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碩士論文

以語料庫為本對“把”字在兒童語言習得動詞狀態之研究

A corpus-based study of the verb status of *Ba* in Child

Mandarin Chinese

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摘要

兒童語言習得研究者指出，兒童很早即開始使用「把」字句，但至少到五歲才可以完全習得「把」字句的結構。然而，對在語言習得早期階段「把」字句的研究，至今仍相當缺乏。Hsieh (2009) 從自己小孩所收集得來的語料做了歷時研究，提出在兒童語言「把」字句的發展過程中，可區分為五個階段。然而，以單一兒童的語料為研究基礎，就提出此假設，似乎過於草率。因此，本論文以兒童語料庫為本，旨在測試早期兒童語言習得階段「把」字是否被當作單純的詞彙動詞，而非在成年人語言中的語法詞類。

本論文主要收集、觀察、並分析四個兒童的語料。先前的研究指出，兒童的句法錯誤常可反映出他們對成年人語句知識的不足。因此，本研究試圖分析兒童語料中所發現的非成年人「把」字句。研究結果顯示，兒童的確在非常早期就開始使用「把」字句；而其使用非成年人「把」字句的頻率，(即錯誤率)，隨著兒童的成長而開始下降。此外，在兒童語料中，可歸納出三組現象作為有效的證據，支持本研究之假設：「把」字在一開始以詞彙動詞形式被習得。三組現象所列如下：(1) 「把」字句中 VP 的刪略，(2) 僅有典型「把」字句出現，以及(3) 直到特定的年齡 bare verb 的型式才停止出現。

總結而言，本研究希望能藉著語料庫，對兒童語言中「把」字句的習得狀況做進一步的分析，並同時確認在兒童語言習得的早期階段，「把」字是被當作一個單純的詞彙動詞。

A corpus-based study of the verb status of *Ba* in Child Mandarin Chinese

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ABSTRACT

Researchers of the *ba* construction in the acquisition of children's language have often suggested that children start using the *ba* construction very early and may not be fully proficient in the construction until 5 years old. However, little research conducted on the status of *ba* in the early stage in language acquisition. In Hsieh's (2009) research, using the longitudinal data collected from her own child, she proposed that there are five stages marking the development of the *ba* construction. Nevertheless, it seems extremely premature to posit the assumption with the data from only one child. Therefore, the aim of this thesis attempts to use a corpus-based study to test the hypothesis that *ba* is firstly acquired as a lexical verb in the acquisition of child's language not as a grammaticalized category as in adults' language.

In this research, four children's spontaneous speech data are collected and analyzed. Since it is believed that children's grammatical errors can represent their deficiency in the knowledge of adults' language, we try to analyze those non-adult-like *ba* constructions found in the children's spontaneous speech. Results of this study showed that the children in our study began using *ba* construction quite early and their non-adult-like *ba* construction, the error ratio, dropped as the children getting matured. Furthermore, three sets of condition found in the spontaneous production data can be the effective evidence to argue that our hypothesis that *ba* is firstly acquired as a lexical verb may be valid. The three evidences are presented as following respectively: (i) omission of VP in the *ba* construction; (ii) only canonical *ba* sentence appears; (iii) the bare verb form ceases to appear at a certain age.

To conclude, this research may be of importance in exploring the acquisition of *ba* construction in children's language through a corpus-based study, as well as in establishing the hypothesis that *ba* is a lexical verb in the early stage in children's language.

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終於要寫下這名為「誌謝」的最後一個 Chapter。之前的章節，腦中總是一片空白，敲打鍵盤的手指卻恨不得飛快。現在，心中感慨無限，手指卻愈敲愈慢。彷彿，每敲出一個字，碩士生涯的璀璨就離我又一步的遠去。從開始呼吸起屬於交大的那一口空氣，到如今僅剩一個星期就要與人社二館的道別，一路行來，點滴在心。雖然這不是一部學術巨作，但，沒有很多人，我依然無法使這論文完成。要感謝的人很多，僅以此文表達我誠摯的感謝。

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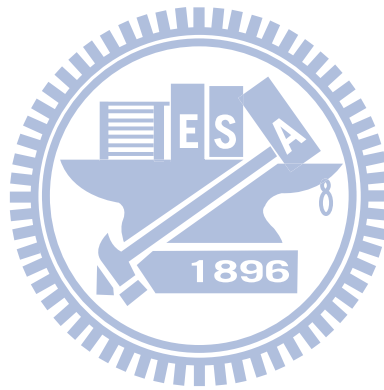


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Abbreviations

Abbreviation	Term
BA	<i>ba</i>
CL	Classifier
DE	<i>de</i> ; introducing complex resultative clauses
GEI	<i>gei</i>
LE	<i>le</i> ; Perfective Aspect
POSS	Possessive
RVC	Resultative verb compound



Over the past few decades considerable concern has arisen over the Mandarin *ba* construction. The *ba* construction is perhaps the most widely discussed phenomenon in modern studies of Mandarin Chinese. A generally adopted construction of *ba* is [NP1 *ba* NP2 VP (XP)]. Examples are shown in (1a-c):

(1) a. 我把飯吃完了

wo ba fan chi wan le

I BA rice eat finish LE

‘I finished eating the meal.’

b. 這張桌子把李四擋住了

zhe zhang zhuozi ba lisi dangzhu le

this CL desk BA Lisi block LE

‘This desk blocked Lisi.’

c. 李四把腳踏車騎壞了

lisi ba jiaotache qi huai le

Lisi BA bicycle ride broken LE

‘Lisi rode a bicycle and made it broken.’

NP1 is usually an agent as in (1a), but it can also be a causer as in (1b). Besides, the object of *ba*, that is, the NP2 is typically, though not always, the object of a verb. It has been widely proposed that the object, NP2, is “disposed” or “affected” in the event described. For instance, the NP ‘bicycle’ after *ba* in (1c) must be made broken from the event of bicycle-riding.

A lot of studies have been devoted to the discussion of the syntax, semantics and pragmatics of the *ba* construction, but very few of the studies concern children's acquisition of this construction. According to Hsieh (2009), in a longitudinal study, she found five stages of development in children's acquisition of *ba*, and she also argued that *ba* is a semi-functional category. Based on a corpus-based study, the purpose of the research presented in this thesis is to test the hypothesis that *ba* is firstly acquired as a lexical verb in the acquisition of child's language not as a grammaticalized category as in adults' language. In this research, four children's spontaneous speech data are collected and analyzed. The *ba* sentences of each child's spontaneous speech data are singled out and classified into distinct patterns. This research particularly takes notice of those ungrammatical *ba* sentences, that is, the errors which children made in producing *ba* sentence. The term *error* will be used in this study to refer to deviations from norms of adult usage; most of these will not be errors within the rule of the child's own system in producing *ba* sentence. We assume that the reasons resulting in the ungrammatical *ba* sentences can not only be attributed to simple *slip of the tongue* but also child's knowledge about *ba* construction at that specific age. That is to say, those ungrammatical *ba* sentences discovered in the spontaneous speech data of children can provide us clues to the status of *ba* construction in the acquisition of child's language. In addition, a corpus-based study with more children is also more convincing than a longitudinal study which has only one child's data presented.

The thesis is organized into three chapters. Chapter 2 first gives a brief literature review and a look at the *ba* construction. The materials and data will be presented in chapter 3. Chapter 4 then details the *ba* construction found in children language which is distinct from adult's, and establishes explanations for the syntactic distinctions. Finally, a conclusion will be presented in chapter 5.

2.1 A Historical View of BA

The so-called disposal construction was not found before the 7th Century. It is generally agreed that historically the morpheme *ba* functioned exclusively as a verb until Tang Dynasty (A.D. 618-907) (Wang, 1958). The following examples, (1a) and (1b), which show the verbal usage of *ba* in Old Chinese, are from Wang (1958: 410-413).

(1) a. 舜親把天之瑞令 (墨子)

Shun qin ba tian zhi rei ling.

Shun personally hold heaven POSS jade command

‘Shun personally held the heaven's command, a jade piece.’

b. 無把鈹推耨之勞 (戰國策)

wu ba ao tui nou zhi lao

without hold hoe push shovel POSS merit

‘without the merit of holding hoe and push shovel’

It is also asserted that, historically, *ba* has the verbal meaning of ‘take, hold, grasp’ (see Wang 1958, for instance). According to *shuowenjiezi* 說文解字, “*ba, wo ye*,” we can discover that *ba* equals to ‘hold’. Evidence can be found in example (1b) as well, in which the *ba* parallels the *tui* 推. Obviously, *tui* 推 there has the verbal meaning of ‘push’. In the view of the parallel between *ba* and *tui* 推, we can, accordingly, view *ba* as a verb.

The disposal usage of *ba* started from about between the 7th and the 8th Century. Not

until the Middle Tang did the disposal usage of *ba* become more and more common (Wang, 1958). Examples (2a) and (2b) are from Wang (1958: 413), (2c) is from 志村良治 (1995:18).

(2) a. 閒常把琴弄 (任華寄杜拾遺)

xian chang ba qin nong

leisure often take qin(an instrument) play

‘often take the qin to play at leisure’

b. 不把庭前竹馬騎 (變文)

bu ba ting qian zhu ma qi

not take courtyard from bamboo horse ride

‘not ride the bamboo horse in the from courtyard’

c. 月下把書看 (貫休.寄烏龍山賈泰處士)

yue xia ba shu kan

moon under take book read

‘Holding the book and read under the moon’

Interestingly, at the initial stage of the disposal usage of *ba*, we can discover that there could be a monosyllabic verb, namely, bare verb, following the post-*ba* NP. Take (2) for examples, we can find the verbs ‘*nong*’, ‘*qi*’, and ‘*kan*’ appear as monosyllabic verbs. Li and Thompson (1981) stated: “the reason that *ba* sentences always have verbs with those elements preceding or following them is that such elements serve to elaborate the nature of disposal,” and “the more elements that are added to elaborate the nature of disposal, the more likely are the sentences to appear in the *ba* form.” According to Wang (1958), in the disposal construction, when a monosyllabic verb follows the post-*ba* NP, the requirement of disposal construction is not obligatorily

needed. Wang's (1958) research greatly resembled 志村良治's (1995). Following 志村良治 (1995), many examples of the combination of *ba* and a bare verb were found in the Tang Dynasty. It is all as a result of the verbal properties of *ba*. From the example (2c) above, the meaning of '*ba shu kan*' can not be straightly translated into 'read the book', but 'take the book and read it. At this time, the morpheme *ba* has not yet lost its verbal properties.

2.2 The Properties of the BA Construction

The *ba* construction has been investigated by lots of Chinese linguists, and, although the researches on this issue still have a few debates, their findings of the properties of *ba* construction have widely provided insights to the understanding of the construction. In this section, I will have a brief review of what the most fundamental properties of the *ba* construction are.

Chinese linguists have long been interested in the *ba* construction for the reasons of its close relationship with the canonical [S V O] sentence and the complicated representation of it. Adapting the studies of Wang (1954) and Huang & Li & Li (2009), to name but a few, I briefly summarize the properties of *ba* construction:

First, the presence of *ba* provides an extra position for an argument. That is, there seems to be an extra argument which would not show up in the corresponding canonical sentence in the *ba* construction. The examples in (3) are shown below. In (3a), the verb cannot be followed by two objects; however, in (3b) the presence of *ba* seems to provide an extra position of an argument.

(3) a. 我裝滿了卡車稻草

*wo zhuang man le kache daocao.

I load full LE truck hay

b. 我把卡車裝滿了稻草

wo ba kache zhuang man le daocao.

I BA truck load full LE hay

‘I loaded the truck with hay.’

Second, the *ba* construction generally is not possible with verbs in the bare form. Namely, it requires its verb appearing in complex phrases. There can be a resultative adverb following the verb, or the verb can be followed by the aspect marker *-le* or *-zhe*. The following examples briefly illustrate this restriction:

(4) a. 我把李四打

*wo ba Lisi da

I BA Lisi hit

‘I hit Lisi.’

b. 我把李四打了

wo ba Lisi da le.

I BA Lisi hit LE

‘I hit Lisi.’

c. 我把李四打斷了腿

wo ba Lisi da duan le shou

I BA Lisi hit broken LE hand

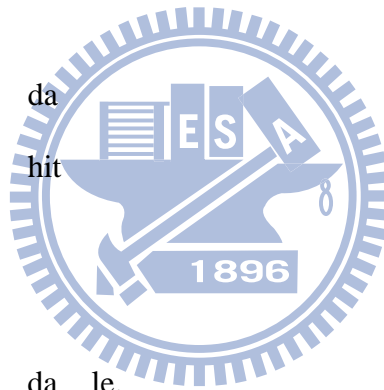
‘I hit and broke Lisi’s hand.’

d. 我把李四打得很厲害

wo ba Lisi da de hen lihai

I BA Lisi hit DE very serious

‘I hit Lisi seriously.’



Third, either the subject of the *ba* sentence or the post-*ba* NP can be thematically related to the complement of the main verb. This is illustrated in example (5), which is from Huang & Li & Li (2009: 160).

(5) 我把他們打得手都腫了

wo ba tamen da de shou dou zhong le.

I BA them hit DE hand all swollen LE

i. 'I hit them such that my hands got swollen.'

ii. 'I hit them such that their hands got swollen.'

Based on these complexities concerning the *ba* construction, many researchers have tried to propose different analyses to give a consistent account of this construction. In the following section, I will illustrate these proposals in brief.

2.3 Previous Proposals of the BA Construction

There seem to be many possibilities of the properties of *ba* which have been proposed in the last three decades:

(6) a. *Ba* as a lexical verb (Hashimoto 1971)

b. *Ba* as a preposition (Chao 1968, Lü 1980, Travis 1984, Cheng 1986, A. Li 1985, 1990)

c. *Ba* as a dummy Case assigner (Huang 1982b, Koopman 1984, Goodall 1987)

d. *Ba* as a dummy filler, inserted to fill the head of a CAUSE phrase when verb raising does not take place (Sybesma 1999)

e. *Ba* as the head of a base-generated functional category (Zou 1995)

As mentioned in previous section, historically, *ba* was viewed as a lexical verb, which has the meaning of ‘take, hold, grasp’ (see Bennett 1981, for instance). We can also find that *ba* might occur in the so-called serial verb construction [V1 + NP + V2 + XP] as well, with *ba* as V1 [*ba* + NP + V2 + XP]. Examples are shown in (7) and (8):

(7) 臨別把臂言誓

lin bie ba bei yan shi
 near parting BA hands talk pledges

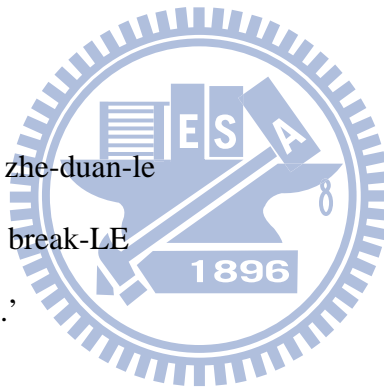
‘Upon parting, (they) hold hands and talk about pledges.’

(From Hou Hanshu: Lubuzhuan, Middle Chinese)

(8) 我把樹枝折斷了

wo ba shuzhi zhe-duan-le
 I BA branch break-LE

‘I broke the branch.’



The pattern can be seen as ‘to take NP and do [V XP] (to it).’ Just like the well known serial verb construction [Subject + V1 + NP + V2 + XP], this construction can be interpreted as ‘Subject takes NP and does [VP + XP] to it; what the subject does to NP is [VP + XP].’ The meaning of (8) is that ‘what I do to the branch is to break it.’

However, it is widely agreed that *ba* sentences are no longer instances of serial verb construction, and *ba* has lost its standard verbal properties. According to Huang & Li & Li (2009), under the traditional verbhood tests, *ba* does not behave like a lexical verb: (i) *ba* cannot take an aspect marker (9b); (ii) it cannot form an alternative V-not-V question (9c); and (iii) it cannot serve as a simple answer to a question (9d).

(9) a. 他把你害了

ta ba ni hai le

he BA you hurt LE

‘He hurt you.’

b. *他把你害了

*ta ba le ni hai le

he BA LE you hurt LE

‘He hurt you.’

c. *他把 沒/不把 你害了

*ta ba mei/bu ba ni hai le

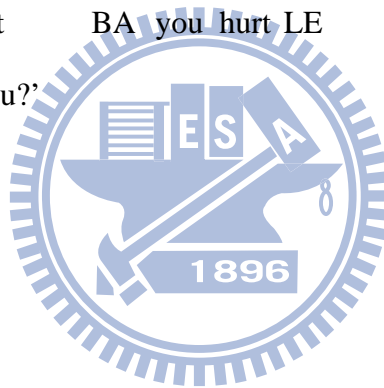
he BA not BA you hurt LE

‘Did he hurt you?’

d. *(沒/不)把

*(mei/bu-)ba

(not-)BA



Following Li and Thompson (1974), the serial verb constructions may be understood as related in one or more of the following four ways:

(10) i. Consecutive: One event occurs after the other

ii. Prupose: The first event is done for the purpose of achieving the second.

iii. Alternating: The subject alternates between two actions.

iv. Circumstance: The first verb phrase describes the circumstances under which the event in the second verb phrase or clause occurs.

To argue that *ba* sentence is not the instance of the serial verb construction, there is

convincing evidence shown in (11). In the examples below, we give the most natural translations to indicate which of the four relationships presented in (10) above it represents.

(11) a. 我用竿子打壞人

wo yong gunzi da huai ren

I use stick hit bad person

- i. 'I use stick and then I hit the scoundrel.'
- ii. 'I use stick in order to hit the scoundrel.'
- iii. 'I use stick and hit the scoundrel.'
- iv. 'I use stick while hitting the scoundrel.'

b. 我把樹枝折斷了

wo ba shuzhi zheduan le

I BA branch break LE

- i. 'I broke the branch.'
- ii. * 'I took the branch and broke it'

We can observe that while there are several possible ways to construe the semantic link between the two verbs in the serial verb construction in (11a), there is only one reading for *ba* sentences in (11b).

Although there have been many proposals accounting for the *ba* construction, I just remark two of them. The reason is that these two proposals are more frequently adopted by Chinese linguists and related to the present issue discussed in this research. One is an aspectual analysis of *ba*, which is proposed by Liu (1997). The other is proposed by Huang & Li & Li (2009). These two accounts will be briefly summarized in section 2.3.1 and section 2.3.2, respectively.

2.3.1 An Aspectual Analysis of BA

Liu (1997) pointed out that there must be basically a requirement of a well-formed *ba* sentence, that is, there must be some element other than the basic verb in the predicate. Following Liu (1997), the complex VP in the *ba* construction is classified into nine cases, which are grouped according to structural properties of the predicate:

- (12) a. V + resultative verb complement
- b. V + de (resultative)
- c. V + retained object
- d. V + perfective marker -le
- e. V + PP (dative or locative)
- f. V + quantified phrase
- g. V + yi + V (the tentative construction)
- h. V + durative marker -zhe
- i. Adv + V



To account for the properties shown in the VP of *ba* construction, Liu's (1997) claim is that: "*ba* occurs with predicates that denote bounded events." Under Liu's (1997) analysis, bounded events are classified into three types, which are defined as follow:

- (13) a. Bounded situations are characterized by having no static internal stages, and in Chinese they have a morphosyntactic correlate – they cannot be marked by *-zhe*.
- b. Bounded events arise when telic but unbounded situations are presented perfectly.
- c. Irrealis sentences denote bounded events when accomplished by *-zhe*, which marks the resultative state of events that are yet to take place.

As mentioned in the previous section, the predicate of *ba* construction cannot be allowed to appear in the form of a bare verb. There must be some extra elements to render the *ba* construction well-formed. Precisely, these extra elements can denote the bounded events when combined with the verb of the predicate. Liu argues that these extra elements are what (13) identified. To make it clearly, (13) can be seen as two ways for the predicate of *ba* construction to achieve the boundedness. One is that some extra elements which are listed in (12a-c), (12e-g), and (12i) can lead to the bounded situation. The other one is that when the predicate is marked with certain aspect, as in (12d (-*le*)) and (12h (-*zhe*)), the boundedness will be guaranteed. These are illustrated in the following sentences:

(14) a. 我把問題看清楚

wo ba wenti kan qingchu

I BA question see clear

'I see the question clearly.'

b. 他把家保持的很乾淨

ta ba jia baochi de hen ganjing

he BA home keep DE very clean

'He keeps his home very clean.'

c. 我把窗戶上鎖

wo ba chuanguhu shang suo

I BA window put-on lock

'I lock the window.'

d. 我把飯吃了

wo ba fan chi le

I BA rice eat LE

'I ate the rice.'

e. 他把書搬在桌上

ta ba shu bang zai zhuo shang

he BA book put at table on

'He put the book on the table.'

f. 他把書看三遍

ta ba shu kan sanbian

he BA book read three-times

'He read the book three times.'

g. 他把書讀一讀

ta ba shu du yi du

he BA book read one read

'He read the book.'

h. 他把書拿著

ta ba shu na zhe

he BA book take ZHE

'He is taking the book.'

i. 他把東西滿屋子扔

ta ba dongxi man wuzi reng

he BA things whole room throw

'He throws things all over the room.'

Under Liu (1997), we can have a clear idea what the role the complex verb phrase in the *ba* construction play, and it is also one of the main properties that legitimate the *ba* construction.

2.3.2 The Analysis of Huang & Li & Li (2009)

In the analysis of Huang & Li & Li (2009), they argued that although previous studies have explored many characteristics of the *ba* construction, they did not focus on its syntactic properties which can account for the special meaning of *ba* construction.

According to Huang & Li & Li (2009), the post-*ba* NP can form a constituent with the following VP, but, in some circumstances, *ba* and the post-*ba* NP can form a constituent by themselves. Examples as in (15) are given below (Huang & Li & Li, 2009:167):

(15) a. 你把這塊肉切切，那些菜洗洗

ni ba [zhe kuai rou qie-qie], [naxie cai xixi]
you BA this CL meatcut-cut those vegetable wash
'You cut the meat and wash the vegetable.'

b. 把這塊肉，你先切切

[ba zhe kuai rou], ni xian qie-qie
BA this CL meat you first cut-cut
'Cut the meat first.'

This type of sentence is what Sybesma (1999) refers to as “canonical *ba* sentences” (expressing that somebody (animate Agent) does something to some entity). Such “canonical *ba* sentences” not only allow the post-*ba* NP and the following VP to form a constituent but also allow *ba* to form a constituent with the post-*ba* NP as well.

In contrast, in some situations, *ba* can not form a constituent with the post-*ba* NP, but, the post-*ba* NP and the following VP form a constituent. This type of *ba* sentence is “causative *ba* sentences,” whose subjects are generally inanimate causers, as shown in (16).

(16) a. 這輛車把張三撞昏了

zhe liang che ba zhangsan zhuang hun le
this CL car BA Zhangsan hit unconscious LE
'This car hit Zhangsan and made him unconscious.'

b. 這輛車把張三撞昏了，李四撞死了

zhe liang che ba zhangsan zhuang hun le, lisi zhuang si le
this CL car BA Zhangsan hit unconscious LE, Lisi hit dead LE
'This car hit Zhangsan and made him unconscious, and hit Lisi and made him dead.'

c. *把張三，這輛車撞昏了

*ba zhangsan, zhe liang che zhuang hun le
BA Zhangsan, this CL car hit unconscious LE
'This car hit Zhangsan and made him unconscious.'

Following Huang & Li & Li (2009), it is plausible to suggest that in the canonical *ba* structure *ba* still retains the verbal property with the meaning of 'handle, deal with'. Under the analysis that in the canonical *ba* sentences the post-*ba* NP can not only form a constituent with the following VP but also *ba*, the ambiguity found in sentences like (17a) will no longer exist.

(17) a. 我把他們打得手都腫了

wo ba tamen da de shou dou zhong le
I BA them hit DE hand all swollen LE
i. 'I hit them such that my hands got swollen.'
ii. 'I hit them such that their hands got swollen.'

b. 把他們，我打得手都腫了

ba tamen, wo da de shou dou zhong le

BA them I hit DE hand all swollen LE

i. 'I hit them such that my hands got swollen.'

ii. *'I hit them such that their hands got swollen.'

To account for the ambiguity, Huang & Li & Li (2009) suggest that there is an empty pronoun in the complement result clause (the owner of the hands). The empty pronoun is identified with the closest c-commanding NP. Since the *ba* may or may not form a constituent with the post-*ba* NP, the empty pronoun may or may not search past the post-*ba* NP for a c-commanding NP as its antecedent. That is to say, if *ba* and the post-*ba* NP can form a constituent and be preposed, the ambiguity in (17) may be explained. Furthermore, causative *ba* structure does not have the verbal interpretation 'handle, deal with', because they do not have the alternative structure. Therefore, *ba* and the post-*ba* NP in causative *ba* sentences cannot be preposed to the sentence initial position, and nor do the causative *ba* sentences allow the ambiguous interpretation. It is supposed by Huang & Li & Li, in canonical *ba* sentence "*ba* is a verb taking an NP as its object and forming a VP with the object to modify the following VP" (Huang & Li & Li 2009: 180).

According to Huang & Li & Li (2009), the structure like (18) appropriately represents a *ba* sentence.

(18) [_{baP} Subject [_{ba'} *ba* [_{VP} NP [_{v'} v [_{VP} V XP]]]]]

This structure captures most of the properties presented so far. *Ba* is a case assigner. The post-*ba* NP is assigned case by *ba*, since the necessity of the linear order of *ba* and post-*ba* NP fulfill the requirement that Case assignment follows an adjacency condition

in Chinese (See for instance, Stowell 1981). Consequently, this leads to the possibility that *ba* is a Case-assigning head category. However, *ba* does not assign any theta-roles; neither to the subject of the sentence nor to the post-*ba* NP. Huang & Li & Li (2009) stated: “Though *ba* has no theta-role for the subject or the object after it, the subject of a *ba* sentence is associated with a causer reading and the post-*ba* NP tends to be associated with a disposal reading.” Hence, it is argued, reasonably, by Huang & Li & Li that the post-*ba* NP is assigned an “affected” theta-role by the complex verb phrase following the post-*ba* NP.

As the analyses indicated above, *ba* in the adults’ language in Modern Chinese does not behave like a lexical verb, nor a pure functional category. However, in some sense *ba* still retains its verbal property, as in canonical *ba* sentence.

2.4 The Acquisition of the Ba Construction

It is attested by some studies that children use the *ba* construction as early as 2 years old and may not be fully proficient in the construction until 5 years old (see Erbaugh 1982, Tse et al. 1991, Cheung 1992, Fahn 1993, and Hsieh 2009).

According to Fahn (1993), it was found that five-year-old was a critical age for children to be sensitive to the discordance with the progressive marker and verb selection. And age six was a dividing line for the compound verb and definiteness constraints.

Following Cheung (1992), only Theme *ba* is used in the beginning. Locative *ba* and other 3-argument *ba* constructions came into use around age five. Examples (19), which are from Cheung (1992: 65), illustrate the Theme *ba* and Locative *ba*.

(19) a. 你去把水倒到桶子裡

ni qu ba shui(theme) dao dao tongzi(goal) li

you go BA water pour reach bucket LOC inside

‘You go to pour water into the bucket.’

b. 你去把桶子倒點水

ni qu ba tungzi(goal) dao dian shui(theme)

you go BA bucket pour some water

‘You go to fill the bucket with water.’

Cheung argued that *ba* is probably not to be used as an object marker or a preposition. Under Cheung’s (1992) observation, since children can substitute *gei* for *ba*, children may use *ba* as a verb-like structure. However, Cheung leaves the questions of why the ill-formed *ba* sentences occur in children’s early acquisition stage for further research. Moreover, the status of *ba* is not the main research topic in Cheung’s (1992) study.

In Hsieh’s (2009) research, using the longitudinal data collected from her own child since he was about one year old, she tried to study the child’s development of the *ba* construction. She proposed that there are five stages marking the development of the *ba* construction.

(20) a. Stage I: *Ba* as a verb in a serial verb construction (2;~3;4)

b. Stage II: *Ba* as a verb + a bounded VP (3;5~)

c. Stage III: Sprout of Affectees (3;8~)

d. Stage IV: *Ba* as a Semi-Functional Category (4;8~)

e. Stage V: Full Development of Affectedness (5;2~)

In the Stage I, the child may view *ba* as a pure lexical verb, not any functional category such as preposition. Furthermore, taking *ba* as a verb may implicate the construction as a serial verb construction with the first VP functioning as an adjunct. The two VP may

not have strict relation compared to post-*ba* NP and the VP. In Stage II, the child still treats *ba* as a verb, but the bounded property of the VP has been noted. During the period of Stage III, the child starts to have the idea that an additional NP2 can be related to NP3 in some way, example (21) from Hsieh (2009) is shown below:

(21) 我剛才大便，我把自己擦屁股。

wo gangcai dabian, wo ba ziji ca pigu

I just poo I BA self wipe butt

‘I just poo, and I cleaned my butt by myself.’

When Stage IV started, the child would not permit the omission of a post-*ba* NP. This further shows that the child has mastered the use of *ba* as a Case assigner, a semi-functional category. Starting from 5;2, Stage V, the child stopped producing non-adult *ba* sentences. He began to be proficient in the special property, affectees, of *ba* construction, and, eventually, acquired the semantics and syntax of *ba* construction.

Under Hsieh’s (2009) scrutiny of the *ba* construction of a child, the development of *ba* construction in child acquisition stage becomes much clearer to us. However, a more quantified study is still needed to provide more evidence for supporting this proposal. In our research, we tend to examine, at least, four children’s spontaneous speech data to give a further investigation on the *ba* status, seeing what the *ba* status is in the early stage of children acquisition.

3.1 Description of the Data

In our study, the spontaneous production data are used to examine the development of *ba* construction in Mandarin early child language acquisition. The data are from the TsingHua Mandarin Child Language Corpus, which is established under the supervision of Dr. Yi-ching Su.

It is generally accepted that a study with several children is more informative than a study with one child. Our investigation is based on the speech of 4 Mandarin-speaking children to each of whom a code name is given for the sake of safety and privacy. HY was born in October, 2003, and the data was collected since he was 1;11 until 4;1. The child, JC, was born in January, 2004. His data was collected since he was about 2;9 until 4;5. AN was born in July, 2004, and the data was collected since she was 1; 8 until 4;. CC was born in July, 2003, and her data was collected since she was 2;2 until 4;10. Those four children are monolingual, who speak Mandarin with their immediate family members. They have been voice-recorded from 30 minutes to 60 minutes almost every other week. All of these children participated in more than twenty-five tape-recording sessions within twenty-six months. In all, one hundred sixty-nine tapes have been transcribed and computerized into Chinese characters. The age of the first *ba* sentence appeared in the data of each child are JC: 2;12, HY: 2; 7, AN:1;11, 8, and CC: 2;7. Table 3.1 shows the details of these four children:

Table 3.1 Subject Information

<i>ID</i>	<i>Gender</i>	<i>Age</i>	<i>No. of Tapes</i>	<i>The Age of the First Type-recording</i>	<i>The Age of the first Ba</i>
HY	Male	1;11 to 4;1	37	1;11	2;7
JC	Male	2;9 to 4;5	26	2;9	2;12
AN	Female	1;8 to 4;0	38	1;8	1;11
CC	Female	2;2 to 4;10	42	2;2	2;7

In the following section, the details of the spontaneous production data of each child will be presented. The total number of sentences uttered by the children, and the number of the child-produced *ba* construction are counted for the reason that the proportion of *ba* construction to non-*ba* construction is a clue to examine the productivity of *ba* construction. In addition, the non-adult-like *ba* construction is divided into distinct patterns and the proportion of them to well-formed *ba* construction is calculated as well.

3.2 The Spontaneous Production Data

3.2.1 Productivity of the *Ba* Construction

In order to have a clear comparison of the data between these four children, the data of each child will be presented separately in the following section and throughout this chapter.

Each of the spontaneous speech data presented below is classified into three or four stages by age. Many of the previous studies usually use MLU as an indication to child's language development. However, in our study, classifying the stages of *ba* development in child's acquisition is not the main purpose we concern. In addition, Cheung (1998)

manifested that MLU correlates with age significantly. Therefore, the classification of stages is based on the age of the children. The range of age to the classification is identical in the four children's spontaneous speech data. That is, Stage 1: before 2;7, Stage 2: 2;7 to 3;2, Stage 3: 3;3 to 3;8, and Stage 4: after 3;9.

The spontaneous production data of HY were recorded since the ages of the subject was 1;11 till he was 4;1. The data were recorded twice a month for almost twenty-six months, and the duration of each recording session is about thirty-five minutes to fifty minutes. The ages of the child of each recording session, the number of the occurrences of *ba* construction, and the total number of the sentences uttered by the child are shown in Table 3.2 on the next page:¹



¹ The data are presented started from the first occurrence of *ba* construction, since the previous recording sessions are not concerned with our research.

Table 3.2 Numbers of the occurrences of *ba* construction and uttered sentences of HY

<i>Stage</i>	<i>Session</i>	<i>Age of Child</i>	<i>Ba construction</i>	<i>Uttered Sentence</i>	<i>Ratio</i>
1	1	2;7.12	3	224	1.34%
	2	2;7.25	0	239	0.00%
	3	2;9.07	2	218	0.92%
	4	2;9.21	1	228	0.44%
	5	2;10.07	0	352	0.00%
	6	2;11.05	9	255	3.53%
	7	2;11.19	1	277	0.36%
	8	3;:06	7	309	2.27%
	9	3;:20	19	231	8.23%
	10	3;1.03	9	234	3.85%
2	11	3;4.07	10	262	3.82%
	12	3;4.21	14	366	3.83%
	13	3;5.06	20	250	8.00%
	14	3;5.20	1	208	0.48%
	15	3;6.11	7	250	2.80%
	16	3;7.01	8	100	8.00%
	17	3;7.16	19	232	8.19%
	18	3;7.29	52	288	18.06%
	19	3;8.12	1	106	0.94%
	20	3;8.23	27	291	9.28%
3	21	3;8.30	8	205	3.90%
	22	3;9.07	7	122	5.74%
	23	3;12.01	3	236	1.27%
	24	4;:09	5	290	1.72%
	25	4;:30	43	290	14.83%
	26	4;1.20	18	244	7.38%
Total			294	6307	4.66%

The spontaneous production data of JC were recorded since the ages of the subject was 2;9 till he was 4;5. The data were recorded twice a month for almost twenty months, and the duration of each recording session is about ten minutes to thirty-five minutes.

The detail of the data of the child is shown in Table 3.3 below:

Table 3.3 Numbers of the occurrences of *ba* construction and uttered sentences of JC

<i>Stage</i>	<i>Session</i>	<i>Age of Child</i>	<i>Ba construction</i>	<i>Uttered Sentence</i>	<i>Ratio</i>
1	1	2;12.16	3	153	1.96%
	2	3;:20	1	244	0.41%
	3	3;1.12	0	140	0.00%
	4	3;1.26	5	151	3.31%
	5	3;2.10	3	186	1.61%
	6	3;2.27	0	132	0.00%
2	7	3;3.07	0	140	0.00%
	8	3;4.28	2	160	1.25%
	9	3;4.18	1	110	0.91%
	10	3;6.00	4	167	2.40%
	11	3;6.14	1	86	1.16%
	12	3;8.02	0	184	0.00%
	13	3;8.16	11	219	5.02%
3	14	3;9.07	8	311	2.57%
	15	3;9.26	4	345	1.16%
	16	3;10.17	6	208	2.88%
	17	3;12.22	10	220	4.55%
	18	4;1.08	11	146	7.53%
	19	4;3.21	8	226	3.54%
	20	4;4.22	3	263	1.14%
	21	4;5.00	5	276	1.81%
Total			294	6307	2.11%

The spontaneous production data of AN were recorded since the ages of the subject was 1;8 till she was 4;. The data were recorded twice a month for almost twenty-seven months, and the duration of each recording session is about ten minutes to thirty minutes. The detail of the data of the child is shown in Table 3.4 below:

Table 3.4 Numbers of the occurrences of *ba* construction and uttered sentences of AN

<i>Stage</i>	<i>Session</i>	<i>Age of Child</i>	<i>Ba construction</i>	<i>Uttered Sentence</i>	<i>Ratio</i>
1	1	1;11.21	2	234	0.85%
	2	2;	0	93	0.00%
	3	2;1	1	106	0.94%
	4	2;1.18	0	95	0.00%
	5	2;3.01	1	130	0.77%
	6	2;3.16	5	288	1.74%
	7	2;4.06	2	123	1.63%
	8	2;4.20	1	202	0.50%
	9	2;5.04	5	297	1.68%
	10	2;5.18	6	183	3.28%
	11	2;6.16	6	162	3.70%
	12	2;6.29	1	162	0.62%
2	13	2;7.13	4	141	2.84%
	14	2;7.26	2	183	1.09%
	15	2;8.17	5	106	4.72%
	16	2;9.04	1	65	1.54%
	17	2;9.17	1	47	2.13%
	18	2;10.23	1	93	1.08%
	19	2;11.07	2	94	2.13%
	20	2;11.18	1	155	0.65%
	21	3;.16	2	171	1.17%
	22	3;1.00	3	144	2.08%
3	23	3;3.01	9	253	3.56%
	24	3;3.17	4	267	1.50%
	25	3;4.01	5	300	1.67%
	26	3;4.17	9	323	2.79%
	27	3;5.12	18	267	6.74%
	28	3;6.13	6	155	3.87%
	29	3;7.20	8	219	3.65%
	30	3;8.22	7	336	2.08%
4	31	3;9.22	6	311	1.93%
	32	3;11.01	11	324	3.40%
	33	4;0.01	5	178	2.81%
Total			140	6207	2.26%

The spontaneous production data of CC were recorded since the ages of the subject was 2;2 till she was 4;9. The data were recorded twice a month for almost thirty-one months, and the duration of each recording session is about ten minutes to sixty-five minutes. The detail of the data of the child is shown in Table 3.5 on the next page:



Table 3.5 Numbers of the occurrences of *ba* construction and uttered sentences of CC

<i>Stage</i>	<i>Session</i>	<i>Age of Child</i>	<i>Ba construction</i>	<i>Uttered Sentence</i>	<i>Ratio</i>
1	1	2;7.15	1	176	0.57%
	2	2;8.06	2	221	0.90%
	3	2;8.14	0	181	0.00%
	4	2;9.03	0	140	0.00%
	5	2;9.18	0	186	0.00%
	6	2;10.01	0	87	0.00%
	7	2;10.14	0	314	0.00%
	8	2;10.29	2	317	0.63%
	9	2;11.10	7	478	1.46%
	10	3;0.30	2	126	1.59%
	11	3;1.14	7	237	2.95%
	12	3;2.11	0	276	0.00%
	13	3;2.25	8	397	2.02%
2	14	3;3.15	13	496	2.62%
	15	3;4.00	2	211	0.95%
	16	3;4.21	1	83	1.20%
	17	3;5.04	2	309	0.65%
	18	3;5.25	2	136	1.47%
	19	3;6.08	8	464	1.72%
	20	3;7.26	4	303	1.32%
	21	3;8.06	3	287	1.05%
	22	3;8.27	12	529	2.27%
	3	23	3;9.24	0	47
24		3;10.20	3	362	0.83%
25		3;11.19	27	616	4.38%
26		4;1.29	11	461	2.39%
27		4;2.15	5	89	5.62%
28		4;3.16	2	78	2.56%
29		4;4.00	10	62	16.13%
30		4;4.17	3	27	11.11%
31		4;6.00	1	96	1.04%
32		4;7.10	11	57	19.30%
33		4;8.21	4	56	7.14%
34		4;9.21	2	37	5.41%

Total	140	6207	1.95%
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From Table 3.2 to Table 3.5, the four children seem to start using *ba* very early. It is observed that although the occurrences of *ba* construction compared to the total numbers of the uttered sentences of the subjects are relatively rare, the successively rising percentage of the occurrences of *ba* construction manifests the ‘productivity’ of the *ba* construction.

3.2.2 *Ba* Patterns

Under scrutiny of the *ba* construction in these four children’s utterances, six patterns were found in the subjects’ spontaneous speech data. They are shown in the following examples:

(1) a. RVC: The resultative verb complement is used in the *ba* construction.

我們先把車車收起來 (HY: 2;11)

women xian ba che che shou qilai

we first BA car car gather up

‘Firstly, we gather the car.’

b. PP: It concerns sentences with a locative phrase or indirect object.

i. 把它放在這裡 (HY: 3;5)

ba ta fang zai zheli

BA it put at here

‘Put it here.’

ii. 你要把長長的交給我 (HY: 4;1)

ni yao ba chang-chang de jiao gei wo

you must BA long-long DE hand to me

‘You must hand me the long one.’

c. V-V: Reduplicate verb or V-yi-V is used.

我幫你把這個切一切喔 (HY: 3;0)

wo bang ni ba zhege qie-yi-qie o

I help you BA this cut-YI-cut PAR

‘I help you cut this.’

d. De: The resultative clitic *de* is used.

要把它弄得亂掉 (HY: 3;4)

yao ba ta nong de luandiao

will BA it make DE mess

‘Mess it up.’

e. LE: The aspectual marker *le* is used.

我把它丟一邊了 (HY: 2;9)

wo ba ta diu yi bian le

I BA it throw one side LE

‘I throw it away.’

e. PSE-VP: Pseudo-verb phrase is used.

我再把它這個喔 (HY: 3;4)

wo zai ba ta zhege o

I again BA it this PAR

‘I am going to do this to it again.’

The number of occurrences of these patterns and the ratio of them to the total number of *ba* construction in each stage of the four children are counted in following.

Non-adult-like *ba* construction, which is presented as ERR (error), is also shown.

Table 3.6 BA patterns of HY

<i>Age</i>	2;7 to 3;2		3;3 to 3;8		3;9 to 4;1	
<i>RVC</i>	24	(47.06%)	79	(49.69%)	39	(46.43%)
<i>PP</i>	7	(13.73%)	29	(18.24%)	12	(14.29%)
<i>V-V</i>	1	(1.96%)	1	(0.63%)	0	(0.00%)
<i>DE</i>	0	(0.00%)	1	(0.63%)	7	(8.33%)
<i>LE</i>	1	(1.96%)	10	(6.29%)	9	(10.71%)
<i>PSE-VP</i>	0	(0.00%)	1	(0.63%)	0	(0.00%)
<i>ERR</i>	18	(35.29%)	38	(23.90%)	17	(20.24%)
<i>Total BA</i>	51		159		84	
<i>Total Sentences</i>	2567		2353		1387	

The Error Ratio of the spontaneous speech data is shown in Table 3.7 below.

Table 3.7 Spontaneous Speech Data Error Ratio of HY

<i>Age</i>	<i>Correct</i>		<i>Error</i>		<i>Total</i>
2;7 to 3;2	33	(64.71%)	18	(35.29%)	51
3;3 to 3;8	121	(76.10%)	38	(23.90%)	159
3;9 to 4;1	67	(79.76%)	17	(20.24%)	84

Table 3.8 BA patterns of JC

<i>Age</i>	2;12 to 3;2	3;3 to 3;8	3;9 to 4;5
<i>RVC</i>	5 (41.67%)	9 (47.37%)	43 (78.18%)
<i>PP</i>	0 (0%)	2 (10.53%)	1 (1.82%)
<i>V-V</i>	0 (0%)	0 (0%)	0 (0.00%)
<i>DE</i>	0 (0.00%)	0 (0%)	0 (0%)
<i>LE</i>	5 (41.67%)	4 (21.05%)	6 (10.91%)
<i>PSE-VP</i>	0 (0.00%)	0 (0%)	0 (0.00%)
<i>ERR</i>	2 (16.67%)	4 (21.05%)	5 (9.09%)
<i>Total BA</i>	12	19	55
<i>Total Sentences</i>	1006	1066	1995

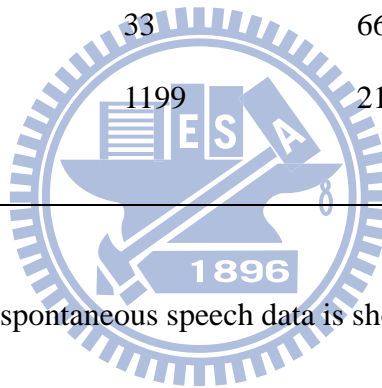
The Error Ratio of the spontaneous speech data is shown in Table 3.9 below.

Table 3.9 Spontaneous Speech Data Error Ratio of JC

<i>Age</i>	<i>Correct</i>	<i>Error</i>	<i>Total</i>
2;12 to 3;2	10 (83.33%)	2 (16.67%)	12
3;3 to 3;8	15 (78.95%)	4 (21.05%)	19
3;9 to 4;5	50 (90.91%)	5 (9.09%)	55

Table 3.10 BA patterns of AN

<i>Age</i>	1;11 to 2;6	2;7 to 3;2	3;3 to 3;8	3;9 to 4;1
<i>RVC</i>	15 (50.00%)	18 (54.55%)	37 (56.06%)	13 (59.09%)
<i>PP</i>	5 (16.67%)	5 (15.15%)	9 (13.64%)	3 (13.64%)
<i>V-V</i>	0 (0%)	1 (3.03%)	0 (0%)	0 (0%)
<i>DE</i>	0 (0%)	0 (0%)	0 (0%)	0 (0%)
<i>LE</i>	1 (3.3%)	1 (3.03%)	2 (3.03%)	1 (4.55%)
<i>PSE-VP</i>	1 (3.3%)	0 (0%)	0 (0%)	0 (0%)
<i>ERR</i>	8 (26.7%)	8 (24.24%)	18 (27.27%)	5 (22.73%)
<i>Total BA</i>	30	33	66	22
<i>Total Sentences</i>	2075	1199	2120	813



The Error Ratio of the spontaneous speech data is shown in Table 3.11 below.

Table 3.11 Spontaneous Speech Data Error Ratio of AN

<i>Age</i>	<i>Correct</i>	<i>Error</i>	<i>Total</i>
1;11 to 2;6	22 (73.34%)	8 (26.66%)	30
2;7 to 3;2	25 (75.76%)	8 (24.24%)	33
3;3 to 3;8	48 (72.73%)	18 (27.27%)	66
3;9 to 4;1	17 (77.28%)	5 (22.72%)	22

Table 3.12 BA patterns of CC

<i>Age</i>	2;7 to 3;2	3;3 to 3;8	3;9 to 4;9
<i>RVC</i>	18 (62.07%)	31 (65.96%)	52 (60.47%)
<i>PP</i>	0 (0%)	4 (8.51%)	13 (15.12%)
<i>V-V</i>	0 (0%)	0 (0%)	3 (3.49%)
<i>DE</i>	0 (0%)	1 (2.13%)	0 (0%)
<i>LE</i>	0 (0%)	2 (4.26%)	5 (5.81%)
<i>PSE-VP</i>	0 (0%)	0 (0%)	0 (0%)
<i>ERR</i>	11 (37.93%)	9 (19.15%)	13 (15.12%)
<i>Total BA</i>	29	47	86
<i>Total Sentences</i>	3136	2818	1988

The Error Ratio of the spontaneous speech data is shown in Table 3.13 below.

Table 3.13 Spontaneous Speech Data Error Ratio of CC

<i>Age</i>	<i>Correct</i>	<i>Error</i>	<i>Total</i>
2;7 to 3;2	18 (62.07%)	11 (37.93%)	29
3;3 to 3;8	38 (80.85%)	9 (19.15%)	47
3;9 to 4;9	73 (84.88%)	13 (15.12%)	86

Results in Table 3.6 to Table 3.13 show that the children in our study began using *ba* construction quite early. In AN's data, she even starts using *ba* at the age of 1;11. In addition, it is found that at least four kinds of *ba* patterns have been used in the period of 2;7 to 3;2. The frequency of RVC pattern is the highest throughout the four stages of

each child. And the frequency of the LE pattern and DE pattern are successively increasing as most of the children grew up. Furthermore, their non-adult-like *ba* construction, the error ratio, dropped as the children getting matured. In the last stage of each child, that is after 3;9, the error rate is the lowest among the three stages. These results suggest that the *ba* construction is complicated as what many previous researches proposed. Moreover, we can explore that there seems to be a transition of *ba* construction from the early language acquisition stage to the adult language.

3.2.3 Non-adult-like *Ba* Construction

In order to study the development of the *ba* construction in the four children's early acquisition stage, we attempt to separate those non-adult-like *ba* constructions from the well-formed ones. There are six patterns found in the early stage: (a) no post-*ba* NP, (b) no VP in the *ba* construction, (c) unbounded VP, (d) wrong use of verb, (e) coreferent of NP3 with NP2, (f) missing of preposition. The patterns and examples are illustrated in (2). Words inside parentheses were omitted. Ungrammatical constituents were underlined.

(2) a. Omission of Post-*Ba* NP: There is no post-*ba* NP following *ba*.

還是把把抓起來 (HY: 3;7)

haishi ba ba (ta) zhua qilai

or BA BA (it) grab up

'Or, I grab it up.'

b. Omission of VP: There is no VP in the *ba* construction.

然後把這個電話 (CC: 2;11)

ranhou ba zhege dianhua

then BA this telephone

‘Then, take this telephone.’

c. Unbounded VP: The VP does not show the property of boundedness.

我把它切 (JC: 3;1)

wo ba ta qie (le)

I BA it cut (LE)

‘I cut it.’

d. Wrong Use of Verb: Sometimes, an intransitive verb is used instead of a transitive verb. Or, in some cases, a verb used is semantically improper.

你可以把直昇機飛到這裡上面 (HY: 3;0)

ni keyi ba zhishengji fei dao zheli shangmian

you can BA helicopter fly to this top

‘You can fly the helicopter to the top.’

e. Coreferent of NP3 with NP2: The NP3 may be coreferential with the NP2.

想把這個拿起來寶藏 (JC: 3;9)

xian ba zhege na qilai baocang

want BA this take up treasure

‘want to take this treasure.’

f. Missing of preposition: The locative phrase is not preceded by a preposition.

我把它放裡面 (HY: 2;7)

Wo ba ta fang (zai) limian

I BA it put (at) inside

‘I put it inside.’

The numbers of occurrence of these *ba* constructions and its distribution of the four children are listed in Table 3.14 to Table 3.17. For the ease of comparison, the

percentages (Non-adult-like pattern / total numbers of *ba* constructions of that age) are also presented.

Table 3.14 Occurrence of non-adult-like *ba* construction of HY

<i>Age</i>	2;7 to 3;2	3;3 to 3;8	3;9 to 4;1
<i>Omission of Post-Ba NP</i>	0 (0.00%)	3 (1.89%)	3 (3.57%)
<i>Omission of VP</i>	10 (19.61%)	18 (11.32%)	8 (9.52%)
<i>Unbounded VP</i>	1 (1.96%)	2 (1.26%)	2 (2.38%)
<i>Wrong Use of Verb</i>	3 (5.88%)	13 (8.18%)	4 (4.76%)
<i>Coreferent of NP3 with NP2</i>	2 (3.92%)	0 (0.00%)	0 (0.00%)
<i>Missing of preposition</i>	2 (3.92%)	2 (1.26%)	0 (0.00%)
<i>Total numbers of ba cnstruciton</i>	51	159	84

From Table 3.14, we can find that the frequency of the use of omission of VP, coreferent of NP3 with NP2 and the missing of preposition declined as the child grew up.

Although the ratio of the pattern of wrong use of verb is increased from the first period of age to the second period, the ratio does decline from the second period to the third period. However, to our surprise, the error, omission of post-*ba* NP, did not decrease at all; it increased even more. In the case of the error type of unbounded VP, the frequency declined 0.7% initially; however, unexpectedly, it rose. We will have a reasonable explanation for this change of unbounded VP in the next section.

Table 3.15 Occurrence of non-adult-like *ba* construction of JC

<i>Age</i>	2;4 to 3;2	3;3 to 3;8	3;9 to 4;1
<i>Omission of Post-Ba NP</i>	0 (0%)	0 (0%)	0 (0%)
<i>Omission of VP</i>	0 (0%)	1 (5.26%)	2 (3.64%)
<i>Unbounded VP</i>	1 (8.33%)	3 (15.79%)	1 (1.82%)
<i>Wrong Use of Verb</i>	1 (8.33%)	0 (0%)	1 (1.82%)
<i>Coreferent of NP3 with NP2</i>	0 (0%)	0 (0%)	1 (1.82%)
<i>Missing of preposition</i>	0 (0%)	0 (0%)	0 (0%)
<i>Total numbers of ba</i>	12	19	55
<i>cnstruciton</i>			

Compared with the spontaneous speech data of HY in Table 3.14, in JC's data it is strange to find no error of the pattern of coreferent of NP3 with NP2 in the first two stages but in the last stage. Except for this, we can easily find that most of the error ratio declined successively. And, in JC's data we find no error of the pattern of omission of Post-Ba NP.

Table 3.16 Occurrence of non-adult-like *ba* construction of AN

<i>Age</i>	1;11 to 2;6	2;7 to 3;2	3;3 to 3;8	3;9 to 4;1
<i>Omission of Post-Ba NP</i>	1 (3.33%)	0 (0%)	2 (3.03%)	0 (0%)
<i>Omission of VP</i>	6 (20.00%)	3 (9.09%)	12 (18.18%)	3 (13.64%)
<i>Unbounded VP</i>	1 (3.33%)	2 (6.06%)	4 (6.06%)	1 (4.55%)
<i>Coreferent of NP3 with NP2</i>	0 (0%)	0 (0%)	0 (0%)	1 (4.55%)
<i>Missing of preposition</i>	0 (0%)	1 (3.03%)	0 (0%)	0 (0%)
<i>Unknown mistake</i>	0 (0%)	1 (3.03%)	0 (0%)	0 (0%)
<i>Total numbers of ba construction</i>	30	33	66	22

Table 3.17 Occurrence of non-adult-like *ba* construction of CC

<i>Age</i>	2;7 to 3;2	3;3 to 3;8	3;9 to 4;9
<i>Omission of Post-Ba NP</i>	2 (6.90%)	1 (2.13%)	3 (3.49%)
<i>Omission of VP</i>	6 (20.69%)	4 (8.51%)	8 (9.30%)
<i>Unbounded VP</i>	3 (10.34%)	2 (4.26%)	1 (1.16%)
<i>Coreferent of NP3 with NP2</i>	0 (0%)	1 (2.13%)	0 (0%)
<i>Missing of preposition</i>	0 (0%)	1 (0.02%)	0 (0%)
<i>Unknown mistake</i>	0 (0%)	0 (0%)	1 (1.16%)
<i>Total numbers of ba construction</i>	29	47	86

From Table 3.16 to Table 3.17, we can find that both of the error ratios of the patterns of

omission of VP and unbounded VP are declined gradually. Moreover, it is interesting to discover an unknown mistake in each of the spontaneous speech data of AN and CC.

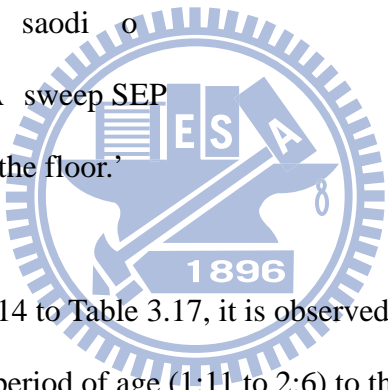
These two mistakes are given in (3) to (4) below.

(3) 我要把這個打電話 (AN: 3;1)

wo yao ba zhege da-dianhua
I will BA this make a phone call
'I will make a phone call to this.'

(4) 我爸爸把掃地喔 (CC: 3:1)

wo baba ba saodi o
my father BA sweep SEP
'My father sweeps the floor.'



Based on Table 3.14 to Table 3.17, it is observed that there are some obvious changes from the first period of age (1;11 to 2;6) to the last period (after 3;9). The frequency of the use of omission of VP and unbounded VP is the highest before the age 3.03 and declined successively as the child grew up, except for HY's data in which the frequency of unbounded VP declined firstly but rose at last.

3.2.4 Discussion

The results shown in Table 3.6 to Table 3.17, mostly, satisfy our expectation that the error rate should decline as the subject grew up. In the spontaneous speech data of HY, presented in Table 3.7, it is not difficult to find that the error rate declined successively from 35.29% in the first period of age to 20.24% in the third period of age. And in Table 3.13, the error ratio of CC shows the same result that the error ratio

declined successively as well. Although, in Table 3.9 and Table 3.11, the data of JC and AN do not display smoothly declination of the error ratio (the error ratio from stage 1 to stage 3 in JC's data: 16.67%, 21.05%, 9.09%; the error ratio from stage 1 to stage 4 in AN's data: 26.66%, 24.24%, 27.27%, 22.72%), the error ratios of these two children, JC and AN, do decline to the lowest point at the last stage. However, we still find some unexpected results. For example, in Table 3.14, HY's data, the frequency of the wrong use of verb, unbounded VP and the omission of post-*ba* NP, did not decrease smoothly. Hence, we try to give a plausible explanation here.

Why does the percentage of the pattern of wrong use of verb increase from the first period of age to the second period but declined at the third period? We can have a speculation that the ratio of wrong use of verb might successively decline as the child got mature, since, as children get old, the usage of verb will be likely to be more accurate and specific. In this case, the error is a consequence of incomplete lexical knowledge rather than lack of linguistic competence. Take sentences (5a) and (6a) for example, the errors of these two *ba* sentences are attributable to the incomplete knowledge of the properties of the two verbs, 丟 *diu* 'throw' and 飛 *fei* 'fly'. The misuse of *diu* in the verb phrase 丟死 *diusi* 'throwing somebody/ something and make them dead' is a result of semantic failure; usually, the verb 摔 *shuai* 'throw down' used in the verb phrase 摔死 *shuaisi* is much adopted by adults. On the other hand, the wrong use of *fei* is due simply to the misuse of intransitive verb as transitive, which happens a lot in the early children language acquisition.

(5) a. Subject's Sentence

要把它丟死

(HY: 3;5)

yao ba ta diu si

will BA it throw dead

‘Throw it to dead.’

b. Adult’s sentence

要把它摔死

yao ba ta shuai si

will BA it throw down dead

‘Throw it to dead.’

(6) a. Subject’s Sentence

你可以把直昇機飛到這裡上面

(HY: 3;0)

ni keyi ba zhishengji fei dao zheli shangmian

you can BA helicopter fly to here up

‘You can fly your helicopter up to here.’

b. Adult’s sentence

你可以把直昇機開到這裡上面

ni keyi ba zhishengji kai dao zheli shangmian

you can BA helicopter drive to here up

‘You can fly your helicopter up to here.’

In Table 3.14, at first sight, it seems strange that the error rate of unbounded VP declined slightly during the age of 3;3 to 3;8 but rose during the age of 3;9 to 4;1. However, under careful observation, we found that is a statistical mistake. There are two tokens of the unbounded VP counted at the third period of age. See sentences (7a) and (8):

(7) a. 把它打

(HY: 4;0)

ba ta da

BA he hit

‘Hit him.’

(8) 把你拆

(HY: 4;1)

ba ni chai

BA you take apart

‘Take you apart.’

Yet, an utterance immediately following (7a) was found. See (7b) below:

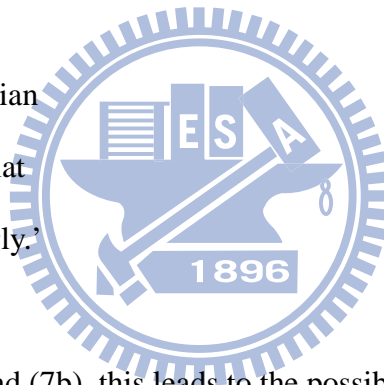
(7) b. 把它打扁

(HY: 4;0)

ba ta da bian

BA he hit flat

‘Hit him strongly.’



From sentences (7a) and (7b), this leads to the possibility that (7a) is just a sentence fragment of the well-formed sentence (7b). Therefore, just one token might be counted during the age of 3;9 to 4;1, and the percentage should be 1.19%. Accordingly, the ratios from the first period of age to the third period of age are 1.96%, 1.26%, and 1.19%, which conform to our prediction that the frequency of unbounded VP should decline as children grew up.

In the case of the omission of the post-*ba* NP, it is unexpected for the reason that following many researches the post-*ba* NP is a must-have constituent in the *ba* construction. The post-*ba* NP is assigned case by *ba*, and no element can intervene between them (See Huang & Li & Li 2009, for instance). However, we do find this kind of error appearing in the children’s acquisition of *ba* sentence. In the data presented

above, the error ratio of this pattern is quite inconsistent. In Table 3.15, JC's data, we do not find this kind of error. In Table 3.16 and Table 3.17, the error ratios of these two children, AN and CC, do not decrease smoothly. The error ratio declines at first, but increases in the later stage. Moreover, in Table 3.14, HY's data, omission of post-*ba* NP, does not decrease at all; instead, it increases from the first period of age (0.00%) to the second period age (1.89%) and from the second period of age to the third period of age (3.57%). According to Cheung (1992), this phenomenon persists across different age, and Cheung argued that this error is a performance error because it is found in different age. However, from the point of view of Hsieh (2009), she tried to manifest that this is not a performance error. Hsieh (2009) argued that although this kind of error is found to last for a long time in the data in her study, this phenomenon does not necessarily mean that omission of post-*ba* NP is a performance error. She also claimed that since the child in her study stops marking this error after he reaches at a certain age (4;8), it is suggested that this might not be a performance error. In our research, although we can not give a general reason to explain the inconsistency of this error type among our subjects, based on the data of four children our finding is more consistent with Cheung's (1992) claim. Since the low occurrence and the coincidence of the omission of the post-*ba* NP are found in the three children in our study, this error type is more likely to be a performance error. However, on account of the lack of data which is after 4;8, we can not confirm whether this error type will cease appearing. Hence, as for the cause of the appearance of omission of the post-*ba* NP in child language, the future research is absolutely needed.

There are two errors found in AN's and CC's data respectively. These two errors are difficult to classify into our categories of the non-adult-like *ba* constructions. These two errors shown in (9) to (10) are repeated below with the conversation context accompanying.

(9) INVESTIGATOR: 你要打給誰

ni yao da gei shei
you will call to whom
'Whom will you call?'

CHILD: 我要把這個打電話 (AN: 3;1)

wo yao ba zhege da-dianhua
I will BA this make a phone call
'I will make a phone call to this.'

(10) INVESTIGATOR: 喔，那你們家有沒有掃把

o , na nimen jia you-mei-you saoba
SEP then you house have-not-have broom
'Then, do you have a broom in your house?'

CHILD: 我爸爸，把掃把，我爸爸把掃地喔 (CC: 3:1)

wo baba , ba saoba , wo baba ba saodi o
my father BA broom my father BA sweep SEP
'My father takes a broom to sweep.'

In (9), the investigator tried to ask the child to whom the child wants to make a phone call. From the sentence the child produced, it is likely to image that at this point in time the child points to some entity and answers the investigator that he wants to make a phone call to this entity. Under this view, we can infer that at this moment the child used the *ba* sentence has had the idea of the disposal property of *ba* construction. He plans to deal with or manipulate 這個 *zhege* 'this'. That is, the child intends to do something which is 打電話 *da-dianhua* 'make a phone call' to the entity, 這個 *zhege* 'this'. However, the child has not acquired the rule of *ba* construction completely. Even

though he perceives that *ba* construction is possessed of the disposal property, he doesn't figure out that an intransitive verb can not follow the [*ba* NP]. Take (11) for example:

(11) a. *我把它跑步

wo ba ta paobu

I BA it run

'I run.'

b. *我把它飛

wo ba ta fei

I BA it fly

'I fly it.'

In (11), it is easily to find that an intransitive verb, here 跑步 *paobu* 'run' and 飛 *fei* 'fly', can not be shown in the *ba* construction. Therefore, we can attribute this error to the child's incomplete knowledge to *ba* construction.

In (10), CC's data, it is very difficult to analyze why this child would make this kind of error in the second *ba* in her reply to the investigator. She not only uses an intransitive verb *saodi* 'sweep' in the *ba* sentence, but also omits the post-*ba* NP. However in the first *ba* in (10), we can presume that the child wants to said 拿掃把 *na saoba* 'take the broom'. If it is the case, we might have a more reasonable and well-formed reading to the sentence the child produces. It is shown in (12) below.

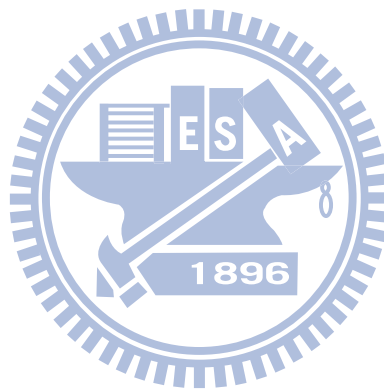
(12) 我爸爸，拿掃把，我爸爸拿(來)掃地喔

wo baba , na saoba , wo baba na-(lai) saodi o

my father take broom my father take to sweep SEP

‘My father takes a broom. My father takes a broom to sweep.’

However, this is only our conjecture, and in the following chapter we will elaborate on the possibility of the verb property of *ba*. In our research, we do not endeavor to explain every error of *ba* sentence in our subjects’ production. This will leave to future studies.



From the results in the previous chapter, it can be found that *ba* construction is not simply a grammatical construction for children to acquire for the reason that children committed errors in 20 to 35 percent of their usage of *ba* construction. We also find that children begin to use *ba* quite early as they start to produce multiword utterances.

It is well noted that *ba* in Modern Chinese has lost standard verbal properties. *Ba* has become “grammaticalized” and does not behave like a pure lexical verb (Li and Thompson, 1981; Sybesma, 1999; Huang & Li & Li 2009). In this chapter, we will not try to give any new proposal to argue against the original one, but, however, we aim to assume that at the early acquisition stage of *ba*, *ba* is firstly acquired as a verb, not a grammaticalized category.

In chapter 3, we can see that from the first period of age to the second period of age the frequencies of most of the *ba* patterns increase. Moreover, it has been shown that the subjects’ non-adult-like *ba* construction, the error ratio, dropped as they get more mature. These results manifest that the syntactic representation of the *ba* construction in children’s language differs considerably from the *ba* in adult’s language. In order to examine the status of *ba* in the very early age of children’s language, we try to analyze those non-adult-like *ba* constructions found in the children’s language. We intend to provide evidence to support the hypothesis that *ba* is, firstly, acquired as a verb in young children’s language through the errors children make in producing *ba* sentence. The investigation of children’s grammatical errors in *ba* sentence is approached from two angles: the errors whose ratio decrease as the increase of age, and specific patterns of errors found in the four children’s spontaneous speech in our study. Under careful observation, three sets of condition found in the spontaneous production data can be the

effective evidence to argue that our hypothesis that *ba* is firstly acquired as a lexical verb may be valid. The three sets of condition are reorganized and presented in (1)-(3), and examples are also shown to illustrate these conditions:

(1) NP1 [[BA NP2] (VP)]: ‘omission of VP in the *ba* construction’

Investigator: 這塊綠色的跟它放在一起就會逼逼。

zhe kuai lusede gen ta fang zai yiqi jiu hui bibi

this CL green with it put to together then will ‘sound’

‘Put this green one beside it, and then it will make the ‘beebee’
sound.’

Child: 這樣把它就沒有了

(HY: 3;0)

zheyang ba ta jiu meiyou le

this BA it then without LE

‘Put it in this way, and it will not (make that sound).’

(2) canonical *ba* sentence: ‘only canonical *ba* sentence appears before 3;9’

Child: 我們先把車車收起來

(HY: 2;11)

women xian ba che che shou qilai

we first BA car car gather up

‘Firstly, we gather the car.’

(3) verbs in a bare form: ‘the bare verb form ceases to appear at the age of 4’

Child: 我把它切

(JC: 3;1)

wo ba ta qie

I BA it cut

‘I cut it.’

In the following section, we are going to discuss the roles that the three sets of condition played in the acquisition of *ba* sentence in child language.

4.1 Omission of VP

Adopting Huang & Li & Li (2009), the construction of *ba* sentence is that a subject is followed by *ba* and a NP, and a VP follows the NP. The structure has been presented in (18) in Chapter 2 as repeated here:

(4) [_{baP} Subject [_{ba'} *ba* [_{VP} NP [_{v'} *v* [_{VP} V XP]]]]].

It is perfectly accepted that in the *ba* construction there must be a VP following the post-*ba* NP. The *ba* construction expresses that an object (that is the NP in (4)) is affected, dealt with, or disposed of by a VP and the complement of the VP. Take (5) for example.

(5) 我把張三打斷了手

wo ba Zhangsan da duan le shou
I BA Zhangsan hit break LE hand
'I hit Zhangsan and break his hand.'

In (5), 張三 *Zhangsan* is affected by the verb phrase 打斷 *da duan* 'hit and break' and its complement 手 *shou* 'hand'. Furthermore, the post-*ba* NP is assigned an "affected" theta-role by the complex verb phrase following the post-*ba* NP. However, in the data we collected we can find that before a certain age children might sometimes produce *ba* sentences without a VP following the post-*ba* NP. Examples are shown below:

(6) a. Child: 然後，然後把 taxi (HY: 2;11)

ranhou, ranhou ba taxi.

then then BA taxi

b. Investigator: 這塊綠色的跟它放在一起就會逼逼

zhe kuai luse de gen ta fang zai yiqi jiu hui bibi

this CL green POSS with it put to together then will 'sound'

'Put this green one beside it, and then it will make the 'beebie' sound.'

Child: 這樣把它就沒有了 (HY: 3;0)

zheyang ba ta jiu meiyou le

this BA it then without LE

'Put it in this way, and it will not (make that sound).'

c. Child: 這裡有壞人

zheli you huai ren

here have bad person

'There is a bad person.'

Investigator: 去抓壞人

qu zhua huai ren

Go catch bad person

'Go to catch the bad person.'

Child: 你看又這樣了，把它，他會，會一直壞掉啊 (HY: 3;0)

ni kan you zheyang le, ba ta, ta hui hui yizhi huaidiao a

you see again this LE, BA it, it will will continually broken SEP

'You see. This happens again. *ba* him, he will keep broken.'

From the data above, we can deduce that, at the beginning stage of language acquisition of *ba* sentence, children take *ba* as a more verb-like morpheme. *Ba* can serve as a verb, which can directly take an NP, or an NP followed by a complement. The semantic properties of *ba* might retain the original verb meaning ‘take, grasp, deal with.’ The assumption is not too odd, since there is no doubt that *ba* is a lexical verb historically. Also, it is undeniable that *ba* underwent semantic bleaching. And then *ba* becomes “grammaticalized” and does not behave like a verb (Wang, 1958). For this reason, we can argue that a grammaticalized category is, firstly, too complicated for children to acquire. Therefore, children might treat *ba* as a verb at the beginning. Another example presented in (7) can support this assumption.

(7) Investigator: 修理，啊修理不好是不是？
 xiuli, a xiuli bu hao shi bu shi ?
 fix PAR fix not well yes not yes
 ‘You did not fit it well, did you?’

Child: 修理很好
 xiuli hen hao.
 fix very well
 ‘I fixed it very well.’

Investigator: 修理很好是不是？
 xiuli hen hao shi bu shi?
 fix very well yes not yes
 ‘You fix it very well, didn’t you?’

Child: 嗯，就是他把這邊把好了 (HY: 3;4)
 en, jiushi ta ba zhebian ba hao le
 um then he BA here BA well LE

‘Yes, then he fixed this place well.’

In the example (7), we can find that there is no VP in the *ba* construction. The structure is [subject [*ba* NP [*ba* complement]]]. It seems that this sentence is uninterpretable.

However, a replacement of *ba* by a verb *xiu* ‘fix’ gives rise to a grammatical sentence:

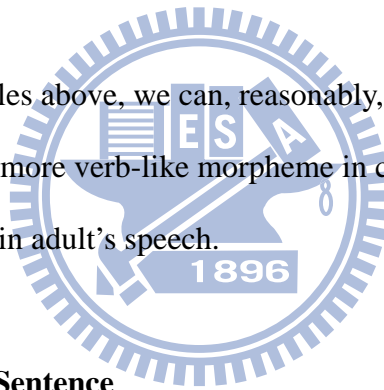
(8) 他修這邊修好了

ta xiu zhebian xiu hao le

he fix here fix well LE

‘He fixed this place well.’

From the examples above, we can, reasonably, have evidence to support our hypothesis that *ba* is a more verb-like morpheme in child’s language but not a functional category as in adult’s speech.



4.2 Canonical BA Sentence

It has been mentioned in chapter 2 that there are two kinds of *ba* construction. One is the canonical *ba* construction, and the other is causative *ba* construction. In causative *ba* construction, the subject of the *ba* sentence is generally inanimate causers, and *ba* can not form a constituent with the post-*ba* NP. In our spontaneous speech data of the four children, we can easily observe that we can not find any causative *ba* sentence until a certain age. The first causative *ba* sentence found in the spontaneous speech data of JC appears at the age of 3;9. The sentence is presented below:

(9) 他的槍可以把怪獸的劍變成劍

(JC: 3;9)

ta de qiang keyi ba guashou de jian biancheng jian

he POSS gun can BA monster POSS sword become sword

‘His gun can turn the monster’s sword to another sword.’

Furthermore, to verify whether (9) is a causative *ba* sentence, we can have a test to examine whether the *ba* can form a constituent with the post-*ba* NP. This is illustrated in (10):

(10) *把怪獸的劍，他的槍可以變成劍

*ba guaishou de jian, ta de qiang keyi biancheng jian

BA monster POSS sword, he POSS gun can become sword

It seems that this sentence in which we preposed the *ba* and post-*ba* NP is odd.

In the following, we present the first causative *ba* sentence from the other three children, and the age at which the causative *ba* sentence appeared.

(11) 這很容易把我東西弄下來 (HY: 3;8)

zhe hen rongyi ba wo dongxi nong xialai
this very easy BA my thing make fall-down
‘This might make my thing fall down easily.’

(12) 這個圓的剛好可以把她拿掉 (AN: 4:00)

zhege yuan-de ganghao keyi ba ta nadio
this round-POSS happen-to can BA her take-off
‘This round one happens to take her off.’

(13) 刀子把他切掉 (CC: 3;11)

daozi ba ta qie-diao
knife BA he cut-off
‘The knife cut he off.’

In causative *ba* sentence, the sentential subject is generally inanimate causers. And, according to Huang & Li & Li (2009), causative *ba* sentences do not have the verbal interpretation ‘handle, deal with.’ In contrast, in canonical *ba* sentence, Huang & Li & Li propose “*ba* is a verb taking an NP as its object and forming a VP with the object to modify the following VP” (Huang & Li & Li 2009: 180). On the other hand, when a *ba* sentence is of the “canonical” type, meaning that somebody does something to some entity, the constituent structure seems to have the possibility of being analyzed as [[*ba* NP] VP], because *ba* and post-*ba* NP can be preposed as a unit. Example is shown in (14):

(14) a. 你把這本書讀一讀

ni ba zhe ben shu du yi du

you BA this CL book read one read

‘You read this book.’

b. 把這本書，你讀一讀

ba zheben shu, ni du yi du

BA this-CL book you read one read

‘This book, you read it.’

Although we can not find such sentences in our data, however, we find a similar pattern.

(15) 把它，然後然後，要變回去

(JC: 3;8)

ba ta, ranhou ranhou yao bian huiqu

BA it then then will change back

‘Then, change it to the original form.’

It is widely adopted that in Mandarin Chinese the modal *yao* ‘want to’ is unlikely to appear in the maximal projection of VP. According to Huang & Li & Li (2009; 106-110), the modal *yao* occurs only between the subject and vP. The structure is (16), and is illustrated in (17):

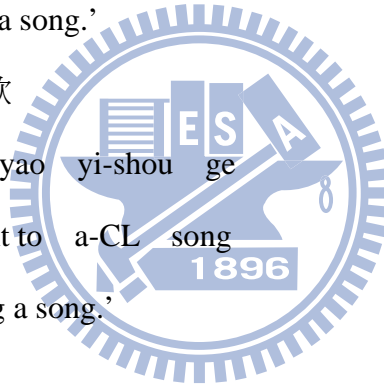
(16) [NP_i modal [_x Pro_i V ...]]

(17) a. 我要唱一首歌

wo yao chang yi shou ge
 I want to sing a CL song
 ‘I want to sing a song.’

b. *我唱要一首歌

*wo chang yao yi-shou ge
 I sing want to a-CL song
 ‘I want to sing a song.’



Hence, following Huang & Li & Li’s (2009) analysis of *ba* construction, *ba* is impossible to occur before the modal *yao*. It is also proposed by many previous researchers that *ba* always follows negation as well as auxiliaries (see Li and Thompson 1981:480, and Sybesma 1999: 170, for instance) However, from the example (15), *ba* and post-*ba* NP form a constituent, which is separated from the VP *bian huiqu* 變回去 by the adverbial *ranhou* ‘then’ and the modal *yao* ‘want to’. Furthermore, the fact that the post-*ba* NP *ta* 它 can precede a modal shows that a looser relation is allowed between the [*ba* NP] and [VP XP]. This can suggest that the construction of (15) is not like the *ba* construction of adult’s language, since the *ba* construction of adult’s

language can not allow any element intervene between the [*ba* NP] and [VP XP].²

From another point of view, we can see sentence (15) as another type of a canonical *ba* sentence of which the [*ba* NP] is preposed to the initial position. It is illustrated in (18).

(18) a. 然後然後，要把它變回去

ranhou ranhou yao [ba ta] bian huiqu

then then will BA it change back

‘Then, change it to the original form.’

b. 把它，然後然後，要變回去

[ba ta] ranhou ranhou yao bian huiqu

BA it then then will change back

‘Then, change it to the original form.’

We have mentioned that the *ba* and post-*ba* NP can form a constituent and be preposed to the initial position of the canonical *ba* sentence. Sentence (18) might be a piece of evidence to verify our assumption that children know the canonical *ba* structure in an early age.

Some opinions might come up to dispute the claim that the canonical *ba* sentence can serve as evidence taking *ba* as a verb in early child language. It is well known that children whose native language is Mandarin Chinese tends to produce canonical word order sentence, that is, SVO. Therefore, we can attribute the early appearance of the canonical *ba* sentence to the tendency of children to produce canonical SVO sentence.

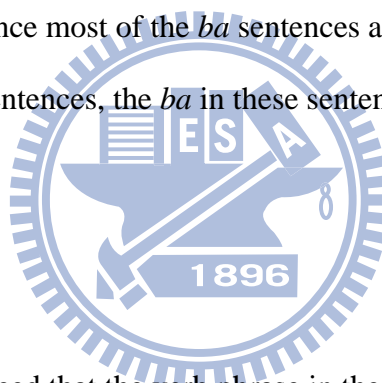
² There is an example where the [*ba* NP] and [VP XP] can be intervened by adverbial element.

(i) 我正在把桌子往屋裡搬

‘I was moving the table into the room.’

Since this example does not make any influence to our analysis, readers interested can refer to Liu(1997).

However, it is widely adopted that the word order of *ba* construction is much more like SOV than SVO. The canonical *ba* sentence has nothing to do with the canonical SVO sentence. It is only the term, ‘canonical’, we use to describe the two structures. Hence, the appearance of canonical *ba* sentence without the accompanying of causative *ba* sentence in the early stage of child language can still serve as evidence. Inasmuch as the causative *ba* no longer bears the verbal interpretation ‘handle, deal with,’ and underwent semantic bleaching, its grammatical burden is much heavier than the canonical *ba*. We can deduce that it is easier for children to acquire a verb as in the canonical *ba*, whose semantic representation is much clearer, but not a grammatical category as in the causative *ba*, whose semantic representation is not that transparent. Given the data, we can again argue that since most of the *ba* sentences appearing in child’s language before 4;0 are canonical *ba* sentences, the *ba* in these sentences does retain its verbal properties to some degree.



4.3 Bare VP Form

It is generally agreed that the verb phrase in the *ba* sentence must be structurally complex, which means monosyllabic verb cannot occur with the *ba* construction.

Examples are given in (19):

(19) a. *我們把李四罵

* women ba lisi ma
 we BA Lisi scold
 ‘We scolded Lisi.’

b. 我們把李四罵了

women ba lisi ma le
 we BA Lisi scold-LE

‘We scolded Lisi.’

c. 我們把李四罵一頓

women ba lisi ma yi-dun

we BA Lisi scold one-CL

‘We gave Lisi a scolding.’

The predicate of the *ba* construction is of a property of bounded event, the predicate must have an end point –the resultative state, such as an aspect marker, or a resultative, or a quantifier, or a directional verb. Based on Liu (1997), she listed nine patterns for the *ba* construction (The example (12) in chapter 2 is repeated in (20) below):

(20) a. V + resultative verb complement

b. V + *de* (resultative)

c. V + retained object

d. V + perfective marker *-le*

e. V + PP (dative or locative)

f. V + quantified phrase

g. V + *yi* + V (the tentative construction)

h. V + durative marker *-zhe*

i. Adv + V

On the other side, referring to Li and Thompson’s (1981:487), “the reason why *ba* sentence always have verbs with those elements preceding or following them is that such elements serve to elaborate the nature of disposal.” That is, the more elements that are added to elaborate the nature of disposal, the more likely are the sentences to appear in the *ba* form.

In our data, it is not too difficult for us to discover that children continue to produce sentences with unbounded VP until the age around 4-year-old, although the percentage of this non-adult-like usage is not too high. Examples are given in (21) to (23):

(21) 然後再把它弄 (JC: 3;8)

ranhou zai ba ta nong
then again BA it deal with
'Then, you deal with it.'

(22) 我要把它丟 (JC: 3;6)

wo yao ba ta diu
I will BA it thro
'I will throw it.'



(23) 那你把這綁囉 (CC: 2;11)

na ni ba zhe bang luo
then you BA this braid SEP
'Then, you use this to braid.'

As mentioned above, the predicate following [*ba* NP] must have an end point –the resultative state. From (21) to (23) we can see that children do not follow the constraints of the *ba* sentence in adult's language to some extent. We can reason this phenomenon from two possibilities.

First, this phenomenon can be attributed to children's lack of knowledge of aspectual properties and inability to the use of aspect markers. Therefore, although

children know that the verb phrase in the *ba* sentence must be structurally complex and can not be a bare form, yet they lack the ability to add the aspect markers, *le* or *zhe*, to the verb phrase. However, it has been widely known that children start to use aspect markers at a quite early age. For example, Erbaugh (1992) found that Chinese children acquire the aspect marker *le* earlier than other markers, *zai*, *zhe*, and *guo*. Based on our investigation, children started using the perfective aspect marker *le* very early. The aspect marker *le* appears at the age of 2;0, 2;5, 1;9 in the spontaneous speech data of our subjects, HY, CC, and AN respectively. Since the spontaneous speech data of the other subject, JC, are collected at 2;9, the first *le* is found at this age; however, we believe the perfective aspect marker *le* should appear much earlier in JC's utterances. This indicates that children's knowledge of aspectual properties is no later than the appearance of *ba* construction. Furthermore, even though children are unfamiliar with the usage of aspect markers, they can still use some extra elements preceding or following the VP to achieve the nature of disposal of *ba* construction. However, this does not happen, and children, sometimes, still choose to use a monosyllabic V following [*ba* NP]. Hence, under the observation of the aspect marker *le* and the reasons proposed above, we can deduce that the lack of aspect markers following the VP of *ba* construction is independent of the capacity to analyze the aspectual properties of VP, since *le* is quite productive in the early stage in children's language acquisition.

Second, we can ascribe this phenomenon to children's acquaintance of *ba* construction. If at the early stage in language acquisition children do not treat the *ba* sentence in the same way as the *ba* construction in adult language, in this time the disposal property of *ba* construction might not be a necessary characteristic of the children's *ba* sentence. Erbaugh (1992) studied the acquisition of the aspect marker *le* in children language and found that children, as well as adults, often use *le* to call attention to a noteworthy change of state. The aspect marker *le* indicates perfectivity. Li and

Bowerman (1998: 313) stated “.....as an event bounded at the beginning and the end, and without reference to its internal structure”. It is said that *le* presents a situation in its entirety or as a whole. As mentioned above, in our spontaneous speech data the usage of the aspect marker *le* is quite prolific at the early age. Supposing that children have acquired the usage of the aspect marker *le*, it is reasonable to imagine they can use the aspect marker *le* properly in the *ba* sentence to perform the disposal property of *ba* construction. However, it is totally not the case. Sometimes, children make use of neither the aspect marker *le* nor any other elements in the *ba* sentence which is unacceptable in adult’s *ba* construction. This leads to the possibility that children do not regard the *ba* sentence as the same as the *ba* construction in adult language. Neither do children associate the *ba* sentence with a disposal reading, nor do they think the changing of state of the post-*ba* NP is needed. Accordingly, children do not require the aspect marker *le* to denote the entirety of the event in the *ba* sentence. They also do not need a resultative verb compound which is always composed of a verb and a resultative complement in the predicate of *ba* sentence to fulfill the affected and disposal meaning of the *ba* construction. What children want to express is a simple event. The *ba* sentence in this stage is like a serial verb construction in which the juxtaposition of two verb phrases is to convey one message. Examples are shown in (24a-c).

(24) a. 我煮飯吃

wo zhu fan chi

I cook rice eat

‘I cook to eat.’

b. 他買菸抽

ta mai yan chou

he buy cigarette smoke

‘He buys cigarette to smoke.’

c. 他拿一本書讀

ta na yi ben shu du

he take a CL book read

‘He takes a book to read.’

Just like the serial verb construction, the constituent [*ba* NP] and the following V describe events that are understood to be related in some way. As we noted earlier, the *ba* sentences at the beginning of children’s language do not always go along with the semantic property of “disposal, affected.” In some way, we can infer that *ba* just possesses the verbal property with the meaning of “take, dealing with.” The *ba* and post-*ba* NP denote the first event which is done for the purpose of achieving the second event. And the second event is denoted by the verb following the post-*ba* NP. Or we can see this as consecutive events. That is, one event occurs after the other. Accordingly, we can interpret sentences (21) as ‘Then, you hold it and deal with it’, (22) as ‘I will take it to throw’, and (23) as ‘Then you use it to braid.’

4.4 Other evidence

There is other evidence discovered in the spontaneous speech data of our subject. See sentence (6b) repeated in (25) below:

(25) Investigator: 這塊綠色的跟它放在一起就會逼逼

zhe kuai lusede gen ta fang zai yiqi jiu hui bibi

this CL green with it put to together then will ‘sound’

‘Put this green one beside it, and then it will make the ‘beebee’

sound.’

Child: 這樣把它就沒有了

(HY: 3;0)

zheyang ba ta jiu meiyou le

this BA it then without LE

‘Put it in this way, and it will not (make that sound).’

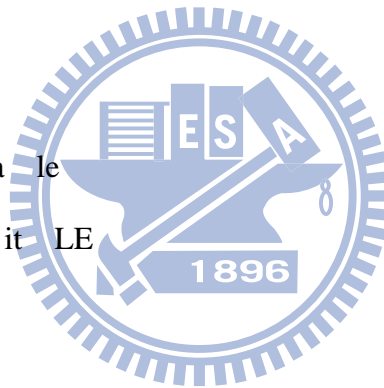
We can find that there are only *ba* and the post-*ba* NP found in the child’s utterance, but a following VP which must be present in the *ba* construction is missed. Although in many utterances of children a pseudo-verb phrase is usually used to substitute a real verb (take (26) as example), this pseudo-verb phrase usually co-occurs with an actual action executed by the child in the real world.

(26) 我這樣他了

wo zheyang ta le

I this it LE

‘I do this to it.’



Not surprisingly, this pseudo-verb phrase 這樣 *zheyang* may, of course, stay in the site of an original real verb, like (26). However, in sentence (25), 這樣 *zheyang* ‘this’ seems to occupy a position of an adverb, not a verb. Take a manner adverb for illustration. In a *ba* sentence, a manner adverb can occur before or after *ba*, examples are shown in (27) (adapted from Huang & Li & Li’s (59 a-b)):

(27) a. 我小心的把杯子拿給他

wo xiaoxin-de ba beizi na-gei-ta.

I carefully BA cup take-to-him

‘I gave the cup to him carefully.’

b. 我把杯子小心的拿給他

wo ba beizi xiaoxin-de na-gei-ta.

I BA cup carefully take-to-him

‘I gave the cup to him carefully.’

We can, hence, presume that the phrase 這樣 *zheyang* ‘this’ is an adverb to modify a verb phrase, that is the [*ba ta*]. If we make a slightly modification that we substitute an adverb for *zheyang* 這樣 and change *ba* to a lexical verb *na* 拿 ‘take’ in this sentence, we can get a well-formed sentence.

(28) 很快的拿他就沒有了

hen-kuai-di na ta jiu meiyou le

very fast take it then without LE

‘Take it fast, and it will not (make that sound).’

Another piece of evidence is based on the verbhood tests to *ba*. It is widely accepted that *ba* cannot serve as a simple answer to a question, for example:

(29) A: 你把什麼吃完了

ni ba sheme chi wan le ?

you BA what eat finish LE

‘What did you and finish?’

a. B: 飯

fan

rice

‘Rice.’

b. B: 把飯吃完了
ba fan chi wan le
BA rice eat finish LE
‘Finish the rice.’

c. *B: 把飯
*ba fan
BA rice
‘finish the rice.’

However, in the spontaneous speech data of our subject HY, we found that *ba* can serve as a simple answer to a question. See (30) below:

(30) INV: 把它撞壞?

ba ta zhuang huai ?
BA it crash broken
‘What do you want to crash?’

CHI: 把這個啊

(HY: 3;7)

ba zhege a
BA this PAR
‘I want to crash this.’

Though the two evidence proposed above are not grouped in our three conditions in the previous section, these do shed light on our hypothesis that *ba* is firstly acquired as a lexical verb in the very early acquisition of *ba*.

4.5 A comparison between our research and Hsieh's (2009)

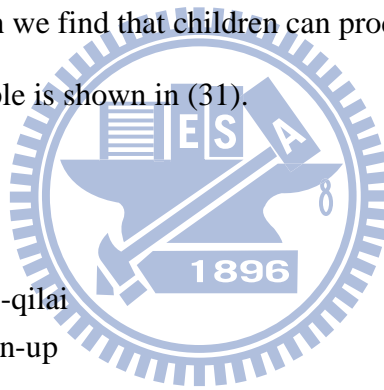
Since Hsieh (2009) has studied a child's development of *ba* construction by using the longitudinal data collected as the child was about one year old, in our research we aim to use a more quantified study to examine the *ba* status in the early stage of child's development of *ba* construction. In our research, our finding is approximately consistent with Hsieh's research that *ba* is analyzed as a pure lexical verb at the very beginning of the development of *ba* construction. However, we can still discover some differences between Hsieh's research and ours.

First, according to Hsieh's (2009) research, she stated that before 2;0 the child only produced *ba* sentences without a post-*ba* NP, and a complete *ba* sentence occurred at 2;5. Yet in our research we find that children can produce well-formed *ba* sentence earlier than 2;5, example is shown in (31).

(31) 把這個收起來

ba zhege shou-qilai
BA this clean-up
'Clean this up.'

(AN: 1;11)



Second, Hsieh claims that from 3;5 the VP used in a *ba* construction is always bounded. However, in our data we can easily find that although the error ratio of unbounded VP does decline as children getting mature, this error can still be found after the age of 3;5. In the following we list the percentage of the unbounded VP of the children in our study during 3;9 to 4;1.

(32) HY: 2.38%

JC: 1.82%

AN: 4.55%

CC: 1.16%

Third, Hsieh argued that the child has finally acquired the semantics and syntax of

the *ba* construction when he reached 5;2. It is because that there is a sign that the child stopped producing non-adult *ba* sentences with respect to affectees. The child produced many *ba* spelling using the passive-like marker 給 *gei* ((33) is adapted from Hsieh's (66)).

(33) 你把它給移開了喔? (5;8)

ni ba ta gei yi-kai le o
 you BA it GEI move-aside ASP SEP
 'Do you move it aside?'

However, from the data in our research we can find this kind of sentence appears much earlier than the age Hsieh argued in the children's language. Examples are shown in (34).

(34) a. 然後再把手給戳進去 (HY: 4;0)

ranhou zai ba shou gei chuo-jin-qu
 then again BA hand GEI poke-into
 'And then poke the hand into it.'

b. 然後她就把它給再打開 (AN: 3;11)

ranhou ta jiu ba ta gei zai da-kai
 then she then BA it GEI again open
 'Then she opens it again.'

This phenomenon indicates that using this kind of sentence as a sign to argue that child at this age has fully acquired the *ba* construction is too assertive. That is because at this age children still make many non-adult-like *ba* sentences and can not produce the well-formed *ba* sentence all the time.

Lastly, as mentioned in previous section, we consider the phenomenon that only canonical *ba* sentence appears before a certain age to be an important clue to discuss the

status of *ba* in the early stage of child's language. This phenomenon is not observed in Hsieh's (2009) research. Furthermore, from this point of view we can have a different perspective to diagnose the development of *ba* sentence in child's language.

In summary, in comparison with Hsieh's (2009) research, we provide more complete and richer data of children. In this way, we can have a more detailed observation and discussion to the *ba* status of child's language. In the early part of our study, it has been mentioned that unlike Hsieh's (2009) research, the developmental stages of *ba* construction is not our present concern. This study limits the discussion to the *ba* status of the very beginning of child's language. Under our analysis above, it is found that children do regard *ba* as a verb at the early stage of the development of *ba* construction. However, in contrast with Hsieh's research, we find that it is not that easy to, decisively and lucidly, mark off the different development stage of *ba* construction, since the non-adult-like *ba* sentence and well-formed sentence are usually mixed together. That is to say, at a certain age children might start using more complex *ba* construction, but, at the same time, the children might still also produce ungrammatical *ba* sentence. To put it another way, there is a transition-period in the acquisition of *ba* construction, and children acquire the complete *ba* construction progressively and abandon the non-adult-like *ba* sentence step by step. In our study, what we can be sure is that children use *ba* as a pure lexical verb at the beginning stage of the development of *ba* construction.

The *ba* construction is perhaps the most widely discussed study of Mandarin grammar. It has received many attempts at analysis and comes up frequently as a syntactic test in discussions of other phenomena. Nonetheless, there is little attempt to discuss the *ba* phenomenon in the acquisition of child's language.

In this article, we do not try to give any new proposal to against the original one, but, however, we aim to test the hypothesis that at the early acquisition stage of *ba*, *ba* is firstly acquired as a verb not a grammaticalized category. Besides, sorting the development of *ba* construction is beyond the scope of this research. Therefore the present goal is, rather, to discuss the verbal status of *ba* in the acquisition of young children's language, which has received only limited attention in the past. Since it is believed that children's grammatical errors can represent their deficiency in the knowledge of adults' language, the errors of *ba* construction that children make can, therefore, provided us clues of children's knowledge and acquaintance of the *ba* status. Based on four children's spontaneous speech data, we try to provide evidence to argue that *ba* is firstly acquired as a lexical verb in the acquisition of children's language, not as a grammaticalized category in adults' language. The three evidences are presented as following respectively: (i) omission of VP in the *ba* construction; (ii) only canonical *ba* sentence appears; (iii) the bare verb form ceases to appear at a certain age. In addition, some phenomenon, for example, taking *ba* as a simple answer to a question, are also found in children's spontaneous speech data can also give us implication to assume *ba* as a verb in the early age of children. Under carefully observation, the three set of conditions grant us to give a hypothesis that *ba* is firstly acquired as a more verb-like category in the acquisition of child language.

In this research, we use a corpus-based approach rather than a longitudinal one to

exam the hypothesis that *ba* is firstly acquired as a verb in the acquisition of children language. We believed that the data from only one child is not sufficient, for the reason that the phenomenon found in this child might be peculiar to an individual, that is, the idiosyncrasy of this child. Moreover, under statistical information of the spontaneous speech data, it is much easier to survey the *ba* status in children language with increase of age. On the other side, it is believed that *ba* is original a verb and is grammaticalized to a grammatical category, and in some aspect *ba* still retains its verbal property such as *canonical ba construction*. Therefore, the finding of this research also reflect children's tendency to acquire content words rather than grammatical category.

Although this thesis just give a preliminary investigation in the study of the phenomenon of the *ba* construction in child's language, the findings and implications of the study points to new possibilities for future research of the acquisition of *ba* construction.



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