Acquisition of the Chinese Modal Particle "Le" between Heritage and Non-Heritage Learners with Different Proficiency Levels

不同汉语水平的华裔非华裔的动态助词了的习得

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Abstract: This study examined differences in production and comprehension of the Chinese model particle *le* between heritage and non-heritage learners with different proficiency levels. The results of ANOVA and ANCOVA analyses showed that there was no statistically significant difference between heritage and non-heritage learners' abilities to comprehend and produce "le". Though there was a significant difference between proficiency levels in production but not in comprehension.

Keywords: heritage learners, proficiency, comprehension, production

摘要：本文研究不同语言水平的华裔和非华裔学习者在对汉语动态助词了的理解和产出上的差异。ANOVA 和 ANCOVA 统计结果显示华裔非华裔背景对"了"的理解和产出均无显著影响。而语言水平对"了"的产出有显著影响，但对其理解却没有。

关键词：华裔学习者，语言水平，理解，产出

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Background

Functions of *Le* and Tenses in Chinese

The linguistic definition of *le* (了) is a modal particle that modifies tense in Chinese (Sun, 2010). With different configurations, *le* can indicate different tenses. For example, there is the simple past tense *le* that indicates the completion of an event where *le* is put after the verb. There is the present perfect tense *le* which is the completion of an event using present time as the reference time where *le* is placed at the end of the phrase. When *le* is placed at the end of a sentence, it is closely related to the mood of the speaker and listener (Wen, 1995). There is the present perfect progressive *le* which indicates the continuity of an action. The sentence pattern is verb *le* duration 的 (possessive "de") (object) *le*. Finally, *le* can be used in the future tense, which marks the completion of an action. The present study focuses on all the four functions of *le*, and the following are examples.

Example 1: Simple past tense

我看了今天的新闻 Wǒ kànle jīntiān de xīnwén.
(I have seen today's news.)

Example 2: Present perfect tense

作业写完了 Zuòyè xiě wánle.
(The homework is finished.)

Example 3: Present perfect progressive tense

我学习中文学了六年了 Wǒ xuéxí zhōngwén xuéle liù niánle.
(I have been studying Chinese for six years.)

Example 4: Simple future tense

我明天吃了饭就去图书馆 *Wǒ míngtiān chīle zǎofàn jiù qù túshū guǎn*
(I will go to the library right after eating my breakfast tomorrow.)

Heritage and Non-Heritage Learners

The present study examines differences between heritage and non-heritage learners in the use of *le* because previous studies have shown that heritage and non-heritage often differ in their Chinese acquisition. For example, Chinese heritage learners (CHL) have shown increased levels of anxiety when completing writing tasks. A large portion of CHL writing anxiety is explained not only by factors of the second language (L2) writing process but also by factors associated with the learners' heritage identity (Y. Xiao & Wong, 2014). Heritage learners are taken to be good at and confident in speaking and listening, but often lack skills in reading and writing because much of their language experience is in colloquial Chinese. Previous research shows that Chinese heritage learners struggle developing reading and writing proficiency because unlike their non-heritage learner classmates, they do not develop oral and written skills from the beginning (Y. Xiao, 2006). This means that compared to non-Chinese-heritage learners (NCHL), CHLs do not develop all the four sub skills at the same pace. In other words, their Chinese performance is mediated by modality such as production and comprehension. Therefore, the present study developed separate outcome measures for comprehension and production.

With regard to the definition of a heritage learner, prior studies varied in specifics but most of them used features similar to the following definition: "a language student who is raised in a home where a non-English language is spoken, who speaks or at least understands the language, and who is to some degree bilingual in that language and in English" (Wilson & Martínez, 2011, p. 116). Because CHLs are such a diverse group, it is impossible to encompass

every individual's experience under a set of simple definitions, but the aforementioned definition

describes the shared language background of CHLs well. In the present study, we define a CHL

as a L2 Chinese learner who has had early exposure to Chinese usually in colloquial form,

whereas a NCHL as a L2 Chinese learner who has had no prior exposure to the language in any

form. Based on this distinction, the background survey used in this study did not ask whether the

learner considered herself as a CHL or NCHL but asked if she had early exposure to Chinese

such as speaking at home. As such, the participants did not have to decide for themselves

whether they categorized themselves as a CHL. It is important to recognize that CHLs are not the

same as native speakers or balanced bilinguals. CHLs are people who have had exposure to

Chinese before an academic setting, yet they are still learners of Chinese and are considered L2

speakers.

In addition to learners' background (heritage and non-heritage), proficiency is included as

a covariate because many previous studies have revealed an important role of proficiency in the

acquisition of Chinese linguistic forms (citation >2). For example, X. Li (2010) found that more

proficient Chinese learners with longer study abroad experience in China were more likely to

omit the Chinese functional word *de* when *de* was optional, conforming to the native norm. On

the other hand, F. Xiao, Taguchi & S. Li (2018) found that proficiency sub skills had differential

effects on L2 Chinese learners' production of linguistic forms that can perform different

pragmatic functions such as a request. These two studies suggest that proficiency plays an

important role in L2 Chinese acquisition. To this end, proficiency was considered as a covariate

in the present study.

In sum, previous studies on the acquisition of le has the following limitation. When

comparing the differences between CHLs and NCHLs, no previous study included proficiency as

a covariate. Given the important role of proficiency in L2 Chinese acquisition, it is critical to see whether proficiency affects the differences between CHLs and NCHLs. Moreover, no previous study used two separate outcome measures for comprehension and production. Since CHLs often do not develop their four proficiency subskills at the same pace to the same level, it is helpful to see if their knowledge of *le* also differs by modality. In order to fill these gaps in literature, the present study compares differences between CHLs and NCHLs in their use of *le* and considers proficiency as a covariate. In particular, this study addresses three research questions:

1. Do heritage and non-heritage learners differ in their production and comprehension of the Chinese model particle *le*?

2. Does proficiency affect production and comprehension of *le*?

3. What is learners' understanding of the functions of *le*?

Methods

Participants

The participants in this study were 57 students who have studied Chinese at a college level. There were 32 females and 25 males. The participants were clustered into four proficiency groups based on years of college-level Chinese learning. The four proficiency groups were: one year of college Chinese learning, two years, three years, and four or more years.

Tasks

There were two tasks that participants were asked to complete. The first was a production task (n=12, see Appendix A for all production items) to assess participants' ability to translate

sentences into Chinese. Participants were asked to translate English sentences into Chinese (traditional or simplified). See an example below:

Example 4: Sample item of the production task

We have been learning Chinese for five years.

 Correct answer: *我们学习中文学了五年了。Wǒmen xuéxí zhōngwén xuéle wǔ niánle.*

The second task was a comprehension task (n=18, see Appendix B for all comprehension items) where participants were asked to identify whether target Chinese sentences were grammatically accurate and if they were not, participants were asked to shortly explain why they were incorrect and correct the sentence. The comprehension task had options in both traditional and simplified characters in order to accommodate to all participants.

Example 5: Sample item of the comprehension task

Correct: *我们上个星期吃了中国菜。Wǒmen shàng gè xīngqí chīle zhōngguó cài.* We ate Chinese food last week.

Incorrect: *我昨天想买了东西。Wǒ zuótiān xiǎng mǎile dōngxī.* Yesterday I wanted to buy things.

Explanation: Need to put *le* at the end of the sentence.

Data Collection

The participants received the two tasks electronically. They were asked to type their answers because the present study focused on their knowledge of *le* but not on their character writing ability. They were instructed to use the English letter A for an unknown Chinese

character. The data were evaluated based on grammaticality by a Chinese native speaker who has

a PhD degree in second language acquisition.

Results

Answers to Research Question One

Research question one asks if there is a difference between CHLs and NCHLs in their

ability to comprehend and produce *le*. As shown in Table 1, ANOVA (F<1, 56>=0.17, p>0.05)

analyses reveal that there was no significant difference between CHLs and NCHLs in their

ability to produce *le*.

Table 1: ANOVA results for production

	Sum of Squares	df	Mean Square	F	p-value
Between Groups	6.330	1	6.330	0.172	0.68
Within Groups	1951.415	53	36.706		
Total	1951.745	54			

As shown in Table 2, ANOVA (F<1, 56>=1.64, p>0.05) analyses reveal that there was no

significant difference between CHLs and NCHLs in their ability to comprehend *le*.

Table 2: ANOVA results for comprehension

	Sum of Squares	df	Mean Square	F	p-value
Between Groups	11.755	1	11.755	1.635	0.207
Within Groups	380.972	53	7.188		
Total	392.727	54			

In sum, the quantitative data showed that there was no statistically significant difference between CHLs and NCHLs' ability to comprehend and produce *le*. An explanation for this is that CHLs are still L2 learners, meaning that they receive similar influences of their first language in their use of Chinese. The heritage identity does not have a significant influence on comprehension and production of *le*.

Answers to Research Question Two

Research question two asks whether proficiency plays an important role in the production and comprehension of *le* in CHLs and NCHLs. Proficiency was treated as a covariate, and ANCOVA analyses were performed.

As shown in Table 3, the p-value is significant for proficiency but not for heritage language background, meaning that proficiency has a significant effect on L2 production of *le*.

Table 3: ANCOVA results for production

| Parameter | B | Std. Error | Wald confidence interval | | Hypothesis Test | | |
			Lower	Upper	Wald Chi-Square	df	p-value
(Intercept)	31.584	2.1398	27.391	35.778	217.875	1	.000
NCHL (0)	.577	1.5992	-2.558	3.711	.130	1	.718
CHL (1)	0[a]						
Proficiency	1.796	.7198	.387	3.209	6.237	1	.013
(Scale)	31.769[b]	6.0581	21.862	46.166			

Table 4 shows ANCOVA results for comprehension, and it indicates that the p-values for proficiency and heritage background are not significant. These suggest that neither proficiency or heritage background has an effect on L2 comprehension of *le*.

Table 4: ANCOVA results for comprehension

| Parameter | B | Std. Error | Wald confidence interval | | Hypothesis Test | | |
			Lower	Upper	Wald Chi-Square	df	p-value
(Intercept)	12.051	.9862	10.119	13.984	149.337	1	.000
NCHL (0)	-1.003	.7370	-2.447	.442	1.851	1	.174
CHL (1)	0[a]						
Proficiency	.401	.3318	-.250	1.051	1.457	1	.227
(Scale)	6.748[b]	1.2868	4.644	9.806			

In sum, when proficiency was treated as a covariate, ANCOVA analyses showed that proficiency had a significant effect on the production of *le* but not on its comprehension. CHLs and NCHLs did not differ in *le*'s production or comprehension. These findings suggest that learners of higher proficiency levels are better able to produce *le* correctly, but they are not necessarily better able to comprehend *le* accurately. In other words, as proficiency increases, L2 Chinese learners can improve their knowledge of *le* but such improvements are modulated by modality (comprehension and production).

Answers to Research Question Three

Research question three asks about L2 learners' understanding of the functions of *le*. Qualitative data on the learners' explanations for errors in the comprehension task can answer it. In the comprehension task, if the sentence was incorrect, the learners were asked to explain why it was incorrect. Their data have shown four patterns of explanations: no explanation, correct explanation, irrelevant explanation, and incorrect explanation. The areas where the learners encountered the most difficulty in explanation of incorrect sentences were regarding the use of *le* in the present perfect progressive tense and the future tense.

The learners were over-sensitive to the present prefect progressive tense which uses double *le*. Most of them noticed the use of double *le* and marked correct sentences as incorrect. In sentences that accurately depicted the present perfect progressive tense, the learners used explanations such as "too many *le*s" and "two *le*s are unnecessary". This shows that they did not have a strong grasp of how to properly identify the present perfect progressive tense in Chinese. This may be due to the fact that the double le pattern is not adequately emphasized in grammar instruction.

Moreover, there was a distinct dissociation between *le* and the future tense. Participants often identified correct sentences as incorrect simply because there was a future tense indicator like 明天 (tomorrow) with *le*. There were multiple explanations that stated that *le* could not exist in a sentence if it was in future tense, which is incorrect. *Le* and the future tense in Chinese are not mutually exclusive.

Discussion and Limitations

There was no statistically significant difference between CHLs and NCHLs. Previous studies have produced different findings. For example, Y. Xiao (2006) have shown that CHLs do significantly better than NCHLs in speaking, listening, and grammar construction, but show no significant difference in reading comprehension, vocabulary learning, and character writing, demonstrating that oral proficiency does not automatically lead to literacy. However, the results from the present study has shown that there was no significant difference in comprehension or production of *le*. The different results from the present study may be because this study focused on a Chinese modal particle that is associated with L2 Chinese learners' understanding of tenses, which may be more susceptible to the negative transfer of their first language (English) due to the fact that there is no direct English equivalent to *le*. In other words, CHLs and NCHLs may not differ in their acquisition of target linguistic forms that do not exist in their first language (English). Future research needs to include target linguistic forms that have direct equivalents in learners' first language. Findings of these studies will help us understand whether CHLs and NCHLs have different acquisitional patterns on different types of target L2 linguistic forms.

Overall, the findings showed that proficiency plays a significant role in determining learners' ability to produce *le* in written Chinese. Because the learners in higher proficiency groups were better able to produce *le*. This reinforces that *le* is very difficult to produce and takes

a high level of proficiency to master. However, there was no proficiency effect on their

comprehension. This means that comprehending *le* is easier at lower levels of proficiency

compared to producing *le*. In terms of a classroom setting, Chinese teachers should focus time on

teaching their students how to properly produce *le* in all tense forms in all the subskills of

Chinese. This can be done through repetitive writing exercises that prompt the use of *le* as well

as reinforcement every semester. Chinese learners that are better able to produce *le* are closer to

reaching advanced proficiency and will be able to properly express tenses in Chinese.

The two main errors made regarding the production of *le* were oversensitivity to the use

of multiple *le*s and disassociation between *le* and the future tense. Present perfect progressive

tense should be emphasized when teaching *le* because it is particularly difficult to produce.

Students also need to be taught that *le* can be used in the future tense.

The main limitation of this research is that there was no standardized proficiency test.

Participants were put into proficiency categories based on the number of years they had studied

Chinese at the college level. Two participants who have the same number of years of college

Chinese experience could still have disparities in their proficiency levels. Compared to years of

Chinese instruction, a standardized proficiency test score is a more reliable indicator of

proficiency.

Conclusion

The current study investigated whether CHLs and NCHLs with different proficiency

levels differ in their comprehension and production of Chinese modal particle *le*. Findings

showed that CHLs and NCHLs had no significant difference in their comprehension or

production of *le*. When it was added as a covariate, proficiency had a significant impact on

production but not on comprehension. These findings suggest that with increased proficiency, both CHLs and NCHLs can increase their accurate production of *le* but their comprehension of *le* may lag behind, suggesting a need of instruction with a focus on the rationale for correct use of *le* in different tenses. Qualitative data showed that most learners were oversensitive to the use of double *le,* which is associated with the present perfect progressive tense, and they had a misunderstanding that *le* cannot be used in the future tense. These two aspects need to be addressed in classroom instruction.

Acknowledgements

References

Li, X. (2010). Sociolinguistic variation in the speech of learners of Chinese as a second

language. *Language Learning*, *60*(2), 366-408.

Sun, C. (2010). *Chinese: a linguistic introduction*. Cambridge, UK: Cambridge University Press.

Wen, X. (1995). Second language acquisition of the Chinese particle le. *International Journal of
Applied Linguistics*, *5*(1), 45–62.

Wilson, D., & Martínez, R. (2011). Diversity in Definition: Integrating History and Student

Attitudes in Understanding Heritage Learners of Spanish in New Mexico. *Heritage
Language Journal,* 115-133.

Xiao, F., Taguchi, N., & Li, S. (2019). Effects of proficiency subskills on pragmatic

development in L2 Chinese study abroad. *Studies in Second Language Acquisition*, *41*(2),
469-483.

Xiao, Y., & Wong, K. F. (2014). Exploring Heritage Language Anxiety: A Study of Chinese

Heritage Language Learners. *The Modern Language Journal, 98*(2), 589-611.
doi:10.1111/modl.12085

Xiao, Y. (2006). Heritage Learners in the Chinese Language Classroom: Home Background.

Heritage Language Journal, 47-56.

Appendix A

Production Task

Please translate these English sentences into Chinese. PLEASE DO NOT USE A DICTIONARY

OR GOOGLE TRANSLATE. If you do not know the word in Chinese, please insert a capital

"A" where the character(s) would be.

1. I ate breakfast this morning.

2. I have washed my clothes.

3. We have been learning Chinese for 5 years.

4. She finished her homework yesterday.

5. We have read this book.

6. She has been writing her book for 8 weeks.

7. She has sold her car.

8. He bought a t-shirt last week.

9. He has been eating lunch for two hours

10. They watched a movie last night.

11. He has lost his cellphone.

12. I have been looking for an apartment for 1 month.

Appendix B

Comprehension Task

Please determine whether the following sentences are accurate grammatically. Write in

"accurate" if so, write "incorrect" if so and please point out the error and explain it in English.

1. 我昨天去了图书馆。/ 我昨天去了圖書館。

2. 我昨天想买了东西。/ 我昨天想買了東西。(incorrect)

3. 他明年会去了中国。/ 他明年會去了中國。(incorrect)

4. 我们上个星期吃了中国菜。/ 我們上個星期吃了中國菜。

5. 她看书看了一天了。/ 她看書看了一天了。

6. 弟弟学会开车了。/ 弟弟學會開車了。

7. 她前天总是在洗衣服了。/ 她前天總是在洗衣服了。(incorrect)

8. 妈妈画画儿画了 3 个小时了。/ 媽媽畫畫兒畫了 3 個小時了。

9. 他上个月买了一台新电脑。/ 他上個月買了一台新電腦。

10. 我上个星期日去了商店买了东西。/ 我上個星期日去了商店買了東西。(incorrect)

11. 他上个月坐了飞机回了家。/ 他上個月坐了飛機回了家。(incorrect)

12. 我们下个月能上了课。/ 我們下個月能上了課。(incorrect)

13. 哥哥找到新工作了。/ 哥哥找到新工作了。

14. 她已经借到中文书。/ 她已經借到中文書。

15. 我睡觉睡了 10 个小时了。/ 我睡覺睡了 10 個小時了。

16. 她昨天骑了自行车来了学校。/ 她昨天騎了自行車來了學校。(incorrect)

17. 我去年常常做饭了。/ 我去年常常做飯了。(incorrect)

18. 哥哥上个星期一直在工作了。／ 哥哥上個星期一直在工作了。(incorrect)