ing clauses than native speakers as a whole, and the difference is significant. This may be attributable to the differences between English and Chinese. There are no inflectional forms of words in Chinese unlike Indo European language, nor are there non-finite forms of verbs in Chinese, which makes it hard for Chinese learners to grasp adverbial -ing clauses. The learners tend to avoid using expressions they are unfamiliar with or uncertain about in writing. Instead, they are more likely to use finite adverbial clauses to express time, place, reason, purpose, concession or may tend to coordinate structure.

Both learners and native speakers prefer to use adverbial -ing clauses after subject-predicate structure, while native speakers are inclined to use more adverbial -ing clauses after the subject-predicate structure than learners. This tendency may be attributable to the heavy use of two types of adverbial -ing clauses: adverbials of result and adverbials of other type. The two types of adverbial -ing clauses occur 25 times (accounting for 49.02%) in learners' sub-corpus, and 65 times (accounting for 62.50%) in native speakers' sub-

corpus. Adverbials of other type are usually employed to denote further explanation or juxtaposition relation, which is acknowledged as showing a circumstance that, supplements the action or state in the main clause and often located in final position. And what's more, Final position is also the main choic for adverbials of results. This leads to the final position (after the subject-predicate structure) as main occurrence for adverbial -ing clauses in both sub-corpora.

As for the functional distribution, it is found that no adverbial -ing clauses as linking adverbials appear in either of two sub-corpora, which supports Biber' s research that -ing clauses are scarcely used as linking function. In addition, learners significantly underuse stance adverbial -ing clauses. In TECCL subcorpus1 there are 4 cases using -ing clauses as stance adverbial, involving only one verb “speak”, for example,

8) *Generally speaking*, advertisement must be original so that they can appeal to their consumers...

9) *Frankly speaking*, we should think more about others...

However, there are 7 cases of stance adverbial -ing clauses in LOCNESS subcorpus2 with more specific verbs like “judge”, “use”, “start”, “get” adopted in native

speaker's use to express more complex and specific information, for example,

10) *Judging from the experience abroad*, the lottery was most popular with people...

11) *Using the analogy of the persecution of the Jews in ww2*, it was said...

12) *Starting with the good aspect*, this is fundamental...

13) *Getting away from long term effect to short term effect*, brain cells are being killed...

It is apparent that learners show inadequate proficiency in using adverbial -ing clauses to express opinions and attitudes compared with the native counterparts in the current study.

In addition, learners significantly underuse circumstance adverbials as a whole. In both sub-corpora, occurrence of circumstantial adverbial -ing clauses bears overwhelmingly heavy share, with 47 cases (accounting for 92.16%) in TECCL subcorpus1 and 97 cases (accounting for 93.27%) in LOCNESS subcorpus2, while occurrence of stance adverbial -ing clauses only takes 7.84% and 6.73% respectively. This current study supports Biber's research findings which demonstrate that circumstance adverbials are the most common class of adverbial in spoken and written English (Biber, 1999, p.765).

While circumstance adverbial -ing clauses are most frequently used in both sub-corpora, performance of such -ing clauses in semantic category are quite different. The frequency goes from high to low for EFL Learners: accompaniment, result, condition, time/purpose, reason, place/concession while for native speakers: result, accompaniment, time, reason, purpose, concession, condition, place. Learner's underuse lies in most semantic categories and in total than native speakers, but learners unusually overuse adverbials of "accompaniment" and "conditions", which deserves our attention. This unusual overuse tendency may be L-1 related in the cases of learners. In Chinese sentence patterns, zhe“着”, yiban... yiban...“一边..... 一边.....”indicates a simultaneous occurrence of two acts in a complex sentence (Chu, 1998), for instance,

14) 我带着母亲的钱走出商店。

I went out the shop, holding my mother's money with me. (TECCL)

15) 她一边从火车上向他挥手, 一边大声喊道...

She waved to him from the train, *crying out...* (TECCL)

As is shown in example 14, “Zhe” is one of the few tense markers in Chinese. “Zhe” semantically signals a durative aspect and its pragmatic function is an interactive one. In a complex sentence, the verb with “zhe” signals that the event is a durative accompaniment for another event and indicates a simultaneous occurrence of two acts: “holding” taking place at the same time with the action “go” in the matrix sentence. Beside “zhe”, another device “yibian...yibian...”are also markers of simultaneous occurrence of action in a complex sentence in Chinese.

Sentence patterns to denote accompaniment in Chinese and English are quite corresponding in pragmatic function.

When adverbial -ing clauses denotes “a particular condition”, the sentence pattern in English is also similar to that of Chinese. Both can do without conjunctions. Chinese paratactic structure directly reflects the semantic association within the sentence. For example,

16) 抬起头, 加快步伐, 你的信心会油然而增长。

Raising up your head, and speeding up your pace, you will grow your confidence. (TECCL)

17) 改变姿势和速度, 你就可以改变心态。

Changing your posture and speed, you can change the psychological condition. (TECCL)

The reason for overuse of adverbials of “accompaniment” and “conditions” may be due to the influence of learners' mother tongue.

In the case of adverbial -ing clauses preceded by adverbs, 4 cases with two adverbs “generally”, “frankly” are found in learners' sub-corpus, but native speakers use them more frequently, such adverbs as “consequently”, “only”, “recently”, “possibly”, “especially” are added before adverbial -ing clauses to express results, degrees, time, possibilities or emphatic mood. Learners also underuse adverbial -ing clauses preceded by subordinate conjunctions. Only one case with “when” is found in learner's sub-corpus while 3 cases involving “when”, “while” are in native speaker's sub-corpus. All this suggests that learners are less proficient in expressing accurate logical relations and semantic meanings.

5. CONCLUSION

Based on the corpora TECCL (V1.1) and LOCNESS, this study investigates Chinese EFL learners' use of adverbial ing-clauses in writing and compares it with that by the native speakers. On the whole, there are several findings related to the use of adverbial ing-clauses by Chinese EFL learners. First, learners significantly underuse adverbial “ing-clauses” as a whole. This tendency of underuse may be due to the differences between English and Chinese. There are no non-finite forms of verbs in Chinese, which makes it difficult for learners to use adverbial -ing clauses appropriately.

The second finding is that both learners and native speakers prefer to use adverbial -ing clauses after subject-predicate structure, while native speakers are inclined to use more adverbial -ing clauses after the subject-predicate structure. This may be attributed to the fact that both sub-corpora feature heavy use of two types of adverbial -ing clauses: adverbials of result and adverbials of other type, both types often located at final position.

The third finding is that learners significantly underuse adverbial -ing clauses as stance adverbials and circumstance adverbials as a whole, but they tend to overuse circumstance adverbial ing-clauses denoting accompaniment or particular condition. The underuse

tendency in general may be due to learners' inadequate proficiency in using adverbial -ing clauses. The learners tend to avoid using expressions they are unfamiliar with or uncertain about in writing. The reason for overuse of adverbials of "accompaniment" and "conditions" may be attributable to the influence of learners' mother tongue resulting from corresponding sentence patterns in Chinese and English.

The last finding is that learners underuse adverbial -ing-clauses preceded by subordinate conjunctions and adverbs. The tendency may be attributed to the fact that learners are less proficient in expressing accurate logical relations and semantic meanings.

This study probes into learners' use of adverbial -ing-clauses, however, it is found in teaching practice and interviews with students that all non-finite -ing clauses of different syntactic roles turn out to be hard and challenging for English learners, even for advanced learners. Learners often feel confused about the various functions and syntactic features of -ing clauses. They have difficulty in understanding complex sentences with -ing clauses and tend to avoid using -ing clauses in writing. If the problems are to be addressed, it is necessary for teachers and learners alike to lay more emphasis on how to use -ing clauses. Learners should be given instructions on interlingual differences in syntactic patterns, and pragmatic characteristics of -ing clauses especially in varied functions and semantic category. Practice of -ing clauses should be strengthened in writing and learners should be aware that proper use of -ing clauses will help improve sentence variety and cultivate clear and succinct style in writing. In addition, corpus can be used as the medium to cultivate learners' self-directed learning competence by understanding the actual performance and application of -ing clauses by learners and native speakers.

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