CHAPTER THREE

SYNTACTIC CLASSIFICATIONS OF VERBS IN CHINESE

This chapter aims to present a syntactic classification of verbs in Chinese within the framework of Lexicase. As mentioned in Chapter Two, we wish to identify syntactic constructions with respect to the tensal and aspectual properties of the markers selected for this study, and tabulate the sentences into a designated chart. In the chapter, we have succeeded in making a binary subcategorisation of the tense/aspect markers in Lexicase in Figure 2.8 (simplified in Figure 2.9) and completed the (A) component of the model designed for the purpose (reproduced as Table 3.1 below). This chapter is therefore a continuation of our effort to complete portions (B) and (C) of the model.

Table 3.1

Syntactic Analysis Model: Tense and Aspect in Chinese

	(A) Subcategorised Tense/Aspect markers
(B) Syntactic subcategorisation of verbs	(C) Syntactic constructions with respect to Tense and Aspect

We shall begin our discussion with some background information on the purpose and significance of our subcategorisation of verbs in this study in section 3.1. The subcategorisation will be established in section 3.2. Based on the subcategorisation, Section 3.3 provides a preliminary observation of the syntactic characteristics of all the markers. It will be shown in section 3.4 that the characteristics allow us to regroup and discuss all the sentence constructions in terms of "complex" and "non-complex" verbs, illustrated in the stemma notation of Lexicase. Finally, concluding remarks will be given in section 3.5.

It should be emphasized that we are only concerned with the syntactic aspect of sentence constructions in this chapter. The tensal and aspectual properties of the sentences will only be examined in Chapters Four and Five.

3.1. Significance of the Subcategorisation

There are several reasons for the need to subcategorise sentence constructions in this study.

Smith (1991, 1994) advocates a two-component theory of aspect that posits a viewpoint aspect (similar to Comrie's grammatical aspect) and a situation aspect (similar to Vendler's and Dowty's lexical aspect). The two components are independent but may interact consistently with each other. The viewpoint aspect is either perfective or imperfective. The perfective viewpoint presents the situation as a whole or as a closed entity and it includes both the endpoints of a situation. The imperfective viewpoint, however, focuses only on intervals that are neither initial nor final. It is therefore 'open' to additional information (Smith, 1994:110). The situation

aspect, on the other hand, is determined by the combination of the verbs, the argument and the adverbial in a given sentence.

As such, it is believed that syntactically, the situational aspect or the lexical aspect will be found at the basic or simple sentence level, whereas the viewpoint aspect or grammatical aspect is found at a propositional or a higher sentential level whose scope will cover that presented by the situation. Schematically, the difference in scope will be:

Aspect : [[situation aspect] viewpoint aspect]

The two aspectual components are semantically two distinctive independent concepts, but syntactically, they are bound to interact. It is because the choice of a viewpoint will depend on the conditions existing in a sentence. For example, the viewpoint will be perfective if the verb is a telic verb that has a natural end point such as *sǐ* 'to die' or *kànwán* 'finished reading'. On the other hand, verbs that indicate an on-going activity such as *kàn* 'to read' in *Wǒ zài kànshū* 'I am reading' will only allow the viewpoint to be imperfective.

Chung and Timberlake (1985) notice that the concept of aspect is relevant to four different levels of semantic structure, which they classify as:

(a) The verb (and its inherent aspectual properties): *angry*
(b) The predicate: *John got angry at a stranger*
(c) The proposition: *John got angry at a stranger on the bus today*, and
(d) The narrative: *John got angry at a stranger on the bus today and then apologized*

They state that:

> In practice, the most important distinction is that between the proposition level and the verb and predicate levels; the latter two may be referred to together as the lexical level. ...it is the proposition level that is particularly relevant to aspect that is encoded by bound morphology of the verb form. (p.214)

The quotation above indicates that Chung and Kimberlake define 'aspect' in terms of grammatical aspect or viewpoint aspect. This implies that the aspect markers, if they exist, should be found at the different designated levels of sentence structure: lexical aspect at levels (a) and (b) above, and grammatical aspect at level (c), the proposition level that specifies the predicates in relation to the event frame. In other words, an aspect marker will appear syntactically at the levels corresponding to the semantic properties of the verbs.

In this sense, Smith's theory and Chung and Timberlake's observations are significant to the present study. They lead us to predict a hierarchy that lexical aspect falls within the scope of the verb at basic sentence or phrasal level, while the grammatical aspect of the event is found at the higher sentential level.

This observation is supported by findings established by Chinese linguists. In his analysis of the semantic properties of aspect, Fan (1984) concludes that there are two levels in the semantic structures of sentences such as *Tā dàole₁ Shànghǎi le₂* 'He has arrived at Shanghai'. When both *le* occur in a sentence, the scope of the sentence final *le₂* will cover the one defined by the verbal *le₁*.

The study of tense and aspect is too wide to be fully covered in this preliminary study. We will therefore confine our analysis to a manageable set of verbs

that have often been quoted as examples in the study of aspect. The verbs chosen reflect the general properties of aspect in the language. The verbs are selected mainly from the findings of Huang (1988), Ma (1992), Guo (1993), Dai (1997), Tsao (1990) and other academic papers on the topic. The process of the subcategorization of verbs is based on the model set by Ng (1997), but modified in accordance with the lastest development in the grammar of Lexicase. Since the ultimate aim of this classification is to examine how verbs and their corresponding syntactic structures correlate with the markers of tense and aspect in Chinese, verbs and syntactic constructions that are not overtly marked by the markers or cannot co-occur with any marker will not be discussed in this study. A good example of the former includes sentences in the so-called neutral viewpoint of Smith (1991). This viewpoint is aspectually vague in meaning because it is not morphologically marked. As shown in sentence (1) below, the sentence can be interpreted as perfective as well as imperfective:

(1) Zhāngsān xiūlǐ yīge   lùyīnjī   (Smith, 1991:364)
     Zhangsan repair one-CL tape recorder
     'Zhangan is repairing a tape recorder.'   [imperfective]
     'Zhangsan repaired a tape recorder.'   [perfective]

Verbs that are incompatible with aspect markers include auxiliary verbs such as *néng* 'can', *huì* 'will', *yīnggāi* 'should, ought to' and the copula *shi* 'is'. Syntactically, these are verbs that are defined as extension verbs in Lexicase theory. Extension verbs are verbs that subcategorise a verbal or nominal predicate in the grammatical framework.

(2) a. *Tā zài huǐ/huǐle/huǐguo/huǐzhe chàngge
      *'He is knowing/knew/had known/ is knowing how to sing.'

   b. *Tā zài shǐ/shǐle/shǐguo/shǐzhe dàxuésheng
      *'He is/was/had been/is being a university student.'

Ng (1997) shows that sentences with extension verbs are in general not compatible with aspect markers. We shall therefore exclude discussion of such constructions. But there is an exception.

The exception is the group of verbs that, as bare words, would not subcategorise any predicate or take any verb as dependent, but under some syntactical strategies such as the so-called 'perspective shift' (Hisami, 1993) or 'aspectual category shift' (Ross, 2002), they become extension verbs. For example, the intransitive extension Type F verbs defined in the subcategorisation chart of this study are derived from verbs in the transitive non-extension Type E2.2 construction (see discussion below).

3.2. Syntactic Subcategorisation of Verbs in Chinese

Lexicase establishes primary verb classes according to the types of obligatory case relations the verbs require. Based on convention in Lexicase analysis, verbs in Chinese will be subcategorized on a binary basis into eight primary classes in this study, as shown in (a) below.[1] Moreover, each of these features in (a) implies a

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[1] In many works on Lexicase, the V will further be subcategorized into 16 classes by having an additional [±mode] distinction which implies a case relation MNS (means). In Chinese, these features are normally found in the analysis of the bǎ and bèi (passive) constructions (Ng, 1997). Such constructions are not included in this study because the aspectual part of these constructions are basically the same as that in other basic sentences discussed in this research.

complementary case relation as in (b). Case relation is the feature that specifies the type of syntactic-semantic relations obtained between a noun and its regent (Starosta, 1988).

<div align="center">

(a)	[V] →	[±trns]	(b)	[V]	→	?[PAT]
		[±lctn]		[+trns]	→	?[AGT]
		[±crsp]		[+lctn]	→	?[LOC]
				[+crsp]	→	?[COR]

</div>

Figure 3.1

Primary Classes of Verbs and their Case Relations

The subcategorisation rules in (a) indicate that for all verbs, it is either ±trns (transitive or intransitive), ±lctn (locational or non-locational) and ±crsp (correspondent or non-correspondent). In (b), the rules state that every verb must have a PAT (patient) as dependent according to the Patient Centrality Principle in the grammar (see Chapter Two); a transitive verb requires an obligatory AGT (agent), while a verb that is locational will characterise a noun phrase or prepositional expression that will be assigned a LOC (locus) case relation. COR (correspondent) is a case relation marked on the nominal or phrasal complement that is in correspondence with the patient of the sentence. Semantically, it is perceived as an actant that has an intimate connection with the patient implied by the +crsp verb (Ng, 1997).

The syntactic-semantic features in (a) and (b) above are obligatory in a well-formed sentence in Lexicase grammar. For example,

(3) a. *Dinner eats rice

     b. *Hiram sprayed the paint

     c. *Jane sent colleagues

The verbs in sentences in (3) are [+trns], [+trns, +lctn] and [+trns, +crsp] respectively. However, sentence (a) lacks an animate agent; *sprayed* in (b) needs a location for the paint to be sprayed, but the required noun phrase is missing; consequently, the LOC case relation cannot be assigned. In (c), the verb *sent* needs a correspondent complement that says what had been sent to the colleagues, but again, there is no extra element for the COR case relation to be assigned. These sentences prove that a sentence will be ill-formed if the syntactic-semantic features are not satisfied.

With these basic requirements of Lexicase in mind, we have identified thirteen major types of sentence constructions in our subcategorisation of verbs in Chinese in Table 3.2 below.

Table 3.2

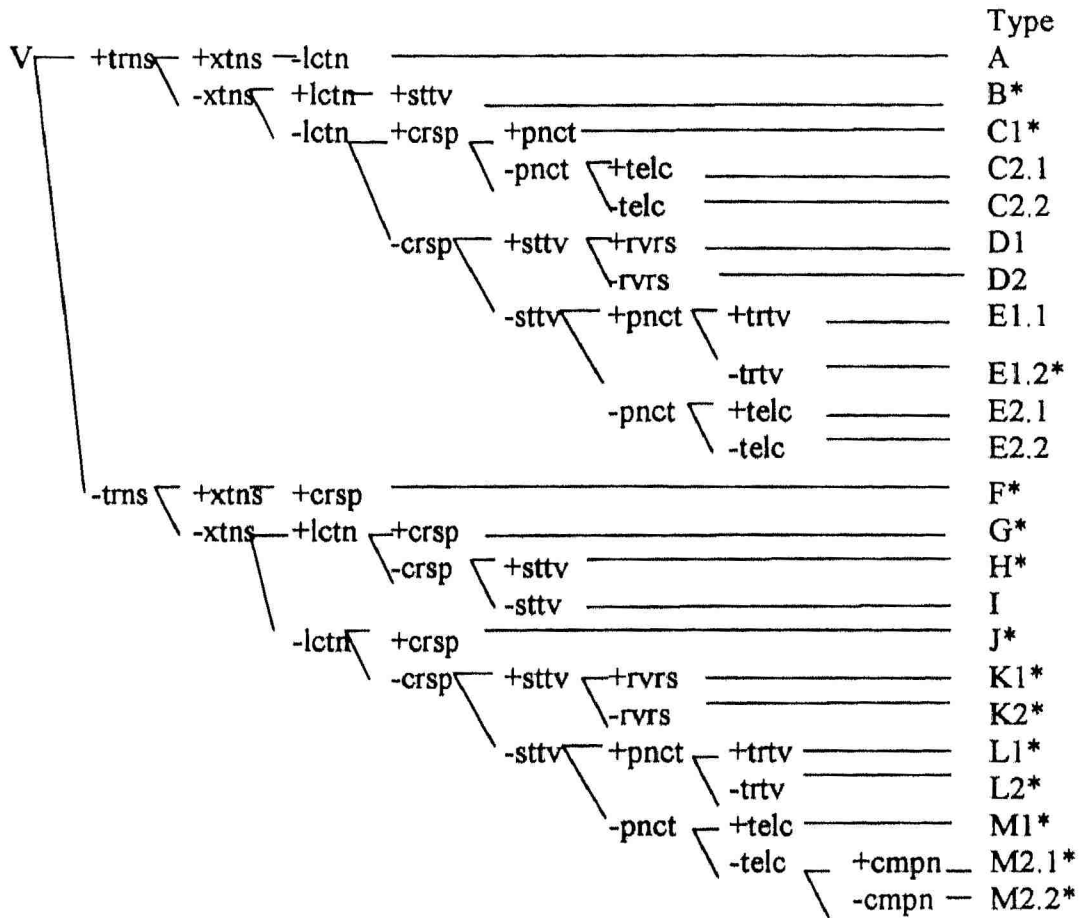## Syntactic Subcategorisation of Verbs in Chinese

							Type
V — +trns	+xtns —lctn						A
	-xtns — +lctn—	+sttv					B*
	-lctn	+crsp	+pnct				C1*
			-pnct	+telc			C2.1
				-telc			C2.2
		-crsp	+sttv	+rvrs			D1
				-rvrs			D2
			-sttv	+pnct	+trtv		E1.1
					-trtv		E1.2*
				-pnct	+telc		E2.1
					-telc		E2.2
-trns	+xtns +crsp						F*
	-xtns — +lctn	+crsp					G*
		-crsp	+sttv				H*
			-sttv				I
	-lctn	+crsp					J*
		-crsp	+sttv	+rvrs			K1*
				-rvrs			K2*
			-sttv	+pnct	+trtv		L1*
					-trtv		L2*
				-pnct	+telc		M1*
					-telc	+cmpn	M2.1*
						-cmpn	M2.2*

Table 3.2 shows that some of the sentence types are further split into smaller divisions according to the following criteria: ±sttv (stative), ±pnct (punctual), ±rvrs (reversible), ±trtv (iterative), ±telc (telic) and ±cmpn (compound). Every type of construction is syntactically distinctive from the others.

Based on this subcategorisation, we have identified sentences according to the co-occurrence of individual verbs with respect to the aspect markers. We have also

established the (B) and the (C) components of Table 3.1 stated at the beginning of this chapter. The co-occurrence is shown in the tables below. Table 3.3 focuses on transitive verbs while Table 3.4 is on intransitive verbs.

In the tables, the check mark √ and the cross mark × indicate whether the verb may or may not co-occur with the designated marker, whereas the symbols √/× shows that some of the verbs in the designated box are compatible with the corresponding aspect marker but others are not, mostly due to semantic constraints. Splitting the subdivision into finer divisions may be able to solve this problem, but since Lexicase is a grammar that is syntactically oriented, we will only identify the problems but we will not elaborate on the semantic complications.

The asterisk (*) indicates that the verbs in the construction always occur with a marker.

Table 3.3

Co-occurrence of Transitive Verbs with Aspect Markers in Sentences

Type		Verbs	*le₂*	*zhe*	*le₁*	*guo₁/ guole*	*guo₂*	*zài*
A	+trns +xtns -lctn	chàng₂ 'sing' chī₂ 'eat' kàn₂ 'read' shuì₂ 'sleep'	√	√	×	×	×	×
B	+trns +lctn -crsp +sttv	fàng₂* 'put' guà₂ * 'hang' ná* 'hold' tǎng₃* 'lie' zhù₂* 'live' zuò₃* 'sit'	√	√	√	×	√	×
C1	+trns -lctn +crsp -sttv +pnct	dǎ₂* 'punch' dǎpò₂* 'broke' tī₂* 'kick' yíng₂* 'win'	√	×	√	×	√	×
C2.1	+trns -lctn +crsp -sttv -pnct +telc	gěi 'give' màigěi 'sell to' sòng 'give (as present)'	√	×	√/×	×	×	×
C2.2	+trns -lctn +crsp -sttv -pnct -telc	gàosu 'tell' jiāo 'teach' wèn 'ask'	√	√/×	√	×	√	√/×
D1	+trns -lctn -crsp +sttv +rvrs	ài 'love' xiǎng 'thinking of' xǐhuan 'like' xīnshǎng 'admire'	√	√/×	√/×	×	√	√/×
D2	+trns -lctn -crsp +sttv -rvrs	liǎojiě 'understand' rènshi 'know someone' zhīdao 'know'	√	×	√	×	×	×
E1.1	+trns -lctn -crsp -sttv +pnct +trtv	dǎ₁ 'beat (the drum)' qiāo₁ 'knock' tī₁ 'kick'	√	√	√	√	√/×	√

Table 3.3 continued

Type		Verbs	le_2	zhe	le_1	$guo_1/$ guole	guo_2	zài
E1.2	+trns -lctn -crsp -sttv +pnct -trtv	diū* 'lost' sǐ₃* 'lost' wàng* 'forget' yíng₃* 'win'	√	×	√	√/×	×	×
E2.1	+trns -lctn -crsp -sttv -pnct +telc	dǎpò₁ 'break' xiěwan₁ 'finished writing' xuéhui 'learnt' zhǎodao 'found'	√	×	√	×	×	×
E2.2	+trns -lctn -crsp -sttv -pnct -telc	chàng₁ 'sing' chī₁ 'eat' chuān₁ 'put on' kàn₁ 'read' mǎi₁ 'buy' shuì₁ 'sleep' xiě₁ 'write'	√	√/×	√	√/×	√	√

Table 3.4

Co-occurrence of Intransitive Verbs with Aspect Markers in Sentences

Type		Verbs	*le₂*	*zhe*	*le₁*	*guo₁/ guole*	*guo₂*	*zài*
F	-trns +xtns +crsp	chī₃* 'eat' kàn₃* 'read' xǐ* 'wash' yóu* 'swim'	√	×	√	×	×	×
G	-trns -xtns +lctn +crsp	zhù₁* 'live' tǎng₂* 'lie' zuò₂* 'sit'	√	×	√	×	√	×
H	-trns -xtns +lctn -crsp +sttv	fàng₁* 'put' guà₁* 'live' tǎng₁* 'lie' zuò₁* 'sit'	√	√	×	×	×	×
I	-trns -xtns +lctn -crsp -sttv	lái₃ 'come' qù₁ 'go' lái₄ 'come' qù₂ 'go'	√	×	√	√/×	√/×	×
J	-trns -xtns -lctn +crsp	gāo₂* 'tall' gōngzuò₂* 'work' lái₂* 'come' pàng₂* 'gain weight' pǎo₄* 'run' sǐ₂* 'die'	√	×	√	×	√	×
K1	-trns -xtns -lctn -crsp +sttv +rvrs	è* 'hungry' hóng₂* 'flush' pàng₁* 'fat' piàoliang* 'pretty' zui* 'drunk'	√	√/×	√	×	√/×	×
K2	-trns -xtns -lctn -crsp +sttv -rvrs	cōngming* 'clever' dǒng* 'understand' gāo₁* 'tall' hóng₁* 'red' lǎo* 'old' niánqing* 'young'	√	×	√	×	√/×	×

Table 3.4 continued

Type		Verbs	le_2	zhe	le_1	$guo_1/$ guole	guo_2	zài
L1	-trns -xtns -lctn -crsp -sttv +pnct +trtv	bàozhà* 'exploding' dī* 'dripping' pǎo₃* 'running' qiāo₂* 'knocking' tiào* 'jumping'	√	√	√/×	×	×	√/×
L2	-trns -xtns -lctn -crsp -sttv +pnct -trtv	lái₁* 'come' miè* 'extinguish' pǎo₂* 'escape' sǐ₁* 'die' yíng₁* 'win' zǒu 'left'	√	×	√	×	√/×	×
M1	-trns -xtns -lctn -crsp -sttv -pnct +telc	bìyè* 'graduate' chénggōng* 'success' hēzuì* 'drunk' xǐgānjing* 'wash- clean' xiěwán₂* 'finished writing'	√	×	√	×	×	×
M2.1	-trns -xtns -lctn -crsp -sttv -pnct -telc +cmpn	chīfàn* 'eating' guāfēng* '(wind) blowing' shuìjiào* 'sleeping' xiàyǔ* 'raining'	√	×	×	×	×	×
M2.2	-trns -xtns -lctn -crsp -sttv -pnct -telc -cmpn	gōngzuò₁* 'work' kū* 'cry' pǎo₁* 'run' xiào* 'laugh'	√	√/×	√	√/×	√/×	√/×

In the tables, subscripts are used to distinguish homophones. Homophones are a common phenomenon in non-inflectional languages such as Chinese. Verbs that are labelled as subscript 1 in the tables are verbs with a root meaning or a meaning that is most common to native speakers of Chinese. Subscripts 2, 3 and so on indicate that the same verb occurs in other syntactic constructions, like the three *tǎng** 'lie' in (4) below. The asterisk (*) attached to the verb indicates that the verb always occurs with a marker. This means that the verb *tǎng* 'lie' in (4) must occur in the form of *tǎngzhe* or *tǎngle* in the constructions, in order to be grammatically acceptable. Otherwise, the sentences will be ill-formed as shown in (4a') – (4c').

(4)   a.   tǎng₁ [Type H : -trns, +lctn, -crsp]
        Bīngrén zài chuángshang tǎngzhe
        patient at bed-on   lie-mrk
        'The patient is lying on the bed.'

      a'   *Bīngrén zài chuángshang tǎng

      b.   tǎng₂ [Type G : -trns, -xtns, +lctn, +crsp]
        Tā zài chuángshang tǎngle wǔge xiǎoshi
        he at bed-on   lie-mrk five-CL hour
        'He has been lying on the bed for five hours.'

      b'   *Tā zài chuángshang tǎng wǔge xiǎoshí

      c.   tǎng₃ [Type B : +trns, +lctn]
        Chuángshang tǎngzhe bīngrén
        bed-on   lie-mrk patient
        'There is a patient lying on the bed.'

      c'   *Chuángshang tǎng bīngrén

The sentences in (4) show how verbs are used in different constructions in Chinese. They differ in form, distribution and meaning in different sentences. Hence, according to the Triune Sign principle of Lexicase mentioned in Chapter Two, these verbs are regarded as separate lexical entries. It will be shown later how these verbs are related.

3.3. Preliminary Observations

Before examining in detail the subcategorisation and the corresponding sentence constructions in Table 3.3 and Table 3.4, it can be observed that the two *le* are the most common markers in Chinese, as compared to *guo₁/guole*, *guo₂*, *zhe* and *zài*. Moreover, the properties of individual markers can be deduced by looking at the syntactic co-occurrence in the tables.

3.3.1 *Le₂*

If we agree with Fan (1984) that the scope of the sentential marker covers the phrase or sentence that precedes it, or with Chung and Kimberlake (1985) that the grammatical aspect is found at the propositional level which is sensitive to the event frame rather than the lexical property of the verb, it is certain that *le₂* is the marker for this purpose. As can be seen in the two tables, theoretically [emphasis mine] *le₂* seems to occur in all syntactic constructions, even in those that are traditionally considered to be inapplicable.

In traditional Chinese linguistics, sentences like (5a) that contain stative verb *ài* 'to love' or other Type D1 verbs in the subcategorisation in Table 3.3 will not co-

occur with any aspect marker. These verbs denote the emotive and mental state of a person. The emotion or feeling expressed in the sentence is something felt by the speaker at the speech moment, and cannot be an action or a past experience (L. Li, 1990).[2] On the other hand, it is also generally believed that sentences with quality and status verbs such as *pàng* 'fat', *gāo* 'tall' and other Type K verbs in this study will not co-occur with *le* if they are already preceded by the adverb *hěn* 'very', as in (5a) and (5b) below, because they denote a continuous state of an event. However, (5a') and (5b') are grammatical. This shows that the verbs may co-occur with *le* if *le* is interpreted as *le₂* which is syntactically a sentential or propositional marker. The unacceptability of the second interpretation of the two sentences shows that the marker *le* cannot be interpreted as *le₁* which is syntactically a marker at the lexical level.[3]

(5) a. Tā hěn ài tā
         he very love her
         'He loves her very much (current state).'

     a' Tā hěn ài tā le
         'He loves her now.'
         (lit. *'He already loves her very much (current state).')

     b. Huā   hěn hóng
         flower very red
         'The flower is red (current state).'

     b'. Huā   hěn hóng le
         'The flower is red now (as compare to before).'
         (lit. *'The flower is already very red now (current state).')

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[2] This statement is questionable. It is common in Chinese that stative verbs can be interpreted iteratively and be derived into verbs that indicate a continuative state or an event, upon which, some of these verbs can take markers. See Type D1 and D2 verbs in Table 3.3.

[3] Semantically, *le₂* brings about a 'change-of-state' in the event in discourse while *le₁* is generally believed to mark the 'completion' of an action or the past tense of the verb.

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c. Huā hóng le
  'The flower is turning red.'
  'The flower has turned red.'

The problem is that, when the adverb *hěn* 'very' does not occur in the sentence, as in (c) above, the syntactic identity of the sentence final *le* becomes controversial. As will be discussed in Section 5.4 in Chapter Five, it needs semantic or pragmatic contexts to justify whether the *le* is a *le$_1$* or a *le$_2$*.

3.3.2 Le$_1$

Le$_1$ is a productive marker in Chinese. It is generally treated as a verbal suffix in Chinese Linguitics. Hence, it is a marker at the lexical level.

Table 3.3 and Table 3.4 show that the marker may co-occur with verbs in almost all types of sentence constructions, except for Types A, H and M2.1 sentences that strictly forbid its occurrence. Only certain verbs can occur with *le$_1$* in Type D1 construction. For example, the verb *xīnshǎng* 'to appreciate, to admire' as in the sentence *Dàjiā dōu xīnshǎngle nàfú huà* 'All of us admired that painting'.

Examples of Type A and Type H constructions are given in (6a) and (6b) respectively:

(6) a. Tā tǎngzhe kànshū
         he lie-mrk read-book
         'He reads while lying down.'

     a' *Tā tǎngzhe kànshūle$_1$

b. Huà   zài qiángshang guàzhe
   painting at wall-on   hang-mrk
   'The painting is hanging on the wall.'

b' *Huà zài qiángshang guàzhele₁

Note that both types of constructions are *zhe*-sentences that indicate a stative situation. The two markers *zhe* and *le* cannot co-occur at the lexical level. Sentence (6b') provides strong evidence that, in Chinese, no markers can be placed adjacent to each other syntactically.

3.3.3 *Zhe*

Zhe is another marker used at the lexical level like le_1, but the two markers are, as shown in (6) above, in complementary distribution. If one of them is used, the other will not occur. *Zhe* exists only in constructions that indicate the continuation of an action (as in Type M2.2) or the reiteration of an action (Type E1.1 and L1) or the result state of an action (Type B and H). Syntactically, a verb with *zhe* can be transitive like sentence (4c) and (6a) above, or instransitive like (4a) and (6b).

3.3.4 *Guo₁/guole*

This marker is very limited in function. It only appears in constructions such as (7) below. (7a) indicate that the marker is only used for daily or habitual activities, but not for actions such as "*killing a person*" in (7a'), which is against the norm. The marker is also used to narrate the relative occurrence of one action after another. In such cases, *guo₁/guole* can only be used for the first action as seen in the (b) sentences below. (7b') is ungrammatical because the two actions are not in the right sequence.

This syntactic property of the marker is in accordance with our claim in Chapter Two that *guo₁/guole* refers to a 'stage' in a series of activities (see Section 2.2.2). The *le* cannot precede *guo* as shown in sentences (8).

(7) a.   Wǒ chīguo₁/guole fàn le   (Type E2.2)
          I   eat-mrk   rice mrk
          'I have eaten.'

     a'. *Wǒ shāguole₁/guole rén le
          'I have already killed a person (as a habitual activity).'

     b.   Tā qiāoguo₁/guole mén cái jìnqu   (Type E1.1)
          he knock-mrk   door then enter
          'He enters only after knocking at the door.'

     b'   *Tā jìnquguo₁/guole cái qiāo mén
          'He knock at the door only after entering into the room.'

(8) a.   *Wǒ chīleguofàn le

     b.   *Tā qiāoleguo mén cái jìnqu

3.3.5 *Guo₂*

Guo₂ may, as can be deduced from Table 3.3 and Table 3.4, occur in constructions that involve activities that had happened before. Hence, it is generally not compatible with irreversible (Type D2, K2), non-iterative punctual (Type E1.2, L2) and telic (Types C2.1, E2.1, M1) verbs, except for some verbs in these groups that are pragmatically or semantically acceptable. *Niánqing* 'young' and *sǐ* 'to die' are perhaps the exceptions. Being young is an irreversible process, but we do hear people say *Wǒ yě niánqingguo₂* 'I was young once' when they talk about their youth. Similarly,

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being dead is irresible, but one may say *Zhèr sǐguo yīge rén* 'Someone died here

before' and *Tā sǐguo liǎnghúile, dōu méi sǐchéng* lit. 'He died twice, but didn't

twice.' The verb *sǐguo* may refer to the fact that 'he has attempted to commit suicide

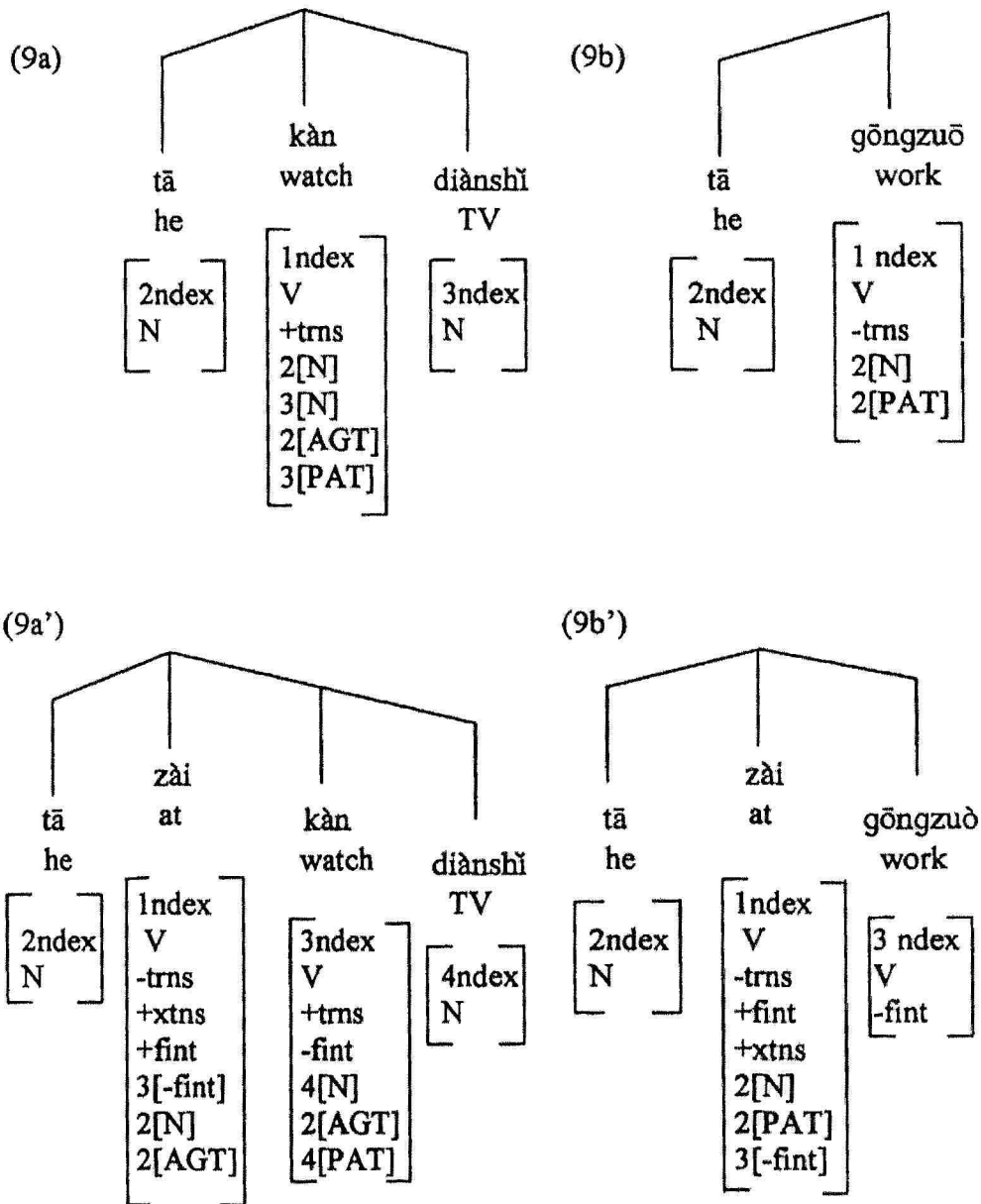twice but stay alive' or figuratively, 'he cheated death twice'.

3.3.6 *Zài*

Zài seems to appear only in constructions that indicate an action in progress. It

involves action verbs such as those in Type C2.2, E2.2 and M2 constructions, and

punctual verbs with an iterative meaning, such as those in Type E1.1 and L1.

The peculiarity of constructions using *zài* is that, at first glance, it is not clear

whether the construction is propositional or lexical if we go by Chung and

Kimberlake's definition. It is a free morpheme like *le₂*, but unlike *le₁*, *zhe*, *guo₁/guole*

and *guo₂* which are suffix-like, and unlike *le₂* which is clause or sentence final, the

marker is preverbal. To identify the status of *zài*, we shall resort to a syntactical

analysis using Lexicase. Let us compare the following pairs of sentences in (9):

(9) a.   Tā kàn   diànshì   (Type E2.2)
       he watch TV
       'He watches TV.'

    a' Tā zài kàn   diànshì
       'He is watching TV.'

    b. Tā gōngzuò   (Type M2.2)
       he work
       'He works.'

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b' Tā zài gōngzuò
he at work
'He is working.'

The verb *kàn* 'to watch' in (9a) is transitive and *gōngzuò* 'to work' in (9b) is

intransitive. The following changes occurred when the marker *zài* is added to the

sentences.

(9a)

tā
he

$$\begin{bmatrix} 2ndex \\ N \end{bmatrix}$$

kàn
watch

$$\begin{bmatrix} 1ndex \\ V \\ +trns \\ 2[N] \\ 3[N] \\ 2[AGT] \\ 3[PAT] \end{bmatrix}$$

diànshì
TV

$$\begin{bmatrix} 3ndex \\ N \end{bmatrix}$$

(9b)

tā
he

$$\begin{bmatrix} 2ndex \\ N \end{bmatrix}$$

gōngzuō
work

$$\begin{bmatrix} 1\ ndex \\ V \\ -trns \\ 2[N] \\ 2[PAT] \end{bmatrix}$$

(9a')

tā
he

$$\begin{bmatrix} 2ndex \\ N \end{bmatrix}$$

zài
at

$$\begin{bmatrix} 1ndex \\ V \\ -trns \\ +xtns \\ +fint \\ 3[-fint] \\ 2[N] \\ 2[AGT] \end{bmatrix}$$

kàn
watch

$$\begin{bmatrix} 3ndex \\ V \\ +trns \\ -fint \\ 4[N] \\ 2[AGT] \\ 4[PAT] \end{bmatrix}$$

diànshì
TV

$$\begin{bmatrix} 4ndex \\ N \end{bmatrix}$$

(9b')

tā
he

$$\begin{bmatrix} 2ndex \\ N \end{bmatrix}$$

zài
at

$$\begin{bmatrix} 1ndex \\ V \\ -trns \\ +fint \\ +xtns \\ 2[N] \\ 2[PAT] \\ 3[-fint] \end{bmatrix}$$

gōngzuò
work

$$\begin{bmatrix} 3\ ndex \\ V \\ -fint \end{bmatrix}$$

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The stemmas for (9a') and (9b') show that *zài* has replaced *kàn* and *gōngzuò*

in the corresponding stemmas in (9a) and (b) to become the head of the structures. In

the stemmas, *zài* is the finite extension verb and *kàn* and *gōngzuò* are the nonfinite

verbs. Being nonfinite, the verbs will not possess an overt grammatical subject by

themselves. The case relations of AGT (for 9a') and PAT (for 9b') can only be

implied by a co-referential rule in the grammar. In (9a), since the subject of the

nonfinite verb is the same as that for *zài* in the same sentence, the index 2 of the

features of 2[AGT] in the matrix of the head *zài* is copied to that for *kàn*. Similarly,

the index 2 of 2[PAT] in the matrix of *zài* in (9b) is copied to *gōngzuo*.

According to Lexicase, an extension verb implies the complementary co-

occurrence of a verbal complement, which means that it governs the verbal predicate

present within its scope. On the other hand, since a finite verb is always the one that

signals contrasts in number, tense, person, aspect and mood in grammar in general, it

is obvious that *zài* is located syntactically at the propositional level, going by Chung

and Kimberlake's (1985) definition. In other words, it is a marker of grammatical

aspect, not lexical.

Hence, the aspectual status of all the markers has primarily been verified by

comparing the correlation between the verbs and the markers in the sentence

constructions tabulated in our subcategorisation tables. We discover that *le$_2$* and *zài*

are markers at the prepositional or sentential levels, while *le$_1$*, *guo$_1$/guole*, *guo$_2$* and

zhe are markers at the lexical level.

What is the significance of this identification? What are the implications in terms of tense and aspect? What is the syntactic-semantic relation between the verbs and the markers? Are the sentence constructions subcategorized above sufficient to show that tense and aspect form a coherent system in Chinese? These are questions that will be examined in the next two chapters. However, prior to that, it is necessary to analyse the syntactic structures of the different types of constructions subcategorized in Table 3.2.

3.4. Syntactic Constructions with "simple" and "Complex" verbs

Based on the verbs listed in Tables 3.3 and 3.4, it is possible that discussion on the thirteen types of subcategorisation can be simplified by regrouping the verbs on the basis of whether they are simple or "complex" forms. The "complex" forms are marked with an asterik. They always occur in the form: 'V + marker'. The two categories are listed below:

Group I: Constructions with "simple" verbs
Types: A, C2.1, C2.2, D1, D2, E1.1, E2.1, E2.2 and I

Group II: Constructions with "complex" verbs
Types: B, C1, E1.2, F, G, H, J, K1, K2, L1, L2, M1, M2.1 and M2.2

With the regrouping, the structure of each type of construction will be illustrated according to its syntactic properties, and verify the derivational relationship available between some of the constructions. Note that the regrouping above shows that over half of the types of constructions in Table 3.2 are inherently tensal/aspectual

because their verbs have an inflectional marker (*le₁*, *guo₁/guole* and *guo₂*) or a phrasal/sentential final (*le₂*).

Table 3.5 below is a collection of samples of each type of construction to illustrate the actual use of these sentences. A more exhaustive list of sentences based on the subcategorisation is available in Appendix I (English version) and Appendix II (Chinese version).

Table 3.5

Examples of Different Types of Sentence Constructions

		Verbs	Example 1	Example 2
A	+trns +xtns -lctn	chī₂ 'eat' kàn₂ 'read' shuì₂ 'sleep' chàng₂ 'sing'	*Tā tǎngzhe kànshu* 'He reads while lying down'	*Tā kāizhe dēng shuìjiào* 'He sleeps with the light on.'
B *	+trns +lctn -crsp +sttv	fàng₂* 'put' guà₂* 'hang' ná* 'hold' tǎng₃* 'lie' zhù₂* 'live' zuò₃* 'sit'	*Qiángshang guàzhe yīfú huà* 'There is a picture hanging on the wall.'	*Chuángshang tǎngzhe bìngrén* 'There is a patient lying on the bed.'
C1 *	+trns -lctn +crsp -sttv +pnct	dǎ₂* 'punch' dǎpò₂* 'broke' tī₂* 'kick' yíng₂* 'win'	*Tā tīle wǒ yījiǎo* 'He kicked me once.'	*Tā yíngle wǒ liǎngpán qí* 'He won two sets in the chess game against me.'
C2.1	+trns -lctn +crsp -sttv -pnct +telc	gěi 'give' màigěi 'sell to' sòng 'give (as present)'	*Tā gěi wǒ nàběn shū* 'He gives me that book.'	*Tā màigei wǒ yīzhī bǐ* 'He sells a pen to me.'
C2.2	+trns -lctn +crsp -sttv -pnct -telc	gàosu 'tell' jiāo 'teach' wèn 'ask'	*Tā gàosu wǒmen nàge xiāoxi* 'He told us about the news.'	*Tā wèn wǒ nàge wèntí* 'He asks me that question.'
D1	+trns -lctn -crsp +sttv +rvrs	ài 'love' xiǎng 'thinking of' xǐhuan 'like' xīnshǎng 'admire'	*Tā hěn ài tā* 'He loves her.'	*Dàjiā dōu hěn xīnshǎng nà fú huà* 'All of us admired that painting'
D2	+trns -lctn -crsp +sttv -rvrs	liǎojiě 'understand' rènshi 'know someone' zhīdao 'know'	*Wǒ rènshi tā* 'I know him.'	*Wǒ zhīdao nàjiàn shì le* 'I knew about that matter.'

Table 3.5, continued

E1.1	+trns -lctn -crsp -sttv +pnct +trtv	dǎ₁ 'beat (the drum)' qiāo₁ 'knock' tī₁ 'kick'	*Tā dǎ gǔ* 'He is beating the drum.'	*Tā qiāo mén* 'He is knocking at the door.'
E1.2 *	+trns -lctn -crsp -sttv +pnct -trtv	diū* 'lost' sǐ₃* 'lost' wàng* 'forget' yíng₃* 'win'	*Wǒ diūle qián le* 'I lost my money.'	*Tā sǐle fùqin* 'He has lost his father.'
E2.1	+trns -lctn -crsp -sttv -pnct +telc	dǎpò₁ 'break' xiěwan₁ 'finished writing' xuéhui 'learnt' zhǎodao 'found'	*Wǒ xiěwan nàfēng xìn le* 'I have finished writing that letter.'	*Wǒ zhǎodao nàfēng xìn le* 'I found that letter.'
E2.2	+trns -lctn -crsp -sttv -pnct -telc	chàng₁ 'sing' chī₁ 'eat' chuān₁ 'put on' kàn₁ 'read' mǎi₁ 'buy' shuì₁ 'sleep' xiě₁ 'write'	*Wǒ chī fàne* 'I eat rice'	*Tā chuān yīfu* 'He is putting on his suit.'
F *	-trns +xtns +crsp	chī₃* 'eat' kàn₃* 'read' xǐ* 'wash' yóu* 'swim'	*Wǒ kàn shū kànle yīge xiǎoshi* 'I read for an hour.'	*Tā yóuyǒng yóule liǎngcì* 'He swam twice.'
G *	-trns -xtns +lctn +crsp	zhù₁* 'live' tǎng₂* 'lie down' zuò₂* 'sit'	*Wǒ zài Zhōngguó zhùle sānnián* 'I lived in China for three years.'	*Tā zài chuángshang tǎngle wǔge xiǎoshi* 'He has been lying on bed for five hours.'
H *	-trns -xtns +lctn -crsp +sttv	fàng₁* 'put' guà₁* 'live' tǎng₁* 'lie' zuò₁* 'sit'	*Nàzhāng huà zài qiángshang guàzhe* 'That picture has been hanging on the wall.'	*Bìngrén zài chuáng shang tǎngzhe* 'The patient has been lying on the bed.'
I	-trns -xtns +lctn -crsp -sttv	lái₃ 'come' qù₁ 'go' lái₄ 'come' qù₂ 'go'	*Tā lái zhè'er le* 'He has come (here).'	*Tā dào zhè'er lái le* 'He has come (here).'

Table 3.5 continued

J *	-trns -xtns -lctn +crsp	$gāo_2$* 'tall' $gōngzuò_2$* 'work' $lái_2$* 'come' $pàng_2$* 'gain weight' $pǎo_4$* 'run' $sǐ_2$* 'die'	*Dìdi gāole yīcùn* 'Younger brother has grown taller by one inch.'	*Tā láile liǎngtiān le* 'He has been here for two days.'
K1 *	-trns -xtns -lctn -crsp +sttv +rvrs	è* 'hungry' $hóng_2$* 'flush' $pàng_1$* 'fat' piàoliang* 'pretty' zui* 'drunk'	*Tā liǎn yě hóng le* 'She is blushing.'	*Tā (bǐ yǐqián) piàoliang le* ' 'She is prettier than before.'
K2 *	-trns -xtns -lctn -crsp +sttv -rvrs	cōngming* 'clever' dǒng* 'understand' $gāo_1$* 'tall' $hóng_1$* 'red' lǎo* 'old' niánqing* 'young'	*Tā (bǐ yǐqián) cōngming le* 'She is smarter than before.'	*Huā hóng le* 'The flower has turned red.'
L1 *	-trns -xtns -lctn -crsp -sttv +pnct +trtv	bàozhà* 'exploding' dī* 'dripping' $pǎo_3$* 'running' $qiāo_2$* 'knocking' tiào* 'jumping'	*Zhàdàn bàozhà le* 'The bombs exploded.'	*Tā pǎozhe le* 'He is running.'
L2 *	-trns -xtns -lctn -crsp -sttv +pnct -trtv	$lái_1$* 'come' miè* 'extinguish' $pǎo_2$* 'escape' $sǐ_1$* 'die' $yíng_1$* 'win' zǒu 'left'	*Tā lái le* 'He has come /He is coming.'	*Wǒmen yíng le* 'We have won.'
M1 *	-trns -xtns -lctn -crsp -sttv -pnct +telc	bìyè* 'graduate' chénggōng* 'success' hēzuì* 'drunk' xǐgānjing* 'wash-clean' $xiěwán_2$* 'finished writing'	*Tā hēzuì le* 'He is drunk.'	*Yīfu xǐgānjing le* 'The clothes have been cleaned.'

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Table 3.5, continued

M2.1 *	-trns -xtns -lctn -crsp -sttv -pnct -telc +cmpn	chīfàn* 'eating' guāfēng* '(wind) blowing' shuǐjiào* 'sleeping' xiàyǔ* 'raining'	*Chīfàn le* 'It's time to eat (now).'	*Xiàyǔ le* 'It's raining.'
M2.2 *	-trns -xtns -lctn -crsp -sttv -pnct -telc -cmpn	gōngzuò₁* 'work' kū* 'cry' pǎo₁* 'run' xiào* 'laugh'	*Tā gōngzuò le* 'He is working (now).'	*Dìdi kū le* 'Young brother is crying.'

3.4.1 Syntactic Constructions with "simple" verbs

This group includes Types A, C2.1, C2.2, D1, D2, E1.1, E2.1, E2.2 and I constructions. Syntactically, they can be collapsed into four different syntactic environments with specific case relations and non-contextual features.

(i)   Simple Transitive: ?[AGT], ?[PAT]

(ii) Double Object Construction: ?[AGT], ?[PAT], ?[COR]

(iii) Locational Intransitive: ?[PAT], ?[LOC]

(iv) Intransitive with Extension: ?[PAT], [+xtns]

(i)   Simple transitive : ?[AGT], ?[PAT]   (Type D1, D2, E1.1, E2.1 and E2.2)

Transitive verbs in Chinese take two dependents: a nominative agent that is also an actor, and an accusative patient. Hence, the head of the sentence will interpret its Nom (nominative) subject as its AGT complement as well as its actr (actor) and the Acc (acusative) object as its PAT.
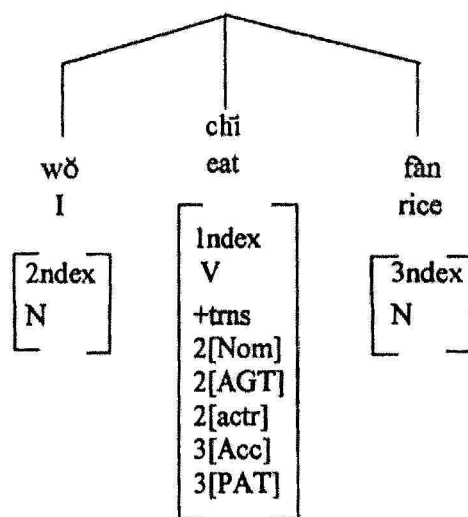
The stemma notation above is a simple transitive sentence of Type E2.2. The same stemma will hold for sentences of Type D1, D2, E1.1 and E2.1 in spite of the fact that there exist semantic differences between the verbs in each category as shown in Table 3.6 below:

Table 3.6

Semantic Difference of Verbs in Simple Transitive Sentences

Sentence Type	Nominative [AGT]	Verb		Accusative [PAT]		semantic difference
D1	tā 'he'	xǐhuan	'like'	wǒ	'me'	stative, reversible
D2	wǒ 'I'	rěnshi	'know'	tā	'him'	stative, irreversible
E1.1	tā 'he'	dǎ	'beat'	gǔ	'drum'	punctual, iterative
E2.1	wǒ 'I'	xuéhui	'learnt'	Fǎwén	'French'	non-punctual, telic

Verbs in D1 and D2 are both stative, but differ in the sense that one is reversible while the other is not. They are structurally identical but behave differently with aspect markers. As shown in Table 3.3, type D2 verbs cannot co-occur with *zhe* and *zài*, but some of the type D1 verbs can take markers.

Punctual verbs indicate instantaneous actions which take place momentarily. They are also termed as semelfactive verbs in Comrie (1976), Smith (1991) and Yang (1995). Punctual verbs may be iterative or non-iterative. The verb in Type E1.1 is iterative as the beating of the drum will be repeated to form a series of drum beating actions.

The non-punctual but telic verbs are verbs that are not instantaneous but have an endpoint by nature, such as *xuéhui* 'learnt' (lit. 'learn-know').

(ii) Double object construction : ?[AGT], ?[PAT], ?[COR]   (Tpyes C2.1, C2.2)

This construction is unique in having two Acc cases. In Lexicase, the post verbal noun phrase, which is traditionally known as the indirect object, is assigned a PAT case relation while the second noun phrase, the direct object, is the COR :
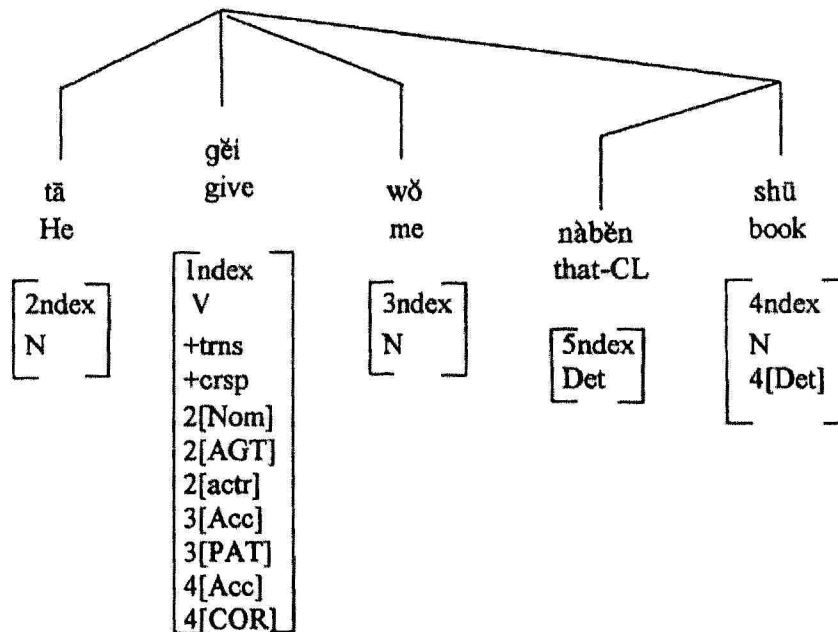

The difference between Types C2.1 and C2.2 constructions is that the former is telic and therefore does not co-occur with *guo* and *zài*, while the latter can be a process or on-going action. It allows the verbs to co-occur with the markers.

(iii) Locational Intransitive : ?[PAT], ?[LOC]   (Type I)

In Lexicase, every intransitive verb requires a patient subject according to the Patient Centrality Principle of the grammar. Being the subject, the patient in Type I construction will carry the feature Nom (nominative) and the case relation PAT. In

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Lexicase, the patient is the perceived perceptual centre of an action or state, that is, it is also the actr (actor) in the event.

The verbs in Type I construction are not only intransitive, they are also locational. This implies that they obligatorily require an additional locational noun or noun phrase that will be assigned the LOC case relation. The construction mainly involves two common verbs, namely *lái* 'to come' and *qù* 'to go'.
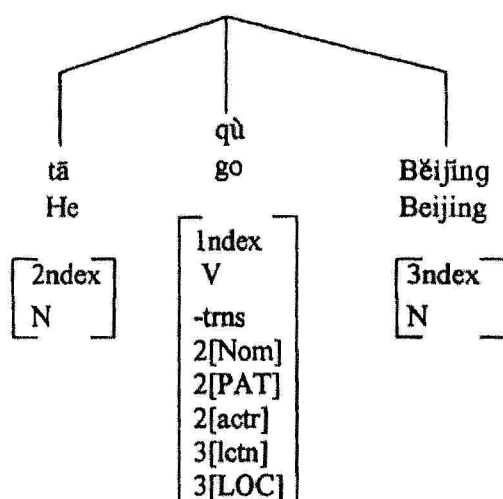
The construction has a parallel structure that contains a prepositional phrase. For the sentence 'He goes to Beijing', it is common for speakers of Chinese to say, *Tā dào Běijīng qù* 'lit. 'He arrive Beijing go', instead of *Tā qù Běijīng* lit. 'He go Beijing'. Syntactically, they differ when we compare the two stemmas. In terms of aspect, these two constructions cannot co-occur with the two *guo*. In Lexicase stemma notation, the prepositional phrase is denoted in exocentric form as shown in the tree below.

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```
            tā          dào                          qù
            he          arrive                       go

                                    Běijīng
                                    Beijing

          ⎡2ndex⎤     ⎡3ndex ⎤                  ⎡Index  ⎤
          ⎣N    ⎦     ⎢P     ⎥     ⎡4ndex⎤      ⎢V      ⎥
                      ⎣4[lctn]⎦    ⎢N    ⎥      ⎢+trns  ⎥
                                   ⎣lctn ⎦      ⎢2[Nom] ⎥
                                                ⎢2[PAT] ⎥
                                                ⎢2[actr]⎥
                                                ⎢3[lctn]⎥
                                                ⎣4[LOC] ⎦
```
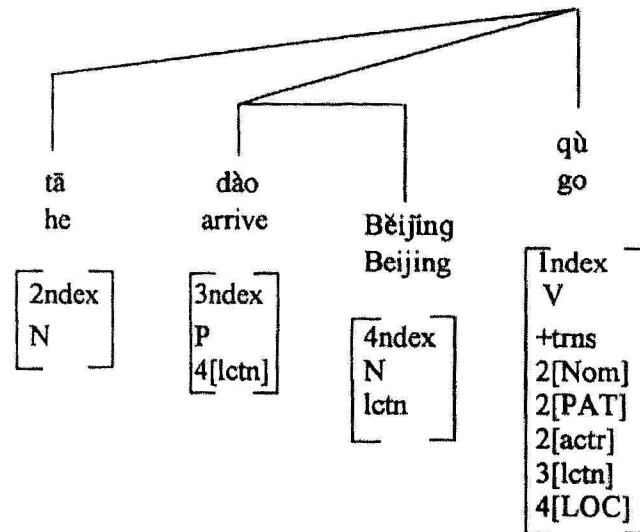
<u>(iv) Intransitive with extension</u> : ?[PAT], [+xtns]   (Type A)

This type of construction contains the grammatical pattern V_1-*zhe* V_2. Semantically, V_1-*zhe* defines the manner in which the second verb phrase will be performed, or denotes the first action in a sequence of two, or indicates spontaneous action with V_2. Whatever it is, syntactically, V_2 is generally regarded as the main verb of the construction (Chen, 1992; Teng, 1970; Zheng et al. 1992).[4]
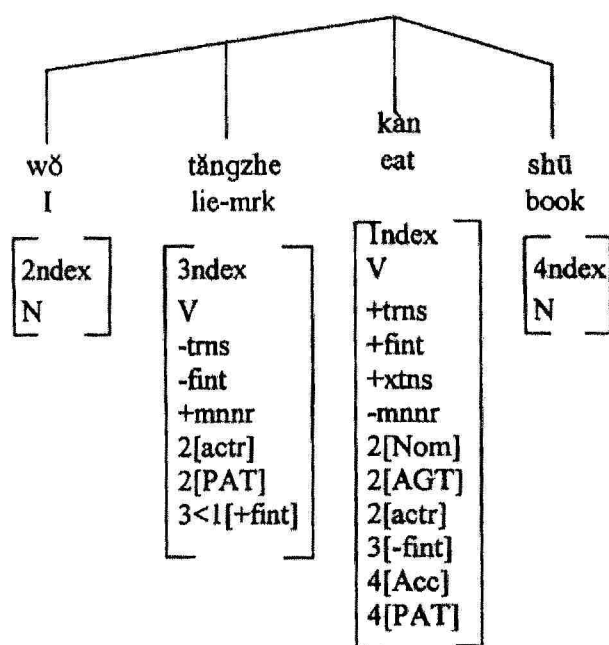
The verbs in this construction are homophones of the transitive verbs in Type E2.2 constructions. It can be seen in Table 3.3 that they are marked with subscripts. As compared to those in Type E2.2, the verb in this Type A construction is an extension verb that contains a non-finite V_1-*zhe* as dependent. The V_1-*zhe* may either be transitive as in (10a) or intransitive as in (10b) below:

(10) a. Tā tǎngzhe kàn shu
          he lie-mrk read book
          'He reads while lying down.'

---

[4] Some linguists, however, claim that V_1-*zhe* is the manner verb that is the head of the sentence (Supriya, 1993; Starosta, 1997).

b. Tā kāizhe   dēng shuǐ jiào   [shuǐ 'sleep (verb)']
   he swith on-mrk light sleep sleep   [jiào 'sleep (noun)']
   'He sleeps with the light on.'

c. Tā kàn shu / Tā shuǐ jiào   'He reads. / He sleeps.'

d. *Tā tǎngzhe / *Tā kāizhe dēng

Kàn shū 'to read' and *shuǐ jiào* 'to sleep' are not omissible. Without these verb phrases, the sentences in (d) become ungrammatical. This shows that the verbs are the main verbs of the (a) and (b) constructions respectively (Kong, 1994). However, if V-*zhe* are omitted as in (c), sentences (a) and (b) will lose their original meaning and become a new sentence. Hence, (10c) is a proof that V-*zhe* is obligatory in constructions (10a) and (10b). In other words, in these constructions, V_1-*zhe* and V_2 must co-occur.

wǒ	tǎngzhe	kàn	shū
I	lie-mrk	eat	book

wǒ
I
⎡2ndex⎤
⎣N   ⎦

tǎngzhe
lie-mrk
⎡3ndex   ⎤
⎢V   ⎥
⎢-trns   ⎥
⎢-fint   ⎥
⎢+mnnr   ⎥
⎢2[actr] ⎥
⎢2[PAT]   ⎥
⎣3<1[+fint]⎦

kàn
eat
⎡Index ⎤
⎢V   ⎥
⎢+trns ⎥
⎢+fint ⎥
⎢+xtns ⎥
⎢-mnnr ⎥
⎢2[Nom] ⎥
⎢2[AGT] ⎥
⎢2[actr]⎥
⎢3[-fint]⎥
⎢4[Acc] ⎥
⎣4[PAT] ⎦

shū
book
⎡4ndex⎤
⎣N   ⎦

3.4.2 Syntactic Constructions with "Complex" Verbs

This group includes Types B, C1, E1.2, F, G, H, J, K1, K2, L1, L2, M1, M2.1 and M2.2 constructions. The characteristic of the "complex" verbs is that, as defined earlier, they are inherently aspectual. The marker in the verb form 'V + marker' is obligatory. As shown below, (11a') and (11b') are ungrammatical because the verbs are bare.

(11) a.   Tā sǐle   fùqin   [Type E1.2]
                he die-mrk father
                'He has lost his father.'

      a'   *Tā sǐ fùqin

      b.   Huà   zài qiángshang guàzhe   [Type H]
                painting at   wall-on   hang-mrk
                'The painting is hung on the wall.'

      b'   Huà zài qiángshang guà

The syntactic environment of constructions with "complex" verbs has more varieties. They are:

(v)   Simple Transitive: ?[AGT], ?[PAT]

(vi)   Impersonal Locational Transitive: 0[AGT], ?[PAT], ?[LOC]

(vii)   Transitive with Correspondent: ?[AGT], ?[PAT], ?[COR]

(viii)   Locational Intransitive: ?[PAT], ?[LOC]

(ix)   Locational Intransitive with Correspondent: ?[PAT], ?[LOC], ?[COR]

(x)   Simple Intransitive: a) ?[PAT]   b) 0[PAT]

(xi)   Intransitive with Correspondent: ?[PAT], ?[COR]

(xii)   Intranstive with Extension and Correspondent: ?[PAT], [xtns], ?[COR]

<u>(v) Simple Transitive</u> : ?[AGT], ?[PAT]   (Type E1.2)

The stemma of this Type E1.2 construction is the same as that for E2.2 and other types in sub-section (i) for "simple" verbs. The difference is that the verbs in this Type E1.2 construction are derived from intransitive punctual Type L2 verbs. For instance, the intransitive *sĭ* 'to die' becomes transitive *sĭle* 'lost (someone)', *yíng* 'to win' becomes *yíngle* 'won (a price)'. Examples include (11a) given above and the following sentences:

(12) a.   Tā wàngle   wŏ
         he forget-mrk I
         'He has forgotten about me.'

     b.   Wŏmen yíngle   nàchăng bĭsài
         we   win-mrk that-CL   game
         'We have won in that game.'

Based on the correlation between the intransitive Type L2 verbs and Type E1.2, we have a Word Formation Strategy (WFS) :

<u>WFS-1</u>:

$$
\begin{bmatrix} V \\ -trns \\ +pnct \\ -trtv \end{bmatrix} \quad : \quad \begin{bmatrix} V \\ +trns \\ +pnct \\ -trtv \end{bmatrix}
$$

$$
] \quad : \quad le_i]
$$

According to the rule, 'If there is an intransitive verb whose lexical matric contains the features of +pnct and –trtv, the lexicon will also contain another transitive verb V-*le_i* which bears the same features'.

<u>(vi)   Impersonal Locational Transitive</u> : 0[AGT], ?[PAT], ?[LOC] (Type B)

The verb in this type of construction is termed 'Impersonal Locative non-directional verb' in Ng (1997). It is impersonal because there is no animate subject in the sentence, that is, 0[Nom]. The verb is locational; hence, it must co-occur with a lctn noun phrase which will be assigned a LOC case relation.
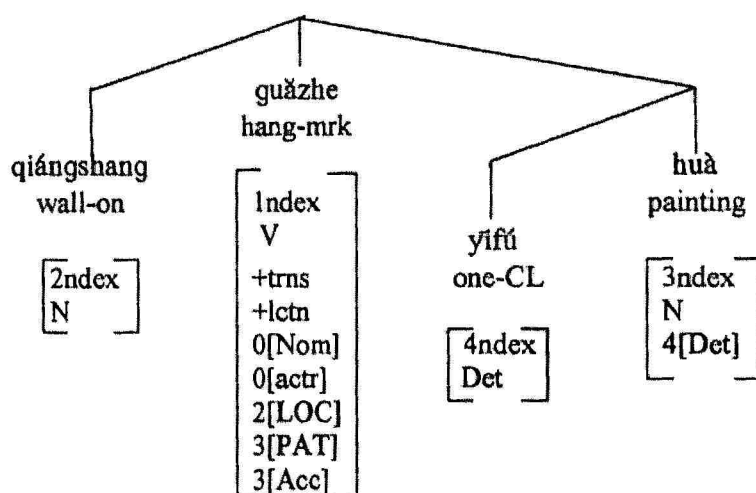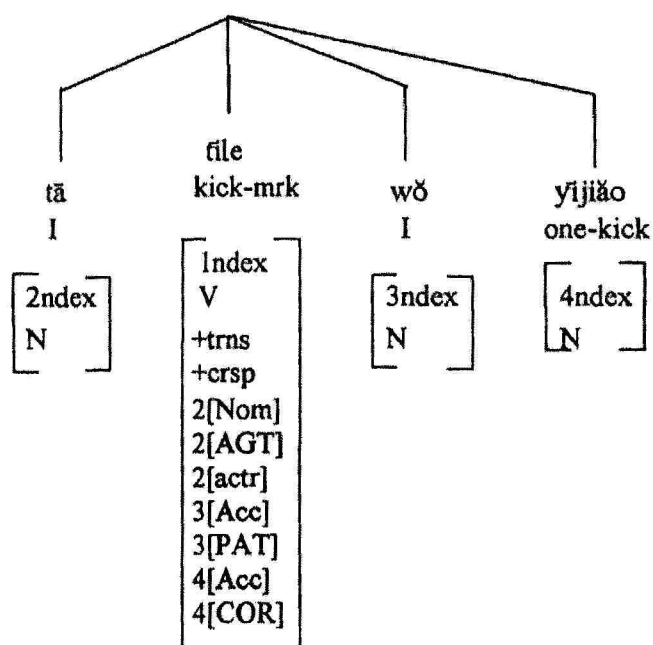

<u>(vii)   Transitive with Correspondent</u> : ?[AGT], ?[PAT], ?[COR]   (Type C1)

Like the double object construction (Types C1 and C2), this type of construction bears the case relations of AGT, PAT and COR. The PAT must be referential and animate (Wen, 1999). The COR is a complement, semantically selected by the verb and the patient. It is complementary because the correspondent *yījiǎo* 'one-kick' is complementary (12b); It is selected because the correspondent needs to be correlated with the verb. (12c) and (12d) show respectively that the sentence will be ungrammatical if the correspondent is unrelated to the action of kicking, or if the

patient is non-referential or inanimate. By definition, COR is 'the entity perceived as corresponding to the PAT' (Starosta, 1988).

(13) a. Tā tíle   wǒ yījiǎo
        he kick-mrk I   one-kick
        'He kicked me once.'

   b. *Tā tíle wǒ

   c. Tā tíle wǒ *yīquán / *yībázhǎng / *yīdāo
      'He kicked me *one-fist / *one-slap / *one-stab

   d. Tā tíle *yīge xiǎohái / *shū yījiǎo
      'He kicked *a child / *the book once.'

```
                    _____|_____
                   |        |         |        |
                   |       tíle       |        |
                   |     kick-mrk     wǒ     yījiǎo
                   tā                  I     one-kick
                   I
                  ┌──────┐  ┌────────┐ ┌──────┐ ┌──────┐
                  │2ndex │  │Index   │ │3ndex │ │4ndex │
                  │      │  │V       │ │      │ │      │
                  │N     │  │+trns   │ │N     │ │N     │
                  └──────┘  │+crsp   │ └──────┘ └──────┘
                            │2[Nom]  │
                            │2[AGT]  │
                            │2[actr] │
                            │3[Acc]  │
                            │3[PAT]  │
                            │4[Acc]  │
                            │4[COR]  │
                            └────────┘
```

<u>(viii) Locational Intransitive</u> : ?[PAT], ?[LOC]   (Type H)

The verb in this type of construction is locative, and the locational noun occurs in an exocentric construction with a preposition as co-head. As such, its stemma notation is similar to that of *Tā dào Běijīng qù* 'He goes to Beijing' (Type I). An example of this construction is *Huà zài qiángshang guàzhe* 'The painting is hung on the wall'.
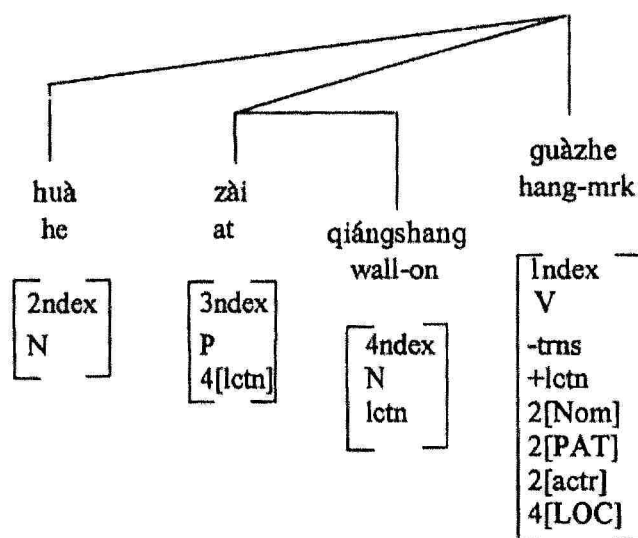
After comparing the sentences in Type B with Type H, it is noticeable that both of them indicate a state resulting from an action. For example, the verb *guàzhe* 'to hang' is a state resulting from the action of hanging.

Type B: Qiángshang guàzhe yīfú huà

Type H: Huà zài qiángshang guàzhe

Two WFS rules can be written. The first rule states that for every transitive V that is +sttv and +lctn, there also exists a corresponding transitive V-*zhe* that contains the same features (Type B verbs). The second rule states that for every transitive V

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that is +sttv and +lctn, there also exists a corresponding intransitive V-*zhe* that contains the same features (Type H verbs). The two verbs are homophones.

WFS-2

$$
\begin{bmatrix} V \\ +trns \\ +sttv \\ +lctn \end{bmatrix} \quad : \quad \begin{bmatrix} V \\ -trns \\ +sttv \\ +lctn \end{bmatrix}
$$

$$
\quad] \quad : \quad zhe\,]
$$

WFS-3

$$
\begin{bmatrix} V\text{-}zhe \\ +trns \\ +sttv \\ +lctn \end{bmatrix} \quad : \quad \begin{bmatrix} V\text{-}zhe \\ -trns \\ +sttv \\ +lctn \end{bmatrix}
$$

$$
\quad] \quad : \quad zhe\,]
$$

(ix) Locational Intransitive with Correspondent : ?[PAT], ?[LOC], ?[COR] (Type G)

This Type G construction also denotes a stative situation. It differs from Type H by having an additional feature of +crsp and the corresponding COR case relation as illustrated in the stemma for *Wǒ zài Zhongguo zhùle sānnián* 'I lived in China for three years.'

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c. Wǒ zài Zhōngguó zhùle *yījiǎo / *sānfēnzhōng
   'I lived in China for *one-kick / *three minutes

d. Wǒ zài cāochǎngshàng zhànle sānfēnzhōng
   'I stood in the field for three minutes.'

(x) Simple intransitive : a) ?[PAT]   (Types K1, K2, L1, L2, M1 and M2.2)
                            b) 0[PAT]   (Type M2.1)

Based on the Patient Centrality principle in Lexicase, every verb takes a Patient in its case frame, an intransitive sentence carries a case relation of PAT, which is also the Nom (nominative) and the actr (actor) of the verb. The verb in these constructions is "complex", that is, it takes the form 'V + mrk', otherwise, the sentence will be ungrammatical. Nonetheless, it is not determined at this juncture whether the sentence final marker *le* is *le₁* or *le₂*. The identity of *le* is tensal and aspectual. This will only be discussed in later chapters.

(15) a. Háizi è   le
         child hungry mrk
         'The child is hungry.'

     b. *Háizi è

Figure 3.2 below shows the syntactic parallelism between all types of intransitive constructions subcategorized earlier. Except for Type M2.1, all constructions have a Nominative Patient. Semantically, the constructions are distinctive from each other.
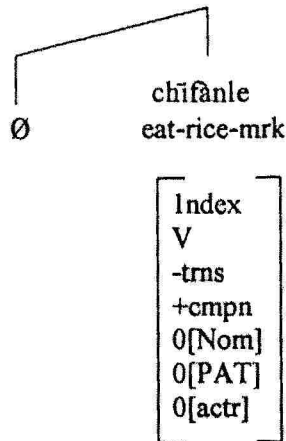

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Table 3.7

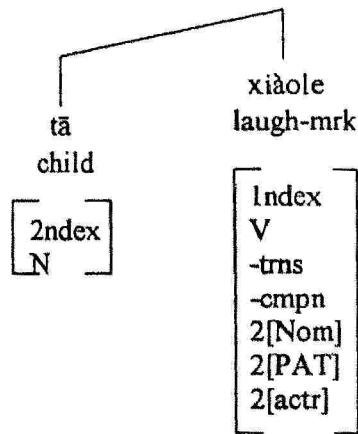Semantic Difference of Verbs in Simple Intransitive Sentences

	Nominative [PAT]	Verb		semantic difference
K1	háizi 'child'	èle	'hungry'	stative, reversible
K2	huǎ 'flower'	hóngle	'red'	stative, irreversible
L1	shǔi 'water'	dīle	'drip'	punctual, iterative
L2	wǒmen 'we'	yíngle	'win'	punctual, non-iterative
M1	wǒmen 'we'	bìyèle	'graduate'	non-punctual, telic
M2.2	tā 'he'	xiàole	'laugh'	non-punctual, non-compound
M2.1		chīfan	'eat'	non-punctual, compound

Type M2.1 is unique in being the only construction that has no overt grammatical subject. Ng (1997) classifies the construction as a transitive Impersonal Metrological Verb, but it is regarded as a simple intransitive verb in this study. The reclassification is necessary for two reasons: (i) Ng (1997) focuses only on syntax. It does not deal with aspect; (ii) It is found that the construction is not limited to metrological verbs only; it also includes imperatives that imply an understood but unspecified hearer. The stemmas below show the syntactic difference between Type M2.1 and the remaining intransitive type of constructions, with M2.2 as an example for comparison.

A) Type M2.1   b) Type M2.2

```
          chīfànle                              xiàole
  Ø       eat-rice-mrk           tā             laugh-mrk
                                 child
         ┌          ┐                         ┌          ┐
         │ Index    │           ┌        ┐    │ Index    │
         │ V        │           │ 2ndex  │    │ V        │
         │ -trns    │           │ N      │    │ -trns    │
         │ +cmpn    │           └        ┘    │ -cmpn    │
         │ 0[Nom]   │                         │ 2[Nom]   │
         │ 0[PAT]   │                         │ 2[PAT]   │
         │ 0[actr]  │                         │ 2[actr]  │
         └          ┘                         └          ┘
```

Verbs in Type M2.1 often occur in the form of 'Verb + Object' which behave as a compound rather than as two separate words. Chao (1968) states that a VO combination behaves as a compound if, among other conditions, the two constituents are inseparable and exocentric, moreover, lexically specialised in meaning. In other words, the VO combination does not allow any element intervening between the two constituents as shown in (16b), and the VO behaves more like a participle or gerund in (16a), rather than the usual transitive form of Verb and Object. In some cases, the metrological verbs in particular, the V may need an obligatory dependent that is lexically selected. For instance, *xià* 'to fall' selects *yǔ* 'rain' in (16b) but not any other verb (16b'). Such expressions are idiom-like (Chao, 1968; Starosta, 1997).

(16) a. Chīfàn le
          eat-rice mrk
          'It's time to eat.'

      a' Chī yīwǎn fàn le / *Chīzhe fàn le / *Chībǎo fàn le
          '*Eat one bowl of rice. / *Eating rice now / *Eat-full rice now.'

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b. Xiàyǔ le
fall-rain mrk
'It's raining.'

b' *Xiàfēng le / *Xiàchá le
'The wind is falling now /The tea is falling now.'

(xi) Intransitive with Correspondent : ?[PAT], ?[COR]   (Type J)

This is perhaps the most common aspectual expression in Chinese. Practically

most of the intransitive verbs have a homophone occurring in this Type J construction.

The construction is simple, as can be seen in the stemma below:
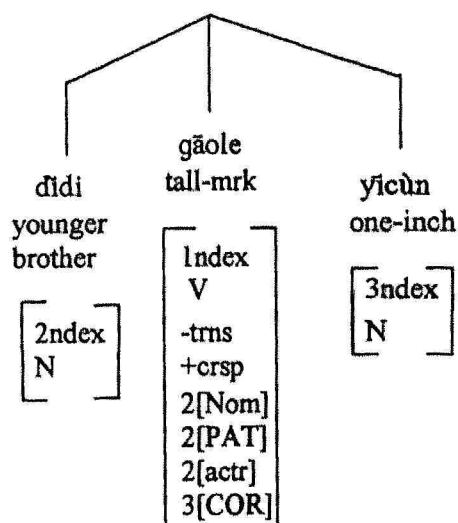
(17) a. Dìdi   gāole yī cùn
younger brother tall-mrk one inch
'Younger brother has grown taller by one inch.'

Tā láile   sāntiān le
he come-mrk three days mrk
'He has been here for three days.'

b. *Dìdi gáole / ?Tā láile

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Again, the correspondent noun phrase in the construction is obligatory. (17b) is ungrammatical because the correspondent is missing. The correspondent noun phrase is usually a complement of duration, frequency, manner and quantity. The meaning of the sentences is determined semantically. For example, for the telic verb *lái* 'to come', the phrase *láile sāntiān* means 'three days have past since the arrival of the person' and for the action verb *gōngzuò* 'to work', the phrase *gōngzuòle sāntiān* means 'three days have gone by since the time the person started working'.

Hence, we can set a WFS rule which states that for every intransitive V, there is also a corresponding intransitive form V-*le* that contains the feature +crsp. The two verbs are homophones.

WFS-4

$$
\begin{bmatrix} V \\ \text{-trns} \end{bmatrix} \quad : \quad \begin{bmatrix} V \\ \text{-trns} \\ \text{+crsp} \end{bmatrix}
$$

$$
] \quad : \quad le_i]
$$

(xii) Intranstive with Extension and Correspondent : ?[PAT], ?[COR], [+xtns]
(Type F)

While intransitive verbs may take a correspondent and form sentences in the types of constructions mentioned above, the transitive verbs can also take a correspondent. However, due to syntactic constraints, the transitive verbs cannot simply adopt a correspondent but has to undergo a unique strategy which is language specific in Chinese, namely the verb-copying strategy.

According to the strategy, the verb must be repeated when accompanied by an object and a complement. The complement can be a complement of duration, frequency or manner. Syntactically, the construction takes the form V + O + V + complement, for example, *kànshū kànle yīge xiǎoshí* 'to have read for an hour' and *yóuyǒng yóule liǎngcì* 'to have swam twice'.

One of the characteristics in Chinese is that only one syntactic constituent is allowed to appear after the verb in a simple sentence. The element is generally the object of the transitive verb. However, there are two in this case, namely the object and the complement. Consider the sentence *Wǒ kàn shū kànle yīge xiǎoshí* 'I read for an hour', the object is *shū* 'book' and the complement is *yīge xiǎoshí* 'one hour'. Both constituents contain their own semantic or pragmatic information or focus that cannot be omitted. As can be seen below, sentence (18b) is ambiguous and (18c) is ungrammatical when one or both the postverbal constituents are missing. Consequently, the verb has to be repeated when we wish to maintain both the constituents (18d).

(18) a. Wǒ kàn shū
         'I read book.'

      b. ?Wǒ kànle yīge xiǎoshí
         'I read for an hour'

      c. *Wǒ kàn / *Wǒ kànle

      d. Wǒ kànshū   kànle   yīge   xiǎoshí
         I   read-book read-mrk one-CL hour
         'I read for an hour.'

After verb-copying process, the second verb in the construction becomes the head or the main verb of the sentence (Liu 1997, Wen 1999). This is because, syntactically, it is the second or the copied verb that takes an aspect marker (18d), and it is preceded by an adverb such as *yǐjing* 'already' (19a).

(19) a. Wǒ kàn shū yǐjing kànle yīge xiǎoshǐ
'I have already read for an hour.'

b. *Wǒ kànle shū kànle yīge xiǎoshǐ

c. *Wǒ kànle shū yīge xiǎoshǐ

d. *Wǒ yǐjing kàn shū kànle yīge xiǎoshǐ

The ungrammaticality of (19b) and (19c) shows that no element is allowed to intervene in the VO combination of the sentence. Thus, we can say that the first verb in a verb-copying construction is basically the compound (cmpn) found in Type M2.1. The syntactic argument is supported by evidence available in pragmatics. There is a general rule in Chinese that the old information always precedes the new one, and the focus of a sentence is located further from the verb than the non-focus constituent (Wen, 1999). Hence, in a verb-copying construction, the second or the copied verb is more prominent and it is the head of the sentence.

It appears that all VO compounds may have a corresponding verb-copying construction, but in fact, the verb copying strategy is only applicable to situations that can be repeated or continued. Hence, the VO combination such as *tiào lóu* 'to jump to one's death', *kāi diànshǐ* 'to switch on the TV' cannot occur in this construction as shown in (20).

(20)   *Tā tiàolóu tiàole yīge xiǎoshí
        'He jumps form the building for an hour.'

        *Tā kāi diànshì kāile yīge xiǎoshí
        *'He switches on the TV for an hour.'

Using Lexicase notation, the sentence *Wǒ kànshū kànle yīge xiǎoshí* 'I read for an hour' is represented as follows. In the stemma, the head *kànle* 'read' is treated as an extension verb.
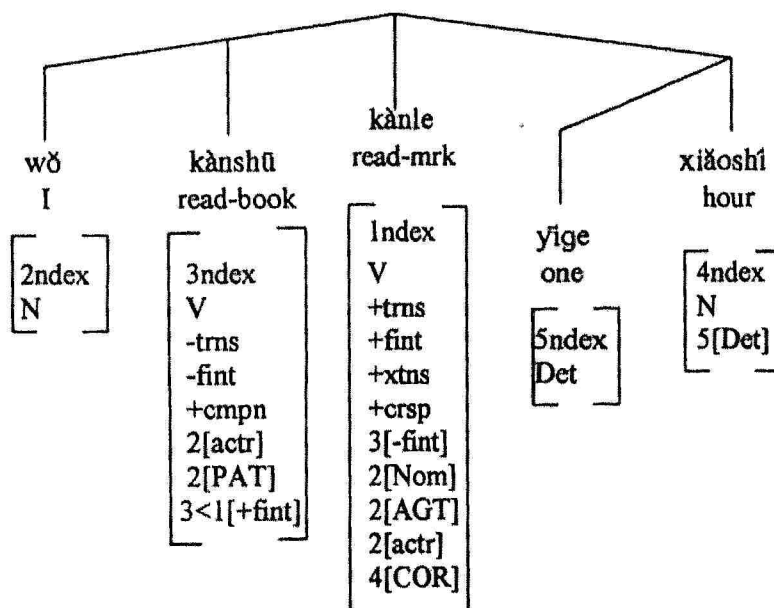
As discussed above, when a verb contains an object and a complement in a sentence, the verb has to be repeated. Moreover, between the two verbs, the copied verb is the focus that carries new information while the first verb and its object is less prominent. It is a common practice in Chinese that the VO is omitted in conversation when the hearer is aware of the old information. Consequently, they tend to leave out

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the construction that contains a copied verb as in (21). Note that the resulting sentence becomes syntactically identical to the Type J construction described above.

(21)   Wǒ kànle yíge xiǎoshí
         'I read for an hour.'

3.5   Conclusion

According to the theories provided by Smith (1991, 1994) as well as Chung and Kimberlake (1985), we have first established that aspect markers will appear syntactically at different levels, the lexical aspect marker at the lexical level, and the grammatical aspect at the propositional level.

We have also subcategorised sentences in Chinese into thirteen major types according to their correlation with tensal/aspectual markers, by focusing on the syntactic-semantic properties of lexical verbs in Chinese. In this subcategorisation, the fundamental properties of the aspect markers and the individual sentence constructions are described in detail. The present study shows how syntax correlates with semantics through the presence of the markers. However, how will these subcategorized constructions manifest tense and aspect?

In the next two chapters, the tensal and aspectual properties of each marker will be tested in terms of their occurrence in constructions established in this chapter.