

# Perfectivity and the Chinese BA-Verb

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## 1. Introduction

A BA-construction differs from an ordinary Chinese sentence in that an ordinary sentence is in an S-V-O word order, whereas the BA-sentence in an S-BA-O-V word order as the BA-noun is transposed to a preverbal position. A BA-sentence is viewed, in this study, a linguistic device which allows the speaker to express a subjective perception of the responsibility on the part of the senttial subject (or the agent) for what happens to or affects the BA noun entity. In comparison, its S-V-O counterpart normally gives a neutral report or a report on "a neutral movement, done wihtout any further purpose in mind" (Chappell 1992:521).

Before the discussion, it is necessary to introduce two useful terms, i.e. the "BA-verb" and the "BA verbal expression". The term "BA verb" is used in this study as a cover term to refer exclusively to the base form of the core verb in the BA-sentence, i.e. the verb without any form of modification. The term "BA verbal expression" is used to refer to the entire verbal expression that follows the BA-noun immediately; it is termed "the second verbal expression" by Chao (1968:345). It is also worth noting that in this study a monosyllabic verb and its related verb are treated as different verbs and may be grouped under different verb categories.

The most noticeable feature of BA verbal expressions in the contemporary use is that they cannot be monosyllabic (Chao 1968; Newnham 1971). According to Chao (1968:346), the general philosophy of the polysyllabicity of the BA verbal expression is that, since the object noun phrase is advanced to a preverbal position, there must be something more elaborate to be expressed than a monosyllable can convey; otherwise, "it would have the effect of an anticlimax".

Similar observation was also made by W. Wang (1964:196), Hashimoto (1970) and many others that the BA verb (whether monosyllabic or polysyllabic) must be modified in some way, though they do not refer to exactly the same forms of modification. This observation may help to explain why sentences such as 1a and 2a are unacceptable in the BA-form, but are perfectly acceptable as shown in 1b and 2b:

- 1a. \**Tā bǎ xiǎo māo ài.* (monosyllabic verb)  
3sg BA little cat love  
"S/He loves the kitten." (Li & Thompson 1981:467)
- 1b. *Tā bǎ xiǎo māo ài de yào sǐ.*  
3sg BA little cat love EXT want die  
"S/he loves the kitten so much that s/he wants to die." (Li & Thompson 1981:469)

- 2a. \**Wǒmen bǎ wèntí tāolùn.* (disyllabic verb)  
 we BA question discuss  
 "We discuss the question."  
 2b. *Wǒmen bǎ wèntí tāolùn-tāolun.*  
 we BA question discuss-discuss  
 "Let's have a bit discussion on that question."

Sentences 2a and 2b suggest that to qualify the verb in a BA-sentence, the use of modification with a disyllabic verb is also necessary.

According to Chao (1968:346-50), the verbal expression in the BA construction may appear in several forms:

- (a) a verb with an aspect marker or with a post-verbal complement;
- (b) a verb with an adverb (i.e. a pre-verbal modifier);
- (c) a polysyllabic verb;
- (d) a verb with its object:
  - (i) with cognate object: a cognate object may take the verb itself as the object, or take a "quantity adverbial phrase" (following Li & Thompson's term 1981:352). A quantity adverbial phrase normally specifies the frequency, extent, or time duration of the action or event.
  - (ii) with indirect object; and
- (e) V-O (verb-object) compounds and idioms.

It is obvious that a BA verbal expression normally includes a BA-verb and its modification, with the exception of some polysyllabic BA-verbs.

## 2. Characteristics of the BA-Verb

It is apparent that not all the polysyllabic verbs are BA compatible (cf. 2a above). Furthermore, it is also noted that BA-verbs may reject certain modification, due mainly to semantic or syntactic considerations:

- 3a. \**Tā bǎ jiǔ hē de zuì-xūn-xun.*  
 he BA wine drink EXT all drunk  
 "He drank so much wine that he was all drunk."  
 3b. *Tā bǎ jiǔ hē de jīngguān.*  
 he BA wine drink EXT all:empty  
 "He drank so much wine that the wine was all gone."

The subtlety and complexity of the co-occurrence restrictions between a verb and a BA-sentence are not clear and have for a long time attracted many linguists and researchers attempting to tackle the question.

For example, Hashimoto (1971:68) has noted that a classificatory verb, an existential verb (or a "possessive" verb), a quotative verb cannot be a BA-verb, nor can a locative verb or an intransitive verb in its base form.

Li (1970), using the criterion "action" as the major determining factor for classification, examined which verb categories can occur in the BA sentence. Based on this, he provides a long list of verbs and appears to suggest that only transitive verbs may appear in a BA sentence.

A similar claim is made by Newnham (1971:93), who claims that the morpheme *BA* can only co-occur with transitive verbs. He gives as the reason that the verb must have a direct object to invert. Newnham also notes that the BA-construction rejects what he calls "impersonal verbs" (such as *xiàng* "resemble", *shì* "to be" and *yǒu* "to have"), "compound verbs of motion" (such as *zhīdào* "to know", and *huíjiā* "to return home"), and "compound verbs of conception, emotion and thought" (such as *rènshì* "to get to know", *xīhuān* "to be fond of").

Cheung (1973), commenting on the work by W. Wang (1964), postulates that the BA-construction is closely related to the reduplicability of verbs. The reason Cheung advances for the non-occurrence of the existential verb *yǒu* "have" in a BA-construction is: "Since *yǒu* can never be reduplicated, it does not take *ba*" (p. 349). The explanation is rather dubious; it has as its corollary that the BA-construction occurs exclusively with verbs which are reduplicable. However, it is not difficult to find acceptable BA-constructions with a verb which does not take the reduplication form and vice versa. For example, resultative verb compounds are used widely in the BA-construction but they normally do not permit any reduplication form, e.g. *zuòtā* "sit and make collapse" in 4a. Verbs of other categories such as *gàosù* "tell" (cf. 4b), *bǎngjià* "kidnap" (cf. 4c) and so forth normally do not have a reduplication form; they are perfectly grammatical in a BA-sentence:

- 4a. *Bié bǎ yǐzi zuò-tā le.*  
don't BA chair sit-collapse le  
"Don't break the chair by sitting on it."  
4b. *Tāmen bǎ shìqíng gàosù wǒ le.*  
they BA affair/matter tell I le  
"They have told me the truth."  
4c. *Huì shì shéi bǎ háizi bǎngjià le?*  
possible COPU who BA child kidnap LE  
"Who can be the person that kidnaped the child?"

There are also instances where the verbs are reduplicable but not BA-compatible. For example, verbs such as *rènshì* "to know" in 5a, *péi* "to accompany" in 5b normally allow a reduplication form:

- 5a. *Wǒ míngtiān dài tā lái rènshì-rènshì dàijiā.*  
I tomorrow bring 3sg come know-know everyone  
"I'll bring him/her here tomorrow to get to know you all."

- 5b. *Nǐ qù péi-peì tā.*  
 you go accompany-accompany 3sg  
 "You go and accompany him."

Although *rènshì* "get to know" can be reduplicated, it cannot appear in a BA-construction (cf. 6a). Similarly, the expression as in 5b cannot be converted to a grammatical BA-construction (cf. 6b):

- 6a. *\*Wǒ bǎ tā rènshì wǔ nián le.*  
 I BA 3sg know five year le  
 "I have known him/her for five years."  
 6b. *\*Nǐ qù bǎ tā péi-peì.*  
 you go BA 3sg accompany-accompany  
 "Go and accompany him/her."

It becomes obvious that reduplicatability is not a determining criterion on which to base the decision whether a verb can occur in a BA-sentence.

This study will propose that the presence of the semantic component "perfectivity" is the determining factor for the grammaticality of the BA-sentence, and the use of the modification is to perfectivise the verb so that the sentence is BA compatible. The above-mentioned problems with the BA-verb are mainly syntactic. There are also problems of semantic considerations.

### 3. Semantic Problems

Semantic problems manifested in the BA verbal expressions can be classified into four major types. The problems include the following aspects:

- a. the rhematic area fails to satisfy the semantic expectation. That is, the verbal expression has to either refer to a quantified event or imply a change or resulting-state arising out of the action signalled by the BA-verb;
- b. the BA-noun fails to be an "affectum". That is, the BA-noun does not refer to an entity which exists "antecedently to the agent's activity" (Fillmore 1968:4);
- c. the implied subject of "the lower clause" (the embedded clause) does not co-index with the patient of "the higher clause" (the matrix sentence); and
- d. the "Perfectivity" component is absent from the discourse contexts.

The four types of problems are not mutually exclusive. In the majority of cases, they interlock with one another in a cause-effect relationship.



### 3.1 A Major Semantic Expectation: A Quantified Event or A Resulting-state

As mentioned earlier, the BA-sentence, in this study, is viewed as a linguistic device which either allows the speaker to transpose the object to a preverbal-position<sup>1</sup> in order to bring into focus a change or a new resulting-state arising out of the action involved, as shown in 7 (cf. also Tsao 1986), or which permits the speaker to give subjective opinion about a quantified event (cf. 8 and 9). The quantified event does not necessarily bring up any change or resulting-state (i.e. 9):

7. *Bǎ xìn jì-zǒu.*  
BA letter mail:go  
"Post the letter."
8. *Wǒ bǎ xiùzi gǎi -le yí xià.*  
I BA sleeve alter -le one CL  
"I have altered the sleeve a bit."
9. *Wǒ bǎ tā kàn -le yí yǎn.*  
I BA 3sg look -le one CL:eye  
"I have taken a look at him."

In other words, there are two types of "disposal" BA-sentences: one brings the referent of the BA-noun into a resulting state and the other is quantified syntactically. With the latter type of disposal BA-sentence, there is no change or resulting state involved. However, the formal type is much more pervasive than the later type. Thus, marking of a change or a new resulting-state, whether explicit or implicit, is important to the BA-sentence where the BA-verb is not syntactically quantified, especially when the information of resulting-state would not be retrievable from the context if it were absent. In other words, a change or a resulting-state represents an essential semantic component of a BA-sentence, which is not syntactically quantified. This may explain why a non-quantified BA-sentence without the implication of such a change or a resulting-state is normally considered incompatible with the BA construction. Given that the element referring to a change or resulting-state arising out of the action almost always takes a rhematic position, i.e. at or close to the end of the sentence (Halliday 1970:161; also Paterson & Paul 1979:36), it is the focus of information to be expressed by the BA-sentence. Failure to satisfy this semantic expectation frequently results in an unacceptable BA-construction. Compare the following sentences:

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<sup>1</sup> The change of the word order also results in a change of semantic function. According to Li & Thompson (1975:165), there is a correlation between the word order of the sentence construction and the definite / indefinite property of the noun phrase. They claim that it is a widespread discourse strategy among languages that definite nouns (i.e. the old information) normally precedes indefinite nouns (i.e. the new information). Evidence is also provided that definite nouns in Chinese, whether subject or object, tend to take a pre-verbal position.

10. \**Wǒ bǎ xiǎotōu dǎ.*  
I BA thief hit  
"I hit the thief."
11. \**Tā bǎ mén de dòng tí le.*  
3sg BA door ATTV hole kick LE  
"S/He kicked the hole of the door." (Cheung 1973:379)

The lack of a resulting-state in Sentences 10 and 11 constitutes the difficulty and results in unacceptable BA-sentences. Sentence 10 can be easily restored by adding a resulting-state such as *pǎo-le* "run-le" to the verb as in 12, or by quantifying the event with a measure word like *yī dùn* "one-CL" as shown in 13.

12. *Wǒ bǎ xiǎotōu dǎ-pǎo le.*  
I BA thief hit-run LE  
"I hit the thief away."
13. *Wǒ bǎ xiǎotōu dǎ -le yī dùn.*  
I BA thief hit -le one CL  
"I gave the thief a good hit."

In reality, when the nature of the action (e.g. *dǎ* "hit" in sentence 10) is seen to be an inception without involving an ending point, an addition of a resulting-state or a measure word to the verb not only helps to indicate explicitly the result, but also to set a necessary linguistic boundary to the action (or event) as well as to the sentence (cf. 12 and 13).

In the case of sentence 11 (above), the mention of the noun phrase *mén de dòng* "the door's hole" in a BA-sentence invites at least two expectations of the resulting-state: one is to fill the hole; the other is that the hole becomes bigger as a result of another kick. As the expectations are not satisfactorily confirmed by the BA-sentence, a sentence like 11 is unacceptable. However, a change of the verb *tí* "kick" to the verb *bǔ* "fill" (cf. 14) makes the sentence compatible with the BA construction, given that the verb *bǔ* results in a change --- a change of a situation from a door with a hole unfilled to a door with the hole filled. Another alternative is to replace the verb with a verb phrase indicating a change in the size of the hole like *tí de gèng dà* "kick the hole bigger" (cf. 15). In short, a change of state, either a complete change (cf. 14) or a partial change (cf. 15), will generally enable the sentence to appear in a BA-sentence.

14. *Tā bǎ mén de dòng bǔ le.*  
3sg BA door ATTV hole fill LE  
"S/He filled the hole of the door."
15. *Tā bǎ mén de dòng tí de gèng dà le.*  
3sg BA door ATTV hole kick EXT even big le  
"S/He kicked the hole of the door even bigger."

The semantic expectation of a change or a resulting-state remains true with the following sentences, each of which contrasts minimally with the other in terms of structure. As the previously-mentioned semantic expectation is fulfilled in sentences such as 16a and 17b, they are BA-compatible (i.e. "to dig a hole on the wall" as in the case of 16a, and "to fill the hole on the wall" as in the case of 17b). An absence of the semantic expectation disqualifies sentences such as 16b and 17a from becoming BA-sentences, even though 16a parallels 17a in structure and so does 16b and 17b. This linguistic paradox may indicate that semantic consideration can be as important as syntactic properties in the discussion of BA-sentences.

- 16a. *Tā bǎ qiáng-(shàng) wā -le dòng le.*  
 3sg BA wall:top dig -le hole le  
 "S/He made some holes in the wall."  
 16b. *\*Tā bǎ qiáng-(shàng) de dòng wā le.*  
 3sg BA wall:top ATTV hole dig le  
 "S/He made some holes in the wall."  
 17a. *\*Tā bǎ qiáng-shàng tián -le dòng le.*  
 3sg BA wall:top fill -le hole le  
 "S/He filled up the holes in the wall."  
 17b. *Tā bǎ qiáng-shàng de dòng tián le.*  
 3sg BA wall:top ATTV hole fill le  
 "S/He filled up the holes in the wall."

Sentence 16b, which parallels sentence 13 above in sentence structure, also shares the same type of semantic problem with 13. By contrast, the problem evident in 18a cannot be adequately explained by the failure to satisfy the semantic expectation alone. That is, in sentence 17a there is no presupposition of any "hole" with the referent of the BA-noun *qiáng-shàng* "in the wall"; it thus results in a semantic mismatch when the BA verbal expression *bǔ-le dòng le* "fill the hole" follows. More precisely, whenever a noun phrase is used as a BA-noun, the combined meaning of the noun phrase is generally taken literally<sup>2</sup>; if more information needs to be included in the noun phrase, it should be expressed explicitly. That is, when *qiáng-shàng* "in the wall" is used, the semantic focus is a wall in an ordinary situation, without the suggestion of any hole. If there is a need to mention "a hole (in the wall)", the phrase should be changed to *qiáng-shàng de dòng* "the hole in the wall" to cater for the change of semantic focus.

In other words, the nature of the BA-verbs such as *wā* "dig", *tián* "fill" in the previous sentences has already restricted the BA-noun to certain types of noun

<sup>2</sup> This claim of mine does not contradict to that of Teng's claim (1971). My claim is made on the noun-phrase basis, whereas Teng's claim is on the head of the BA-noun, i.e. on the word basis. That is, my claim deals with the combined meaning of the noun phrase, while Teng's claim emphasises the semantic scope that the key noun of the phrase may embrace.

phrases. Therefore, the nature of the problem involved in the above sentences is similar to that of an English sentence such as *The dog swam in the trees*, in which the verb detects the locative to venues suitable for swimming.

### 3.2 The BA-Noun Fails to Be an "Affectum"

In tackling the semantic components of cases similar to sentence 17a (above), Y-C Li (1974) proposes for BA-verbs the set of semantic features [+Verb, +Transitive, +Action, +Anaphoric] and for BA-nouns [+Noun, +Object, +Source, +Anaphoric] to explain the occurrence restrictions between the BA-noun and the BA-verb. Li claims that transitive action verbs (including some resultative verbs) can be potentially classified into anaphoric and non-anaphoric. An anaphoric verb is defined by him as follows:

"When a verb is anaphoric in nature, it has in its semantic sphere of assumption, a reference to certain object(s). With or without the overt object(s), there is the unmistakable understanding that usage of the verb presupposes and describes the action made on the whole or part of its object." (Y-C Li 1974:208)

He provides the verb *diū* (*diào*) "lose, drop, throw away" as an example of anaphoric verb, as the nature of the action suggests or presupposes that there must be something to be lost or thrown away. The verb *jiǎn* "pick up", contrary to an anaphoric verb such as *diū* "lose", does not have that type of understanding; it is thus a non-anaphoric verb. This can be seen from the contrast provided by Y-C Li (1974:209). He states that it is possible to say "I thought I lost something, but I didn't (lose it)", but impossible to say "I thought I picked up something, but I didn't (pick it up)". The pronoun "it" requires an antecedent. The use of "it" is possible with the verb "lose" as the action presupposes an object (i.e. the object is a second mention). However, the use of "it" is impossible with the verb "pick up" as the action does not presuppose any object.

According to Y-C Li, a change of the object "it" to "anything" may restore the sentence acceptability. He claims that whether the presupposed object pre-exists before the action signalled by the verb is not of a direct concern (p. 208). In other words, he does not view it necessary for a BA-noun to be an "affectum".

According to him, pairs of verbs with such opposing meanings and presuppositions are common, e.g. anaphoric *chā* "erase" vs. non-anaphoric *xiě* "write"; *gěi* "give" vs. *ná* "get"; *mài* "sell" vs. *mǎi* "buy"; *jièchū* "lend" vs. *jièjìn* "borrow"; *zūchū* "lease out" vs. *zūjìn* "rent in" (p. 210). He therefore concludes that BA-verbs must be anaphoric verbs, never non-anaphoric verbs.

However, non-anaphoric verb such as *xiě* "write", *mǎi* "buy", etc. just to name a few, can also appear in a BA construction:

18. *Tā méi wèn wǒ, jiù bǎ gōngkè xiě le.*  
 3sg NEG ask I then BA homework write LE  
 "S/He has started writing the homework without asking my permission."
19. *Wǒ bǎ nà liàng chē mǎi -le (xiàlái).*  
 I BA that CL car buy -le down-come  
 "I have bought that car."

The verb *xiě* "write" is marginally acceptable in a BA-sentence. However, the use of *xiě* "write" with an inceptive *le* in 18 is acceptable to appear in a BA-sentence, as it refers to the first event of a sequence. That is, the BA-sentence is quantified by the other sentence *tā méi wèn wǒ* "he did not ask me". Sentence 18 is possible in a context where the speaker complains to the hearer that someone has failed to follow the speaker's instruction and started with the assignment prior to being given permission. Sentence 19 is used when the speaker declares to the hearer what the speaker has done to a specific car about which the hearer has some knowledge. The opposition of anaphoric versus non-anaphoric, proposed by Y-C Li, cannot be substantiated, as both types of verbs can appear in the BA-sentence. Instead, it may be noted that when the same verb can be used in the sense of the English verb "do" and that of "make" at the same time, the use of the verb as "do" is BA-compatible, but not of that as "make". That is, a "rounding off" verb is BA-compatible, but not a creative or factitive verb. As a result, the BA-noun has to be an "affectum", existing before the occurrence of the agent's activity. It cannot be an "effectum" which comes into being as a result of the agent's activity. In other words, the existence of the BA-noun does not result from the agent's activity (For definition of "effectum" and "affectum", see Fillmore 1968:4).

In my study of the BA-noun elsewhere, it was found that a BA-noun in a non-habitual BA-sentence is specific in reference; it thus always refers to knowledge shared by the speaker and the hearer or old information (i.e. generally it has been mentioned earlier on in the conversation, but it may also simply be assumed to be shared knowledge). Since the verb has a backward reference to the BA-noun that is pre-existing in the consciousness of the interlocutors, the action referred to by the verb is limited to a "rounding-off" action which helps to complete the event. A creative or a factitive action such as *zuò* "make" in 20a and 22a, *xiě* "write" in 21a, through which an object noun comes into existence, is excluded from occurring in a BA-sentence, given that it cannot refer back to the BA-noun that has yet come into being. The addition of a resultative verb complement or suffix to a creative verb or a factitive verb may validate the sentence for the BA construction, as the semantic focus is transferred from the event or action to the result. As a result, the addition of verb complement or suffix may frequently change creative or factitive verbs into rounding-off verbs. Sentences 20b, 21b and 22b are examples of rectified BA-sentences (Sentences from 21a to 22b are quoted from Y-C Li 1974:209):

- 20a. \**Tā bǎ zhuōzi zuò le.*  
 3sg BA table make LE  
 "S/He has started making the table."  
 20b. *Tā bǎ zhuōzi zuò-hǎo le.*  
 3sg BA table make-finish LE  
 "S/He finished making the table."  
 21a. \**Bǎ yí ge zì xiě le.*  
 BA one CL word write LE  
 "Write a word."  
 21b. *Bǎ yí ge zì cā le.*  
 BA one CL word erase LE  
 "Erase a word."  
 22a. \**Bǎ nài ge mèng zuò le.*  
 BA that CL dream make LE  
 "Dream that dream."  
 22b. *Bǎ nài ge mèng wàng le.*  
 BA that CL dream forget LE  
 "Forget the dream."

The BA-verb in 20b differs from that in 20a in that the former BA-verb *zuò* "do", with the addition of the resultative verb complement *hǎo* which means "satisfactory; finished; ready" when used independently, signifies not only a "completed" but also a "complete" whole event. The resultative verb complement *hǎo* "satisfactory; finished", classified by Tang (1981:331-32) as an aspect marker of completion, is normally used to mark the completeness of an intended or required action.

Sentences from 20b to 22b are acceptable as BA-sentences, given that the BA-nouns *zhuōzi* "table", *zì* "word" and *mèng* "dream" pre-exist in the concept of the interlocutors before the actions referred to by the BA-verbs. That is, the BA-noun is an "affectum". By contrast, the same BA-nouns cannot occur in a BA-sentence and the kind shown in 20a, 21a and 22a, for their BA-nouns come into existence as the result of the actions. As the BA-noun can never be an "effectum", sentences 20a, 21a and 22a are not BA-compatible. Since an effectum comes into existence after the action, it cannot be presupposed.

This may suggest that the semantic component [+Anaphoric] proposed by Y-C Li (1974) is crucial for the BA-noun in the BA-sentence, but not necessarily so for the BA-verb. To sum up, the BA-noun has to be an "affectum" (never an "effectum") so that the BA-noun can refer back to it. By contrast, the BA-verb is not necessarily anaphoric in nature.

### 3.3 Problems With Semantic Coherence

Another type of problematic BA-sentence involves the semantic coherence between the implied subject of an embedded clause (or "an inner complement") and that of the matrix object (or "the higher patient" meaning "the patient in the higher clause"). Inner complement and outer complement are two contrasting terms used

by Starosta (1988:133). According to Starosta, an outer complement is normally movable and has the whole sentence as its semantic scope, whereas an inner complement refers to a complement with restricted movements and a narrower semantic scope.

In the case of Chinese, an inner complement should include an embedded clause and a post-verbal complement. A Chinese inner complement, like that in English, is also characterised by the feature that the deleted subject of an inner complement is always identical with the patient<sup>3</sup> (as defined by Starosta 1988:124) in the next higher clause. In the case of the BA-sentence, the deleted subject of an inner complement should co-index with the BA-noun, as the patient of the higher clause coincides exclusively with the BA-noun. Compare the following examples, which illustrate such a correspondence in English and similar cases in Chinese:

23. *John told Mary to [Ø] go home to please his father.*  
 AGT PAT inner complement outer complement  
 (Starosta 1988:134)
- 24a. *Tā bǎ jiǔ hē de [Ø] jīngguāng.*  
 AGT PAT  
 3sg BA wine drink EXT empty  
 "S/He drank the wine to the last drop."
- 24b. *\*Tā bǎ jiǔ hē de [Ø] zuì-xūnxun.*  
 AGT PAT  
 3sg BA wine drink EXT all-drunk

The presence of the semantic coherence between the inner complement and the BA-noun (i.e. the Patient of the higher clause) in 24a explains why 24a is grammatical. An absence of such semantic coherence in 24b results in an ill-formed sentence. This may also account for the semantic difference between sentences like 25a and 25b:

- 25a. *Wǒ bǎ tā kū de [Ø] xīnlùn.*  
 AGT PAT  
 I BA 3sg cry EXT upset  
 "I cried so much to an extent that s/he was upset."

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<sup>3</sup> The terms "Patient" and "Agent" are used here as they are defined in the lexibase grammar (cf. Starosta 1988). That is, "Patient is the perceptual centre. [...] Agent is the dynamic/salient argument external to the Patient..." (Starosta 1988:124). As lexibase is based mainly on the Patient Centrality Hypothesis, Patient in an intransitive sentence refers to the grammatical subject.

- 25b. *Tā bǎ wǒ kū de [Ø] xīnlùn.*  
 AGT PAT  
 3sg BA I cry EXT upset  
 "S/He cried so much to an extent that I was upset."

As mentioned above the deleted subject of the inner complement should always co-index with the BA-noun, the implied subject of the inner complement in 25a should be *tā* "he; she" and that in 25b should be *wǒ* "I".

Prescriptively, the sentential subject (i.e. the agent of the higher clause) cannot co-index with the deleted subject of the inner complement. However, deviant sentences are sometimes accepted and used by native speakers. In the following sentences, for instance, sentences 26a and 27a follow the rule, as their deleted subjects of the inner complements co-index well with the BA-noun. However, sentences 26b and 27b show that the deleted subject may sometimes have a co-reference with the sentential subject (i.e. the agent of the higher clause). The following sentences are cited from Cheung (1973:364); sentences 26a and 26b have been modified as the BA-nouns are different from those in the sentences provided by Y-C Li (1970:156, also Cheung 1973:363).

- 26a. *Nà ge wèntí bǎ wǒ xiǎng de [Ø] tóuhūnnǎozhàng.*  
 AGT PAT  
 that CL question BA I think EXT headache  
 "That question made me think so much that I ended up with a headache."
- 26b. *Wǒ bǎ nà ge wèntí xiǎng de [Ø] tóuhūnnǎozhàng.*  
 AGT PAT  
 I BA that CL question think EXT headache  
 "I thought about that question until I had a headache."
- 27a. *Zhè jiàn yīfu bǎ tā xǐ de [Ø] lèi-huài le.*  
 AGT PAT  
 this CL clothes BA 3sg wash EXT tired-bad le  
 "S/He washed the clothes to such an extent that s/he was terribly tired."
- 27b. *Tā bǎ zhè jiàn yīfu xǐ de [Ø] lèi-huài le.*  
 AGT PAT  
 3sg BA this CL clothes wash EXT tired-bad le  
 "S/He washed the clothes to such an extent that s/he was terribly tired."

Though exceptional cases like sentences 26b and 27b are restricted to only a few, they may represent instances where there is a possibility of reversing the agent and the patient of the matrix sentence without altering the meaning of the sentences. The reason may have a pragmatic basis.



The admissibility of a reversal of the agent and the patient of the matrix sentence without altering the meaning of the sentence can be based on another type of semantic coherence between the related linguistic elements. The general tendency is that, when the inner complement and the BA-noun share a semantic component, viz. [+Human] or [-Human], the BA-noun should be the implied subject of the inner complement. However, pragmatic considerations may allow speakers to view the sentential subject as the implied subject of the inner complement, especially when the BA-noun and the inner complement fail to share the crucial semantic component. A lack of agreement between the semantic components of the inner complement and of the BA-noun will result in an unacceptable expression.

Take 26a and 26b for example, the inner complement *xiǎng de tóu-hūn-nǎo-zhàng* "think so hard that a headache results" can only take a [+Human] NP for its agent or modified, not a [-Human] NP. As only one of the noun phrases in each of the minimal pair sentences is [+Human] (i.e. the Patient in 26a and the Agent in 26b), the [+Human] NP is therefore valid to be the implied subject of the inner complement. In other words, co-indexing between the sentential subject and the implied subject of the inner complement is possible as long as no ambiguity arises out of the admissibility. This also holds true with sentences like 27a and 27b.

The contrast between sentences 28a and 28b provides another piece of evidence to support the claim made above: Here both the Agent and the Patient of sentences 28a and 28b can be the head or the agent of the inner complement *hěn gānjìng* "very clean", as the complement *hěn gānjìng* "very clean" can be used to refer to a [+Human] NP as well as a [-Human] NP. In such a situation, the default subject should be the BA-noun as prescribed. In following this, 28a makes good sense and is thus grammatical. However, sentence 28b results in an illogical interpretation, when confining the implied subject of the complement *hěn gānjìng* "very clean" to the BA-noun (i.e. *tā* "s/he"). As the sentential subject *zhè jiàn yīfu* "the clothes", a [-Human] NP, is unlikely to be responsible for what happens to or affects the BA-noun (the Patient), 28b is unacceptable:

- 28a. *Tā bǎ zhè jiàn yīfu xǐ de [Ø] hěn gānjìng.*  
 3sg BA this CL clothes wash EXT very clean  
 "S/He washed the clothes so much that they were very clean."  
 28b. *\*Zhè jiàn yīfu bǎ tā xǐ de [Ø] hěn gānjìng.*  
 this CL clothes BA 3sg wash EXT very clean  
 \*"These clothes washed her/him so much that s/he was very clean."

Acceptance of variant sentences such as 26b and 27b may be attributed to the fact that the variant forms do not result in any ambiguous interpretations. The linguistic flexibility is mainly pragmatic. However, the acceptance of similar sentences may fluctuate from individual to individual. The background for the acceptance may also involve non-linguistic factors, such as personal linguistic preference or social conventions, rather than linguistic factors.

Overall, syntactic considerations take precedence over semantic considerations in determining the implied subject of an inner complement. Pragmatic considerations also play an important role.

### 3.4 Absence of a "Perfectivity" Component

BA-sentences, as indicated in the definition, allow the speaker to express a subjective perception that the sentential subject (the Agent) is responsible for the global or perfective event which affects the BA-noun. The event involved can be volitional or non-volitional (Teng 1971). However, the reported event or situation must be perfective and is normally seen in its entirety. As the property of perfectivity emerges only in discourse, we can state that, using Hopper and Thompson's definition (1980:270), the property of perfectivity is clause- or discourse-determined. Thus, "perfectivity" is a semantic component of a discourse, rather than an underlying semantic component of the lexicon or of a lexical item. The globality or entirety can be temporal, spatial or conceptual in nature (Li & Thompson 1981:185).

An absence of the component "perfectivity" in a sentence will always disqualify the sentence in a BA-form. The use of modification with the BA-verb may help perfectivise the sentence so that the sentence is BA compatible. To perfectivise the sentence means to set a syntactic or a semantic boundary to the sentence, so that the event encoded in the sentence becomes global or perfective with an endpoint or a conceptual boundary.

## 4. Perfectivity and Telicity

Hopper & Thompson (1980) use the terms "perfectivity" and "telicity" to distinguish a global event with an overt perfective aspect marker from a global event without an overt aspect marker. They reserve the term "telicity" to refer to cases where an overt perfective aspect marker is used in the predicate of the sentence, and restrict the term "perfectivity" to reference to a global event. "Perfectivity" is determined by the presence of the semantic property "globality" or "entirety" in the discourse. In terms of aspect, "perfectivity" can be further divided into two subtypes, namely, "perfective" and "imperfective". The term "telicity" can also be further divided into two subtypes: one is "telic" and the other "atelic". The terms "telic" and "atelic" are defined as follows: "A predicate which specifies an endpoint or conceptual boundary is said to be telic, while one which does not is atelic" (Hopper & Thompson 1980:285). The terms "perfective / imperfective" and "telic / atelic" are used interchangeably by Hopper & Thompson in that paper.

Perfectivity (i.e. the perfective-imperfective opposition) differs from telicity (i.e. the telic-atelic opposition) in that telicity is reflected in the use of an overt aspect marker with the predicate, whereas perfectivity refers to the globality or entirety implied in the discourse (Hopper & Thompson 1980:270). In other words, perfectivity is governed by semantic considerations, while telicity relates mainly to syntactic ones. As the use of a perfective aspect marker in Chinese does not

necessarily indicate a global event with an endpoint or a conceptual boundary, telicity is not equivalent to perfectivity. The term "telicity" is thus used in this study to refer to sentences with the use of the morpheme *le*, and "perfectivity" to those which encode global events, with or without *le*. As mentioned earlier, in many cases the use of the perfective aspect marker *-le* does not necessarily indicate the completion of a situation. With certain verbs, noted also by Comrie (1976), it may signal the inception of the event instead (cf. 29):

29. *Bàgōng yǐjīng jìxù -le wǔ tiān.*  
 strike already last -le five day  
 "The strike has lasted for five days already. [No one knows when it will end]." (Comrie 1976:19)

The distinction between telicity and perfectivity helps to explain why the use of the perfective *-le* in the predicates of the following sentences (quoted by Teng 1971) does not lead to an acceptable BA-construction:

- 30a. *\*Tā bǎ shū zhǎo le.* (telicity)  
 3sg BA book search LE  
 "S/He looked for the book (but without a result)."  
 30b. *Tā bǎ shū zhǎo - dào le.* (perfectivity)  
 3sg BA book search-DAO<sub>1</sub> LE  
 "S/He looked for the book and found it." <sup>4</sup>  
 31a. *Tā bǎ shū shāo le.* (perfectivity)  
 3sg BA book burn LE  
 "S/He burned the book [completely]."  
 31b. *\*Tā bǎ shū shǎo-dào le.* (telicity)  
 3sg BA book burn-DAO<sub>2</sub> LE  
 "S/He accidentally [partially] burned the book."

Semantically, the verb *zhǎo* "to search for" normally signifies an ongoing or "imperfective" process without reaching, or being thought of as reaching, "any determinate point or phase" (Hopper & Thompson 1980:262). The use of the perfective *-le*, evidently, does not help to perfectivise the event. However, the use of the verb complement *dào<sub>1</sub>* meaning "successfully" with the verb *zhǎo* "to search for" in 30b helps to bound the event signalled by the verb phrase; i.e. "to find successfully". By contrast, the verb *shāo* "to burn" in 31a is semantically perfective in its own right; however, the verb phrase formed with the verb complement *dào<sub>2</sub>* "accidentally" in 31b, a homonym of the previously mentioned "successful *dào*" (i.e. *dào<sub>1</sub>*), fails to indicate the conclusion of the situation. As sentence 31b is semantically imperfective, the use of the perfective *-le* is a case of "telicity".

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<sup>4</sup> The English translation has been modified by the author of this paper.

Furthermore, in spite of the fact that 30a is parallel to 31a, as is 30b to 31b in the surface structure, 30b and 31a are acceptable in BA-sentences, but 30a and 31b are not. Thus, it becomes apparent that the determining factor in selectional restrictions for a BA-sentence is "perfectivity", rather than "telicity". The presence of the sentential *le* or the verbal *-le* does not help to bound the event.

In other words, the use of the perfective *-le* with sentence 30a represents a case of telicity. That is, the perfective aspect marker is used to mark the happening of the searching without referring to any resulting-state, whereas the BA-verb in 30b, with the addition of the successful *dào*, (a verb complement), expresses an action with a concluded result. Similarly, perfectivity is a semantic property of 31a, a valid BA-sentence, but not of 31b which is incompatible with the BA-form.

### 5. Perfectivity and the BA-Verb

Šabršula (1972), in examining the lexical meaning of French verbs, has observed that there are three basic types of verbs: conclusive verbs, non-conclusive verbs and amphibological verbs. Comparing the aspect of verbal actions in French with that in Czech, he claims that the fundamental difference between French and Czech is that, in Czech, verbs and the corresponding prefixes show the perfective and imperfective opposition (a binary opposition), whereas in French the perfective and imperfective distinction is reflected by using different verbs: conclusive verbs and non-conclusive verbs. In French, it is therefore more appropriate to speak of a conclusive and non-conclusive opposition.

He notes, however, that there is a consistent correspondence between types of French verbs and their translation equivalents in Czech: French "conclusive verbs" always correspond to Czech verbs with perfective prefixes, "non-conclusive verbs" in French are translated by Slavic verbs with imperfective prefixes, and "amphibological verbs" in French are verbs which do not have a consistent correspondence to perfective or imperfective form in Czech (Šabršula 1972:100 ff).

Similar verb types have also been found in Chinese. Chinese is, of course, an analytic rather than an inflecting language, which means that word forms in Chinese remain unaltered at all times and their grammatical functions are shown by word order and the use of functional words (Richards et al. 1985:149-150). Certain Chinese verbs correspond well to the "perfectivity" property required in a BA-construction. Thus, they can occur in a BA-sentence without any modification. Directional verbs and resultative verbs constitute a major part of this verb group; some disyllabic verbs consisting of pairs of synonymous verbs also share the syntactic property: example are *kèfú* "to overcome; to conquer", *jiějué* "to resolve", *qǔxiāo* "to cancel", and so forth.

However, some verbs are always excluded from BA-sentences, in view of the fact that their semantic nature can never indicate a conclusive event or situation. Those verbs include the equative verb *shì*, the possessive verb (or existential verb) *yǒu*, and other verbs such as *xìng* "to have ... as the surname", *chūxiàn* "to appear", *fāshēng* "to occur", etc.

A third group of verbs normally requires modification in order to be acceptable in a BA-sentence. The additional forms of modification help to bring out the perfective nature of the event referred to by the verb. A large number of BA-verbs belong to this group. The verb *zhěnglǐ* "to tidy up" is an example. The base form of the verb is normally excluded from the BA-sentence for semantic reasons (cf. 32a). Sentence 32a, though containing a perfective *-le*, expresses that we have started to tidy up the room without any suggestion whether the room is now tidy or not. In other words, the sentence is not syntactically quantified and there is no suggestion of any change or resulting-state:

- 32a. \**Wǒmen bǎ wūzi zhěnglǐ le.* (inception)  
 we BA house tidy LE  
 "We tidied up the room."

It is also worth noting that the use of the perfective *-le* with this type (the third type) of verbs frequently indicates the "inception", rather than the "completion" of the event. That is, a sentence like 32a normally suggests that the action or event referred to has already started.

- 32b. *Wǒmen bǎ wūzi zhěnglǐ-hǎo le.* (completion)  
 we BA house tidy-finish LE  
 "We have tidied up the room."

As shown in 32b, the addition of the resultative verb complement *hǎo* meaning "finish; ready" may allow the verb *zhěnglǐ* "to tidy up" to become BA compatible, as it brings out the perfective nature of the event. That is, *zhěnglǐ-hǎo* means "finish tidying up".

As Chinese manifests a correspondence between verbs and the "perfectivity" property of discourse similar to the one discussed by Šabršula, it was decided to borrow his terminology for the discussion of the Chinese verb types occurring in the BA construction. However, note has to be taken here in the nature of the fundamental difference between the correspondence shown in the two studies: the correspondence shown in Šabršula's study is that between French verb types and the perfective / imperfective prefixes of Czech verbs, whereas the correspondence in Chinese is that between verbs and the absence or presence of the semantic component "perfectivity". That is, Šabršula's study shows a constant correspondence between the verb forms of two languages, whereas this study focuses on the absence or presence of the semantic component "perfectivity" in the Chinese BA-sentence, which cannot be deduced solely from the verb form.

On the basis of this terminology borrowed from Šabršula (1972), Chinese verbs of the first group mentioned above, viz. verbs which can occur in a BA-sentence without any modification, will thus be termed "conclusive verbs". Those of the second group, which are always excluded from the BA-sentence, are "non-conclusive verbs". Verbs of the third group, which require modification to appear

in the BA-sentence, are "amphibological verbs". Again, it must be borne in mind that the use of the morpheme *le* alone, either as a verbal *-le* or as a sentential *le*, with amphibological verbs normally encodes "inception" rather than "perfectivity" of the event (cf. 32a and 32b above). By contrast, the use of *le* with conclusive verbs exclusively encodes "perfectivity", not "inception". This may explain why BA-verbs are normally disyllabic or polysyllabic, as monosyllabic conclusive verbs generally appear with *le* in a BA-sentence to strengthen the "perfectivity" nature of the action or event referred to by the verb. The morpheme *le* can thus be used as a diagnostic aid for distinguishing between conclusive verbs and amphibological verbs.

When comparing 31a with 31b (above), it becomes evident that in addition to the function of helping validate the use of an amphibological verb with a BA construction, the use of modification can convert some conclusive verbs into non-conclusive and thus the modified verb is not BA compatible (as in 31b). This is why a modified verb should be treated as a different verb. However, non-conclusive verbs remain permanently non-conclusive, and there is no possibility of converting them into BA compatible verbs.

The border line between conclusive verbs and amphibological verbs is sometimes fuzzy. There are cases where some BA-verbs (including conclusive verbs) may occur in a BA-sentence in their base form. They may also take modification like amphibological verbs. Compare the following sentences:

- 33a. *Wǒmen bǎ nà liàng chē mài le.*  
 we BA that CL car sell LE  
 "We sold that car."  
 33b. *Wǒmen bǎ nà liàng chē mài-chūqù le.*  
 we BA that CL car sell-out le  
 "We sold that car."

The use and non-use of modification with this type of verb, which may be attributed to either category, depends entirely on the speaker or the context (which can be linguistic or non-linguistic). That is, if the speaker perceives the verb *mài* "sell" as a verb with a built-in direction involved, as does Lu (1973:247), there is no need for any modification. Otherwise, modification is required. Similarly, if the context is perceived as perfective, there is no need to modify the verb; otherwise, some modification is necessary.

The reason for the use of disyllabic or polysyllabic verbs instead of monosyllabic verbs may result from the historical change of the Chinese words: Classical Chinese tends to be monosyllabic and Modern Standard Chinese tends to be disyllabic or polysyllabic. For example, *shí* "stone", and *yī* "clothes" in Classical Chinese are now generally replaced by *shítou* "stone" and *yīfu* "clothes", etc. This may also explain why monosyllabic conclusive verbs normally appear

with *le*, as the use of *le* not only help to stress "perfectivity" of conclusive verbs, but also convert a monosyllabic verb into a disyllabic verb, more current in the contemporary use of standard Chinese.

## 6. Syntactic Constraints on the BA-verb

Apart from the semantic constraints mentioned in section 3, BA-verbs are also subject to some syntactic restrictions.

### 6.1 Conclusive Verbs

Conclusive verbs can be categorised into several subgroups, according to the syntactic properties of their make-up and their semantic properties. They include monosyllabic conclusive verbs, directional verb compounds, resultative verb compounds and some others. Not all conclusive verbs can form BA-sentences. There are certain restrictions on the possibility of conclusive verbs being BA-verbs. The restrictions vary with the type of verb.

For example, directional verb compounds and resultative verb compounds are conclusive verbs, due to the "perfective" nature of the action envisaged by those verbs. Both types of verbs normally consist of two verb elements: the first element ( $V_1$ ) of both types of verb compounds is normally an action verb or motion verb referring to a "dynamic situation". The second verb element ( $V_2$ ) has long been analysed as a complement (see Chao 1968:435-480; Hashimoto 1971:37). The complement is generally intransitive and static in nature.

With directional verb compounds,  $V_2$  normally specifies the direction of the movement referred to by the first verb element, whether literally or figuratively; for example, *chūlái* "exit-come" in *zǒu-chūlái* "walk out" has a literal use, while it has a figurative reading when compounded with the verb *xiǎng* "think" as in *xiǎng-chūlái* "figure out (a solution)".

In a resultative verb compound,  $V_2$  essentially expresses the resulting-state arising out of the event referred to by the first verb element. Again, the result can be taken literally or figuratively; for example, the resultative verb complement ( $V_2$ ) *kāi* "open" in *dǎ-kāi* "open" has a literal use, but figurative in *kàn-kāi* "see-open = shrug...off".  $V_1$  and  $V_2$  of resultative verbs are in a cause-effect relationship.

The fundamental difference between the two types of verb compounds manifested in the BA-sentence is that a locative phrase can be required for a directional verb compound (cf. 34a and 34b with the locative phrases underlined), but is never required for a resultative verb compound (cf. 34c).

- 34a. *Tā bǎ shū bān shàng -le shūjiǎ.* (directional verb)  
 3sg BA book move top -le bookshelf  
 "S/He moved the books up to the bookshelf."  
 34b. *Tā bǎ shū bān shàng shūjiǎ le.* (directional verb)  
 3sg BA book move top bookshelf le  
 "S/He moved the books up to the bookshelf."

- 34c. *Tā bǎ shū bān-guāng le.* (resultative verb)  
 3sg BA book move-empty le  
 "S/He has moved away all the books."

Semantically, both types of verb compounds are complex, but syntactically they are simplex as they are normally treated as single verbs (see also Hashimoto 1971:37). As the semantic nature of these verbs expresses a complete event with a specified ending state, it is conclusive (at a lexical level) and has a significant degree of perfectivity (at a discourse level) to appear in a BA construction.

However, the BA-sentence does not allow all directional verb compounds or resultative verb compounds. There are certain restrictions on the types that are BA compatible.

#### 6.1.1 Restrictions on Monosyllabic Conclusive Verbs

Monosyllabic verbs, such as *sǐ* "die", *huài* "spoil", *pǎo* "escape", *zhà* "explore", *mǎi* "buy", *mài* "sell", *shāo* "burn", *diào* "lose", and *wàng* "forget", are semantically conclusive, given that they have an in-built ending point which helps to delimit the event involved. Seeing that the BA-verb normally requires a verb which is transitive (whether syntactically or semantically), the first three in the list above (i.e. *sǐ*, *huài*, *pǎo*) are normally excluded from the BA-sentence.

Exceptional cases can be found in which the monosyllabic verbs involved are in fact static rather than dynamic or semantically transitive. According to the definition of the BA-verb, they should have been excluded from the BA-sentence. Examples of exceptions such as 35 and 36 are provided by Chao (1968) and have since been discussed widely, but they still remain unresolved. Sentence 37 is provided by Chappell (1992:527) and is well explained as being in a causative mode.

35. *Tā bǎ ge zhàngfu sǐ le.*  
 3sg BA CL husband die LE  
 "She lost her husband." (Chao 1968:344)
36. *Bǎ ge zéi pǎo le.*  
 BA CL thief run:away LE  
 "(Someone let) the thief run away." (Chao 1968:345)
37. *Jiù zhèiyàng yǎn-zhēng-zhēng de bǎ tā zǒu le.*  
 then this:way eye-stare-stare ADV BA 3sg go LE  
 "She left [reluctantly] in a situation where people could do nothing but watch her leave."

Like Chao (1968) and Hashimoto (1871), the author of this study holds the view that the morpheme *BA* should receive at least two kinds of treatment: when it functions as a causative verb, it is termed a "causative *BA*" and when it functions mainly as a coverb, it is referred to as a "disposal *BA*". Causative BA-sentences are normally restricted to cases where the BA-verb is intransitive or stative in



nature, viz. a stative verb or a verb which is both syntactically and semantically intransitive. As it is possible for sentences 35 to 37 to have a causative reading, these sentences are well explained when the morpheme *BA* is analysed as a causative verb.

### 6.1.2 Restrictions on Disyllabic Conclusive Verbs

When discussing conclusive verbs made up of more than one syllable, we should always include resultative verb compounds (i.e. "infixable V-R compounds" in Chao's term), directional verb compounds and many others. These verbs always encode "perfectivity" (never "inception") when used with the morpheme *le*. As each category of these verbs displays distinctive syntactic and semantic features, it seems necessary to give them separate labels. This will also prove convenient when a comparison of the three is necessary.

The term "disyllabic conclusive verbs" is thus coined and used as a cover term to cater for those disyllabic conclusive verbs which fall outside the categories of resultative verb compounds and directional verb compounds. As the term "disyllabic conclusive verbs" used in this study includes not only Chao's "solid V-R (verb-complement) compounds" but also many others which are not formed by verbs and complements, it is thus more appropriate to create a new term.

The term "solid V-R compound" is used by Chao (1968:437) to refer to disyllabic verbs in a Verb-Complement form, of which both verb elements are bound, restricted and conflated as one. There is no possibility for any form of infix or inserted element. However, words like *shénme* "what", *nǐ de dàtóu* "your big head", *shénme dàtóu* "what big head" are so powerful that they can almost always be inserted in any verb compound (including solid V-R compounds and other form of compound verb) in the causal style (p.c. Starosta). Thus, insertion of those words should be excluded from the discussion of the form of infix or inserted element.

By contrast, Chao terms resultative and directional verb compounds "infixable V-R compounds" or "expandable V-R compounds" (Chao 1968:437-38), according to the degree of expandability. That is, when the verb compound allows only the insertion of potential infixes, it is an "infixable V-R compound". If the verb compound can be further expanded to form a phrase, it is an "expandable V-R compound".

Therefore, the fundamental difference between disyllabic conclusive verbs, and resultative or directional verb compounds is that the latter can be expanded to appear in the potential form, whether with the affirmative infix *de* "possible or able to (do something)" or with the negative infix *bù* "impossible or unable to (achieve something)". For example, the resultative verb compound *sī-può* "tear asunder" can appear in the potential forms such as *sī de può* "can be torn asunder" (affirmative potential form) and *sī bú può* "cannot tear asunder" (negative potential form); the directional verb compound *zǒu-huíqù* "walk back" can appear in the affirmative potential form *zǒu-de-huíqù* "able to walk back" and the negative potential form *zǒu-bù-huíqù* "unable to walk back". By contrast, disyllabic

conclusive verbs, under no circumstances, can be expanded; for example, the disyllabic conclusive verb *gǎiliáng* "to improve" does not take the potential forms as is shown by the unacceptability of examples like *\*gǎi de liáng* "able to improve" and *\*gǎi bù liáng* "unable to improve".

The bottom line is sometimes fuzzy as it is sometimes hard to distinguish disyllabic conclusive verbs from resultative verb compounds. Some disyllabic verbs may be categorised as resultative verb compounds; for example, Lu (1977:281) suggests that resultative verbs should include *èbìng* "hunger-sick", *bìngsǐ* "sick-die", *zǒulèi* "walk-tired", etc. though they do not permit a potential form.

In terms of the form class, disyllabic conclusive verbs may appear in various forms. Examples of the verb forms together with instances of disyllabic verbs will at least include the following:

1. in a V-C (Verb-Complement) form (i.e. Chao's solid V-R compounds): e.g. *dǎohuǐ* "destroy", *gǎiliáng* "improve", *géxīn* "(radically) change (into) new; innovate", *gōngkāi* "publicise", *qùxiāo* "cancel".
2. in a V-V (Verb-Verb) form: e.g. *jiějué* "resolve", *kèfú* "overcome", *xiūlǐ* "repair", *chèzhí* "discharge; sack", *cǎinà* "adopt".
3. in a V-O (Verb-Object) form: e.g. *bǎnpào* "to kidnap", *shātóu* "to head (someone)", *dézui* "to offend".

Like resultative or directional verb compounds, disyllabic conclusive verbs should be treated as single verbs, regardless of their make-up. It should also be noted that, to occur in a BA-sentence, disyllabic conclusive verbs in the V-C form have to satisfy the same set of criteria for directional and resultative verb compounds, as the three types of verbs share the same form (i.e. the V-C form) and overlap to a great extent. Disyllabic conclusive verbs in other forms (i.e. in a V-V form or in a V-O form), they are normally accepted in the BA-sentence, as long as they are semantically transitive.

### 6.1.3 Restrictions on Directional Verb Compounds as BA-verbs

A directional verb compound is composed of two verb elements in a V-C form: the first verb element ( $V_1$ ) is normally a "manner-motion verb" which is neutral in terms of direction, such as *zǒu* "to walk", *fēi* "to fly", *bān* "to move", *ná* "to take/bring with one's hand(s)". The second verb element ( $V_2$ ) is used as a verb complement or verbal suffix which may consist of one or two "direction-motion verb" (Lu 1973). In turn, the direction-motion verb is neutral with regard to "manner". The one-word direction-motion verbs are *lái* "to come" and *qù* "to go"; and the two-word direction-motion verbs contain verbs such as *shàng* "to mount", *xià* "to descend", *jìn* "to enter", *chū* "to exit", *guò* "to cross" and *huí* "to return" followed by *lái* "come" or *qù* "go" (see Lu 1973:248). They thus include *shàng-qù* "mount-go; go up", *jìn-lái* "enter-come; come in", *huí-qù* "return-go; go back", *chū-lái* "exit-come; come out" and *guò-qù* "cross-go; go over".

In terms of verb valency, manner-motion verbs ( $V_1$ ) can be transitive (i.e. a two-place verb) or intransitive (i.e. a one-place verb) (see also Lu 1973:240): for example, *zǒu* "to walk" in *zǒu-shànglái* "walk up" and *fēi* "to fly" in *fēi-huíqù* "fly back" are intransitive (i.e. one-place verbs), *bān* "to move" in *bān-guòlái* "move over here" and *ná* "to take/bring with one's hand(s)" in *ná-qù* "take away" are transitive (two-place verbs). Given that the manner-motion verb ( $V_1$ ) is the core of the verb compound as it governs the syntactic pattern of the verb compound, it is the determinant with respect to whether the verb compound is transitive or not. Seeing that BA-verbs normally require verbs which are at least semantically transitive, manner-motion verbs which are semantically intransitive are thus excluded from the BA-sentences.

The second verb element ( $V_2$ ) can be a direction-motion verb element or a directional verb complement (or "directional suffix" in Thompson's terminology 1973:364), which governs the verb compound semantically, not syntactically. The meaning of  $V_2$  can be taken literally as well as figuratively, for instance, *xiǎng-chūlái* "think of (e.g. a solution)" and *zhǐ-chūlái* "point out" do not have a literal reading (examples are taken from Thompson 1973b:364). Both usages of  $V_2$  are perfectly acceptable in a BA-sentence, as long as  $V_1$  and  $V_2$  refer to different noun phrases. That is,  $V_1$  refers to the action or event involved with the sentential subject and  $V_2$  with the BA-noun; for example:

- 38a. *Tā bǎ wèntí zhǐ-chūlái le.*  
 3sg BA problem point-out LE  
 "S/He has pointed out the core of the problem."

In short, the manner-motion verb element ( $V_1$ ) of a directional verb compound which is BA compatible has to be transitive or at least semantically transitive. This may explain why 39a is BA compatible, but 39b is not:

- 39a. *Nǐ bǎ tā-de yě ná-qù le.*  
 you BA 3sg-NOM also take-go LE  
 "You also took away his/hers."  
 39b. *\*Tā bǎ niǎo fēi-huīlái le.*  
 he BA bird fly-return LE

As the manner-motion verb ( $V_1$ ) *ná* "take" in 39a is transitive and does not have co-reference with  $V_2$  *qù* "go" (i.e.  $V_1$  refers to the sentential subject and  $V_2$  to the BA-noun), the directional verb compound *ná-qù* "take-go" is BA compatible. In comparison, the manner-motion verb ( $V_1$ ) *fēi* "fly" in 39b cannot be construed to be a transitive verb. Furthermore,  $V_1$  and  $V_2$  have the same noun reference; they both refer to the BA-noun. The directional verb *fēi-huīlái* is thus excluded from the BA-sentence.

To sum up, to occur in a BA-sentence,  $V_1$  of a directional verb has to be at least semantically transitive, if not syntactically transitive. Meanwhile,  $V_1$  and  $V_2$

may not have a co-reference on a noun phrase:  $V_1$  normally refers to an event involving the sentential subject and  $V_2$  involving the BA-noun.

#### 6.1.4 Restrictions on Resultative Verb Compounds as BA-verbs

The term "resultative verb compounds" refers to verbs which are made up of two or more verb elements in temporal sequence and which furthermore are in a cause-effect relationship:  $V_1$  represents the cause and  $V_2$  the effect. The cause always exists before the effect.

Thompson (1973b:368) claims that "a typical RV [resultative verb compound] consists of an 'action verb' and a 'result' intransitive verb", such as *sī-pò* "tear-torn", *lā-kāi* "pull-open", *wàng-diào* "forget-off". That is, according to Thompson,  $V_1$  is always an action verb, whereas  $V_2$  can be either a stative verb or a verbal suffix, mainly adding a notion of completion to the verb compound. However, this was not borne out by this study. Instead, the result of this study indicates that in a BA-sentence the first verb element can be an action verb as well as a stative verb, provided the verb is "semantically transitive"; for instance, *è-bīng* "hungry-sick", *qì-biǎn* "angry-flat", *lěng-huài* "cold-bad" and *lèi-sǐ* "tired-dead" are resultative verb compounds formed by a stative verb and a resultative verb complement. They are perfectly acceptable in a BA-sentence. For example:

- 40a. *Kuài bǎ tāmen è-bīng le.*  
almost BA they hungry-sick LE  
"They were so hungry that they were nearly ill."
- 40b. *Nǐ zhēn bǎ wǒ qì-biǎn le.*  
you really BA I angry-flat LE  
"You really made me very angry."
- 40c. *Zhè zhǒng tiānqì bǎ wǒ lěng-huài le.*  
this type weather BA I cold-bad LE  
"This weather froze me to death."
- 40d. *Zhēn bǎ rén lèi-sǐ le.*  
really BA people tire-dead LE  
"(It) really made people exhausted."

Here the stative verbs *è* "hungry", *qì* "angry", *lěng* "cold" and *lèi* "tired", co-occurring with the morpheme *BA* with a causative reading, should be analysed as transitive stative verbs. They are stative verbs in a transitive use.

A resultative verb compound normally expresses two major relations between the two events referred to by the verb elements: one is of a temporal sequence and the other of a causal effect. The event referred to by  $V_1$  represents the cause and exists earlier than  $V_2$  which represents the effect or the resulting-state. The event signalled by the resultative verb compound should thus be viewed in its entirety and treated as a unified whole.

- 41a. *Wǒ bǎ dōngxī dōu chī-guǎng le.*  
 I BA thing all eat-empty LE  
 "I have eaten up everything."  
 41b. *Tā bǎ yīfu xǐ-hǎo le.*  
 3sg BA clothes wash-finish LE  
 "S/He has already finished washing the clothes."

As a resultative verb compound expresses a complete event with an ending state, theoretically all of them can be BA-verbs. However, some resultative verb compounds can never be transitive in nature, whether syntactically or semantically: for example, just to name a few, *zhǎng-gāo* "grow-tall; grow taller", *shuì-zháo* "sleep-attainable; fall asleep", *pǎo-kāi* "run-open; run away", *diē-dǎo* "fall-collapse; trip over". These verb compounds can never be agentive verbs as the instigator of the action or event (signalled by such a verb) does not have any effect on the BA-noun entity. Furthermore, the two verb elements co-index. They are thus excluded from the BA-sentence.

Constrained by the same semantic coherence discussed in section 3.3 above, the two verb elements of a resultative verb compound should not refer to the same noun phrase. Instead, they should consistently refer to different noun phrases in the BA-sentence, i.e. to the sentential subject and to the BA-noun respectively. It is therefore obvious why a resultative verb compound such as *chī-bǎo* "eat-full" (cf. 42a) and *chī-wán* "eat-finish" (cf. 42b), which are quoted by Hashimoto (1971: 37-39), are in a similar formation but only *chī-wán* "eat-finish" is BA compatible.

- 42a. *\*Wǒ bǎ fàn chī-bǎo le.*  
 I BA rice eat-full LE  
 "I have eaten the rice and I am full."  
 42b. *Wǒ bǎ fàn chī-wán le.*  
 I BA rice eat-finish LE  
 "I have eaten the rice and the rice is gone."

The restriction also helps to explain why verbs like *líkai* "leave" and *cānjiā* "join" (mentioned by Mei 1978:170) are not BA-compatible, as their verb elements  $V_1$  and  $V_2$  normally refer to the same noun phrase.

However, in many cases, it is difficult to decide definitely whether a verb (action or stative) is transitive or intransitive in nature. For example, action verbs such as *zuò* "sit", *zǒu* "walk" and *kū* "cry" are normally treated as intransitives (see Hashimoto 1971). Nevertheless, when they appear in sentences like 43a to 43c, they should be considered to be at least semantically transitive, if not syntactically transitive, as the noun phrase which follows is affected by the verb in some way.

- 43a. *Wǒ zuò huǒchē lái de.*  
 I sit train come EM  
 "I took the train to come here."

- 43b. *Tāmen zhèngzài zǒu míjīn.*  
 they DUR walk maze  
 "They are walking in a maze."  
 43c. *Tā zài kū tā-de gǒu.*  
 3sg DUR cry 3sg-ATTV dog  
 "S/he mourned her/his dog."

That is, in 43b the noun *míjīn* "maze" is semantically affected by the verb *zǒu* "walk", it functions as the object of the verb *zǒu* "walk". The same holds true for the noun phrases *huǒchē* "train" and *tā de gǒu* "his dog" in 43b and 43c in relation to the verbs *zuò* "sit" and *kū* "cry". Those three verbs, though they are normally considered to be intransitive, are transitive or at least semantically transitive in the above sentences. It is therefore not surprising to find that resultative verb compounds such as *zuò-tā* "sit-collapse", *zǒu-lèi* "walk-tired", and *kū-luàn* "cry-upset" are perfectly BA compatible, as the first verb element should be considered transitive. This also indicates that a consideration of semantic transitivity, rather than syntactic transitivity, may constitute a more valid criterion when examining BA-verbs.

In addition, it may be noted that resultative verb compounds in relation to events involving one of the five senses are also excluded from the BA-sentence. For example, *kàn-jiàn* "look-perceive", *tīng-dào* "hear-arrive", *mō-zháo* "touch-attainable", or *wén-dào* "smell-arrive" cannot be used in a BA-sentence. Thus

44. \**Tā bǎ xīn chē kàn-jiàng le.*  
 3sg BA new car look-perceive LE  
 "S/He saw the new car."  
 45. \**Wǒ bǎ yīnyuè tīng-dào le.*  
 I BA music hear-arrive LE  
 "I heard the music."

Given that the BA-sentence is a sentence type which allows speakers to present a subjective report or point of view that the sentential subject is responsible for what happens to the BA-noun, the reason for the exclusion of those verbs from a BA-sentence is obviously due to a semantic mismatch as the sentential subject does not have any control over (or cannot be responsible for) the event or action referred to by the verbs of sensory perception. This is manifested by the fact that those verbs and the state-of-mind adverb *gùyì* "intentionally; deliberately" are semantically mismatched not only in a BA-sentence (cf. 46) but also in an ordinary S-V-O construction (cf. 47).

46. \**Tāmen gùyì bǎ māo mō-zháo.*<sup>5</sup>  
 they deliberately BA cat touch-successful  
 \*"They deliberately touched the cat (successfully)."
47. \**Tāmen gùyì mō-zháo māo.*  
 they deliberately touch-successful cat  
 \*"They deliberately touched the cat (successfully)."

However, a metaphorical use of verbs of sensory perception is acceptable, given that the verb is agentive, such as

48. *Tā bǎ shìjiè kàn-kāi le.*  
 3sg BA world look-away LE  
 "S/He disdained the worldly things."

This may also explain why the resultative verb suffix *dào* is sometimes acceptable and sometimes not. In fact, the resultative verb suffix *dào* may represent at least three homonyms, viz. *dào*<sub>1</sub> is a "successful *dào*" (cf. 49a), *dào*<sub>2</sub> "accidental *dào*" (cf. 49b) and *dào*<sub>3</sub> "translocative *dào*" (48c and 48d). Among the three homonyms, the "successful *dào*" and the "accidental *dào*" represent two different resultative verb complements: the "successful *dào*" is volitional and "accidental *dào*" is non-volitional. The "translocative *dào*" (i.e. *dào*<sub>3</sub>) represents a coverb, which normally requires a bare noun phrase (cf. 49c) or a locative phrase (cf. 49d) to specify the new location. The three *dào* are illustrated in BA-sentences as below:

- 49a. *Wǒ bǎ háizi zhǎo-dào le.* (Successful *dào*)  
 I BA child search-DAO<sub>1</sub> LE  
 "I have found the child (successfully)."
- 49b. \**Wǒ bǎ háizi dǎ - dào le.* (Accidental *dào*)  
 I BA child beat-DAO<sub>2</sub> LE  
 "I have struck the child accidentally."
- 49c. *Wǒ bǎ háizi fàng-dào wǒ jiā.* (Translocative *dào*)  
 I BA child place-DAO<sub>3</sub> I house  
 "I have put the child in my house."
- 49d. *Wǒ bǎ háizi fàng-dào wū-lǐ le.* (Translocative *dào*)  
 I BA child place-DAO<sub>3</sub> house-inside le  
 "I have put the child back in the house."

<sup>5</sup> The verb suffix *-zháo* is a homograph of the durative aspect marker *-zhe*. In addition to the difference in their syntactic roles, they represent different semantic readings. That is, *-zháo*, as does the resultative suffix "successful *dào*", adds to the verb a reading like "successful in the attempt", whereas *-zhe* adds to the verb the notion of progression.

As the "accidental" *dào* normally signifies an event which is beyond the control of the agent, it is not surprising to find that only "successful *dào*" and "translocative *dào*" are BA compatible, but not the "accidental *dào*".

To sum up, to be compatible with a BA-sentence, a resultative verb compound must firstly be an agentive verb. Secondly, the two verb elements refer to different noun phrases in the sentence. That is,  $V_1$  refers to the action which the subject noun phrase is involved in and  $V_2$  indicates the result which  $V_1$  has imposed on the BA-noun. The first verb element is not necessarily an action verb; it can also be a stative verb as long as the verb element is in transitive use, whether syntactically or semantically. Furthermore, the sentential subject in a BA-sentence must be able to take responsibility for what happens to or affects the BA-noun entity. As some resultative verb compounds do not encode this nature (e.g. verbs of sensory perception, the verb compound ending with the accidental *dào*), they are excluded from the BA-sentence.

## 6.2 Non-conclusive Verbs

Non-conclusive verbs are verbs which express states that by no means represent perfective or global events. They can be monosyllabic or disyllabic (or polysyllabic). Monosyllabic non-conclusive verbs, following Wang's terminology (1964), include subcategories such as "quality verbs" like *pà* "to be afraid", "telescoping verbs" like *qǐng* "to invite", "classificatory verbs" like *shì* "to be", *xìng* "surname", "status verbs" like *bìng* "sick", *sǐ* "dead", "action verbs" like *lái* "to come" and *qù* "to go", "existential verb" *yǒu* "have; own", and so forth. Disyllabic or polysyllabic non-conclusive verbs include *ānjìng* "quiet", *zhīdào* "to know", *huíjiā* "to go home", *chūxiàng* "to appear", and *fāshēng* "to occur".

Non-conclusive verbs parallel English stative verbs (e.g. *believe*, *belong*, *cost*, *own*) in that both kinds refer to an unchanging condition, most probably, a permanent condition. That is, the condition or the event is not assumed to be bounded. Thus, a non-conclusive verb cannot refer to a perfective event and is thus excluded from the BA construction.

## 6.3 Amphibological Verbs

Amphibological verbs require modification to be acceptable in a BA-sentence. The verb can be perfectivised by the following forms of modification:

- 1) the use of a noun phrase;
- 2) the use of a clause;
- 3) the use of verb reduplication;
- 4) the use of a manner adverb or post-verbal complement; and
- 5) the use of the durative aspect marker *zhe*, when used parallel to another event.

### 6.3.1 Use of a Noun Phrase

A bare noun phrase can be added to a BA-sentence where applicable and, meanwhile, it can bound the event referred to by the BA verbal expression.



Syntactically, the noun phrase can function as an additional object to the BA-verb (i.e. as a "retained object") as shown in 50a. The noun phrase can also function as a post-verbal complement to specify the scope of the action or event (i.e. 50b), to indicate the frequency of occurrence (i.e. 50c), or to state the duration of the event or action (cf. 50d). They are referred to as "quantity adverbial phrases" by Li & Thompson (1981:352-354) or as "cognate object" by Chao (1968:313). However, Li & Thompson argued that functionally these forms do not function as verbal objects. Instead, they "specify the extent or duration of an activity and function as adverbial phrase" (1981:354). They should thus be analysed as quantity adverbial phrases.

- 50a. *Wǒ bǎ qiáng-shàng guà -le yí fú huà.*  
I BA wall-top hang -le one CL picture  
"I hung a picture on the wall."  
50b. *Tā bǎ wǒ kàn-dī -le yídiǎnr.*  
3sg BA I look-low -le a:little  
"S/He has underevaluated me a little."  
50c. *Tā bǎ mén tī -le sān jiǎo.*  
3sg BA door kick -le three CL  
"S/He gave the door three kicks."  
50d. *Wǒ bǎ tā guān -le liǎng ge yuè.*  
I BA 3sg imprison -le two CL month  
"I locked him/her up for two months."

When noun phrases play a role of a post-verbal complement and indicate a certain relationship to the BA-verb, the verb *dāng* "treat...as" and coverbs (or "postverbs" in Lin's terminology 1981:12) such as *dào* "arrive at; to", *zài* "in, on, at", *gěi* "give; to", *chéng* "become; into" are used. For example, a locative phrase can be introduced by *zài* (cf. 51), a translocative phrase can be signalled by *dào* (cf. 52), and a beneficiary is marked by *gěi* (cf. 53), which indicates the existence of an indirect object in a double-object construction.

51. *Tāmen bǎ hái zi fàng zài péngyou jiā.*  
they BA child place LOCA friend house  
"They placed their children in a friend's place."  
52. *Tāmen bǎ shū bān dào shūjià-shàng.*  
they BA book move DAO<sub>3</sub> bookshelf-top  
"They moved the books up to the bookshelf."  
53. *Tāmen bǎ shū sòng gěi wǒ.*  
they BA book give to I  
"They gave the book to me."

The coverb *chéng* "becoming; into" is normally used to introduce a noun phrase as an entity resulting from the action or event referred to by the verb preceding the

coverb (cf. 54). In the case of 54 below, the verb is *kàn* "look; regard".

54. *Xiǎo Lǐ bǎ gǒu kàn chéng -le māo.*  
 NAME BA dog look becoming -le cat  
 "Xiao Li mistook a dog for a cat."

The verb *dāng* "treat...as" is used to introduce a noun phrase as an equivalent to the BA-noun. The noun phrase can appear with or without a verb following to specify the purpose of introducing the noun phrase (cf. 55a and 55b).

- 55a. *Tā bǎ yào dāng táng (chī).*  
 3sg BA medicine treat:as candy (eat)  
 "S/He takes medicine as if s/he were eating candies."  
 55b. *Wǒ bǎ tā dāng zìjǐ jiārén (kàn).*  
 I BA 3sg treat:as self family:member (see)  
 "I treat her/him as if s/he were a member of my family."

As a matter of fact, it is possible to have a verb or verb phrase follow each noun phrase introduced by such as verb or coverb to specify the purpose or cause of the event or activity. Compare the following sentences with sentences from 51 to 53 (above):

- 51a. *Tā bǎ hái zi fàng zài péngyou jiā (wán).*  
 3sg BA child place LOCA friend house (play)  
 "S/He placed her/his children in a friend's place (to play)."  
 52a. *Tā bǎ shū bān dào shūjiǎ shàng (fàng).*  
 3sg BA book move DAO<sub>3</sub> bookshelf top place  
 "S/He moved the books up to the bookshelf (to store them there)."  
 53a. *Tā bǎ shū sòng gěi wǒ (kàn).*  
 3sg BA book givc to I read  
 "S/He gave the book to me (to read)."

Whether there is a verb following or not, the noun phrase alone is sufficient enough to delimit the event. Li & Thompson (1981:618-620) analyse the construction with a verb following as a descriptive type of serial verb construction and term it "irrealis descriptive clause", as the second verb or verb phrase serves to name an "unrealised (irrealis)" activity involving the preceding noun phrase.

Syntactically, the noun phrase introduced by the coverb may function as the agent, the object or even the locative of the reduced clause. Semantically, the predicate of the reduced clause (i.e. the additional verb) is used to specify the purpose of or the cause for the introduction of the event referred to by the BA-verbal expression. In addition to signalling a result or a change of state, the fundamental function of the noun phrase quantifier, with or without a coverb, is to perfectivise the verbal expression.

### 6.3.2 Use of a Clause

Another very commonly used alternative to the irrealis descriptive clause proposed in Li & Thompson's analysis for the quantification of an event is that of modification through the use of an extent clause.

An extent clause is introduced by the extent marker *de*, immediately after the BA-verb, and is followed by an embedded clause. The extent marker *de* is a homograph of the full verb *dé* "get; obtain", the potential infix *de*, and the post-verbal complement marker *de*. The embedded clause in a BA construction can be a complete clause with a subject when the subject has a reference different from the BA-noun in the matrix sentence. When the subject of the extent clause has an reference identical with the BA-noun, the clausal subject is generally deleted. The resultant forms appear in a variety of constructions (see Lu 1977:100-116 for a detailed account of the extent clause). However, the basic structures are two: a complete extent clause (cf. 56) and a deleted extent clause (cf. 57).

56. *Bǎ tāmen qì de liǎn dǒu hóng le.* (completed clause)  
BA they anger EXT face all red le  
"(It) made them so angry that their faces became all red."  
57. *Tāmen bǎ wūzi lǐ de [Ø] hěn gānjìng.* (deleted clause)  
they BA house tidy EXT very clean  
"They tidied up the house so thoroughly that it became spick and span."

### 6.3.3 Use of Verb Reduplication

As verb reduplication generally indicates a suggestion of doing (or trying to do) something for a short duration (Tang 1981:117), the event involved is expected to be global or bounded in nature and thus BA compatible:

58. *Wǒmen bǎ shìqíng shāngliáng-shāngliáng.*  
we BA matter discuss - discuss  
"Let's have some discussions on this matter."

The use of verb reduplication may also help to perfectivise an originally imperfective event, as it adds the semantic interpretation "(try to) do a bit..." This may explain why the base form of *shāngliáng* "discuss" in 58a is not BA compatible, but its reduplicated form in 58 (above) is possible.

- 58a. *\*Wǒmen bǎ shìqíng shāngliáng.*  
we BA matter discuss  
"We have a discussion on this matter."

However, not all verbs can be reduplicated.

### 6.3.4 Use of Manner Adverbs or Post-Verbal Complements

Adverbs may likewise add an perfective interpretation to an imperfective BA-sentence. For example, sentence 59a is not BA compatible; however, with the addition of the manner adverb *màn-man-de* "very slowly", it becomes acceptable to a BA-sentence:

- 59a. \**Tā bǎ jiǔ hē.*  
 3sg BA wine drink  
 "S/He drank the wine."  
 59b. *Tā bǎ jiǔ màn-man-de hē.*  
 3sg BA wine very:slow-ADV drink  
 "S/He drank the wine very slowly."

Although semantically there is no obvious perfectivity implied in a sentence such as 59b, with the use of an adverb, it is still considered grammatical for a BA-sentence. This may suggest that, in addition to the fact that BA-sentences are generally semantically defined, it is also possible to make use of "pure syntactic representatives" (i.e. linguistic elements without the implication of perfectivity) to encode the limits or boundary of an event. That is, the adverb which is added to the sentence 59a, an unacceptable BA-sentence, helps to set a linguistic boundary to the sentence and thus renders the sentence BA compatible. Another possibility is that the use of adverbs help to delimit the BA-noun to a specific reference. Thus, the whole BA-sentence is perfectivised, semantically as well as syntactically.

Similarly, a post-verbal complement (with or without *de*, the post-verbal complement marker) can function exactly the same as an adverb to bound an event:

- 60a. *Tāmen bǎ shùgēn mái de hěn shēn.* (with *de*)  
 they BA root bury DE very deep  
 "They planted the root of the plant very deeply." (Li & Cheng 1988:497)  
 60b. *Wǒ bǎ zhè shuāng xié shuā gānjìng le.* (without *de*)  
 I BA this CL:pair shoe blush clean LE  
 "I brushed the shoes very clean."

A post-verbal complement without the marker *de* (cf. 60b), of course, may also be analysed as a form of resultative verb compound (cf. example 4a in Lu 1977:277).

### 6.3.5 Use of the Durative Marker *-zhe*

It is interesting to note that the durative marker *-zhe* is compatible with a BA-sentence, though it normally indicates an ongoing event or state. However, *-zhe* can appear in a BA-sentence, provided that it encodes a bounded event, rather than a durative or an imperfective event (cf. 61a and 61b):

- 61a. *Nǐ bǎ huā ná -zhe.*  
 you BA flower hold DUR  
 "You hold the flower [while I am doing....]"
- 61b. *Tā bǎ wǒ lā -zhe.*  
 3sg BA I pull DUR  
 "S/He was pulling at me [when...]." (Li & Thompson 1981:487)

Although syntactically 61a and 61b involve a durative aspect marker, semantically they are perfective as they are restricted to situations where the duration of the holding lasts until the speaker is ready to take over the job (as in 61a), or where the action of pulling goes hand in hand with another event (cf. the gloss for 61b). The missing information is understood by both the speaker and the hearer; it can easily be restored from the context in a continuous conversation. This suggests that the criteria for the selection of aspect markers for the BA-sentence are semantic rather than syntactic. The semantic component "perfectivity" emerges from a discourse, rather than from a word or a sentence.

## 7. Conclusion

Based on the presence and absence of the semantic component "perfectivity" of the verb, Chinese verbs can be categories into three types: conclusive verbs, amphibological verbs and non-conclusive verbs.

Conclusive verbs are verbs which are semantically perfective and thus acceptable in the BA-sentence without any modification. Non-conclusive verbs are verbs which express states that by no means represent perfective or global events or actions; they are thus excluded from the BA-sentence. Amphibological verbs are verbs which require modification in order to occur in a BA-sentence. The use of modification with a BA-verb is to perfective the verb (i.e. to bring into the event signified by the verb an endpoint or a conceptual boundary), so that it is eligible for a BA-sentence. The use of the morpheme *le*, does not help to perfectivise the event. However, the verbal *-le* is a useful diagnostic aid for distinguishing conclusive verbs from amphibological verbs. That is, if the use of a verb with the morpheme *-le* always encodes "perfectivity" (not "inception"), the verb is a conclusive verb. An amphibological verb does not show such consistency when used with the morpheme *-le*.

In order to be valid for a BA-form, conclusive verbs and amphibological verbs are subject to some semantic and syntactic constraints. For example, monosyllabic conclusive verbs, disyllabic conclusive verbs in V-V and V-O forms have to be either syntactically or semantically transitive, they are then BA-compatible.

In the case of verbs in the V-C form (including directional verb compounds, resultative verb compounds and some disyllabic conclusive verbs), the BA-compatibility of the verb is determined by two major factors: Firstly, the first verb element ( $V_1$ ) has to be transitive, syntactically or semantically. Secondly, the two verb elements ( $V_1$  and  $V_2$ ) must have different noun references.

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