

## CHAPTER ONE

### INTRODUCTION

#### 1.1 Background of Tense and Aspect

This dissertation is a syntactic analysis of tense and aspect as an integrated system in Mandarin Chinese<sup>1</sup> within the context of Lexicase, a constrained dependency framework, now incorporating Seamless Morphology. For centuries, tense and aspect are two basic grammatical categories that have attracted the attention of linguists, particularly in the study of Indo-European languages.

Tense is a grammaticalised location in time. It is a deictic category that “locates situations in time, usually with reference to the present moment, though also with reference to other situations.” (Comrie, 1976:5) It is a situation-external time. Aspect, on the other hand, is a situation-internal time. It is not concerned with relating the time of the situation to any other time-point, but rather how an event or situation is viewed within its framework or the “different ways of viewing the internal temporal constituency of a situation” (ibid, p.3). For example,

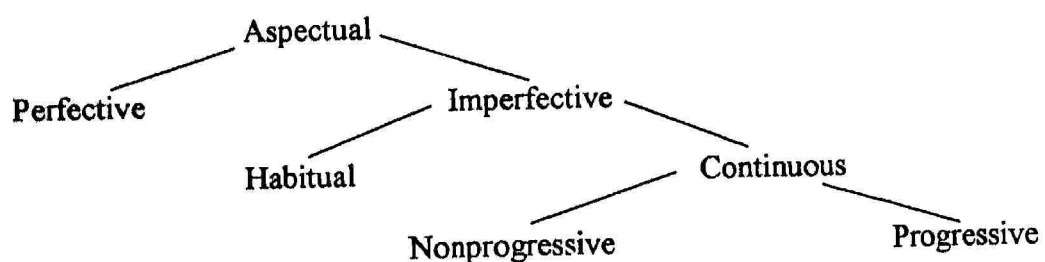
The difference between *John was singing* and *John is singing* in English is one of tense...while the difference between *John was singing* and *John sang* is one of aspect. (Comrie, 1985:6)

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<sup>1</sup> In this study, Mandarin Chinese (henceforth Chinese) refers to the *Pǔtōnghuà* (Common Language) of The Peoples' Republic of China, or the *Guóyǔ* (National Language) of the Republic of China, or the *Huáyǔ* (Language of the Chinese people) used by many Chinese in Singapore, Malaysia and other overseas countries. The term varies but it basically refers to the standard and official language of Mainland China with the Beijing dialect as base.

Usually, in languages that have tenses, the tenses can be distinguished in terms of absolute tense and relative tense, depending on the location of its reference point. It is also expressed morphologically with verbs and classified into the present, past and future tenses, and at a lower level, the perfect tense, such as that commonly found in English and other Indo-European languages. However, this is not universal. There are languages that do not have tense forms such as Malay, and there are languages with tense inflexion for adjectives as well as verbs, as in Japanese and Korean.

Aspect is traditionally studied in terms of the perfective/imperfective dichotomy that is established in the distinctive contrast found in Slavic languages, with Russian as the basis of discussion. An event or a situation is said to be perfective when it is presented as a single unanalysable whole and imperfective when it is viewed from within. Comrie subcategorized aspectual features into opposite pairs such as habitual/continuous, non-progressive/progressive as seen in his diagram below (1985:25):



Comrie's Classification of Aspectual Oppositions

Figure 1.1

Aspect is also widely studied in terms of event types in contemporary linguistics, with Vendler's (1967) classification as the heart of argument. Vendler classified verbs in English into four event classes according to their aspectual properties namely:

- i) Activities (events that go on for a time, but do not necessarily terminate at any given point): run, walk, push a cart, drive a car;
- ii) Accomplishments (events that proceed toward a logically necessary terminus): run a mile, paint a picture, grow up, walk to school;
- iii) Achievements (events that occur at a single moment, and therefore lack continuous tenses): recognize, find, win the race, die; and
- iv) States (non-actions that hold for some period of time but lack continuous tenses): desire, want, know, love, hate.

Stative and achievement terms differ from activity and accomplishment terms in that they do not have progressive forms (*\*I am wanting, \*I am recognizing her*). Meanwhile, activities and accomplishments also differ in several ways, one of which is their occurrence with time adverbials. As shown in examples below, the activity term *walked* may co-occur with *for an hour* but not *in an hour*, but an accomplishment event, *painted a picture*, behaves in the opposite manner (Binnick, 1991:175):

- (1) a. John walked for an hour/\*in an hour. (activity)
- b. John painted a picture \*for an hour/in an hour. (accomplishment)

Dowty (1979) who refined and further developed Vendler's work proposes a system by assigning stative predicates and various operators (such as DO, CAUSE BECOME) to the verbs concerned, showing that Vendler's verb classes are not

mutually exclusive but derivable from one another.<sup>2</sup> For example, the verb *broke* in *The clock broke* is an achievement. However, with the operator CAUSE BECOME added to the sentence, it becomes an accomplishment as in *The child broke the clock*. Similarly, the verb *walked* in *John walked* is an activity term, but an accomplishment in *John walked to school*. This shows that aspect is determined by the compositional nature of the verb and its arguments such as subject and adverbial phrase, rather than just the inherent aspectual properties of the verb itself as claimed by Vendler (1967).

Smith (1991) splits Vendler's class of activities into two, namely, activities and semelfactive. Semelfactive activities refer to verbs that are dynamic, instantaneous, atelic and repetitive, such as *tap* and *knock*. It is an attempt to capture the properties of verbs more accurately. Another significant contribution of Smith's study is her effort to separate viewpoint aspect from situation aspect. The former is similar to Comrie's grammatical aspect that is concerned with how an event or situation is observed in terms of the perfective/imperfective, and whether it is at the beginning, the end or in progress. The latter is similar to Vendler's and Dowty's lexical aspect. Lexical aspect focuses on the inherent properties of verbs and their interaction with their arguments in the semantic structure of an event. Binary oppositions such as semelfactive/iterative, punctuative/habitual, dynamic/static, transitory/permanent, stative/nonstative and telic/atelic distinguish the properties of verbs. The binary terms employed by linguists vary, but the semantic notion is basically the same (Binnick, 1991; Smith, 1991; Yang, 1995). The two types of aspects are not mutually unrelated to each other.

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<sup>2</sup> The operators DO marks agency; CAUSE indicates a causal relation between the two events and BECOME signifies inchoativeness. For details, see Dowty (1979).



In fact, in terms of perfectivity and telicity, accomplishments and achievements are perfective and telic, whereas activities and states are imperfective and atelic.

At present, the word tense is used in a rather confusing manner in some of the literature covering both tense and aspect. This is because, a speaker has the choice of locating a situation or an event in time in terms of tense, or relate a situation to time by looking at the internal temporal contour of a situation as a whole in terms of aspect (Smith, 1994). For example, consider the sentence *John has left* in English. In terms of tense, the sentence says that 'John's action of leaving' has taken place before the speech time 'now'. It is therefore a (present) perfect tense; In terms of aspect, it shows that the event of 'John's leaving' has happened as a whole and the effect of his leaving is still relevant. The event is 'completed' and is therefore perfective. The scope of the perfect tense and perfective aspect overlaps in English. What used to be formally treated as the perfect tense in English is now generally regarded as the perfective aspect in English grammar although Comrie seems to disagree with this practice<sup>3</sup>.

Comrie argues that one should not confuse the two categories. He compares the sentence *I have lost* (perfect) *my penknife* with *I lost* (non-perfect) *my penknife* and points out that "one possible difference between these two is that with the perfect, there is an implication that the penknife is still lost, where with the non-Perfect there is no such implication." (1976:52) To Comrie, the perfect is the continuing present relevance of a past situation [emphasis mine] (ibid, p.56). In his example of 'the loss of the *penknife*', the outcome of the 'loss' will continue until some reference time is

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<sup>3</sup> However, he concedes by saying that, "given the traditional terminology in which the perfect is listed as an aspect, it seems most convenient to deal with the perfect in a book on aspect while bearing in mind continually that it is an aspect in a rather different sense from the other aspects treated so far." (1976:52)

indicated which could be now, yesterday, tomorrow or anytime desired. Comrie states further that,

It should be borne in mind that the present perfect (often simply called the perfect) is only one of the possible tenses of the perfect aspect, the one that expresses a relation between present state and past situation. In other tenses we find, for instance, a past perfect (pluperfect), e.g. *John had eaten the fish*, expressing a relation between a past state and an even earlier situation; and a future perfect, e.g. *John will have eaten the fish*, expressing a relation between a future state and a situation prior to it, although there is no other specification of the absolute time of that prior action, which may be past, present, or future. (ibid., p.53)

Again, we see how the perfective aspect of an event is related to an anterior reference of time, and the perfect/perfective is “a present state which results from a past event”.<sup>4</sup> [emphasis mine]

Similar to tense, the term “aspect” used in contemporary linguistics is equally misleading. Dahl (1999:30) points out that the current use of the term in fact contains both a narrow as well as a wider sense. In a narrow sense, it is “the grammatical categories which have to do with the structure of a situation or the speaker’s perspective on it”, and in a wider sense, it covers *aktionsart* that deals with lexical and semantic categories relating to the classification of situations or events<sup>5</sup>. Based on Dahl’s description, it can be seen that the so-called narrow sense of aspect is in fact

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<sup>4</sup> This is the definition of perfective in the theory of Lexicase, provided by Stanley Starosta in a personal communication on April 1, 2002 in Hawai’i. The Lexicase regards the perfect (tense) and perfective (aspect) to be the same as in many other grammars.

<sup>5</sup> *Aktionsart* (plural, *aktionsarten*) is a German term which means ‘kind of action’. Strictly speaking, it is different from aspect (Comrie, 1976:6-7, footnote 4). However, it is common that some linguists define it in morphological and syntactic terms, while others in purely semantic terms. Binnick (1991:170) points out that linguists have long been confused over the distinction between aspect and *aktionsarten*.

Comrie's grammatical aspect or Smith's viewpoint aspect, while the one on a wider sense is Vendler's and Dowty's lexical aspect or Smith's situation aspect.

Yang (1999:369) provides a clear explanation on the confusion on aspect. She says:

Originally the term ASPECT was used to refer mainly to the presentation of events through grammaticalised viewpoints such as perfective and imperfective. Later, linguists more and more realized that the internal temporal properties of situations contributed to the aspectual meanings of sentences. Therefore, the term ASPECT is now used to cover two separate, but interactive, concepts: 1) the internal temporal structure of situations, referred to as SITUATION ASPECT by Smith (1991), and 2) the different ways of viewing situation, referred to as VIEWPOINT ASPECT by Smith (see also Comrie, 1976; Friedrich, 1974 and Hopper, 1982; among others). As a consequence, the study of the temporal nature of verbs or situations and of the interaction between the two components of aspect has become very important.

It is not the aim of this study to elaborate on the general nature of tense or aspect. What has been mentioned above are merely problems arising from the study of tense and aspect that subsequently became controversial in studies conducted on the Chinese language. Nonetheless, it is clear that the investigation of tense and aspect is well established in the study of western languages although there are still disagreements on the use of certain concepts and terminologies. In the next section, we shall see how the western tradition is adopted in the study of tense and aspect in Chinese.

## 1.2 Literature Review of Tense and Aspect in Chinese

### 1.2.1 Background

This section will provide an explicit account of major studies of tense and aspect in Chinese, with the aim of clarifying various problems that are controversial in this field of study.

First, it may be interesting to point out several fundamental problems in Chinese linguistics. These include: (a) the traditional attitude of Chinese linguists; (b) confusion over the use of, as well as the definition of grammatical terminology in this field of study; (c) residual problems from archaic Chinese, and (d) the impact of pragmatics, semantics or even phonology on the study of Chinese syntax. These problems complicate the studies in this field, as will be discussed below.

#### 1.2.1.1 Traditional Attitudes

Historically as well as traditionally, Chinese linguists have contributed extensively to the study of philology, phonology and phonetics, but with little attention paid to the study of grammar or syntax. The first systematic study on Chinese grammar, the *Mǎ Shì Wén Tōng* (Ma's Grammar) written by Ma Jianzhong, was an account of the grammatical regularities of Classical Chinese and it did not appear until the year 1898. Despite the fact that it marks the beginning of contemporary Chinese linguistics, the book was criticized for establishing a Chinese grammar based on a western model. Several decades later, in 1924, Li Jinxi published a pioneer semantic study of modern Chinese grammar, the *Xīnzhù Guóyǔ Wénfǎ* (New Chinese Grammar). Like Ma's work, the approach employed in the book, such as the

classification of the parts of speech, was also a transfer of western grammar into that of Chinese. Gao Mingkai's *Hànyǔ Yǔfǎlùn* (Theory of Chinese Grammar) published in 1948 was a pragmatic study of Chinese grammar. It was perhaps the first book that referred to aspect as a grammatical category in Chinese (Lin, 1983).

Wang Li and Lü Shuxiang, the two leading linguists in China in the last century, published several major books on Chinese grammar in the 1940s and provided more accurate accounts of the grammar than the three linguists mentioned above. In 1968, with his profound knowledge of both Chinese and English linguistics, Y. R. Chao wrote his most comprehensive study of modern Chinese, *A Grammar of Spoken Chinese* in English.

Publications by these authorities in Chinese linguistics set the direction for linguists thereafter to develop this field of study. In traditional Chinese culture, it is a common practice to follow the rules that the authorities have laid down. Consequently, younger linguists are very much influenced by the authorities in their way of viewing tense and aspect in the Chinese language, as will be seen in the following section.

#### **1.2.1.2 Confusion over Terminology**

The second major problem in the study of tense and aspect in Chinese is the lack of precision or consensus in the use of grammatical terminologies. For instance, tense is referred to as *shí*, *shítài*, *shíǐ* as well as *shízhǐ* in different books, and aspect could be *ǐ*, *ǐtài*, *ǐzhǐ*, *dòngxiàng*, *dòngmào* or *qíngmào*, but none of these terms has been clearly defined.

Disagreement on the identity of aspect markers is another controversy in the study of Chinese linguistics. In the study of tense and aspect, the common markers are the post-verbal *le*<sub>1</sub> (for the perfectivity), *guo* (for the experiential) and *zhe* (for the continuative), the phrasal/sentential final *le*<sub>2</sub> (for the inchoative) and the preverbal *zài* (for the durative).<sup>6</sup> Besides, linguists are still arguing over problems such as how many of these markers there are in Chinese, what the semantic implications of these markers are, and, whether or not these markers also mark tense.

These controversies begin with arguments over the syntactic as well as the semantic properties of *le*. Most linguists have unanimously agreed that syntactically, there are two *le* in Chinese, namely *le*<sub>1</sub> that occurs immediately after a verb and the *le*<sub>2</sub> that is clause or sentence final. However, semantically, there has always been a debate on whether there is only one, or two *le* in the language since both *le* seem to share similar semantic features and meaning. The debate is never ending, especially in cases where there is only one *le* at sentence final position such as *Tā lái le* 'He-come-*le*'. It is never clear whether the *le* is syntactically a *le*<sub>1</sub> or *le*<sub>2</sub>, or whether semantically it means 'He has come' or 'He is coming'.

Early concepts and terms in tense and aspect in Chinese are either directly translated from western sources, or, for those who have no access to English, developed from secondary sources. We have seen earlier that even in western

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<sup>6</sup> These markers are known as *functionives* (function words or empty words) in traditional Chinese linguistics. They have no meaning by themselves but would carry grammatical functions when they occur in phrases or sentences. The words are also known as 'particles', 'mood particles', 'affixes', 'markers' as well as 'enclitics' in other literatures. Continuative and durative are terms that we tentatively adopted from Chappell (1988). There are various terms used for the same types of aspect, such as progressive and non-progressive in Comrie (1976).

linguistics, there is no commonly accepted definition of tense and aspect. It is therefore inevitable that Chinese linguists are still confused about the concepts of tense and aspect.

One of the common semantic features of *le* is its perfective property that entails the 'completed action' of a situation in traditional Chinese linguistics. The term 'completed action' in English is first given by Chao (1968) in his description of *le*. The *le* is defined as an aspectual suffix of a verb and is said to mark the perfective aspect. Linguists thereafter adopted Chao's definition with no objection and assume perfectivity in Chinese entails 'completion' of an event or situation, or the action indicated by the verb before *le*, is always 'completed'.

Comrie (1976) notices this problem and comments that:

A very frequent characterization of perfectivity is that it indicates a completed action. One should note that the word at issue in this definition is 'completed', not 'complete': despite the formal similarity between the two words, there is an important semantic distinction which turns out to be crucial in discussing aspect. The perfective does indeed denote a complete situation, with beginning, middle, and end. The use of 'completed', however, puts too much emphasis on the termination of the situation, whereas the use of the perfective puts no more emphasis, necessarily, on the end of a situation than on any other part of the situation, rather all parts of the situation are presented as a single whole. (p.18)

He notes further that the confusion could be partly fostered by the terminology of many grammatical traditions in many languages. For example, the words 'perfectivity' in Czech, Polish and Latin are derived from verbs meaning 'to

complete'.<sup>7</sup> On page 19 of his book, Comrie specifically points out that Chinese faces the same problem of treating the perfective form as 'the completion of a situation'. He finds a pair of counter examples: *Tā gāo* 'He is tall' and *Tā gāo le* 'He became tall' and points out that *gāo*, a stative verb, has nothing to do with the completion of the situation. It can only imply the inception of a situation, and entail an ingressive meaning in the perfective. Comrie also points out that the use of the verbal suffix *le* in Chinese is essentially the same as those of the perfective past in Russian. Jaxontov (1957), the source Comrie relied on for his account of Chinese, used the Russian term *prošedšee zaveršennoe* 'past completed' rather than *prošedšee soveršennoe* 'past perfective' (a common term in the study of Slavonic languages for the perfective) in his discussion on Chinese *le*, and Chao (1961) adopted the term 'perfective' for the same grammatical feature. It appears that Comrie believes that the confusion in the study of aspect in Chinese is the result of Chao's choice terms in English.

### 1.2.1.3 Residual Problems From Archaic Chinese

It is likely that Chao referred to Russian works when he wrote his book. However, it appears more likely that Chao's choice of the term 'completed action' is based on the etymology of *le* in Chinese. Like Czech mentioned earlier, the aspect suffix *le* in Chinese is derived from an archaic verb *liǎo* meaning 'to complete'. Chao (1968) says that *le* is a weak form of the word.

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<sup>7</sup> Chappell (1988) also points out that it is not uncommon in human languages that the perfective aspect marker is historically developed from homophonous verbs meaning 'finish, end'. (See her footnote on p.111)



The etymology of the perfective suffix *le* has often been mentioned in many studies (Wang, 1957; Chao, 1968; Mei, 1981), and it is unanimously recognized that it is derived from the verb *liǎo* ‘to finish, to complete’ in Classical Chinese. According to Wang (1957) and Mei (1981), the verb *liǎo* first appeared in the Han Dynasty (206BC – 220AD) as a transitive and intransitive verb. From the eighth to the ninth century, the verb began to lose its meaning and evolved into a perfective aspect marker. It was then in sentence-final position, but gradually, it moved to a position after the verb and before the object, together with a gradual sound change into *le*. Finally, the fronting movement becomes the stable word order of “V + *le* + O” during the twelfth century (Mu, 1986). As it happens, the meaning of the verbal suffix *le*, becomes similar to *wán* ‘complete’, a common resultative complement of verbs in Chinese.

Wu (1998) provides a different explanation. While agreeing with Wang (1957) and Mei (1981), he notes that in many examples in classical texts, *le* that is suffixed to many instantaneous and stative verbs cannot be interpreted as ‘to complete’ or ‘to finish’. Hence, he believes that there should be another origin of “V+ *le*”. *Le* was once a phase complement occurring after the verb.<sup>8</sup> It lost its meaning of ‘result’ as it weakened, and changed to indicate ‘to realise’ or ‘to complete’ as it is used today.

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<sup>8</sup> Phase complements are complements that express the phase of an action in the first verb rather than some result in the action or goal in old Chinese. Chao (1968) says that there are a few such complements still commonly used in contemporary Chinese. Examples are *-zhǎo* as in *zhǎozhao* ‘to find’, *-dào* as in *liàodao* ‘to expect, to guess at’, *-jiàn* as in *kànjian* ‘to see’, *-wán* as in *chīwan* ‘to finish eating’, *-guò* as in *cuòguo* ‘to miss (a chance)’.

As regards *le*<sub>2</sub>, Chao (1968) believes it is a weakened phonetic form of *lai* 'comes' with various meanings such as 'new situation', 'progress in the story' and so on in Classical Chinese. It is unrelated but just a homophone of *le*<sub>1</sub>. In other words, Chao claims that the two *le* developed from different origins.

Similarly, *zhe*, the progressive suffix in Chao's term is also derived from a verb: a homophonia *zhe* in old Chinese. The character *zhe* is used as a main verb with the meaning 'to wear, to put on', as well as in the construction 'V- *zhe* + location' (V existing at or be attached to the location) in archaic Chinese (Wang, 1958; Xu, 1992; Sun, 1997).<sup>9</sup> By the Tang Dynasty (618-907AD), the *zhe* in 'V-*zhe* + location' construction gradually develops into an aspectual verbal suffix that indicates an ongoing state of an event, as we have today (Xu, 1992). Mei (1981) found that, in the ninth century, the verb is attached only to state verb. By the twelfth century, it also occurs after verbs of action.

Like *le* and *zhe*, *guo* also possesses a verb origin meaning '(space) to pass by, (time) past'. In the Tang texts around the ninth century, it became a common suffix in a 'V + *guo*' construction with the meaning of '(action) completed, finished' (Cao, 1986; Li and Shi, 1997). Later, the function of *guo* began to split into two. While some texts retained its post-verbal meaning of 'to complete, to finish', in others, it developed into an aspectual suffix that carried the meaning of 'to have the experience of doing V' in the twelfth century (Lin et al, 1992). The two *guo* are now distinguished as *guo*<sub>1</sub> and *guo*<sub>2</sub> in contemporary Chinese linguistics.

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<sup>9</sup> At the same time, in some cases, the *zhe* in the 'V *zhe* + location' construction was gradually replaced by the preposition *zai* 'at', resulting in the construction of 'V + *zài* + location' (V located at) in contemporary Chinese.

*Zai* also has an archaic usage as a verb meaning ‘to exist, be living’.<sup>10</sup> It appears as a simple verb in *The Analects* that depicted Confucius’s sayings, as well as before a locative noun phrase expressing the meaning ‘existing at’. By the Yuan dynasty in the thirteen century, the verb has developed into a preverbal element as in a ‘*zai* + V’ construction, entailing that ‘the action is in progress’ (Luo et al, Vol. 2). It has been traditionally treated as an adverb.

Since the aspect markers in Chinese are evolved from verbs in classical Chinese, it is not surprising that the semantic features of the suffixes correspond to their etymological meanings. For instance, *le* is derived from the verb that means ‘finish, completed’ in classical Chinese. The meaning of ‘to complete’ remains today as in *chīle* ‘to have eaten’ or *shuōle* ‘said, told’. This nuance, however, causes controversy. When the suffix follows a stative verb as in *sǐle* ‘died’ or *zhǎngdàle* ‘grown up’, the *le* can only be a pure aspect marker that is not related to ‘completion’, as Comrie has depicted.

Similarly, *zhe* may indicate manner or posture as in *zuòzhe* ‘sitting’ which is its etymological meaning, but it is also used for ongoing action as in *chīzhe* ‘eating’. *Guo* has been used for the experiential aspect as in *Wǒ qùguo Zhōngguó* ‘I have been to China’, but it is also used for *Wǒ gāng chīguo fàn* ‘I have just taken my meal’ or *Wǒ chīguole fàn jiù lái* ‘I will come after eating (rice)’. This proves that the marker

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<sup>10</sup> We could not find any academic study on the etymology of *zài*. It is possibly because, as compared to *le*, *guo* and *zhe*, studies on the tensal or aspectual status of *zài* are relatively recent in this field of study. *Zài* is a common verb that exists as early as 500BC and it is generally treated as an adverb in contemporary Chinese linguistics. Evidence here is cited from Luo et al. (eds), (1988), *Hànyǔ dàcídiǎn* (Dictionary of Chinese), Vol. 2.

still retains its archaic meaning of '(action) completed' that is not related to any 'experience'.

In brief, the basic controversy in the study of aspect in Chinese is not so much as how the markers are translated into English, but the fact that the markers contain dual categorical properties, as verbs and grammatical markers.

#### 1.2.1.4 Impact of Pragmatics, Semantics and Phonology on Syntax

Another major problem that affects the study of aspect, or the study of Chinese grammar in general, is the interference of semantics, pragmatics and phonology on syntax. Chinese is a language that has been regarded as placing more emphasis on semantics or pragmatics rather than on syntax or discourse. (Chao, 1968; Li & Thompson, 1981; Chen, 1993; Yang, 1995; Liu, 1998) In many cases, if an utterance is semantically or pragmatically interpretable to hearers, especially in discourse, words or phrases that are considered to convey old or redundant information in its corresponding syntactic structure can be omitted, including the tense or aspect marker in the sentence. In other words, neither tense nor aspect marker is obligatory in sentences in Chinese. Lü (1983:1) provides examples to show this flexibility in Chinese:

- (2) Nǐ kànjiàn [le] méiyǒu?  
you saw mrk not  
'Did you see it?'
- (3) Wǒ yǐjīng zhīdao [le]  
I already know mrk  
'I know about it already.'

In both sentences, *le* is optional because other components in the sentences, namely *kànjiàn* ‘saw’ in (2) and *yǐjīng* ‘already’ in (3), already convey the past or perfective meaning of the sentences. Such deletion of markers is particularly true in discourse. As explained in Li et al. (1986), ellipsis in Chinese is common when the meaning is understood within the context.

Meanwhile, the language is also subject to syntactic and phonological constraints. In constructions with multiple actions, there is a general rule in Chinese that an aspect marker can only occur once and only after the last verb in the sentence despite the fact that the preceding verbs are aspectual in nature (Yang et al, 2000).

- (4) a. Tā zuò shēngyǐ zhuànle jǐge qián  
           he do business earn-mrk several money  
           ‘He has made some profits out of his business.’

- b. \*Tā zuòle shēngyǐ zhuàn jǐge qián

However, for emphasis, where a second action can only occur after the first action is completed, the *le* is attached to the first verb as in *Shēnme, tuōle yīfu bōshuǐ? Yī ge dàgūliangjia* ‘What, take off her clothes to splash people with water? A young lady!’

Feng (1997) explains such irregularities in terms of phonological constraints. He notices that the aspect marker is normally obligatory if the verb is monosyllabic but it can be optional if the verb is disyllabic. This is due to a strong tendency for the standard foot of modern Chinese to be made up of two syllables. To fill the canonical form of a foot, the aspect marker becomes optional; otherwise, the sentence will sound odd (Liu, 1994). Sentence (5b) below is unnatural to native speakers because *jìn* (to

enter) is monosyllabic as compared to *pǎojìn* 'to run into' in (6a) which is disyllabic. Similarly, sentence (6b) sounds unnatural to native speakers while (5a) is acceptable.

- (5) a. Tā jìnle fángjiān            'He enters the room.'  
      b. ? Tā jìn fángjiān
- (6) a. Tā pǎojìn fángjiān        'He runs into the room.'  
      b. ? Tā pǎojìnle fángjiān

Chen (1998) explains that the suffix (including aspect markers in traditional Chinese linguistics) is a sufficient but not a necessary element in sentences in Chinese. In examples similar to those above, a neutral or unmarked form of the verb is preferable when the phonological requirement of the standard foot is satisfied. However, if there is need for emphasis, the rule does not apply.

As pointed out by Comrie, the use of the term and meaning of 'completed action' commonly used by Chinese linguists has deviated from the original usage of perfect/perfectivity in the western tradition. With the interference of the meaning from archaic Chinese in the current use of aspect markers, it is difficult to have a general feature that can capture all functions of each tense or aspect marker. We have also seen that the aspect marker can be optional in a sentence, and the phonological constraints in the choice of verbs. It is therefore not surprising that the analysis of tense and aspect in Chinese has become so controversial.

Now, we shall examine the studies conducted on tense and aspect. The studies can broadly be classified into four categories, based on the arguments put forward by linguists: (a) Studies that regard Chinese as a tenseless language; (b) Studies that

regard Chinese as having tenses; (c) Studies that regard Chinese as having a combined aspectual and temporal values; and (d) Studies that regard Chinese as having only aspect. (a) and (b) will be discussed in 1.2.2 and (c) and (d) on aspect in section 1.2.3 below.

## **1.2.2. Previous Studies of Tense in Chinese**

### **1.2.2.1 Studies that regard Chinese as a tenseless language**

Morphological tense marking in the surface structure of every sentence is obligatory in English and other Indo-European languages, but not in Chinese. In Chinese, the temporal reference in a sentence is usually expressed by an addition of an adverb or a temporal expression. For example, it is not clear whether the speaker in the following sentence:

- (7) Wǒ qù Běijīng  
I go Beijing  
'I go to Beijing.'

is going or will go or went to Beijing unless an adverbial phrase such as *xiànzài* 'now' or *míngnián* 'next year' or a past marker *le* is added to the sentence to indicate the time the action takes place.

Due to this reason, from the very beginning, many scholars have regarded Chinese in a biased way as a language that has "no structure", "no tense" or "tenseless" in the sense that it has no changes in verb form as in most Indo-European languages (Croft, 1990; Binnick, 1991; Smith, 1991). In accordance with this misinterpretation of tense in Chinese lies the implication that Chinese 'does not have

tenses' or 'does not have tense as a grammatical category' and therefore, it only has grammaticalised aspect markers. The perception is so strong that linguists working on Chinese focus predominantly on aspect, leaving the study of tense neglected. Linguists who believe in the dichotomy of tense and aspect, like Dai (1990, 1997), have gone even further. Dai (1990) denies that there is tense in Chinese merely on the ground that particles such as *le*, *guo*, and *zhe* have been proven to be markers of aspect. The markers of aspect cannot be tense markers simultaneously.

Early prominent Chinese scholars generally believed that Chinese verbs have no tense forms. Gao (1948) regards *le* as Mood particles, so did Wang Liaoyi (Wang Li) (1982 [1946]) and Lü (1982 [1942]). Wang notices that *le* and *zhe* express 'time' but "They do not indicate past, present or future. They are aspectual." (1982: 96) Chao (1961) holds the same belief. According to him, if one desires to state explicitly that something has already happened or did happen on a previous occasion, the verb may be followed by the word suffix *le*<sub>1</sub>, *guo* or phrase suffix *le*<sub>2</sub>. However, these elements are not tense forms because "they are not constant features of verbs determined automatically by the time of the event, but may or may not be used according to whether the speaker wishes to bring out explicitly the time element." (p.54) Nonetheless, in his famous publication in 1968, Chao equates some of his verbal and aspectual suffixes to expressions of tense in English: *le*<sub>1</sub> to the preterit in English; phrasal or sentence final *le*<sub>2</sub> to be something translated as 'now'; *zhe* to be the progressive suffix that is similar to '-ing' in English and *guo* is used to indicate indefinite past.



As expected, linguists thereafter, the conservative native linguists in particular, adopted the same attitude as their predecessors. Their studies on tense in Chinese either focused on how sentences with *le*<sub>1</sub>, *le*<sub>2</sub>, and *zhe* are translated into English [emphasis mine], or they tried to show parallel constructions that exist in both languages. Attempts were also made to conduct comparative/contrastive studies between the tensal systems of the two languages (Chin, 1971; Fan, 1984; Zhao & Shen, 1984; Cheng, 1985-1986; Chen, 1988; Chen, 1990; L. Li, 1990; Gong, 1991, 1994 & 1995; Hu, 1995; J. Zhang, 1996 & 1998; Zhao, 1999). Scholars who attempted to identify Chinese tense through translations followed Chao's (1968) methodology closely by assuming *le*<sub>1</sub> to be a past tense marker, *le*<sub>2</sub> for something that has just happened and *zhe* to be the counterpart of '-ing' in English. However, counter examples were given because *le*<sub>1</sub> is not only used for a past event, but also for a present or even future event in Chinese. Similarly, *le*<sub>2</sub> and *zhe* need not be translated as 'now' or '-ing' as predicted. Here are some examples from Chen (1990) and Fan (1984):

- (8) Tā kāile mén, nǐ jiù jìn qu  
he open-mrk door you then in go  
'When he opens the door, you may go in.'
- (9) Bié rēngle tā  
don't throw-mrk it  
'Don't throw it away!'
- (10) Tā míngnián jiù shì dàxuésheng le  
he next year then is undergraduate mrk  
'He will be an undergraduate next year.'

(11) Yuēhàn shàngge xīngqī jiù yǐjīng lái le  
 John last week then already come mrk  
 'John had arrived last week.'

(12) Tā zài ménwài zhànzhe  
 he at door-outside stand-mrk  
 'He is standing outside the door.'

(13) Hùshǐ zhèngzài gěi tā dǎzhēn ne  
 nurse is give he injection p  
 'The nurse is giving him an injection.'

Sentence structure (8) is often cited as a good example to prove that there is no tense in Chinese because, similar to (7) above, it is not clear 'when' the door will be opened, and the event may happen today, tomorrow or any time desired, and it is clear that it cannot be an event in the past. Sentence (9) is an Imperative that conventionally cannot be applied to a past event, yet *le* is used. Sentence (10) talks about 'next year', and (11) narrates a past event. Both sentences end with sentence final *le* that appears to have no connection with the notion of 'now' as predicted. Although *zhe* in (12) has an '-ing' ending in its translation, it expresses the manner or posture of the action *zhàn* 'to stand' but not an action in progress in Chinese. Sentence (13) shows the event is ongoing but *zhe* is not used. The findings convince many linguists that Chinese is a tenseless language.

Therefore, many linguists came to the conclusion that there is "no tense" in Chinese because verbal suffixes such as *le*, *zhe* have been proven inconsistent in behaviour and they do not match with tenses in the English system. Nonetheless, does it imply that Chinese is tenseless? What do other linguists say?

### 1.2.2.2 Studies that regard Chinese as having tenses

Regardless of whether it could be represented grammatically or not, as speakers narrate an event in their language, the structural order of their utterances would intrinsically be sequenced to the temporal occurrence of the happening. Hence, it is irrational to believe that the Chinese people do not express temporal notions just because there is no overt expression of tense in their language.

Linguists such as L. Li (1990), Gong (1994 & 1995) and J. Zhang (1996) argue that Chinese has tense. J. Zhang points out that the sentences below may not contain tense markers, but native speakers should have no difficulty in distinguishing whether the sentences indicate past, present or future in time through their intuition. In other words, there are instances where a tense marker is not needed.

- (14) Lǎo Wáng sòng wǒ yīběn shū  
Lao Wang give me one-CL book  
'Lao Wang gave me a book.' [Past]

- (15) Tā xiěhǎo liǎngpiān lùnwén  
he write-finish two-CL academic papers  
'He has finished writing two articles.' [Past]

- (16) Tā cháng lái wǒ jiā  
he often come my house  
'He often comes to my house.' [Present]

Zhang goes on to show further that there is a one-to-one correspondence between tenses in English and Chinese by first classifying tense categories that are found in English, and then juxtapose the structures with equivalent sentences in Chinese. J. Zhang may have succeeded in finding the corresponding sentences in each

category, but his strategy is obviously not scientific. Matching is not the basis to establish tense in Chinese.

Similarly, Gong (1994, 1995) and Chen (1988) classify Chinese tense into 9 categories, using R (reference time) and S (speech time) as parameters to show anteriority/posteriority of an event with respect to speech time. They first listed all the possible arrangement of these parameters, and then selected sentences in Chinese that could be fitted into the patterns. Their approach appears to be a rather flimsy imitation of a framework on tense given in Reichenbach (1947) and Rohsenow (1978a, 1978b).

Rohsenow (1978a, 1978b) analyses the expression of time deixis in Chinese and shows how the semantics of time deixis may relate to aspect in the language. The dissertation is a development of the works of S-Y Wang (1965) and Teng (1973) within the theory of Generative Semantics. It focuses on the analysis of syntax and semantics underlying the surface tense-aspect marker *le*. Rohsenow claims that Chinese does not mark absolute tense, and *le* expresses both “perfective aspect and (relative) past tense” (1978a:29). Nonetheless, the significance of this work lies in his detailed study of the scheme of time specification as suggested by Reichenbach (1947) and others after him, his account of how tense and aspect interact in Chinese, as well as his comments on the nature of aspect in Comrie (1976:32). He stresses that ‘times’ refers to actual time orientation, and not to the names of syntactic ‘tenses’ in English [emphasis mine], a crucial point that most Chinese linguists have neglected or misinterpreted.

Other scholars who approach the study of time relation in Chinese in ways similar to Reichenbach’s notion of Event time, Speech time and Reference time

include Cheng (1985-86) and Li et al (1986). Cheng views events in terms of three types of observation: synchrospective (observation of a current event), prospective (observation of an event yet to come), and retrospective (observation of a previous event). The observations are made with respect to the reference time, which is not necessarily from the speech time of the event (p.70). The paper focuses on the semantic function of *le* as aspect and phase (event) marker and it concludes that *le*<sub>2</sub> carries the semantic features of both the inchoative and the perfective (p.77).

In relation to the studies of tense or temporal specification in Chinese above, we have Liao (1983) and Tai (1985) who stress the importance of ‘time’ in the language. Liao gives a brief but explicit account on how the spatial and temporal reference point is expressed in discourse in modern Chinese. The paper is so impressive that it makes linguists realize the importance of reference time in Chinese grammar, an operator that cannot be left out in the understanding of tense in the language.

Tai (1985) advocates a principle of temporal sequence that controls the word order of sentences. His Principle of Temporal Sequence (PTS) states: “The relative word order between two syntactic units is determined by the temporal order of the states which they represent in the conceptual world” (p.50). He claims that Chinese observes PTS. He gave the following:

- (17)     Nǐ gěile     wǒ qián     cái     néng zǒu  
            you give-mrk I     money then only can leave  
            ‘You can’t leave until you give me the money.’
- (18) a.   Zhāngsān qí   jiǎotàchē zǒule  
            Zhangsan ride bicycle leave-mrk  
            ‘Zhangsan left riding his bicycle.’

- b. \* Zhāngsān zǒule qí jiǎotàchē  
\*Zhangsan left to ride his bicycle.

Tai explains that when two Chinese predicates are linked by temporal connectives as in (17) above, PTS applies. Hence, 'you' are not allowed to leave unless the action of 'paying' is performed. In (18), it is natural that one has to ride his bicycle first before he leaves the place by riding on it. PTS does not seem to deal directly with tense. However, the temporal order of the parts in the sentence, and the state that continues until the action in the second predicate takes place, satisfies Comrie's definition of tense and the perfect mentioned earlier. To recall, the perfect is 'the continuing relevance of a previous situation' and it applies to a past event (Comrie, 1976:56).

In sum, contrary to the common belief that Chinese does not have tense, some linguists try to show that there is tense, as well as a temporal sequence in the language although there are no significant morphological features. Others believe that both the tense and temporal properties can be explained in terms of models proposed by Reichenbach (1947), Tai (1985) and subsequent scholars. The problem now is how does the scheme of time specification in Chinese function? Does it function as an integral system? The answer will be discussed in detail in Chapter Two of this study.

### 1.2.3 Previous Studies of Aspect in Chinese

#### 1.2.3.1 Studies that regard Chinese as having a Combined Aspectual and Temporal Value

It may be proper to mention here that linguists who hold this belief basically regard Chinese to be aspectual, but agree that there exist some features of tense grammatically.

At this juncture, it is perhaps necessary for us to first look at Comrie's remarks on Chinese tense and aspect, as a reference point to compare and contrast how linguists of both native and non-native origins treat the issues.

Comrie did not mention Chinese in his book *Tense* published in 1985 although he talked about Chinese in a loose manner in his other publication *Aspect* (1976). As mentioned earlier, his information on Chinese is based heavily on data cited from the Russian text written by Jaxontov (1957) and Chao (1968). In Sections 4.4 of *Aspect* (1976), after providing a brief description of the Combined Tense/Aspect Opposition in written Arabic,<sup>11</sup> Comrie states that "an opposition similar to that of Arabic is also found in Chinese" as in the verb *xiě* 'write' and *xiěle*, its verbal form with the suffix *le*.<sup>12</sup>

In many cases the use of *-le* is optional.....but when it does occur *-le* indicates a past perfect situation, e.g. *Xiāo duìzhǎng xiěle yī fēng xìn* 'Commander Hsiao wrote a letter', Strictly, this is a relative rather than absolute past time reference as can be seen most clearly in a time clause, e.g. *Nǐ sǐ le, wǒ zuò héshang* 'When you die, I shall be a monk'. (p.82)

<sup>11</sup> In Comrie (1999), however, he uses the term 'classical Arabic' in a similar description.

<sup>12</sup> Comrie (1976) is aware of the existence of the sentence particle *le*<sub>2</sub> in the language, but he did not discuss it in the book. See his footnote on p. 81.

Based on what is shown above and his description in the rest of his book, it is obvious that Comrie is claiming that (1) Chinese has a combined category of tense/aspect; (2) aspect markers such as *le*, *guo* and *zhe* are verbal morphological features, and (3) the verbal *le* indicates the perfective aspect and relative past time reference (p.58). In other words, he regards *le* as tensal.

So far, no one in the study of Chinese tense and aspect has referred to Comrie's observation. However, since the 1980s, linguists have gradually noticed the correlation between the two categories, and that *le* carries the dual function as tense and aspect marker. For instance, Cheng (1985-86) discovered that the phrasal or sentence final *le*<sub>2</sub> carries the semantic feature of both the inchoative and perfective aspects (p.77). His retrospective observation of an event specifies the relation between a state at one time and a situation at an earlier time. By Comrie's definition, it is a past event that is perfective in aspect.

Chappell (1988) has a similar finding. She notices that the perfective *le* (that is, the traditional *le*<sub>1</sub>) is moving along the path to become a marker of past tense in its use as a marker of anteriority, and claims that the concept of boundedness defined in Li and Thompson (1981) on *le*<sub>1</sub> can be extended to include the use of sentence-final *le*<sub>2</sub> which marks the inception of a new state of affairs at some point prior to or simultaneous with the time reference of speech.

Shi (1990b) claims that Perfectivity is the result of bounded situations viewed as relatively anterior [emphasis mine], which is, anteriority relative to a terminal boundary. Moreover, inchoativity is obtained when unbounded situations are viewed as relatively anterior. Chinese is, he argued, "a language that grammaticalizes relative



anteriority, rather than perfectivity and inchoativity, and that the particle *LE*, verbal or sentential, fulfills this grammatical function" (p.107). Therefore, there is only one *le* in Chinese, and it signals relative anteriority of a situation it predicates.

Ross (1995) demonstrates how the system of tense incorporates basic aspectual distinctions in Chinese. In her paper, Ross claims that *le*<sub>1</sub> (as opposed to the inchoative *le*<sub>2</sub>) contributes the meaning that an action represented by the verb has ceased and this meaning of cessation can be interpreted within (i) an aspectual framework as that of perfectivity; and (b) a temporal framework as a marker of past tense. She agrees with Smith (1990) that the perfective in Chinese separates boundedness from completion and the entailment of completion is not associated with *le*<sub>1</sub>.

Ross (2002) is another significant study. It explores the relation between the aspectual and thematic system of verbs in Chinese by her Aspectual Category Shift (ACS) principle. She found that, while shifting from state to achievement is common in Chinese, that from activity to accomplishment is not; shifting from achievement to state is possible, but the reverse is only restricted to punctual verbs that may entail a durative or stative situation aspectually.

Lin (2000) is a temporal analysis of the syntactic distribution of *le* in Chinese. It concludes that *le* is a relative past tense marker besides contributing an aspectual meaning to a sentence. *Zai*, however, is purely an aspect marker that does not have its own tense interpretation (p.112). Lin (2002) investigates further into how the temporal reference of Chinese is expressed in aspectual situations. It is found that tense and aspect do not only interact, but also control each other in sentences. Interestingly, although Lin claims that the suffixes *le* and *guo* are past tense markers, they are

acceptable only as relative tense markers. In other words, Lin (2002) denies the function of these two suffixes as absolute tense markers.

Among traditional Chinese linguists, Dai (1997) notices that *le* and *zhe* marks past and progressive actions respectively. However, he rejects the temporal property of these markers because these suffixes have already been identified to be markers of aspect, as mentioned in Section 1.2.2.1.

Liu (1988), Wang (1990), J. Zhang (1996) and L. Zhang (1997) notice that both *le* and *guo* are related to past events, but none of them think that such notions are significant enough to link Chinese with tense as a system.

At present, many linguists are aware that the aspect marker *le* also serves as a tense marker in the language. This is not difficult to understand because as mentioned in section 1.2.1.3, *le* comes from an archaic word meaning “completed, finished”. In many cases in modern Chinese, its old meaning is still functioning. However, the status of *guo*, *zhe* and *zai* as tense markers has yet to be justified by linguists.

### **1.2.3.2 Studies that regard Chinese as having only Aspect**

Compared to the study of tense, the study of Chinese aspect is extensive and comprehensive, as most linguists believe Chinese is purely aspectual. The study of aspect in Chinese is predominantly semantic, and it has been the focus of studies on Chinese grammar for many decades. The studies cover various perspectives: some linguists conduct theoretical studies of aspect, some focus on situation or event studies, while others explore lexical aspects or discuss individual aspect markers. Whatever it is, none of these studies takes tense into consideration although this does

not imply that they think Chinese do not have tense<sup>13</sup>. In the section below, we will review previous studies on aspect, but will limit the discussion to issues that are significant or controversial in the field. Details of studies on individual aspect markers will be shown in Chapters Five.

As early as 1942, Lü Shuxiang, a luminary in linguistics, had already noticed the existence of the temporal and aspectual properties in Chinese that he defined as *dòngxiàng* or phase of an action. He said that the phase can be attained: (a) by adding an adverb such as *jiāng* 'about to, will', *fǎng* 'just' and *yǐ* 'already' to a sentence. The adverb tells whether an action is intended to happen, is in the process of happening, or has already happened; and (b) in colloquial Chinese, by adding some suffix-like words to the verbs. For instance, *zhe* and *le* mark *fāngshìxiàng* 'progressive phase' and *jìshìxiàng* 'completed phase' respectively.

It is doubtful that the verbal suffixes are only used colloquially in Chinese. However, Lü points out the difference between grammatical aspect [as in (a)] and lexical aspect [as in (b)]. Unfortunately, linguists in the next few decades were unaware of his significant findings with regard to lexical aspect.

Wang Li (1943) distinguishes seven types of aspects in Chinese, including the progressive aspect, completion aspect, near past aspect and continuation aspect. He specifies *zhe* to be the marker for progressive aspect, and *le* for completion aspect. Moreover, he stresses that aspect is only used in narrative or declarative sentences in

<sup>13</sup> J. Zhang (1996) points out that very few scholars have openly claimed that there is no tense in Chinese. Other scholars tend to avoid talking about the issue.

Chinese. The book was translated into Russian in the fifties and became an important source of Chinese grammar for western scholars, including Comrie.

Chao (1968) does not discuss aspect as a topic nor does he look at the aspect markers systematically. He only provides brief accounts of *le* and the other markers although his descriptive grammatical study has often been quoted. Besides *le*<sub>1</sub>, he also treats *guo* and *zhe* as aspect suffixes of verbs. *Zhe* marks 'progressive aspect' while *guo* shows "indefinite past aspect and it is incapable of taking another suffix *-le*" (p.450). He provides various functions of *le*<sub>2</sub>, the particle which he identifies as a homophone of *le*<sub>1</sub>, but does not discuss *zài*. It shows that Chao does not regard *zai* as an aspect marker in both his publications in 1961 and 1968.

Note that Chao (1968:446-450) also uses the term 'phase' when he distinguishes phase complements from aspectual suffixes. He stresses that the suffix *guole* in *Wǒ chīguole fàn jiù zǒu* 'I will go as soon as I have finished my dinner' is a complement that expresses the phase of an action in the first verb, not a marker of aspect. It shows that Chao recognizes that there are two *guo* in the language -- a phase marker (*guo*<sub>1</sub>/*guole* in the present study) and an aspect marker (*guo*<sub>2</sub>).

Wang (1965) applies generative grammar to the study of the two aspect markers in Chinese. He treats *-le* as a marker of completed action and *-guo* an independent marker that is parallel in grammatical status to *-le*. Using the transformational method and with emphasis on negation, he introduces an alternation of *le* and *guo* with *yǒu* 'to have' and concludes that the morph *yǒu* (as in *méiyǒu*) and

*le* are suppletive alternations of the same morpheme. He also says that *méi* is the 'alternant' of *bù* before *le* and *guo*.

Teng (1973, 1975), a student of Wang, extends his theory. He applies generative semantics in the analysis of both the occurrence of *le*<sub>1</sub> and *le*<sub>2</sub> as well as their negative counterparts, as being instances of higher predicates. In his studies, he classifies intransitive verbs in Chinese into three categories: actions, processes and states and evaluates their transformational properties in aspect. His classification is refined in Rohsenow (1978a).

Rohsenow examines the lexical aspect inherent in Chinese verbs in terms of the distinctions active/non-active and durative/non-durative (punctual). This is because he discovers that while both actions and states are durative, 'change-of-state' verbs are not. He differentiates 'inherent change-of-state' verbs such as *sǐ* 'to become dead, to die' and 'derived change-of-state' verbs such as *gāo* 'to become tall(er)' from 'pure' state verbs such as *cōngmíng* 'intelligent' because "the structure underlying 'pure' states as opposed to those underlying their homophonous 'derived' change-of-state counterparts have different syntactic-semantic representation in the minds of native speakers" (p.57). Both the 'inherent change-of-state' and 'derived' state verbs have the same underlying representation in his generative semantic analysis, and can take the auxiliary as well as *le* to become *Tā huì gāo* 'He would become taller', *Tā gāo le* 'He has become taller' and *Tā yào sǐ* 'He will die', *Tā sǐ le* 'He is dead' respectively. The 'pure' state verbs, however, behave differently. \**Tā yào cōngmíng* 'He would be

intelligent' and \**Tā cōngmíng le* 'He becomes intelligent' are both ungrammatical. This is a crucial point that both Teng and Comrie have neglected (p.114). Based on his analysis on *le*, he comments that the word 'perfective' defined by Comrie,

does not specifically assert (even) a complete action (as well as not asserting a completed one), unless a certain amount of action is specified (by a quantifier) (pp.96-97).

Li and Thompson (1981) is the most systematic treatment of Chinese grammar to date. Working within the framework of Functional Grammar in pragmatics, the book provides a comprehensive description of verbal aspects in Chinese: perfective, imperfective, experiential and delimitative, with the functions of *le*, *zhe*, *zai* and *guo* clearly defined. Besides, the use of the 'Current Relevant State' principle to identify the sentence final particle *le*<sub>2</sub>, and its definition on boundedness for the perfective aspect are the most cited in the field. The book claims that *le*<sub>1</sub> is neither a past tense marker nor does it semantically entail completion.

Huang (1988) is a comprehensive study on the semantic theory of aspect. Unlike traditional linguists who approach the study from a verbal or situation viewpoint, the dissertation extended the study of aspect to a much wider scope. From linguistic evidence found in languages such as Chamorro and Jakarta Malay in Austronesian languages and Mokilese in Micronesian, Huang introduces the contrast of DIFFUSE/FOCUSSED and REMOTE/IMMEDIATE for the manifestation of the nature of aspect. The opposition is, in turn, applied to Chinese. In brief, Huang comes to the following figures that represent the semantic nature of the aspectual system of Chinese (pp. 279, 290 and 293).

Table 1.1

Chinese Aspectual System (Huang, 1988:279)

	IMMEDIATE	REMOTE
BOUNDED/FOCUSSED: CONGRUENT WITH BOUNDARY	<i>LE</i> <sup>14</sup>	<i>guo</i>
NONCONGRUENT WITH BOUNDARY	<i>zài</i>	<i>zhe</i>



Huang's Relationship between the markers and their BOUNDARY

Figure 1.2

short PERIODICITY			long PERIODICITY	
<i>sǐ</i> 'die'	<i>tiào</i> 'jump'	<i>pǎo</i> 'run'	<i>chuān</i> 'wear'	<i>zhīdao</i> 'know'
<i>pǎo</i> 'escape'	<i>dī</i> 'drip'	<i>chuān</i> 'put on'	<i>guà</i> 'hang'	<i>gāo</i> 'tall'
<i>tǎng</i> 'lie down'	<i>dǎ</i> 'hit'	<i>guà</i> 'hang up'	<i>tǎng</i> 'lie'	<i>jiào</i> 'be named'

Huang's Continuum of Chinese verbs in terms of PERIODICITY

Figure 1.3

<sup>14</sup> Note that in Huang (1988), there is only one *le* in her theory. Her distinction of UNBOUNDED/DIFFUSE for the unmarked case of aspect is not included here.

The figures above show a neat and explicit explanation of the relationship between the aspect markers, verbs and their aspectual properties in Chinese. In Table 1.2, Huang divides the four common aspect markers in Chinese into two pairs of contrasting bounded-unbounded markers, with *LE* signaling the presence of an interruption, the boundary, of an event. The boundary, as shown in Figure 1.2, occurs when one suddenly notices or realises a previously unnoticed entity (Huang and Davis, 1989). Figure 1.3 classifies verbs according to their temporal properties. Temporal property is an important factor in defining the tensal and aspectual properties of verbs (Bache, 1995).

Egerod (1994), a Danish scholar uses a similar table to exemplify his findings in his study of aspect in Archaic and Modern Chinese. He divides Chinese aspects into punctual versus durative. The former includes the study of *le* and *guo*, while the latter involves *zhe*, *zài* and *zhèng* ‘just’. *Zài* marks “what one is engaged in doing momentarily” (p.301). The article is perhaps the only one in Chinese linguistics that treats *zhèng* ‘just’ as aspect marker. It should be noted that the article captures the distinctions between temporal/non-temporal, and marks *guole* as an ‘anterior perfective’ that indicates the tensal property of the aspect markers. Egerod regards both the verbal suffix and sentence final *le* as non-temporal in his chart below. However, as he discusses the *bǎ* construction in his paper, for example, *Wǒ bǎ jiǔ hē le* ‘I drank the wine’, he states that the *le* “is obligatory as a past tense marker” and it “refers to a point in time where something happened or happens, was accomplished,



began or ended, or will end” (pp.288 & 297). Nonetheless, it shows that he recognizes *le* as a boundary as Huang (1988) has earlier observed.

Table 1.2  
Chinese Aspectual System (Egerod, 1994:306)

	Punctual		Durative	
intense	Non-temporal <i>-le</i> aoristic	temporal <i>-guo</i> experientative (backgrounded)	non-temporal <i>-zhe</i> Progressive	temporal <i>-zài</i> momentative (foregrounded)
extense	<i>le</i> perfective	<i>-guole</i> anterior Perfective	<i>ne</i> imperfective	<i>-laizhe</i> <sup>15</sup> anterior Imperfective

L. Zhang (1996) is another scholar who recognizes the same property in *le*. In his paper, he advocates treating *le* as a marker of boundary. It is because he found that *le*<sub>1</sub> marks the change of state of the completion of an action, a state as well as a resultative event or situation, while *le*<sub>2</sub> indicates that a change of state has happened at speech time.

Ma (1981) and Chen (1988) focus on the aspectual properties of verbs in their studies of aspect. Based on duration phrases that co-occur with verbs, Ma classifies verbs into the categories of [ $\pm$ continuation], [ $\pm$ completion] and [ $\pm$ states]. Chen (1988) attempts to establish a theory that can accommodate the three temporal systems of

<sup>15</sup> *-laizhe* is a common aspect marker in Beijing dialect. It is not discussed in this study because it is never used in Mandarin in Malaysia.

Chinese into one framework, namely, phase (*shíxiàng*), tense (*shízhì*) and aspect (*shítài*). He claims that to attain a thorough understanding of grammatical properties in Chinese as a whole, one should take all three components into consideration and put them into one temporal space and then analyze how the components interact with each other. The concept of phase in *shíxiàng* (phase in time) seems to have developed from *dòngxiàng* 'the phase of an action/verb' introduced by Lü (1982 [1942]) which we have just mentioned.

Below is the translation of Chen's description of phases:

Judging from the meaning of words in sentences, there are sentences that express states, also, those that express activity. (If we) divide activity further, there are some actions that are instantaneous, some that may contain a certain property for continuity; to split continuous action further, there will be some activity with an inherent endpoint.....some without an inherent endpoint. (If we) take the natural flow of time to be a reference point, and place the occurrence or process of these actions onto a time axis, we will be able to see clearer the related characteristics of these activities. If we set the beginning of all situations to be the zero point on the axis, then, we will find that, as time moves on, properties of different situations shown at a selected point of time on the time axis are not homogenous. Sentences that reflect such properties form the phase structure (of these situations). Sentences that are classified according to the characteristics of phase structures are called situation types. (p.402)

Chen is trying to distinguish the semantic contents of verbs by identifying the syntactic representation of the separate stages of progression of the action between starting and finishing. The problem is: What about sentences that have instantaneous and stative verbs that he had excluded?

In his description of phase, Chen identifies three opposing pairs: [ $\pm$ static], [ $\pm$ durative] and [ $\pm$ telic], and subsequently classifies the situations of Chinese sentences into five categories: state, activity, accomplishment, complex change and simple change. As for aspect, he only states briefly that events can be viewed as perfective and imperfective. Chen seems to be unaware of the relationship between his phase theory and Comrie's idea of grammatical aspect.<sup>16</sup>

Ma (1981) and Chen (1988) set a new direction for subsequent studies to move on. Their approaches are so influential among native linguists that thereafter, in the nineties, the study of verbs flourished in Chinese linguistics, with numerous accounts on the semantic sub-categorization of verbs, or on the study of phase that finally became mixed up with the study of perfectivity as well as the western understanding of aspect. The focus may vary and studies include those on the properties of verbs in general (L. Li, 1990), on verb classifications (Ma, 1992; Guo, 1993; Xu, 2001), on aspect in general (Dai, 1990 & 1997; Yang, 1995 & 1996; Zuo, 1998 & 1999; Lin, 2000; Chang, 2001; Shi, 2001; Tang, 2001), on individual aspect markers (Wang, 1990; Zhao, 1990; Xu, 1992; Kimura, 1992; Sawada, 1993; Yeh, 1993; Dai, 1994; Li, 1999; Tang, 1999), as well as empirical studies such as those on the spatial properties of verbs (Qi, 1998; Yang, 1998) and the boundedness of noun phrases (Shen, 1995). There are also contributions from language teachers based on their observation in their teaching of aspect (Yang et al., 1999, 2000; Ma et al., 2001).

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<sup>16</sup> Chen's description of tense and aspect is so sketchy and superficial that it makes one wonder if he has a clear understanding of the concept of the two categories in western tradition. The significance of this paper lies in his idea of phase.

It turns out that the expression of aspect becomes primarily lexical in the study of aspect in Chinese, and there is no clear distinction between grammatical aspect/viewpoint aspect and lexical aspect/situation aspect. A good example is the oftencited debate over the scope of perfectivity which arises from the argument provided by Tai (1984), a leading contemporary linguist.

- (19) a. Zhāngsān shā-le Lǐsì liǎngcì, Lǐsì dōu méi sǐ  
 Zhangsan kill-mrk Lisi twice Lisi Adv not die  
 'Zhangsan performed twice the action of attempting to kill Lisi,  
 but Lisi didn't die.'
- b. \*Zhāngsān shā-sǐ-le Lǐsì liǎngcì, Lǐsì dōu méi sǐ  
 'Zhangsan killed Lisi twice, but Lisi didn't die'
- (20) Wǒ zuótiān huà-le yīzhāng huà, kěshi méi huà-wán  
 I yesterday paint-mrk one-CL picture but not paint-finish  
 'I painted a picture yesterday but I didn't finish it.'

Sentences (19a) and (20) above are unacceptable in English but acceptable in Chinese. Based on these observations, Tai (1984, 1985b) argues that in English, accomplishment such as 'to kill, to build, to find' has both the action and result aspects, but the corresponding verb *shā* 'to kill' in Chinese only shows the action of killing, its result 'to be dead' needs to be expressed by the resultative complement *sǐ* 'die' in the compound *shā-sǐ* 'killed, murdered'. The aspect marker *le* only indicates that the action of killing has been performed, without showing the result of the action, hence, *huà-le* in (20) is a completed or at least bounded action and is thus a perfective, but not an accomplishment.

Teng (1985), another leading linguist of the time, refutes Tai by saying that a situation involves more than just the verb in a sentence, and the perfectivity of a situation does not only imply the realization of a result. He stresses that Vendler's classification is based on the temporal structure of a sentence as a whole and it is different from Tai's approach on verbs.

The debate is in fact a controversy over lexical aspect (Tai's) versus situational aspect (Teng's), but it suffices to say that Chinese linguists are sometimes confused over the two different ways of dealing with an event. J. Zhang (1998) has a similar problem that he gives the following pair of sentences as examples and comments that perfectivity is subjective because for the same situation described in (21) below, sentence (a) is perfective but (b) is imperfective.

- (21) a. Zuótiān wǒ kànle yī zhěngtiān shū  
yesterday I read-mrk one whole-day book  
'I read (book) whole day yesterday.'
- b. Zuótiān wǒ zhěngtiān zài kànshū  
yesterday I whole-day at read-book  
'I was reading whole day yesterday.'

It is another evidence to show that, in the study of aspect in Chinese since the last two decades, linguists focus more on the aspectual properties of verbs or lexical aspect, rather than on Comrie's grammatical aspect. We believe it is because (1) in the development of the field of linguistics in China, it is the study of verbs that has been greatly emphasized, and (2) many native Chinese linguists are not familiar with the western tradition of aspect, possibly due to their of understanding of western language.

As we have seen, linguists differ greatly in their attitude towards aspect in Chinese. There is still no consensus on the precise meaning nor the exact number of markers in the language although it is generally accepted that Chinese has grammaticalised aspect. On the other hand, we found that there is tense and also tense markers in Chinese, but the markers seem to be incorporated with those of aspect. If this is the case, will tense, like aspect, be distinctive enough to form a grammatical category in Chinese?

### 1.3 Significance of Study

Although extensive studies have been made on tense and aspect in Chinese, there are still gaps that need to be filled. We have identified two of them: (1) there has been no attempt by scholars to explore the possibility of identifying tense as a grammatical category, and (2) syntactic research on both tense and aspect is almost unheard of.

In relation to (1), we may ask: What is tense in Chinese? What are the grammatical properties of the markers *le*, *guo*, *zhe* and *zài*? How do tense and aspect interact with each other in the language? Do they form an integrated system? And in relation to (2), do tense and aspect have specific properties that can be captured syntactically in the language? Is it possible for us to describe how syntax maps onto semantics, that is, to describe what and how the tensal and aspectual meanings are conveyed in each of the relevant syntactic configurations in a study?

These are the questions to which this study aims to provide an answer.

Will syntactic investigation help to provide an answer to the problems? In conjunction with the major issues stated above, we will also focus on the following objectives:

- (1) To verify the distributions of the morphological *le* and the sentential *le* in Chinese. (The morphological *le* is what is generally known as the ‘verbal suffix’ or ‘post-verbal’ *le*<sub>1</sub>. In this study, it is treated morphologically);
- (2) To show that *le*, *guo*, *zhe* and *zài* are tense markers;
- (3) To show that *zài* ‘to exist’ is an aspect marker;
- (4) To show that in a Chinese sentence, the markers cannot be adjacent to each other. For example, the morphological *le*<sub>1</sub> cannot be adjacent to the sentential *le*<sub>2</sub>, and
- (5) To examine and explain the conditions in which the aspect markers are mutually interchangeable.

This study examines how the two grammatical categories interact with each other in a logical manner and hopes to provide explanations for controversial issues such as (2) above.

In other words, we disagree with the general belief that Chinese does not have tenses. We are working on the assumption that Chinese has a combination of tense and aspect as claimed by Comrie (1976), and tense is a grammatical category. [emphasis mine] We shall go on to show that both tense and aspect can be captured syntactically.

Nevertheless, it is necessary to define several crucial terms employed in this research that may differ slightly from traditional use of the terms. In this study, the following definitions have been adopted:

- (a) 'Perfect/perfectivity' is 'the continuing present relevance of a past situation' (Comrie, 1976:52 & 56) which is similar to Starosta's definition of 'a present state which results from a past event';
- (b) 'Tense' refers to 'time' defined by Rohsenow (1978a), that is, 'it refers to actual time orientation', and not to the usual understanding of 'tenses' in English.

In accordance with (b),

- (i) 'Past' [+past] in tense refers to the incident that an event or an action has occurred or ceased before a designated reference time in Comrie's sense of absolute and relative tenses. It also includes cases in which the event has undergone a 'change-of-state' and thus becomes 'current relevance' in the perception of the speaker.
- (ii) 'Non-past' [-past] is the case where the event or action is still in progress, or in a continuing state with respect to the designated reference time.

As for other terms such as 'boundedness', 'remoteness' and so on, conventional definitions are adopted. The terms will be defined in subsequent chapters when necessary.

As we have seen, practically all long-standing controversies in the study of tense and aspect in Chinese arise from the confusion over the definitions of the terms used, and from the attempt to explain Chinese tense and aspect based on English and Russian models respectively. In the investigation of tense in this dissertation, we will



present a new perspective inspired by theories advocated by Reichenbach (1947) and Bull (1960) that are found in Rohsenow (1978) and Binnick (1991).

This study not only adds a new dimension to the study of tense and aspect in Chinese, it can also be used as a reference in the programming or computerization of Chinese which operates mainly on the linear analysis of sentences. By establishing the relationship between aspect and temporal constituents in Chinese and by mapping the features with English, this study can also contribute to the work on Chinese-to-English machine translation in the future. Lexicase has been proven to be an applicable framework in the processing of programmes in these fields (Starosta and Nomura, 1986; Starosta, 2001b).

#### **1.4 Scope of Study**

As mentioned above, this study aims to provide an answer to various unexplored problems in the study of tense and aspect in Chinese, by showing how the two categories interact within a syntactic framework. It is therefore a pioneer study.

In this preliminary study, it would not be possible to discuss all the problems encountered in the intricate field of tense and aspect. As such, the study will be focusing on the four major aspect markers that have been widely accepted, that is, *le*, *guo*, *zhe* and *zài*. Also included are selected verbs that have often been discussed by many linguists, specifically Huang (1988) and Guo (1993). This dissertation will not be concerned with the pragmatic function of the markers in discourse unless it is necessary. The sentences discussed in this study are basic syntactic structures taken from various sources, in particular, Ng (1997). In some cases, we provide our own

examples. The constraint set in the selection of data complies with Starosta's belief that a basic sentence is the natural boundary of an utterance and that a prerequisite for a good discourse analysis is a good understanding of the fundamental linguistic components of a discourse, that is, the basic sentences (Starosta, 1994).

The sentences used in this study are all acceptable to Mandarin speakers in Malaysia. The Chinese used in different areas is, to a certain extent, influenced by local dialects and thus differs slightly from each other. In a simple test that we conducted that involved 8 native speakers from various provinces in Mainland China, it was found that they differ greatly in their intuition on the acceptability of a given sentence.<sup>17</sup> It would be inappropriate for us to comment on the grammaticality of expressions that contains dialectal features that we are not familiar with. For example, the expression '*lázhe*' is a common aspectual phrase in the Beijing area marking 'recent past' of an event (Chao, 1968). However, it is not used in the Mandarin spoken in Malaysia where the Chinese are descendents from southern China.

Some Chinese linguists argue that directional particles such as *qǐlai* 'to get up', *xiàqu* 'to go down', the reduplication of verbs (the delimitative aspect in Li and Thompson) such as *kànkān* 'to read for a short while' should be regarded as aspect markers as they express the inceptive and tentative aspects respectively (Wang, 1957; Chao, 1968; Li and Thompson, 1981, 1988; Lü, 1980; Fang, 1992). However, in generally, most linguists have not accepted this claim. Cheng (1985-1986) treats the directional particles as examples of a non-stative phase; Kang (2001) claims it would

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<sup>17</sup> The interview was conducted on 8 Feb 2001 at the National University of Singapore. Interviewees are either lecturers or postgraduate students of the Chinese Department of the University.

be more appropriate to regard the directional verb compounds as telic *aktionsart* markers than perfective aspect particles while Zuo (1999) believes that the meaning of tentativeness in the reduplication of verbs is a matter of pragmatics. Nevertheless, the main reason that these words will not be discussed in this study is that such particles or reduplicated verbs are derivational elements. In this study, we are concerned with the aspect markers from the inflectional point of view.

There are a few common expressions in Chinese that are also made up of the form 'V + *le*'. For example, *Hǎole* 'Ok!', *Déle* 'Ok!', *Chéngle* 'Ok!', *Suànlè* 'Forget about it!', *Duìle* 'Right!'. However, these expressions are traditionally disregarded as aspectual in Chinese linguistics (Lü, 1983) because, as shown in the meanings given within parentheses, these expressions have their specific use as set phrases. They are only aspectual in form but not in meaning. Similarly, phrases such as *V-jíle* 'extremely V', *V-tòule* 'thoroughly V' and *V-sǐle* 'died' (used as a hyperbole in the form of an intensive complement) are intensive complements for exaggeration but not aspectual expressions (Chao, 1968). Discussions on these expressions are thus excluded.

The theoretical framework employed in this study is a constrained and explicit grammar introduced by Professor Stanley Starosta of the University of Hawai'i in the 1970s, namely Lexicase, including the Word Formation Strategies that developed out of this theory since the 1990s. This grammar is chosen because it is a theory of syntax and it has been applied in the analysis of over 70 languages in the world, including several studies on Chinese syntax. In this dissertation, we will investigate the syntactic

analysis of tense and aspect in related grammatical (syntactic and morphological) constructions of Chinese. Detailed description of the theory will be given in Chapter 2.

### 1.5 Organization of the Study

This dissertation is organized in the following manner: In Chapter One, we begin with an overview of various issues and problems related to the study of tense and aspect in general and in Mandarin Chinese in particular. For better understanding of the causes of the problems in Chinese, a comprehensive review and discussion are provided on selected major papers in the field of study. Lastly, the aim and scope of study are clearly defined. Chapter Two includes a detailed description of the theory employed in this study, that is, Lexicase and its subsequent development in Seamless Morphology, followed by an explanation of how the markers are represented in the theory. Chapter Three shows the syntactic classification of verbs in Chinese based on Lexicase, according to the tensal and aspectual properties of the lexical items. In Chapter Four, tenses in Chinese in general will be discussed in detail, with the purposes of identifying the grammatical properties of the tense markers as well as establishing the system of tense in Chinese. Chapter Five examines the syntactic-semantic relation of aspect in Chinese. It will focus on the analysis of *le*<sub>2</sub> and *zài* at propositional level and *le*<sub>1</sub>, *guo*<sub>2</sub>, *guo*<sub>1</sub>/*guole* and *zhe* at lexical level. Before arriving at the Conclusion in Chapter Six, we hope to show how the syntactic and semantics properties of tense and aspect in Chinese can be correlated and represented in a coherent system. It is hoped that the study will come up with some systematic or regular pattern that can reflect the interface between syntax and semantics.