Please share your stories about how Open Access to this article benefits you.

Acquisition of the Aspectual Meanings of Negation Markers in Mandarin Chinese by English-speaking L2 Chinese Learners

by Yan Li 2011

This is the author's accepted manuscript, post peer-review. The original published version can be found at the link below.

Li, Yan. (2011a). Acquisition of the Aspectual Meanings of the Negation Markers in Mandarin Chinese by English-speaking L2 Chinese Learners, Journal of Chinese Language Teachers Association, 46 (1):1-29.

Published version: http://journal.clta-us.org/jcltaquery2 new. php?Au=Y

Terms of Use: http://www2.ku.edu/~scholar/docs/license.shtml



Acquisition of the Aspectual Meanings of Negation Markers in Mandarin Chinese by English-speaking L2 Chinese Learners ¹

Yan Li University of Kansas

Abstract: This paper examines whether English-speaking L2 Chinese learners are aware of the aspectual meanings that the two negation markers in Mandarin Chinese, 不 "not" and 没(有) "not" express. Test results show that while English-speaking L2 Chinese learners in the early stages of Chinese language acquisition do not have problems using \mathcal{T} with activity verbs to express habitual negation, they do have problems using 没(有) with activity verbs to express a single episodic negation (Wang, 1965; Li, 2005). It is argued herein that beginner adult L2 learners initially treat 没(有) as a synonym of $\overline{\Lambda}$, overlooking the different aspectual meanings these two negation markers convey, and thus restrict their use of 没(有). This results in an overuse of $\overline{\wedge}$ but not vice versa (cf. Wang, 2001; Li, 2004). The test results also show correlations between subjects' performance on the positive forms and their corresponding negative forms. It is further proposed that practicing the positive form with its corresponding negative form might accelerate the acquisition of the aspectual meanings of these two negation markers.

Keywords: CFL acquisition, negation markers, $\overline{\mathcal{A}}$, $\mathcal{U}(\overline{a})$, aspectual meanings

提要:本文对母语为英语的中文学习者是否理解汉语中的两个主要否定词"不"和"没(有)"所表达的体的意义进行了考察。实验结果表明,虽然母语为英语的汉语学习者在学习汉语的早期阶段,能够理解"不"在否定行为动词时所表达的"对习惯的否定"的意义,他们对于"没(有)"否定行为动词时所表达的"对某一具体的行为事件的否定"的意义在理解上却存在着问题(Wang, 1965; Li, 2005)。本文认为汉语学习者在最初接触到"没(有)"的时候,忽略了"不"和"没(有)"所表达的不同的体的意义,从而把"没(有)"当作"不"的同义词,因而很少使用

Journal of the Chinese Language Teachers Association February 2011, Volume 46:1, pp.1-29 ©2011 The Chinese Language Teachers Association

¹ This investigation was supported by the University of Kansas General Research Fund allocation #2302197. I am grateful to Audrey Li, Andrew Simpson, Zoe Wu, Tania Ionin, Keith McMahon, Maggie Childs, and Randi Hacker for discussions and insightful comments. I also owe thanks to the two anonymous reviewers of JCLTA and Dr. Zheng-sheng Zhang for constructive comments. Thanks to those who participated in the test. Without their help, the completion of this paper would have been impossible. Of course, all errors are my own.

2. Yan Li

"没(有)"。这也是导致汉语学习者在学习初期倾向于使用"不"代替"没(有)"的一个原因(参见: Wang, 2001; Li, 2004)。实验结果显示汉语学习者在肯定式测试项上的表现和他们在否定式测试项上的表现存在着关连。因此,本文提议也许教师在教学中带领学生同时练习肯定结构和与其相应的否定结构会有利于汉语学习者习得这两个否定词所表达的体的意义。

关键词:汉语作为外语的习得,否定词,"不","没(有)",体的意义

1. Introduction

Unlike English, Mandarin Chinese uses two sentential negation markers: 不 and $\mathcal{Z}(有)$. Various factors govern the choice of which to use in which specific context. Although $\overline{\Lambda}$ and $\mathcal{U}(\overline{\eta})$ have complementary distribution when they are used to form negative sentences in some cases, they both can be used with activity verbs in the same linguistic environment. However, when used in the same linguistic environment, the meanings conveyed by the two negation markers are quite different. It has been reported that L2 Chinese learners often made errors on using the two negation markers (Wang, 2001; Li, 2004). An interesting question arises for English-speaking L2 Chinese learners: How to learn to use effectively and correctly two different elements in the target language that are expressed by a single element in their native language? A second, related question also arises: Can L2 learners of Chinese interpret these two negation markers correctly even though they might not use them properly in production? Research on this topic will not only deepen our understanding of the acquisition of the aspectual meanings of $\overline{\Lambda}$ and $\mathcal{U}(\overline{\eta})$, but will also provide Chinese language instructors with ideas to aid L2 Chinese students in their understanding and correct usage of these two negation markers. A review of the field reveals, however, that up until now, no such study has been done. This paper hopes to correct that and open up the opportunity for further study of this important area of Chinese language acquisition.

Section 2 of this paper introduces Chinese aspect in general and compares the distribution of $\overline{\wedge}$ and $\overline{\otimes}(\overline{\not{a}})$ with that of the sentential negation marker in English, followed by an overview of the study of negation markers in L2 acquisition. Section 3 presents the methodology of the current experimental study whose results are discussed in Section 4. The discussion and conclusions are presented in sections 5 and 6 respectively.

2. Background

2.1. Aspect in Chinese

This article investigates the acquisition of the aspectual meanings that \mathcal{T} and $\mathcal{U}(\mathcal{T})$ convey. Before addressing that specifically, a discussion of aspect in general is in order.

What is aspect? According to Comrie (1976:3), "aspects are different ways of viewing the internal temporal constituency of a situation". Smith (1991, 1997) proposed a two-component aspect model that distinguishes two types of aspects: situation aspect and viewpoint aspect. Situation aspect concerns itself with the aspectual classification of verbs while viewpoint aspect refers to different perspectives from which a situation may be presented. If a situation is viewed as a whole without reference to its internal temporal constituency, it has a perfective aspect; if an event or state is expressed with respect to its internal structure, it has an imperfective aspect. Imperfective aspects include habitual, and progressive.

Aspect is different from tense in that tense indicates the occurrence of a situation in relation to a specific reference time (Xiao 2004, Lyons 1977). Because Chinese grammatically marks aspect but does not grammatically mark tense, Chinese is often referred to as an aspect language. In Chinese, viewpoint aspects are marked by grammaticalized function words—aspectual markers such as $-\mathcal{I}$, - $\frac{1}{12}$ and - $\frac{1}{12}$ while the concept of time is expressed by lexical items such as adverbs of time (cf. Wang 1943; Gao 1948; Gong 1991; Norman 1988).

Aspectual meanings refer to the meanings related to aspect. For example, the aspectual meaning of $-\vec{\mathcal{T}}$ is said to be perfective while the aspectual meaning of $-\vec{\mathcal{T}}$ is said to be durative (Li and Thompson, 1981). Many Chinese linguists have noted that the different meanings that the two negation markers express are connected with aspect (M. Li 1999; Xu 1997). And, based on the distribution of $\vec{\mathcal{T}}$ and $\mathcal{U}(\vec{\mathcal{T}})$, Li (2005), argues that these two negation markers are sensitive to situation types of verbs as well as viewpoint aspects. We will discuss the distribution of $\vec{\mathcal{T}}$ and $\mathcal{U}(\vec{\mathcal{T}})$ in the following section.

2.2. Sentential negation in Mandarin Chinese and English

2. 1. 1. Distribution of 不 and 没(有)

The formation of a negative sentence in Chinese requires the preverbal placement of one or the other of the two negative markers, namely, $\overline{\Lambda}$ or $\overline{\mathcal{X}}$ ($\overline{\mathcal{A}}$). For example:

(1) 小李不 忙

little Li not busy 'Little Li is not busy.'

(2) 小李*没(有)*²喝茶.

little Li not (have)drink tea 'Little Li didn't drink tea.'

This seems simple enough, but, in fact, the nuanced use of \mathcal{T} and $\mathcal{U}(\mathcal{T})$ makes their use a bit more complicated. Due to the intricacy in their distribution, these nuances have been the focus of a lot of discussions among Chinese linguists (Wang, 1965; Chao, 1968; Teng, 1973a; Teng, 1973b; Lü, 1980; Li & Thompson, 1981; Nie, 2001; Huang, 1988; Cheng & Li, 1991; Chiu, 1993; Ernst, 1995; Yeh, 1995; Hsieh, 2001; Ma, 2004 among others). Some cases show that these two negation markers can have complementary distribution. For example:

(3) a.我不知道这件事。

I not know this CL³ matter 'I don't know [about] this matter.'

b.*我 没(有) 知道 这 件 事。

I not (have) know this CL matter 'I didn't know [about] this matter.'

(4) a.*他 不 买到 那 件 衣服。

he not buy-RVC⁴ that CL clothing 'He did not [successfully] buy that clothing.'

b. 他 没(有) 买到 那 件衣服。

he not (have) buy-RVC that CL clothing 'He did not [successfully] buy that clothing.'

I not have book

"I do not have books."

When $\mathcal{Z}(\vec{\eta})$ is used to negate verbs other than $\vec{\eta}$ "have" or to negate adjectives, $\vec{\eta}$ is optional. This is why the $\vec{\eta}$ in $\mathcal{Z}(\vec{\eta})$ is put in parentheses in this paper.

 $^{^2}$ The literal meaning of $\mathcal{B}(\bar{\eta})$ is "not (have)". $\bar{\eta}$ itself is a verb, and it means, "to have". \mathcal{B} is used to negate the verb $\bar{\eta}$ "have". For example:

我没有书.

³ CL: abbreviation for classifier.

⁴ RVC: abbreviation for resultative verb complement.

- (5) a. *他 不 跑 得 he not run CSC⁵ very fast 'He does not run fast.'
 - b. 他 没(有) 跑得很快。 he not (have) run CSC very fast 'He did not run fast.'

The sentences in (3) show that $\mathcal{D}(\bar{q})$ cannot be used to negate stative verbs such as 知道 "know" while 不 can. The sentences in (4) show that 没(有), not 不, has to be used to negate *买到*, "buy-successfully," a verb phrase containing a resultative complement. The sentences in (5) show that \sqrt{f} cannot be used to negate Chinese V-de construction⁶, but 没(有) can (cf. Huang, 1988; Lee & Pan, 1999 among others).

However, in addition to the complementary distribution shown in examples (3) through (5), \overline{A} and $\overline{Z}(\overline{A})$ can also appear in the same linguistic environment to negate activity verbs⁷, though they express different meanings, for example:

(6) a. 他不做功课。

he not do homework

'He does not do [his] homework/he does not want to do [his] homework.'

b.他没(有)做功课.

he not (have)do homework

'He did not do [his] homework.'

The sentence in (6a) forms a minimal pair with the sentence in (6b) in that the only difference on the surface is that \mathcal{T} is used in (6a) while $\mathcal{U}(\bar{q})$ is used

⁶ Here, "to negate Chinese V-de construction" means to put

√ in front of the V-de construction. In cases

⁵ CSC: abbreviation for "complex stative construction".

like "V-de-不adi", such as *跑得不快*. 不 is used to negate the adjective, not the whole V-de construction. ⁷ According to Vendler (1967), activity verb refers to verbs denoting activities which are dynamic and do not have an inherent endpoint. For example, verbs such as "run" or "drive" are activity verbs. Other situation types discussed in Vendler (1967) are states, which are static and do not have an endpoint ("know," "love"); accomplishments, which have an endpoint and are incremental or gradual ("paint a picture," "build a house"); and achievements, which have an endpoint and occur instantaneously ("recognize," "notice").

S Yan Li

in (6b). The sentence in (6a) has two readings, one being a habitual reading that reads, "he (usually) does not do [his] homework" and one being a negation of volition that reads, "he does not want to do his homework". The sentence in (6b), however, conveys a single episodic interpretation that reads "he did not do his homework." Although the meaning of negation of volition is available when 不 is used to negate activity verbs, such meaning is not available for $\mathcal{U}(\overline{A})$ even when used to negate activity verbs (cf. Ma, 2004; Li & Thompson, 1981).

Putting the volition reading aside, the sentences in (6a) and (6b) show that the sentence's interpretation as either a habitual reading (6a) or a single episodic reading (6b) is completely determined by which negation marker is used. In other words, the negation markers render the sentence using them acquire different aspectual interpretations. When used with activity verbs without any overt aspectual markers, $\mathcal{U}(\mathcal{H})$ is the negation for perfective aspect (cf. Wang, 1965), and thus gives rise to the single episodic reading, while \mathcal{T} is the negation for habitual aspect and hence the habitual reading. If we say the core meaning of \mathcal{T} and $\mathcal{U}(\mathcal{H})$ is negation, then the habitual meaning or the episodic meaning that \mathcal{T} and $\mathcal{U}(\mathcal{H})$ express respectively is the aspectual meaning of these two negation markers.

The aspectual differences between (6a) and (6b) are manifested in their positive counterparts which are different, as shown in (7a) and (7b) respectively.

(7) a. 他做功课。

he do homework 'He does [his] homework.'

b. 他做了功课。

he do-PFV⁸ homework 'He did [his] homework.'

The bare verb m "do" without any overt aspectual marker is used in (7a), which has a habitual reading, meaning "he usually does [his] homework". In the sentence in (7b), - \mathcal{T}^9 appears after the verb m "do". The sentence in (7b) has

⁸ PFV is the abbreviation for perfective aspect (- \(\cdot \cdot \)).

 $^{^9}$ The status of $-\mathcal{T}$ is controversial in Chinese, but usually Chinese linguists take the aspectual marker -le, used post-verbally and before the object, as a marker of the perfective aspect in Chinese, which is used for a bounded event when an event is being viewed in its entirety or as a whole, indicating the completion of the event (c.f. Li & Thompson, 1981).

the meaning that the action of his doing homework is viewed as a whole. Namely, it has the perfective interpretation.

The aspectual meanings of \mathcal{F} and $\mathcal{U}(\mathcal{T})$ are determined by their syntactic properties. According to Li (2005), there are two negative projections headed by \mathcal{F} and $\mathcal{U}(\mathcal{T})$ optionally projected in Mandarin Chinese, as shown in (8).

The negative projection (NegP₂) headed by $\overline{\mathcal{N}}$ selects a VP while the negative projection headed by $\underline{\mathcal{H}}$ (NegP₁) selects the AspP which encodes the viewpoint aspect¹⁰. The NegP₂ headed by $\overline{\mathcal{N}}$ selects two situation types¹¹: stative¹² (e.g. 高兴 "happy", 知道 "to know") and activity (e.g. 趣 "to run", 趣 "to jump", 说话 "to talk"), but not achievement (e.g. 到达 "to arrive", 认出 "to recognize") nor accomplishment (e.g. 改良 "to improve", 变成 "to become"). This naturally explains why $\overline{\mathcal{N}}$ usually occurs with stative verbs (including adjectives) and activity verbs, but not with achievement or accomplishment verbs. The difference between stative and activity verbs on the one hand and achievement and accomplishment verbs on the other is that the latter contain resultative complements that impose an endpoint on an event. This endpoint is encoded in the aspect projection selected by $\underline{\mathcal{H}}$ ($\underline{\mathcal{H}}$). When activity verbs appear after $\overline{\mathcal{N}}$ and $\underline{\mathcal{H}}$ ($\underline{\mathcal{H}}$), it is actually a VP after $\overline{\mathcal{H}}$, but an AspP after $\underline{\mathcal{H}}$ ($\underline{\mathcal{H}}$). Hence arise the different aspectual interpretations.

2.1.2. The sentential negation marker in English: not

Compared with Chinese, sentential negation in English seems much simpler: there is only one sentential negation marker, *not*, which can be used with any verb or adjective. Unlike Chinese negation markers, *not* itself cannot simply appear in the thematic verb pre-position to form a sentential negation, as illustrated in (9).

According to Smith (1991), viewpoint aspect encodes, by different linguistic forms, how a single situation type is viewed on a particular occasion. It includes the commonly discussed perfective and imperfective aspects.

¹¹See note 7.

 $^{^{12}}$ Haihua Pan pointed out to me that it is not the case that all the stative verbs can be modified by $\overline{\mathcal{N}}$, for example, 病 "sick" cannot be negated by $\overline{\mathcal{N}}$. I think this can be attributed to lexical reasons. 病 "sick" is different from other stative verbs in that it cannot be modified by \mathcal{R} "very", we cannot say * \mathcal{R} \mathcal{R} . We do not rule out the possibility that some stative verbs cannot be modified by \mathcal{R} for lexical reasons.

- (9) a. *He not does his homework.
 - b. *He not did his homework.

In English, an auxiliary verb, a modal verb or a copular verb must be used in the negation marker pre-position to form a grammatically correct negative sentence, and the auxiliary verb, the modal verb or the copular verb carries the inflection if there is any. The negation marker *not* itself carries the pure negation meaning and is independent of tense and aspect. This is illustrated by the sentences in (10), (11) and (12):

- (10) a. He doesn't do his homework.
 - b. He didn't do his homework.
- (11) a. He cannot come.
 - b. He couldn't come.
- (12) a. He is not a student.
 - b. He was not a student.
 - c. He has not been in town for a long time.

Before Pollock (1989), the negative marker was analyzed as an adjunct to the VP, but now the assumption that English has a negative projection has been widely accepted and assumed by linguists (Laka, 1990; Zanuttini, 1991; Ouhalla, 1990; Cinque, 1999; Haegeman, 1995 etc.). Following Ouhalla (1990), and Chomsky (1991, 1995), the structure in (13) is assumed as the structure of English sentential negation (with AgrOP omitted to simplify matters).

(13) [AgrP [TP[AspP[NegP[VP]]]]

The structure in (13) shows that unlike Chinese, there is only one negative projection headed by *not* in English, and the negative marker *not* does not have a selection relation with the aspect of verbs.

2.1.3. Differences between Chinese and English in sentential negation

As seen in the discussion above, English and Chinese are different in three aspects with regard to sentential negation:

a. Chinese has two negation markers where English has one; conse-

quently, there are two negative projections optionally projected for Chinese sentences but there is only one negative projection in English;

- b. Chinese negative markers do not need the help of auxiliary words, modal verbs, or copulas in order to form negative sentences while English negative markers do;
- c. Various factors such as the situation types of verbs, the aspect of a given sentence and the meanings speakers intend to express (whether it is habitual or episodic) work together to determine which negation marker will be used in Chinese while the use of the English negative marker "not" is influenced by none of these factors.

Among the many differences in the uses of $\overline{\Lambda}$ and $\underline{\partial}(\overline{\eta})$, the aspectual meanings they express are one of the subtlest characteristics for L2 Chinese learners since the surface linguistic environments are exactly the same (see previous example (6)). At the same time, mastering the aspectual meanings of $\overline{\Lambda}$ and $\underline{\partial}(\overline{\eta})$ plays an important role in using them properly (cf. Lü, 1980; Nie, 2001; Ma, 2004). Therefore, investigation into whether L2 learners are aware of the aspectual meanings $\overline{\Lambda}$ and $\underline{\partial}(\overline{\eta})$ convey and when they become aware of this and, thus, able to use them correctly, will provide a good understanding of L2 learners' use of these two negation markers over the course of their acquisition of Chinese.

2.2. The L2 acquisition study of Chinese negative markers

Several studies have been devoted to the acquisition of \mathcal{T} and $\mathcal{U}(\mathcal{T})$ by adult learners of Chinese. These studies all focused on the errors that Chinese learners made in using \mathcal{T} and $\mathcal{U}(\mathcal{T})$ (cf. J. Wang, 1997; B. Wang, 2001; Li, 2004).

Li (2004) conducted a grammar test to measure the use of $\overline{\Lambda}$ and $\underline{\partial}(\overline{\eta})$ by Chinese learners at different levels. The results showed that Chinese learners at different levels tend to confuse $\overline{\Lambda}$ with $\underline{\partial}(\overline{\eta})$. While Chinese learners did not over-generalize $\underline{\partial}(\overline{\eta})$, they did over-generalize $\overline{\Lambda}$, using $\overline{\Lambda}$ in contexts where $\underline{\partial}(\overline{\eta})$ should be used. Li's study showed that the degree of mastery of these two negative markers does not statistically correlate with a Chinese learner's proficiency level. Li's study also found that the use of time words in a sentence influenced the use of these two negation markers. Specifically, a time

phrase denoting past resulted in more uses of $\mathcal{Z}(\overline{A})$ while a time phrase denoting a future or current time caused more uses of \mathcal{T} .

Wang (2001) investigated spontaneous production data by three native English-speaking Chinese learners. The data were collected in the first year of the subjects' study in Beijing when the researcher conversed with each subject on a bi-weekly basis. The analysis of those data showed that the acquisition point of ∇V occurs earlier. However, the acquisition point of ∂V does not appear in the data even at the end of the data collection period. The misuse of the ∂V form in the ∂V context is much more common than the overuse of the ∂V form. The point at which English-speaking L2 Chinese learners fully acquire ∂V appears much later than that of ∇V . Wang's explanation of this discrepancy is that the ∂V negation is associated with the acquisition of the perfective aspect, which takes more time.

These studies reveal very interesting results. However, they did not mention anything about L2 learners' interpretation of these two negation markers. Thus, we cannot tell whether the L2 learners' performance in these studies arises from the fact that these learners are actually not aware of the meaning differences between the two negation markers or if they simply fail to choose the correct negative marker in production despite knowing the differences. The pressing question is, then, can L2 Chinese learners interpret these two negation markers correctly even though they might have problems in using them correctly in production? Does the acquisition of these two negative markers correlate with the acquisition of the corresponding positive forms? In other words, does the acquisition of $\sqrt[R]{f}V$ correlate with that of V- $\sqrt[R]{f}$?

3. Methodology

3.1. Research questions

This study examines how English-speaking L2 Chinese learners interpret sentences using \mathcal{T} and $\mathcal{U}(\mathcal{T})$, aiming to answer the following research questions:

(1) Can English-speaking L2 Chinese learners interpret sentences using 不 and 没(有) with activity verbs correctly?

- (2) Is there any relationship between L2 learners' performance using the negative form and its corresponding positive form?
- (3) Is the lack of understanding of the aspectual meanings of $\overline{\Lambda}$ and 没 (有) one of the factors that results in the reported errors in the use of $\overline{\Lambda}$ and 没(有) found in the existing studies?

3.2. Test design

In order to test L2 Chinese learners' ability to interpret sentences using \mathcal{T} , 沒有) and their positive counterparts, a preference test was created. The whole test was composed of sixteen test items and twelve distracters. Each item in the test had two parts: a short narrative presented to the subjects in English and test sentences in Chinese presented to the subjects after the narrative. Subjects were asked to choose the sentence that described the situation in the narrative more accurately. The test was designed carefully in such a way that, if the story was completely understood, one - and only one - test sentence was true while the other test sentence was false. Subjects' choice of one of the test sentences over the other reveals whether they understand the test sentence. Test sentences were given in Chinese characters and pinyin¹³ to minimize the impact the inability to read Chinese characters might have on the results. Because Li (2004) found that the use of time phrases provides clues that can influence the choice of which negation marker ($\overline{\Lambda}$ or $\mathcal{U}(\overline{\eta})$) to use, the test sentences used in the experiment avoided the use of any time phrases to minimize the influence of time phrases on the result. Below is a translated example of an actual question to which the correct answer is the sentence using $\mathcal{Z}(有)^{14}$.

- (14) Lisa likes buying old shoes, but she did not buy any last week because she could not find anything really good.
- a. Lisa 没有 买 旧鞋子。 Lisa MEIYOU buy old shoes
- b. Lisa 不 买 旧鞋子。

¹³ Pinyin is the romanization system used to represent Chinese pronunciation.

¹⁴ The English glosses of the test sentences are given throughout for purposes of this paper and were not part of the actual test.

Lisa BU buy old shoes

In (14), Lisa likes buying old shoes, but she did not buy a pair last week. According to this situation, the sentence in (14a) is true since it negates the single event with the meaning of "Lisa didn't buy [any] old shoes", while the sentence in (14b) is false, because it states that "Lisa does not buy old shoes", a habitual action that directly contradicts the story told.

The example in (15) shows a context where the sentence using \mathcal{T} is the correct choice.

- (15) Peter never watches any Chinese movies because he cannot understand them. Yesterday his friend treated him to a Chinese movie, but he did not like it.
- a. Peter 没有 看 中国 电影。 Peter MEIYOU watch Chinese movie
- b. Peter 不 看 中国 电影。 Peter BU watch Chinese movie
- In (15), Peter habitually does not watch Chinese movies, but he watched one yesterday because his friend treated him to it. Therefore, the sentence using $\sqrt{}$ in (15b) is more accurate and should be chosen.

The stories in (16) and (17) were used to test students' interpretation of a bare verb phrase (V-Object) and verbal phrases in which the verb is marked with $-\mathcal{T}$ (V- \mathcal{T} -Object).

- (16) Peter usually has a cup of tea after he gets up every morning. However, he did not have one this morning because he was too busy.
- a. Peter 喝茶。 Peter drink tea
- b. Peter 喝 了 茶。 Peter drink-PFV tea
- (17) John does not like Chinese food, but one of his friends insisted on taking him to a Chinese restaurant yesterday. After eating, John's friend asked John if he liked it. John said no emphatically.

a. John 吃了 中国菜。 John eat-PFV Chinese food

b. John 吃 中国菜。 John eat Chinese food

In (16), Peter usually drinks tea, although he did not have a cup of tea this morning. Therefore, (16a), "Peter drinks tea" is the correct choice while (16b), "Peter drank tea" is wrong according to the context. In (17), John does not like Chinese food, but he had Chinese food once, therefore, (17a) is the correct choice: he ate Chinese food but he still does not like it.

The test includes sixteen items aimed at testing the subjects' understanding of bare verb phrases (*V-object*), "*verb-了-object*", "不 *V-object*" and "没(有) *V-object*", with four tokens for each category. Twelve distracters are also included in the test. Distracters and test items are randomized. Subjects' performance on the distracters is viewed as an indicator of whether they correctly understand the test. Care was given to use easy vocabulary and grammar to minimize the possible influence of other factors on the results.

3.3. Sampling methods and validity test

The population of this study is all adult English-speaking learners of Chinese who started to study Chinese after puberty. Although ideally, "acquisition" occurs in a natural environment, it is more likely the case that the majority of the learners learn a second language through classroom settings nowadays. However, to the best of this author's knowledge, the aspectual meanings of the two negation markers under investigation are not directly taught in Chinese classes. Chinese learners have to figure it out through the input they get. In this sense, the way they learn the aspectual meanings of these negation markers fits the definition of "acquisition". Moreover, this study is interested in contributing to second language learning and language teaching. Therefore, choosing students enrolled in a language program in the U. S. serves the purpose of this study well.

To ensure face validity, the test was first given to native speakers of Chinese. These native speakers performed as expected: they used $2/2(\pi)$ in the context to express the episodic reading, and $\sqrt{}$ for the habitual reading; they used the bare verb phrase (V-object) to express the habitual reading, and the verb phrase marked with $-\mathcal{I}$ $(V-\mathcal{I}-object)$ to express perfectivity of a single event.

Because this study focuses on L2 learners' interpretation of the aspectual meanings of \mathcal{T} and $\mathcal{U}(\mathcal{T})$, other facets of the use of \mathcal{T} and $\mathcal{U}(\mathcal{T})$ are not included in the test.

3.4. Procedure

The test was given to the native Chinese speakers during one-on-one meetings, and it was given to the L2 learners in a classroom setting. In both cases, subjects were first asked to fill out an information sheet composed of questions about subjects' linguistic background and other pertinent information. After filling out the information sheet, the researcher explained the test procedure through an example and answered any questions that the subjects had. The subjects proceeded to the main test when all the questions had been addressed. The whole test took 20-30 minutes.

3.5. Participants

Ten native speakers of Chinese, eight from Mainland China and two from Taiwan, and fifty-six Chinese students enrolled in a Chinese class at the University of Southern California or the University of Kansas took the test. Sixteen subjects were excluded because they were either heritage speakers (11) or had begun studying Chinese before the age of eighteen (2) or their first language was not English (3).

There was no independent proficiency test administered to the subjects. However, subjects whose score on the control items fell below 75% were excluded in the analysis because the researcher believes the poor performance on those items signals that the subjects either did not understand the test items or did not take the test seriously. Six subjects were thus excluded from the analysis. Results from thirty-four English-speaking L2 Chinese learners were included in the analysis. They were divided into three groups according to the length of time they had studied Chinese before they took the test: beginners (11), intermediate learners (12) and advanced learners (11). The group of beginners included students who had studied Chinese for one semester prior to taking the test; the group of intermediate learners had studied Chinese for four semesters and the group of advanced learners had studied Chinese for at least six semesters (or three years).

4. Results

The percentage of subjects' correct answers was calculated and the overall results are summarized in Table 1.

Table 1. The percentage of subjects' correct use of 沒(有),不, V- and V in target contexts

Test	Beginners	Intermediate	Advanced	Native controls
items	(n=11)	learners (n=12)	learners (n=11)	(n=10)
没(有)	44.73%	89.58%	95.45%	100%
不	88.64%	89.58%	100%	100%
V- \(\)	84.09%	100%	100%	100%
V	81.82%	97.92%	100%	100%

To compare the performance of individual groups with one another, I used the Statistical Program for Social Sciences (hereafter abbreviated as SPSS) and ran two types of post-hoc tests: Tukey HSD, and LSD.

In the use of $\mathcal{U}(\bar{\eta})$, post-hoc comparisons show that the performance of those in the beginner group is significantly different from the performance of those in the intermediate group, the advanced learner group, and the native control group (p < .05). However, post-hoc comparisons among the intermediate group, the advanced learner group and the native control group are not significantly different from each other.

In the use of \sqrt{f} , post-hoc comparisons show that no group's performance was significantly different from any other's.

In the use of V, post-hoc comparisons show that the performance of those in the beginner group differs significantly from that of the intermediate group, the advanced learners group, and the native control group (p < .05). The performance of the intermediate group, the advanced learner group, and the native control

group using this form is not significantly different from each other.

Post-hoc comparisons show that the performance of the beginner group is significantly different from that of the intermediate group, the advanced learner group, and the native control group on V- \mathcal{I} (p < .05). Post-hoc comparisons between the intermediate group, the advanced learner group, and the native control group are not significant in the use of V- \mathcal{I} .

In order to see whether there is a correlation between the positive form and its corresponding negative form, I also ran a correlation test with SPSS. The results show that there is a correlation between subjects' performance on items testing $\mathcal{U}(\pi)$ and on the use of V- \mathcal{T} (r=.393), and one between their performance on the use of \mathcal{T} and the use of V (r=.553).

5. Discussion

5.1. Understanding the aspectual meanings of 不 and 没(有)

Now we can answer the first research question asked in Section 3.1: Can English-speaking L2 Chinese learners interpret sentences using \mathcal{T} and $\mathcal{B}(\mathcal{T})$ correctly? The answer is "yes" for intermediate learners and advanced learners, but "no" for beginners.

Our test results show that the subjects at the intermediate and advanced levels have no problems understanding the different aspectual meanings that $\overline{\Lambda}$ and $\partial(\overline{\eta})$ convey. In the test, intermediate learners and advanced learners correctly chose $\overline{\Lambda}$ and $\partial(\overline{\eta})$ in the proper contexts. However, beginners had problems determining when to use $\partial(\overline{\eta})$ in the target contexts. They tended to use $\overline{\Lambda}$ in contexts where $\partial(\overline{\eta})$ belonged but, interestingly, did not overuse $\partial(\overline{\eta})$ as much in contexts where $\overline{\Lambda}$ would have been correct. At the same time, the beginners' performance did not differ significantly from that of intermediate learners or advanced learners on the items targeting $\overline{\Lambda}$: the beginners performed almost as well as the intermediate learners and the advanced learners on this task. How may we account for such differences?

It is hypothesized that L2 learners initially treat $\mathcal{U}(\bar{n})$ as a potential synonym for \bar{n} due to the similar linguistic environments they can occur in and thus they follow the pre-emption principle proposed by Clark & Clark (1979, p798):

Pre-emption by synonymy: if a potential innovative word-form would be precisely synonymous with a well-established word, the innovative word is pre-empted by the well-established word, and is therefore considered unacceptable.

Because there is only one sentential negation in English and this sentential negation does not convey any aspectual meaning, when English-speaking L2 learners first acquire \mathcal{T} as a negation marker, they tend to treat it as the only form of sentential negation and fail to pay attention to the aspectual meaning \mathcal{T} imparts. When L2 Chinese learners are introduced to $\mathcal{Z}(\bar{q})$, they initially treat $\mathcal{Z}(\bar{q})$ as a potential synonym for $\sqrt{}$ because these two negation markers can occur in the same linguistic environment and thus they follow the pre-emption principle which causes them to self-restrict their use of 没(有). L2 learners' overuse of 不 for $\mathcal{Z}(\overline{q})$ in the test is a reflection of their lack of awareness of the aspectual nuances of these two negation markers at the initial stage. However, as L2 Chinese learners are exposed to more Chinese input, they successfully figure out the different meanings \mathcal{T} and $\mathcal{U}(\mathcal{T})$ express, and realize that these two negation markers are not synonyms after all. When this awareness evolves, they begin to use 没(有) when the context calls for it. The results of the test support this argument as intermediate and advanced learners do not have as much diffi-

5.2. Performance using the positive forms and the negative forms

The second research question asked in Section 3.1 concerns the relationship between the subjects' performance using the negative forms and their corresponding positive forms. Our test results show a correlation between the use of $\mathcal{L}(\bar{\eta})$ and V-le; and the use of $\mathcal{L}(\bar{\eta})$ also performed well on items targeting the use of V-le, and vice versa. A performance parallel could be seen with test items targeting the use of V-le, and V-le, and V-le.

One explanation for this correlation is that the subjects' performance reflects their acquisition of the same aspectual features that tie the positive forms and their corresponding negative forms together. Once the subjects master the underlying aspectual features, they do well with both the negative form and its positive forms; if the subjects have not fully absorbed the underlying aspectual features, they do poorly with both the positive forms and the negative forms.

18_____Yan Li

5.3. Comprehension and production

From the test results, it can be inferred that acquiring an understanding of the aspectual meaning that $\overline{\wedge}$ and $\mathcal{U}(\overline{\eta})$ express is not an insurmountable obstacle for L2 learners to overcome in order to master the two negation markers. Not understanding the aspectual meanings of $\overline{\wedge}$ and $\mathcal{U}(\overline{\eta})$ is not the main cause for errors in production reported in the existing studies (Ying Li, 2004; Wang, 2001).

The test results show that the performance of intermediate learners is not significantly different from that of advanced learners or that of native controls in interpreting the two negation markers. However, it was reported in Wang (2001) that the acquisition point of $\mathcal{U}(\bar{q})V$ did not appear even at the end of the period of data collection, which was at the end of the first year of the subjects' study in Beijing. If we take the amount of classroom exposure to Chinese into account, our data can complement Wang (2001)'s data very well. In terms of the amount of classroom exposure to Chinese, Wang (2001)'s subjects had approximately 640¹⁵ classroom hours by the end of the first year. The subjects in the intermediate group who participated in our test had studied Chinese for four semesters in the United States, and their classroom exposure to Chinese was 320 hours¹⁶. Since our test measured L2 learners' ability to interpret the aspectual meanings these two negation markers express, we can say that the delay in the acquisition points in production data is not due to subjects' lack of understanding of the aspectual meanings of these two negation markers, but is, instead, due to other reasons. As discussed in Section 2, various factors such as the situation types of verbs, the aspect of the sentences, and the selection relationship between the predicates and the negation markers work together to narrow the choice of which of the two negation markers to use in a specific context; thus, to produce accurate negative sentences requires the mastery of all of these features of the negation markers.

5.4. Pedagogical implications

The pedagogical implications and applications of the current study are threefold. First, practicing the positive form together with the negative form can facil-

¹⁵ The Chinese study programs in Beijing have at least 20 hours/per week formal classroom instruction. If we count a regular semester as being 16 weeks, then the formal instruction for one semester in Beijing would be 320 hours and 640 for two semesters.

¹⁶ The Chinese program at KU/USC offers students 5 hours/per week classroom instruction. Students who have studied at KU/USC for 4 semesters would get 320 hours classroom instruction.

itate the acquisition of the nuanced aspectual difference between the two negative markers.

The inherent relationship between the negative markers and their corresponding positive forms should be emphasized in teaching. That is, to help English-speaking L2 Chinese learners acquire the different aspectual meanings of these two negation markers more effectively, sentences using $\mathcal{Z}(\bar{\eta})V$ should be practiced in combination with sentences using V- \mathcal{T} , and sentences using $\overline{\mathcal{T}}V$ should be paired with sentences using V. The potential success of this approach is supported by the fact that our test results show a correlation between the correct use of the negative forms and the correct use of their corresponding positive forms in subjects' performance. This is doubly important because although sentences using \overline{A} and $\underline{\mathcal{B}}(\overline{a})$ with activity verbs have the same syntactic form on the surface, their corresponding positive forms are different (see examples (6) and (7)). The obvious aspectual difference between the two types of positive forms of the verbs actually provides helpful cues that vividly alert Chinese learners to the fact that these two negation markers are quite different, and spotlight the distinct aspectual meanings that \overline{A} and \overline{B} actually convey. Comparatively, it is much more difficult for the learners to realize the difference between the two types of negations when their drill focuses solely on the negative forms. Therefore, in addition to providing context, practicing positive form in juxtaposition with the negative form can give Chinese learners valuable insight into the aspectual differences between the negative markers and thus increase their success in using $\overline{\Lambda}$ and $\overline{\mathcal{U}}(\overline{\eta})$ in the proper situations. Moreover, running the positive forms together with their corresponding negative forms can add variety to a lesson by providing yet another type of practice drill. Furthermore, since the fundamental aspectual features of positive forms are the same as the negative forms in this case, practicing positive forms is actually another way of practicing negative forms and thus facilitates the acquisition of the negative markers.

To implement this type of positive/negative practice drill in the classroom, the author suggests reviewing basic positive forms first, and then introducing and highlighting the aspectual differences between the positive forms. It is only after the learners show that they have a definite understanding of the two different aspects, that the negative forms should be introduced. At this stage, the expectation of practice is not for the learners to acquire the negative forms *per se*, but to strengthen the sense of the two aspects and to build up the correlation between the positive forms and their corresponding negative forms. A series of comprehensive exercises utilizing both the positive form and the negative forms is what is called for here.

Second, in teaching the negation markers emphasis should fall on the forms,

namely, the selection relation between the two negation markers and the situation types that they select. The current study indicates that a thorough understanding of the subtly different aspectual meanings of the two negative markers may be challenging but is by no means an insurmountable obstacle for L2 learners'. Intermediate learners are able to perform like native speakers in interpreting $\overline{\wedge}$ and 没(有) in certain contexts although it is still common for them to make errors (J. Wang 1997; B. Wang 2001; Ying Li, 2004). Those errors are not the result of the subjects' lack of understanding of those two negation markers' aspectual meanings, but rather due to other reasons such as mastering the selection relation between $\overline{\Lambda}$ and $\overline{\mathcal{B}}(\overline{\eta})$ and the situation types they select. Based on this fact, contexts in which the positive form and its negative form are used should be clearly designed to provide practice in recognizing situation types. As discussed earlier, minimal sentential pairs that use 不 and 没(有) may both be grammatically correct, but only one is, in fact, contextually correct while the other is not. It is context, therefore, that provides L2 learners of Chinese with a sense of the different environments that demand a specific negative marker. A caveat: Instructors should avoid lengthy syntactic explanation of the differences between \overline{A} and \overline{B} (有), because this type of demarcation does not do much for L2 learners beyond confusing them more. Ying Li (2004) reported that students' mistakes increased significantly after the instructor explicitly explained the difference between $\overline{\mathcal{N}}$ and 没(有) (Ying Li 2004). Therefore, in teaching the two negation markers, the focal point should be on practicing the forms in context using exercises that clearly reveal selection relations.

Third, production exercises should be included as an integral part of lessons aimed at the acquisition of the two negative markers. According to this study, after a certain amount of practice, Chinese learners can overcome the problems in the conceptual understanding of the aspectual meanings of the two negation markers. However, they will still have some difficulty producing sentences using the two negation markers accurately. This indicates that production remains challenging even when difficulties in perception are overcome. Cognitively, this has to do with the impact of the learners' first language. Pedagogically, it pertains to the scarcity of cue-free production exercises. This problem should be tackled by providing a variety of production practice drills both with lexical and syntactic scaffolding and without at all learning levels. Production practice should not be restricted to beginning learners but should be provided to intermediate and advanced learners as well: it is always a good idea to create opportunities of Chinese language learners to produce sentences for all situations. How to wean learners from reliance on these scaffolds is in the subject of another paper.

5.5. Limitations of this study

This study only analyzed the data from thirty-four English-speaking L2 Chinese learners and the sample size was somewhat small for a generalized conclusion. The experiment only focused on investigating whether L2 learners can distinguish the aspectual meanings of these two negation markers in proper contexts when they are used to negate activity verbs. Other properties of \mathcal{T} and $\mathcal{U}(\mathcal{T})$ were not explored in this study. Therefore, further studies are certainly called for to investigate and construct a more comprehensive understanding of the acquisition process and a greater awareness of the different nuances of \mathcal{T} and $\mathcal{U}(\mathcal{T})$. It is hoped that this paper will stimulate further research.

6. Conclusion

Through our investigation, we found that in terms of the aspectual meanings that \sqrt{A} and $\sqrt{2}(\sqrt{A})$ express, English-speaking L2 Chinese learners overuse \sqrt{A} for $\sqrt{2}(\sqrt{A})$ at the initial stage of their acquisition of Chinese, which shows that they are not aware of the different aspectual meanings that these two negation markers convey. English-speaking L2 Chinese learners can interpret these two negation markers in a native-like way at the intermediate level although they still misuse them in production or elicitation data (Wang, 2001; Li, 2004). This indicates the misuse of these two negation markers in elicitation data is not due to subjects' lack of understanding of the aspectual meanings of these two negation markers.

It is suggested in teaching that $\mathcal{Z}(\pi)V$ and $V \cdot \mathcal{T}$, and $\mathcal{T}V$ and V should be practiced together, with an emphasis on the different selection relation between situation types and the two negation markers. Production exercises should be given more attention.

References

- Chao, Y.-R. (1968). A Grammar of Spoken Chinese. Berkeley: University of California Press.
- Cheng, L. L.-S. & Li. Y. (1991). Double negation in Chinese and multi-projections. Paper presented at the Third North America Conference on Chinese Linguistics. Cornell University, Ithaca.
- Chiu, B. H.-C. (1993). The Inflectional Structure of Mandarin Chinese. Ph. D.

- Dissertation, University of California at Los Angeles.
- Chomsky, N. (1991). Some Notes on Economy of Derivation and Representation, in *Principles and Parameters in Comparative Grammar*. Ed. R. Freidin, 417-454. MIT Press, Cambridge.
- Chomsky, N. (1995). The Minimalist Program. Cambridge, MA: The MIT Press.
- Cinque, G. (1999). *Adverbs and Functional Heads: a Cross-Linguistic Perspective*. Oxford: Oxford University Press.
- Clark, E. V., & Clark, H. H. (1979). When nouns surface as verbs. *Language 55*, 767-811. Reprinted in: F. Katamba (ed.), *Critical Concepts in Linguistics*, vol. 5: *Morphology: its Relation to Semantics and the Lexicon*. London: Routledge, 2003. Pp. 128-183.
- Comrie, B. (1976). Aspect: An Introduction to the Study of Verbal Aspect and Related Problems. Cambridge University Press.
- Ernst, T. (1995). Negation in mandarin Chinese. *Natural Language and Linguistic Theory* 13, 665-707.
- Gao, M. (1948). 《汉语与法论》[Theory of Chinese Grammar]. Beijing: Commercial Publishing House.
- Gong, Q. (1991). 谈现代汉语的时制表示和时态表达系统 [On the system in Modern Chinese to express tenses and aspects]. *Zhongguo Yuwen*, 04.Haegeman, L. (1995). *The Syntax of Negation*, Cambridge, UK; Cambridge University Press.
- Hsieh, M.-L. (2001). Form and Meaning: Negation and Question in Chinese. Ph. D. Dissertation, University of Southern California.
- Huang, C.-T. J. (1988). 我跑得快 and Chinese phrase structure, *Language* 64, 274-311.
- Laka, I. (1990). *Negation in Syntax: on the Nature of Functional Categories and Projections*, Doctoral Dissertation, MIT, Cambridge, Mass.
- Lee, P. & Pan, H. (1999). Chinese negation marker *bu* and its association with focus, *Linguistics and Applied Linguistics 2: 111-127*.
- Li, C. & Thompson, S. (1981). *Mandarin Chinese: a functional reference gram-mar*. Berkeley, Los Angeles, and London: University of California Press.
- Li, M. (1999). *Negation in Chinese*. Doctoral Dissertation, University of Manchester.
- Li, Yan. (2005). On the distribution of NegPs in mandarin Chinese, the Proceedings of the 17th North American Conference on Chinese Linguistics, 2005.
- Lyons, J. (1977). Semantics (Vol. 2). Cambridge: Cambridge University Press.
- Li, Ying. (2004). ''不/ 没+V''的习得情况考察 [Analysis of the acquisition of "bu/mei + V"], *Chinese Language Learning* 5, 72-78.

- Li, Ying. (2004). '不/没+V'的习得情况考察[Analysis of the acquisition of "bu/mei + V"], *Chinese Language Learning* 5, 72-78.
- Lü, S. (1980). 《现代汉语八百词》[Eight hundred words of modern Chinese]. Beijing: Shangwu.
- Ma, Z. (2004). 《现代汉语虚词研究方法论》 [The methodology of studying functional words in modern Chinese]. Beijing: Shangwu.
- Nie, R. (2001). 否定词"不"与"没(有)"的语义特征及其时间意义 [The semantic features and meanings of time on two negatives: *bu* and *mei*(*you*)], *Chinese Language Learning* 1: 21-27.
- Norman, J. (1988). Chinese. Cambridge: Cambridge University Press.
- Ouhalla, J. (1990). Sentential negation, relativized minimality and the aspectual status of auxiliaries. *The Linguistic Review* 7, 183-231.
- Pollock, J.-Y. (1989). Verb movement, universal grammar, and the structure of IP, *Linguistic Inquiry* 20-3: 365-424.
- Smith, C. (1991). The Parameter of Aspect. Dordrecht: Kluwer.
- Smith, C. (1997). The Parameter of Aspect (2nd ed.). Dordrecht: Kluwer.
- Teng, S.-H. (1973a). Scope of negation. *Journal of Chinese Linguistics* 1:475-478.
- Teng, S.-H. (1973b). Negation and aspects in Chinese. *Journal of Chinese Linguistics* 1.1, 14-37.
- Vendler, Z. 1967. Vendler, Zero (1967). Verbs and Times, *Linguistics in Philoso- phy*, 97-121. Ithaca, NY: Cornell University Press.
- Wang, B. (2001). The Early Stages of Chinese InterLanguage: a Longitudinal Study of the Acquisition of Chinese as a Second Language by Three Native English Speakers, UCLA, Ph. D dissertation.
- Wang, J. (1997). 汉语"不"和"没"否定结构的习得过程 [The acquisition process of "bu" and "mei"],《汉语作为第二语言的习得研究》[Research on acquisition of Chinese as a second language], 178-192. Beijing: Beijing Language and Culture University.
- Wang, L. (1943). 《中国现代语法》 [Modern Grammar of Chinese]. Reprinted in 1985. Beijing: Commercial Printing House.
- Wang, W. S. -Y. (1965). Two aspect markers in mandarin. Language 41, 457-470.
- Xiao, Z. & McEnery A. (2004) Aspect in Mandarin Chinese: A corpus-based study. Amsterdam: John Benjamins.
- Xu, D. (1997). Functional Categories in Mandarin Chinese. Holland Institute of Generative Linguistics. Netherlands.
- Zanuttini, R. (1991). *Syntactic Properties of Sentential Negation*. Doctoral dissertation. University of Pennsylvania.

24_____Yan Li

Yeh, L.-H. (1995). Focus, metalinguistic negation, and contrastive negation. *Journal of Chinese Linguistics* 23: 42-75.

Appendix: list of test questions¹⁷

Instruction:

In this test, you will see several short stories in English. After each story, there are two Chinese sentences. Please circle the letter preceding the sentence that describes the situation more accurately. For example: you will see a story in English as follows:

Linda and Lucy will go shopping tomorrow. Linda wants to buy three pairs of shoes and Lucy wants to buy three pairs of pants.

Then you see two Chinese sentences:

a. Lucy xiǎng mǎi sān shuāng xié. Lucy 想 买 三 双 鞋。 b. Lucy xiǎng mǎi sān tiáo kùzi. Lucy 想 买 三 条 裤子。

Because Lucy wants to buy three pairs of pants in the story, thus the sentence in b describes the situation more accurately than a. Therefore, you circle b.

Test items targeting \mathcal{F} (4)

1. Peter never watches any Chinese movies because he cannot understand them. Yesterday his friend treated him to a Chinese movie, but he did not like it.

a. Peter méi yǒu kàn zhōng guó diàn yǐng.

Peter 没有看中国电影。

b. Peter bú $\,$ kàn $\,$ zhōng guó $\,$ diàn yǐng .

Peter 不看中国电影。

2. Laura never smokes, but her sister insisted that she try a cigarette yesterday. Laura tried, but she still does not like it.

a. Laura bù xī yān.

Laura 不 吸 烟。

b. Laura méi yŏu xī yān.

Laura 没有吸烟。

- 3. Mat does not like reading at all, and he never reads. However, a friend bought him a book yesterday. He read it but he still can't understand why people like reading.
- a. Mat bú kàn shū.

¹⁷ The test items and distracters are randomized in the actual questionnaire.

Mat 不 看 书。

b. Mat méi yǒu kàn shū.

Mat 没有看书。

- 4. Lisa does not like long-sleeved shirts and she never wears one. However, she had an interview yesterday and she had to wear a long-sleeved shirt. She thinks she looked weird.
- a. Lisa bù chuān chèn shān.

Lisa 不 穿 衬衫。

b. Lisa méi yǒu chuān chèn shān.

Lisa 没有穿衬衫。

Test items targeting 没(有)(4)

- 1. Lisa likes buying old shoes, but she did not buy any last week because she could not find anything really good.
- a. Lisa méi yǒu mǎi jiù xié zi.

Lisa 没有买 旧 鞋子。

b. Lisa bù mǎi jiù xié zi.

Lisa 不 买 旧 鞋子。

- 2. Bill likes drinking a cup of tea every morning after he gets up. However, he did not have one this morning because he was too busy.
- a. Bill bù hē chá.

Bill 不喝 茶。

b. Bill méi yǒu hē chá.

Bill 没有喝茶。

- 3. Mat usually eats hamburgers every meal, but today he could not because all of the shops selling hamburgers were on strike.
- a. Mat bù chī hàn bǎo.

Mat 不 吃 汉 堡。

b. Mat méi yǒu chī hàn bǎo.

Mat 没有 吃 汉堡。

- 4. Jane is very popular and she gets a lot of phone calls. However, something is wrong with her phone so she could not make any phone call yesterday.
- a. Jane méi yǒu dǎ diàn huà.

Jane 没有打电话。

b. Jane bù dă diàn huà.

Jane 不 打电 话。

Test items targeting V(4)

1. Peter usually has a cup of tea after he gets up every morning. However, he did not have one this morning because he was too busy.

a. Peter hē chá.

Peter 喝 茶。

b. Peter hē le chá.

Peter 喝 了 茶。

- 2. Jason smokes cigarette every day, but he could not smoke yesterday because his sister who is pregnant came and stayed at his house.
- a. Jason xī le yān.

Jason 吸了 烟。

b. Jason xī yān.

Jason 吸 烟。

- 3. Bill really likes American movies. Whenever there is a movie showing, he will definitely go and see it. However, last week, he was sick and he couldn't go anywhere. He did not watch any American movies.
- a. Bill kàn měi guó diàn yǐng.

Bill 看 美 国 电 影。

b. Bill kàn le měi guó diàn yǐng.

Bill 看 了 美 国 电 影。

- 4. Robert loves eating fish. But he couldn't eat any last week because he couldn't find any he liked.
- a. Robert chī le yú.

Robert 吃了鱼。

b. Robert chī vú.

Robert 吃 鱼。

Test items targeting V-le (4)

- 1. John does not like Chinese food, but one of his friends insisted on taking him to a Chinese restaurant yesterday. After eating, John's friend asked John if he liked it. John said no emphatically.
- a. John chī le zhōng guó cài.

John 吃 了 中 国 菜

b. John chī zhōng guó cài.

John 吃 中 国 菜。

2. Mary hates wearing old shoes and wears new shoes every day. However, she had to wear an old pair of shoes yesterday because she had no new shoes left.

a. Mary chuān jiù xié zi.

Mary 穿 旧 鞋 子。

b. Mary chuān le jiù xié zi.

Mary 穿 了 旧 鞋子。

- 3. Mike hates talking on the phone and he does not have one. However, Mike's grandma was sick yesterday and Mike had to borrow a phone to call her.
- a. Mike dă le diàn huà.

Mike 打了 电 话。

b. Mike dă diàn huà.

Mike 打 电 话。

- 4. Lily hates drinking coffee because it is not healthy. However, she stayed up all night yesterday and she had to drink a cup of coffee this morning to wake herself.
- a. Lily hē kā fēi.

Lily喝 咖啡。

b. Lily hē le kā fēi.

Lily 喝了咖啡。

Distracters (12)

- 1. Jessica and Kate are roommates. Jessica loves drinking beer while Kate hates
- it. Kate will go and do grocery shopping tomorrow. Jessica asked Kate to buy five bottles of beer for her.
- a. Jessica xiăng măi wǔ píng pí jiǔ.

Jessica 想 买 五 瓶 啤酒。

b. Kate xiǎng mǎi wǔ píng pí jiǔ.

Kate 想 买 五 瓶 啤酒。

- 2. John was very hungry yesterday. He bought five hamburgers. He felt so full after he ate the fifth hamburger. He then said to himself: next time I will only eat four hamburgers.
- a. John yào chī wǔ gè hàn bǎo.

John 要 吃 五 个 汉堡。

b. John yào chī sì gè hàn bǎo.

John 要 吃 四 个 汉堡。

- 3. John hates reading, but he likes buying books because he likes how they look in his bookshelf.
- a. John xǐ huān mǎi shū.

John 喜欢 买 书。

b. John xǐ huān kàn shū.

John 喜欢看书。

- 4. John and Peter are good friends and they always return each other's phone calls. John called Peter yesterday, but Peter was not at home. So John left a message and asked Peter to call him back.
- a. John huí lái yǐ hòu yào gĕi Peter dă diàn huà.

John 回来以后 要给 Peter 打电话。

b. Peter huí lái yǐ hòu yào gĕi John dă diàn huà.

Peter 回来以后要给 John 打电话。

- 5. Robert is a very organized person and he does everything following a strict sequence. For example, he always reads newspaper after he has a cup of tea.
- a. Robert zŏng shì hē chá yǐ hòu kàn bào.

Robert 总 是 喝 茶 以后 看报。

b. Robert zǒng shì kàn bào yǐ hòu hē chá. Robert 总 是 看 报 以后 喝 茶。

- 6. Mary likes Chinese food but she seldom eats it because she does not like Chinese restaurants nor can she cook.
- a. Mary cháng cháng chī zhōng guó cài.

Mary 常 常 吃 中国菜。

b. Mary hěn shǎo chī zhōng guó cài.

Mary 很 少 吃 中国菜

- 7. Tom has a Chinese test next Monday. He wants to ask Lily, his Chinese friend to help him to review. Tom called Lily several times, but Lily did not answer the phone.
- a. Tom xiảng qǐng Lily bāng máng.

Tom 想 请 Lily 帮忙。

b. Lily xiǎng qǐng Tom bāng máng.

Lily 想 请 Tom 帮忙。

- 8. David majors in music and he has a big collection of classical music. He listens to the music almost every day especially on weekend. He always listen to music from the morning to the evening every Saturday and sometimes he even forgets to eat.
- a. David zhǐ zhōu mò tīng yīn yuè.

David 只周末听音乐。

b. David cháng cháng zhōu mò tīng yīn yuè.

David 常 常 周 末 听 音乐。

- 9. Michelle is a Chinese instructor and she teaches Chinese at USC. She is very busy because she is teaching four courses this semester.
- a. Michelle zài USC jiāo zhōng wén.

Michelle 在USC 教中文。

b. Michelle zài USC xué zhōng wén.

Michelle 在 USC 学 中文。

- 10. Mark has a very bad habit that he cannot wake up in the morning. Unfortunately, he has a class at 10:00 on Monday so he asks his roommate to wake him up. However, Mark's roommate was out of town last week, and it was already 11:00 when Mark woke up last Monday.
- a. Mark shàng gè xīng qī yī shí yī diǎn jiù qǐ chuáng le. Mark 上 个 星 期 一 十 一 点 就 起 床 了。
- b. Mark shàng gè xīng qī yī shí yī diǎn cái qǐ chuáng. Mark 上 个 星 期 一 十一 点 才 起 床。
- 11. Stephanie wants to go dancing tomorrow with her friends. She plans to go at nine o'clock, but her friends want to go at six o'clock. Although Stephanie thinks it is too early to go at 6, she has to go with them.
- a. Stephanie míng tiān liù diǎn jiù qù tiào wǔ. Stephanie 明 天 六 点 就 去 跳舞。
- b. Stephanie míng tiān liù diǎn cái qù tiào wǔ. Stephanie 明 天 六 点 才 去 跳舞。
- 12. Grace often watches TV after dinner. However, she worked very late last night and she went to bed directly after dinner.
- a. Grace cháng cháng kàn diàn shì yǐ hòu ch $\overline{\iota}$ wăn fàn.
 - Grace 常常看电视以后吃晚饭。
- b. Grace cháng cháng chī wăn fàn yǐ hòu kàn diàn shì.
 - Grace 常常吃晚饭以后看电视。