

Acquisition of Three Chinese Sentence-Final Particles by English Learners *

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Abstract

This study examines the acquisition of three Chinese sentence-final particles (SFPs), *ma*, *ba* and *ne*, by English learners of Chinese as a foreign language (CFL), both heritage and non-heritage learners. Our analysis shows that different groups of learners have different patterns in the acquisition of SFPs. It is found that the intermediate-level heritage learners have advantage over the non-heritage learners at the same level, while the advanced-level heritage learners do not possess such advantage over the non-heritage learners at the same level. It is proposed that only at the beginning and intermediate levels do heritage language learners possess advantage over non-heritage language learners. Our study also shows that different usages of the same SFPs may be acquired in different orders by CFL learners. An analysis of the errors in the use of SFPs highlights the importance of situating the usages of SFPs in the context of discourse.

Key words: sentence-final particles Mandarin Chinese second language acquisition Chinese as a foreign language (CFL)

* I would like to thank the two anonymous reviewers for their constructive advice and suggestions on the paper. Needless to say, all errors remain mine.

1. Introduction

Sentence-final particles (referred to as SFPs hereafter) are bound morphemes that are attached to the end of sentences, serving to indicate the speech act, evidentiality, and affective and emotion coloring (Law 1990: 1; Matthews & Yip 1994: 338), or to index the conditional relevance of marked units in conversation (Morita 2005; Tanaka 1999, 2000).

SFPs in Mandarin Chinese, traditionally termed as *yuqi ci* (modal particles) or *yuwei zhuci* (sentence-final functional words), play a very important semantic/pragmatic role in spoken Mandarin discourse (Li & Thompson 1989: 238). The use of a SFP conveys speakers' affective stance and establishes common affective ground in a given context. The use or non-use of an SFP in an utterance may create delicate differences. Compare two sentences (1) and (2).

- (1) 他 是 老師。
ta shi laoshi
“He is a teacher.”
- (2) 他 是 老師 啊！¹
ta shi laoshi SFP
“Oh, so he is a teacher!”

(1) tells a fact that his profession is teaching, while (2) shows the speaker's sudden realization of or surprise about the fact that “he is a teacher”. Meanwhile, (2) is usually used after the speaker has just learned about the fact that “he is a teacher”. In contrast, the speaker in (1) already knows about him being a teacher and uses sentence (1) to answer others' inquiry. The use and non-use of the SFP *a* in the two sentences clearly show the significance of SFPs in Mandarin Chinese.

Instead of using SFPs, English uses intonation to convey different pragmatic functions (Pierrehumbert and Hirschberg 1990). Although intonation is an integral part of Mandarin phonology and thus contributes to conveying

¹ It is worth pointing out that the pronunciation of the SFP *a* often changes according to the final segment in the preceding syllable (Li & Thompson 1989).

pragmatic meanings in speech (Yang and Chan 2011; Yang 2011), SFPs are usually required to accompany intonation (or intonation accompanies SFPs. No studies have been conducted to examine which, SFPs or intonation, is more important) to represent speakers' attitudes, beliefs, assumptions, and other pragmatic meanings.

In studies on the acquisition of L2 Mandarin Chinese, most studies focus on the acquisition of tones, characters, and some syntactic structures (i.e., *ba*-construction and *bei*-construction) (Wen 2012; Xing 2006). Very few studies have examined the acquisition of SFPs by L2 learners. This study attempts to bridge the gap in CFL research by investigating the acquisition of three SFPs in Mandarin Chinese by American L2 learners.

2. Background

2.1 The semantic/pragmatic functions of SFPs *ma*, *ba* and *ne*.

This study focuses on three SFPs in Mandarin Chinese, namely *ma*, *ba* and *ne*.

The SFP *ma* functions exclusively as a yes-no question marker (Chao 1968; Ding 1961; Hu 1981; Li 1924; Li and Thompson 1989; Lu 1984; Lu 2005; Lü 1942; Qi 2002; Sun 1999; Zhang 2012). Chao (1968: 800), Lu (2005: 21) and Zhang (2012) argue that a question ending with *ma* suggests a slight doubt/suspicion about truth of the statement preceding *ma*.

The functions of *ba* and *ne* are much more complicated than *ma*. As Zhang (2012) summarizes, disagreement mainly lies in whether these two SFPs express the *mood* of the sentence (語氣) or tone of the speaker (口氣), and whether there is semantic difference when they are used in statements and interrogatives. According to Zhang (2012), mood refers to different sentence types, such as declarative, interrogative, imperative, and exclamative, whereas tone refers to the speaker's emotion, such as hesitation, surprise and doubt, etc.

The use of *ba* can express the imperative, speculative and negotiative mood (Ding 1961; Li 1924; Lu 1942; Qi 2002; Wang 1944), and the uncertain and hesitant tone (Hu 1981; Lu 1984; Lu 2005; Qu 2006; Sun 1999;

Zhang 2003), and seek for approval or agreement (Zhou and Cen 2008; Li and Thompson 1989; Xu 2004). Drawing on the Chinese corpus built by the Center for Chinese Linguistics at Peking University (http://ccl.pku.edu.cn:8080/ccl_corpus/), Zhang (2012) tests previous scholars' opinions on the semantic functions of *ba*. Zhang finds that *ba* has the same semantic functions in both interrogative and non-interrogative sentences except that *ba* also expresses the interrogative mood in the interrogative sentences. *ba* serves to convey uncertainty of the speaker, to tone down the certain tone of the speaker, or to express the speaker's concession.

More disagreement exists with respect to the semantic functions of *ne*. The use of *ne* can express the interrogative, declarative, exaggeratory, hypothetical, interjectional, and affirmative mood (Ding 1961; Li 1924; Lü 1942; Qi 2002; Wang 1944), and serve to remind in the declarative context (Hu 1981; Shao 1996; Xu 2004; Sun 1999), to remind and elicit further information in the interrogative context (Shao 1996; Sun 1999), to express speaker's response to some claim, expectation, or belief (Chu 1984; Li & Thompson 1989), to express attention to an incomplete situation or continuation of an activity or situation (Marney 1980), to engage interlocutors in the conversation (Alleton 1980), and to associate and contrast (Chu 1984; Lin 1984; Lu 2005; Zhang 2003). Zhang (2012) tests the semantic functions of *ne* in his corpus-based study as well. He finds that *ne* has the same semantic functions in the interrogative and non-interrogative sentences except that *ne* also expresses the interrogative mood in the interrogative sentences. *ne* serves to emphasize some information in the sentence, and to remind the listener to pay attention to that information.

2.2 Acquisition of SFPs

The importance of SFPs in spoken discourse dictates the indispensable role of the acquisition of SFPs in the development of interactional competence (Maynard 1989). Different from communicative competence, which exists within individuals out of context (Hymes 1974; Canale and Swain 1980), interactional competence is co-constructed by all participants in in-

teraction (He and Young 1998; Jacoby and Ochs 1995: 171; Young 1999). Most studies on the acquisition of SFPs focus on Japanese (Iwai 2007; Masuda 2007; Ohta 1990, 1991, 2001; Sawyer 1992; Shibahara 2002; Tominami and Nakamura 2004; Yoshimi 1999, 2001), and some concern Cantonese (Chan 1996; Chan 2008). However, very few studies have been conducted on the acquisition of SFPs in Mandarin Chinese. Chen (2009) examines the acquisition of SFPs in Mandarin Chinese and finds that *a*, *ne* and *ma* are not adequately acquired by L2 learners. To fill in the gaps in previous studies, this study examines the acquisition of three SFPs, *ma*, *ba* and *ne* by American L2 learners, both heritage and non-heritage learners included.

The research questions to be addressed in this paper are:

- 1) Do learners at different levels acquire these SFPs and what are the differences in their acquisition?
- 2) Are the different usages of these SFPs acquired in the same order?
- 3) Is there any difference between heritage and non-heritage learners in the acquisition of these SFPs?

3. Methodology

3.1 Subjects

Two levels (i.e., second-year and third-year) of Chinese learners, both heritage and non-heritage, in a mid-western private university, participated in the study. Nine native speakers served as the control group. The native speakers were born and grew up in Beijing and were taking an English course when participating in the study. There were 24 2nd-year heritage learners, 9 3rd-year heritage learners, 9 2nd-year non-heritage learners, 5 3rd-year non-heritage learners, and 9 native speakers.

3.2 Data collection

Studies on the acquisition of SFPs have adopted different approaches of data elicitation, such as one-on-one conversation, and emails between native speaker and L2 learners. Although more authentic data can be obtained through spontaneous conversation and emails, we could not ensure that the

data collected would have enough sentences containing the three SFPs that we were interested in, and even if enough sentences were collected, we could not control the contexts that these SFPs occurred. Thus, in order to control for the data to be collected, a questionnaire was designed to elicit subjects' use of the three SFPs. When designing the questionnaire, we took into consideration the different usages of the SFPs, the different contexts (i.e., interrogative vs. non-interrogative), and the familiarity of the topics. Moreover, in order to examine why learners chose one SFP instead of another, learners were also asked to explain their choice of SFPs. It was expected that such a design would enable us to collect more balanced and informative data of learners' use of SFPs.

In the questionnaire, context scenarios were carefully designed to elicit subjects' use of SFPs. One example for such a scenario is given in (3).

(3) A: 你會寫中國字_____? 我想學寫中國字。

B: 我會。

Question: Do you think that A assumes that B can write Chinese characters.

(a). Yes (b). No (c). Can not infer

Reason: _____

In the directions of the questionnaire, subjects were instructed to fill in the blanks with one of the three SFPs, *ne*, *ma* and *ba*. In order to understand learners' choice of some SFPs, questions were asked in some scenarios, as shown in (3).

The questionnaire consisted of 26 scenarios, with the first and the last ones as fillers (see the Appendix for the questionnaire). In the 24 target scenarios, four required *ma*, seven required *ba*, and eight required *ne*. For the other five scenarios, both *ba* and *ma* could be used.

The four learner groups completed their questionnaires in class. The native group from a Chinese university completed their questionnaires in class and then the questionnaires were scanned and sent to the author via email.

All subjects received extra credits in the courses that they took for their participation.

4. Analysis

4.1 Statistical analysis

In the analysis, we first compared the correct usages of the three SFPs by different subject groups. Repeated measure analyses of variance (ANOVA) were conducted, with the number of correct SFPs as the dependent variable, and subject group as the independent variable. ANOVA results showed that there was no significance in the usages of *ma*, and in the cases of either *ma* or *ba*, across subject groups. There was, however, significant difference in the usages of *ne* and *ba* across groups ($F_{(4)} = 7.6$, $P < 0.01$ and $F_{(4)} = 14.7$, $P < 0.01$ respectively). With respect to *ne*, post-hoc Tukey tests showed that there was significant difference between the 2nd-year heritage learners and the 2nd-year learner ($p < 0.01$), between the 3rd-year heritage learners and the 2nd-year learners (p is around 0.01), between the native speakers and the 2nd-year learners ($p < 0.01$), between the native speakers and the 3rd-year learners ($p < 0.05$), and between the native speakers and the 2nd-year heritage learners (p is around 0.05). With respect to *ba*, there was significant difference between the 3rd-year heritage learners and the 2nd-year learners (p is around 0.01), between the native speakers and the 2nd-year learners ($p < 0.00$), between the native speakers and the 3rd-year learners ($p < 0.01$), between the native speakers and the 2nd-year heritage learners ($p < 0.00$), and between the native speakers and the 3rd-year heritage learners ($p < 0.00$).

To summarize the results of the Tukey tests, the acquisition of *ne* has the following pattern: native $>$ (3rd-yr-heritage $>$ 2nd-yr-heritage $>$ 3rd-yr) $>$ 2nd-yr, while the acquisition of *ba* has the following pattern: native $>$ (3rd-yr-heritage $>$ 3rd-yr $>$ 2nd-yr-heritage) $>$ 2nd-yr. The “ $>$ ” outside the brackets means the group before it did significantly better than the group following it, while the “ $>$ ” within the brackets only shows the relationship between the means of each group and the groups are not significantly different.

4.2 Analysis of the errors in the use of *ne* and *ba* by learners

Statistical analyses above showed that learners differed significantly from the native speakers in the use of both *ba* and *ne*. Thus, this section examines the errors that different groups of learners made in the use of *ba* and *ne*, with the purpose of identifying the error patterns.

Firstly, the use of *ba* and *ne* by different learner groups was analyzed. As both *ba* and *ne* are used in both declarative and interrogative sentences, the analysis below separates the errors in the interrogative and declarative contexts.

Altogether there are seven sentences requiring the use of *ba*, five in the interrogative context and two in the declarative context. *ba* in the interrogative context shows the speakers' uncertainty and to seek for confirmation or approval from the listener(s).

(4) A: 你會寫中國字吧? B: 我會, 你怎麼知道的?

Table 1: Error percentages in (4) by different subject groups

Subject group	2 nd -yr-heritage	2 nd -yr	3 rd -yr-heritage	3 rd -yr
Error percentage	16/24 = 67%	7/9 = 78%	5/9 = 56%	2/5 = 40%

Table 2 lists the percentages of errors in (4) by each group. Due to the unequal number of subjects in each group, the absolute numbers of errors would be meaningless. Thus, percentages of errors in each group were used instead. Of all the learner groups, the 2nd-year learner group made the most errors (78%), followed by the 2nd-year heritage group. Although it was expected that the 3rd-year heritage learners should have done better than the 3rd-year learners, the 3rd-year heritage learners committed more errors than the 3rd-year learners. One potential factor leading to such a result is that there were only five subjects in the 3rd-year learner group, which may have rendered their data unrepresentative. It is worth pointing out that, since the chance rate of getting the right answer from the three SFPs is 33%, the error percentages for both 2nd-yr groups are rather high. Specifically, the 2nd-year

heritage group only got the chance rate, while the 2nd-year group was even lower than the chance rate.

One interesting pattern for the errors in (4) is that all learners used *ma*, instead of *ba*. Without B's response, both *ba* and *ma* can be used in (4). However, B's answer "how did you know?" implies that A has hinted one way or another that B could write Chinese characters. In this case, only *ba* can be used, which was to seek B's confirmation for A's assumption (Li & Thompson 1989: 307). However, whether *ma* signifies a neutral question or a slight double about an affirmative answer, the context in (4) prevents the use of it.

In (4), learners were asked whether they agreed that A thought B could write Chinese characters. Of the 16 errors made by the 2nd-year heritage learners, eight learners believed that A thought B could write Chinese characters. However, even if they believed so, they still chose *ma* at the end of the sentence. This incongruity suggests that these learners understood the meaning of the conversation, but had not fully acquired the usage of *ba* and *ma*, so that they replaced *ba* with *ma*. The other eight learners chose *ma* for this context and provided the reason that A's question was just a neutral question. The choice of *ma* and their explanation suggest that these eight learners acquired the usage of *ma*, but did not associate A's question with B's response in making their choice. Similar pattern exists for the 2nd-year learner group. Six out of the seven learners who made errors in (4) believed that A thought B could write Chinese characters, but still used *ma*. Again, their discourse interpretation was separated from the use of sentence final particles, patterning similarly to the 2nd-year heritage group. Similarly, in the 3rd-year heritage group, five out of nine learners believed that A thought B could write Chinese characters, but still used *ma*, and both 3rd-yr learners thought A believed that B could write Chinese characters and still used *ma*.

The errors in (4) suggest that some learners did not associate the discourse meaning with the SFPs so they understood the discourse meaning correctly but chose the wrong SFPs, while others did not understand the integral meaning of the conversation and only paid attention to part of the conversa-

tion when choosing SFPs. These errors show that the correct choice of a SFP in a context requires both the correct understanding of the usages of the SFP, but also the correct understanding of the integral meaning of the discourse.

(5) A: 她很好看吧? B: 嗯, 你說得沒錯。

Table 2: Error percentages in (5) by different subject groups

Subject group	2 nd -yr-heritage	2 nd -yr	3 rd -yr-heritage	3 rd -yr
Error percentage	15/24 = 63%	6/9 = 66.7%	1/9 = 11%	2/5 = 40%

In (5), B was confirming what A had said previously, thus *ba* should be used. Table 3 lists the percentages of errors made by learners in (5). The errors made by the learners are similar to those in (4), except in the 2nd-year heritage group. Five out of the fifteen 2nd-year heritage learners who made errors used *ne*, instead of *ba*, in (5). As argued by Li and Thompson (1989: 300), *ne* is used to express the speaker's response to a claim, an expectation, or a belief on the part of the hearer. A in (5) was responding to his/her own previous comment and was seeking B's confirmation, thus *ne* is not correct here. The 2nd-year learners and the 3rd-year heritage learners used *ma* to replace *ba*, while one 3rd-year learner used *ma* and the other used *ne* in their errors.

In (5), subjects were also asked whether they thought that A believed "she" is pretty. Of the fifteen errors made by the 2nd-year heritage learners, five learners who used *ne* thought A believed that "she is pretty" and, seven of the other ten learners who made errors thought A believed that "she is not pretty". Thus, similar to (4), many learners understood the discourse meanings correctly but used the wrong SFPs, which again highlighted the importance of associating the discourse meaning with the use of SFPs.

The error patterns in the other three scenarios requiring the use of *ba* are similar to those in (4) and (5). So no further analysis of errors in the interrogative context will be pursued.

(6) A: 今天高興，都喝了。 B: 已經喝得太多了，我喝半杯吧！²

Table 3: Error percentages in (6) by different subject groups

Subject group	2 nd -yr-heritage	2 nd -yr	3 rd -yr-heritage	3 rd -yr
Error percentage	5/24 = 21%	4/9 = 44%	1/9 = 11%	3/5 = 60%

Table 4 lists the percentages of errors that were made by learners in (6). As shown in Table 4, the 3rd-year learners made the most errors, which may be related to the small sample size in the group again. Both the 2nd-year and the 3rd-year heritage learners made fewer errors than the 2nd-yr learners. All learners used *ne* instead of *ba*, in this context. The SFP in (6) serves to seek agreement or make a suggestion, thus, *ba*, instead of *ne*, is appropriate.

(7) A: 去吃中國飯怎樣？ B: 好吧！

There are only three errors in (7). The 2nd-year heritage learners made two errors while the 2nd-year learners made one. These three learners all used *ne*, instead of *ba*, in this context. The errors in the use of *ba* by learners indicate that learners tended to separate the use of SFPs from the discourse meaning. The different numbers of errors in (6) and (7) show that even the same usage of a SFP may be acquired in different order by learners, in that some contexts may be more typical than other contexts. “Typical” here means that the learners are more familiar with the topic or context in that they have encountered or are more familiar with them. Take (7) for example, it is very likely that the learners have encountered the same context in their learning. By contrast, few or even none of them may have encountered the context in (6). Thus, the unfamiliarity of the topic and the lack of world knowledge of such a context pose difficulty for learners in their acquisition of *ba*.

² It can be argued *ba* in item 4 was used in the interrogative context as well. In some cases of the use of *ba*, it is difficult to discern whether the context is interrogative or declarative. In actual communication, the speaker’s paralinguistic cues, such as body language and tone of voice, may help.

Next, errors in the use of *ne* will be examined. Altogether there are eight sentences requiring the use of *ne*, four in the declarative context and four in the interrogative context.

(8) A: 今天開會的人多嗎? B: 不少, 有二十多個人呢。

Table 4: Error percentages in (8) by different subject groups

Subject group	2 nd -yr-heritage	2 nd -yr	3 rd -yr-heritage	3 rd -yr
Error number	11/24 = 46%	5/9 = 55.6%	8/9 = 88.9%	0/5 = 0

Table 5 lists the percentages of errors that were made by learners in (8) (the declarative context). The 3rd-year heritage learners made the most errors, followed by the 2nd-year learners. All learners used *ba*, instead of *ne*. In (8), A asked whether many people attended the meeting and B responded that “quite a lot, [actually] there are more than 20 people”. Without *bushao* “quite a lot”, both *ba* and *ne* could be used in B’s response. However, with the use of *bushao*, B knew that there were a lot of people and did not need to seek confirmation from A. Thus, *ne*, not *ba*, was required for B to respond to A’s question. The high percentages of errors in (8) show that all learners but the 3rd-year learners have not acquired the usage of *ne*. More specifically, they have not acquired the knowledge of the context where *ne* is required.

(9)A: 你不喜歡中國, 那你吃不吃中國飯呢? B: 我吃, 但不喜歡吃。

Table 5: Error percentages in (9) by different subject groups

Subject group	2 nd -yr-heritage	2 nd -yr	3 rd -yr-heritage	3 rd -yr
Error number	6/24 = 25%	7/9 = 77.8%	0/9 = 0	3/5 = 60%

In (9) (the interrogative context), again two heritage learner groups made fewer errors than the two non-heritage learner groups, as shown in Table 6. Instead of *ne*, *ma* was used by all learners who made errors. As mentioned above, *ma* is usually a neutral question particle. However, A in (9) was responding to B’s previous comment about his/her disliking China, which requires the use of *ne*.

4.3 Analysis of the use of *ma* by different groups

Chao (1968), Wu (2005) and Zhang (2012) all suggest that the use of *ma* reflects the speaker's suspicion that the statement preceding the particle is not true. In order to test this argument, we examine the use of *ma* in different subject groups, even though there is no statistical difference in the acquisition of *ma* across subject groups.

Of the four scenarios requiring the use of *ma*, two were accompanied with questions inquiring subjects' belief or assumption about the statement preceding *ma*. Figure 1 lists the percentages of subjects' different responses towards the two scenarios. "Yes" indicates that a subject believed the statement preceding *ma* was true, "no" indicates that the subject did not believe the statement preceding *ma* was true, while "can not infer" means that the subject could not tell whether the statement preceding *ma* was true or not.

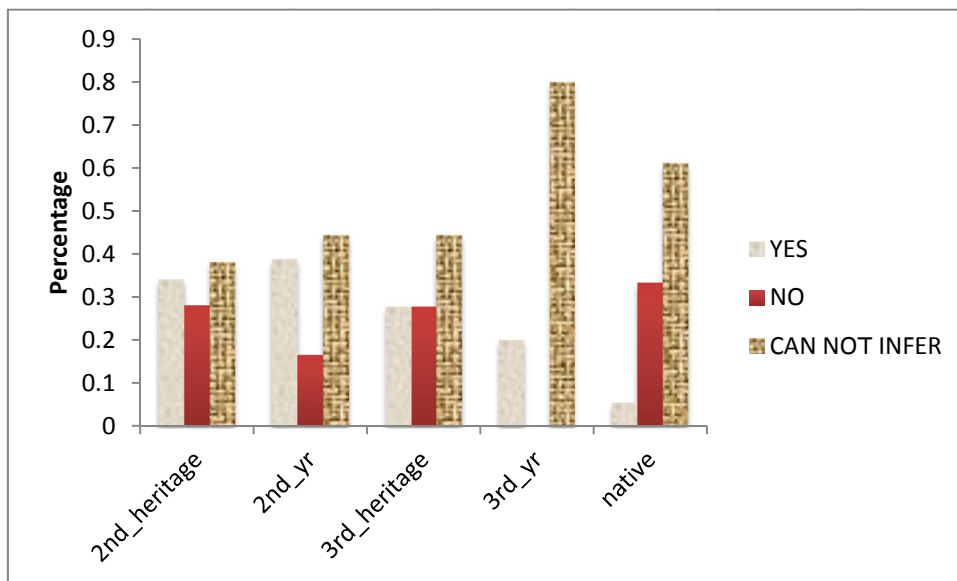


Figure 1: Percentages of subjects' responses toward two scenarios requiring *ma*

As shown in Figure 1, the 2nd-year heritage learners were somewhat equally distributed among the three responses and each interpretation just had a chance rate. For the 2nd-year learners, 40% thought the statement pre-

ceding *ma* was true, while 45% thought the other way around, the rest of the 2nd-year learners thought the statement preceding *ma* was not true. As far as the 3rd-year heritage learners were concerned, around 45% of them could not tell the truth of the statement preceding *ma*, while the rest of them were equally distributed between the responses of “yes” and “no”. The majority of both the 3rd-year learners and the native speakers could not tell the truth of the statement before *ma*. Around one third of the native speakers believed that the statement before *ma* was not true.

To combine the statistics in Figure 1 and take the chance rate (i.e., 33%) into consideration, we conclude that most subjects tended to believe that they could not tell the truth of the statement preceding *ma*, and the majority of the 3rd-year learners and the native speakers believed even so. With respect to the responses of “yes” and “no”, there was some difference across subject groups; however, nearly all the response rates were around the chance rate or lower, which could not lead to any generalization. Thus, the analysis suggests that *ma* is often a neutral question particle, without any clear indication of whether the statement preceding *ma* is true or not, and that whether the statement preceding *ma* indicates the speaker’s suspicion varies with the context.

5. Discussion and pedagogical implications

In this study, we examined the acquisition of three Mandarin SFPs, *ma*, *ne* and *ba*, by the second-year and third-year CFL learners, both heritage and non-heritage learners included. Statistical analyses showed that there was no significant difference in the use of *ma* and in the case of either *ma* or *ba* across subject groups. However, there was significant difference in the use of *ne* and *ba* across groups. Further statistical tests identified the following patterns of acquisition: for *ne*, native > (3rd-year heritage > 2nd-year heritage > 3rd-year) > 2nd-year, and for *ba*, native > (3rd-year-heritage > 3rd-year > 2nd-year heritage) > 2nd-year. The “>” within the brackets only shows the relationship between the means of each group and the groups are not significantly different. With respect to the acquisition of *ne* and *ba*, subjects fall within

three categories: the native group, the 2nd-year group, and the other group. Regardless of the inherent order of the 3rd-year heritage group, the 3rd-year group, and the 2nd-year heritage group, the acquisition order in *ne* and *ba* indicates that heritage learners at the intermediate level (i.e., the 2nd-year heritage group in this study) did better than the non-heritage group, and that heritage learners at the advanced level (i.e., the 3rd-year heritage group in this study) may not have advantage over non-heritage learners at the same level , at least in terms of the use of SFPs. Previous studies have shown that heritage learners are different from non-heritage learners (Duff & Li 2004). The different acquisition patterns in the acquisition of *ne* and *ba* between the 2nd-year and 3rd-year heritage learners suggest that, at lower or intermediate levels, the heritage learners have advantage over non-heritage learners; however, at the more advanced level, such as at the 3rd-year level or higher, the heritage learners do not possess advantage over the non-heritage learners any more. Generally speaking, heritage language learners grew up in the target language-speaking environment and, therefore, usually have relatively higher proficiency in speaking. Since SFPs play a very important role in Chinese spoken discourse (Li & Thompson 1989), it is expected that heritage learners should have better command of SFPs because these spoken particles can be acquired naturally by Chinese heritage learners, hence the better performance of the 2nd-year heritage learners in this study. However, with three years of learning, the 3rd-year non-heritage learners have been exposed to the usages of different SFPs long enough so that they are approximating the 3rd-year heritage learners, which explains why there is no clear difference between the 3rd-year heritage and non-heritage learners. Therefore, the results suggest that even though it is generally true that heritage language learners possess advantage over the non-heritage language learners, this truth mostly holds at the beginning and the intermediate levels, but not necessarily at the advanced level. However, further studies are needed to test the difference in other aspects of grammar between the heritage language learners and the non-heritage language learners.

Analysis of the errors involving *ne* and *ba* shows that sometimes learners correctly understood the discourse meaning, but used the wrong SFPs, while at other times learners used the correct SFPs within a clause, but understood the discourse meaning incorrectly. Both scenarios suggest that learners separated the understanding of discourse meaning from that of the correct usages of SFPs. Thus, it was argued that the correct choice of SFPs requires both the correct understanding of the usages of SFPs, but also the correct understanding of the integral meaning of the discourse. Furthermore, analysis of the errors in the use of SFPs shows that the different usages, even the same usages, of the same SFPs, may be acquired in different orders in that some contexts may be more typical (in the sense that it is more similar to the text that learners have encountered) than other contexts.

In addition to highlighting the differences between the heritage language learners and the non-heritage language learners in SLA, this study has very important pedagogical implications for the teaching of Chinese as a Foreign Language (CFL). Firstly, the differences in the acquisition of SFPs show that CFL teaching should attach more importance to the differences between different SFPs and emphasize the different usages of the same SFPs as well. Secondly, learners' tendency to separating the use of SFPs from the discourse meaning informs us that we should raise learners' awareness of the importance of discourse meaning in the use of SFPs and make learners appreciate the dependency of the use of SFPs on the discourse meaning. Due to the colloquial nature of SFPs, it is expected that movies or talk-show programs may be of great value in the teaching of SFPs, especially about the relationship between SFPs and discourse.

Meanwhile, since SFPs may have different usages and some are more typical than others, it would be advisable to teach the SFPs step-by-step. Take *ba* for example. The typical usage of *ba*, namely to seek confirmation from the listener, should be taught first. Two examples, one in the interrogative context and the other in the declarative context, are given in (10) and (11).

(10) Typical

A: 你是小李的哥哥吧？

B: 對，我是。

(11) Typical

A: 去吃中國菜怎麼樣？

B: 好吧。

The next step is to teach the less typical usage of *ba*, as shown in (12).

(12) Less typical

A: 今天我不上課了。

B: 這不好吧？

A: 沒關係，老師知道我很忙。

The peripheral usage will be taught last, as shown in (13).

(13) Peripheral

A: 今天高興，都喝了。

B: 已經喝得太多了，我喝半杯吧。

The step-by-step teaching approach will enable students to understand the different usages of a SFP and learn to associate the discourse with the usages of the SFP. This approach will also inform students which usage of the SFP they will encounter most and which they will encounter less.

6. Conclusion

This study examines the acquisition of three Chinese SFPs, *ma*, *ne* and *ba*, by the CFL learners, both heritage and non-heritage learners. Our analysis shows that learners have different patterns in the acquisition of different SFPs. It is also found that the intermediate level heritage learners have advantage over the non-heritage learners at the same level, while the advanced level heritage learners do not possess such advantage over the non-heritage learners at the same level. Thus, it was proposed that only heritage language learners at the beginning and intermediate levels possess advantage over non-heritage language learners. Our study also shows that different usages of

the same SFPs may be acquired in different order by the CFL learners, thus it is necessary to expose learners with different discourse contexts in which SFPs are used, while focusing on the different usages of SFPs. Meanwhile, an analysis of the errors in the use of SFPs highlights the importance of situating the usages of SFPs in the context of discourse meaning. Some pedagogical implications were provided as to how to teach the SFPs more effectively in the CFL practice.

It has to be pointed out that the sample size in this study is small and that different groups do not have equal number of subjects. Thus, caution should be made when the findings in this study are generalized to other learner groups in that some findings may not be generalizable. Future studies should involve more learners at more levels. Meanwhile, learners' use of SFPs in interaction should also be examined.

Appendix: Questionnaire on the Acquisition of SFPs

Native language: _____

Level of Chinese taking now: _____

Length of learning Chinese: _____

(For heritage learner only) What language do your parents usually use with you at home?

a) English; b) Mandarin; c) another Chinese dialect;

(For heritage learner only) What language do you usually use with your parents at home?

a) English; b) Mandarin; c) another dialect; d) Mixing English and Mandarin (or another dialect)

Instructions: In all the conversations below, there is a blank. Please fill in the blanks with 嗎, 吧 or 呢, or nothing if you deem unnecessary. Make sure that you read the whole conversation and understand what is going on in the conversation. After filling in the blanks, please answer the question below, if there is, according to the conversation, and give your reason for your choice, if there is a blank.

**Note that different people may have different interpretations and may give different sentence-final particles. Please give your reason in English.*

1.A : 你是小李的哥哥_____?

B : 對, 我是。

2.A : 今天有課_____?

B : 我也不知道。

Question: Does A think there is class today?

(a) Yes (b) No (c) Can not infer.

Reason: _____

3.A：你會寫中國字_____？

B：我會，你怎麼知道的？

Question: Does A assume B can write Chinese characters?

(a) Yes (b) No (c) Can not infer.

Reason: _____

4.A：今天高興，都喝了。

B：已經喝得太多了，我喝半杯_____。

5.A：今天開會來的人多嗎？

B：不少，有二十多個人_____。

6.A：去吃中國菜怎麼樣？

B：好_____。

Question: Do you think that B is somewhat reluctant to go to eat at Chinese restaurant?

(a) Yes (b) No (c) Can not infer.

Reason: _____

7.A：你會寫中國字_____？我想學寫中國字。

B：我會。

Question: Do you think that A assumes that B can write Chinese characters.

(a) Yes (b) No (c) Can not infer.

Reason: _____

8.A：我們現在走吧。

B：不行，我們還要打網球_____。

9.A：他們合適_____？

B：我也想知道。

Question: Do you think that A kinda believes that “they” are a match?

(a) Yes (b) No (c) Can not infer.

Reason: _____

10.A：今天有課_____？

B：我想是。

Question: Do you think that A believes that there may be class today?

(a) Yes (b) No (c) Can not infer.

Reason: _____

11.A：你不姓李_____？

B：不姓，我姓張。

Question: Do you think that A thinks B's surname is Li?

(a) Yes (b) No (c) Can not infer.

Reason: _____

12.A：你知道他怎麼說_____？

B：他說什麼？

13.A：那個飯館怎樣？

B：不錯，他們還買美國飯_____。

14.A：她很好看_____？

B：恩（en），你說的沒錯。

Question: Do you think that A thinks that "she" is pretty?

(a) Yes (b) No (c) Can not infer.

Reason: _____

15.A：今天我不上課了。

B：這不好_____？ A：沒關係，老師知道我很忙。

16.A：今天他考試考得不好，現在他怎麼樣了？

B：沒什麼，他現在很開心_____。

17.A：你是王先生_____？

B：我是，有事嗎（what is the matter）？

Question: Do you think that A knows that B is Mr. Wang?

(a) Yes (b) No (c) Can not infer.

Reason: _____

18.A：我明天回家，你_____？

B：我去看朋友。

19.他餃子不吃，米飯也不吃。他要吃什麼_____？

20.A：你不喜歡這個電影_____？

B：有點兒，太恐怖（horrified）了。

Question: Do you think A believes that B does not like the movie so much?

(a) Yes (b) No (c) Can not infer.

Reason: _____

21.A：你不喜歡中國，你吃不吃中國飯_____？

B：我吃，但不喜歡吃。

22.A：你喜歡這個電影_____？

B：還不錯，跟你說的差不多。

Question: Do you think that A believes that B likes the movie?

(a) Yes (b) No (c) Can not infer.

Reason: _____

23.A：我覺得我和他不合適（suitable）。

B：那你喜歡不喜歡他_____？

24.A：你是王先生_____？

B：我就是，你怎麼知道的？

Question: Do you think that A knows that B is Mr. Wang?

(a) Yes (b) No (c) Can not infer.

Reason: _____

25.A：你吃中國飯_____？

B：吃。

Question: Do you think that A assumes that B likes to eat Chinese food?

(a) Yes (b) No (c) Can not infer.

Reason: _____

26.A : 他們在_____?

B : 不在。

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美國學生華語語氣詞習得研究

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摘要

本文研究以華語作為外語的學習者對華語語氣詞「嗎」、「吧」和「呢」的習得。研究發現不同學習者之間存在差異。中級華裔學習者比非華裔學習者有優勢，而高級華裔學習者並無此優勢。我們因此提出只有初級和中級的華裔學習者在語氣詞習得上比非華裔學習者有優勢。研究也發現同一個語氣詞的不同用法有不同的習得順序。對語氣詞習得偏誤的分析顯示，語氣詞的教學應在語境中進行。

關鍵字：句末語氣詞 華語 二語習得 作為外語的華語