

Multiple Aspectual Markings in Mandarin Chinese

MA Thesis

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Chapter 1. Introduction

This thesis will be about aspect in Mandarin Chinese, particularly, Mandarin multiple aspectual markings. Previous studies on aspect theory have pointed out that aspect contains two components: grammatical aspect such as perfective and imperfective and situation type (Aktionsart) such as event and state. The aspectual meaning of a sentence is a composite of the information from both aspectual components in which the situation type is determined at the level of predicate-argument structure and the grammatical aspectual marker(s) gives a perspective on the situation. Languages such as English, Russian and Mandarin Chinese allow a sentence to contain more than one grammatical aspect marker, as given in (1a - c) (1a and 1b are from de Swart 2012):

- (1) a. Jane **has** been writing a letter. [English]
b. *pod-na-kopit* [Russian]
'PERF-PERF-to save up some'
c. Wo xie-**le** liang-feng xin **le**. [Mandarin]
I write-LE two-CL letter LE
'I've already finished two letters.'

The Principle of Compositionality states that "the meaning of an expression is a function of, and only of, the meaning of its parts together with the method by which those parts are combined" (Pelletier, 1994, p.11), or informally, the meaning of a whole is a combination of the meanings of the parts. The aspectual meanings of expressions like (1a - c) challenge the Principle of Compositionality because they are not simply a combination of the meaning of each aspectual component, but rather a product of a recursive application of the aspectual markers. In such expressions, an aspectual marker operates on the sentences first; the result after the application of this "(scope-ly) lower" aspectual marker is then picked out and modified by a "(scope-ly) higher" aspectual marker, and so on and so forth. Any Change in the scope relations between the aspectual markers would cause a semantic discrepancy between the result meanings and the original meanings of the sentences.

While studies on the aspect systems in Indo-European languages, especially, the aspect system in English, are many (e.g. Comrie, 1976; Bennett & Partee, 1978; Dahl, 1985), studies on the aspect system in Mandarin Chinese are limited (e.g. Smith, 1991; Xiao & McEnery, 2004), and studies on multiple aspectual markings in Mandarin Chinese are lacking.

Mandarin Chinese has some special features which make it interesting to look at. Firstly, Mandarin makes for its lack of verbal tense by a rich aspectual system: a range of aspectual markers is widely used, conveying both the temporal and the aspectual information about situations. Secondly, Mandarin is morphologically simple, without inflection or agreement on verbs (or nominals), therefore the aspectual distinctions in Mandarin, e.g. perfective and imperfective, are rendered by separate morphemes in the sentence instead of inflection on the verb. Thirdly, Mandarin does not have articles and the category of number, so there is no formal distinction between count nouns and mass nouns. As a result, the count/mass distinction in other languages like English, for instance, count nouns appear in telic situations whereas mass nouns appear in atelic situations, e.g. Susan ate an apple [telic] vs. Susan ate apples [atelic], is not present in Mandarin Chinese. This denotes that Mandarin has other ways to make a distinction between telic situations and atelic situations.

There are five aspectual markers in Mandarin Chinese, namely, verbal-*le* and *guo* (Perfective markers), *zai* and *zhe* (Imperfective markers), and sentence-*le* (the Perfect-like marker). A Mandarin sentence may contain up to two aspectual markers. There are at least four possible combinations of the aspectual markers. However, nearly all of the discussion on Mandarin aspect markings focus on sentences with only one aspectual marker (e.g. Li and

Thompson, 1981; Smith, 1991, 1994; Sybesma, 1997, 1999; Lin, 2003; Xiao and McEnery, 2004; Soh, 2009). Very few studies have been found examining sentences with multiple aspectual markers, e.g. the studies on double-*le* sentences, i.e. the sentences have both verbal-*le* and sentence-*le*, by Chappell (1986), and Soh & Gao (2006). What's more, these studies didn't give a thorough analysis on the interpretations and uses of the multiple aspectual markings, and they didn't associate their observations with aspect theory. Therefore, this study aims to investigate the multiple aspectual markings in Mandarin Chinese. To be more specific, all the possible combinations of the Mandarin aspectual markers and the ways they interact with the different situation types will be first discussed; then, a comprehensive study on double-*le* will be presented, since the morpheme-*le* is always considered being difficult to explain and double-*le* even more complicated.

This thesis is organized as follows. Chapter 2 will introduce some basic notions of aspect, mainly based on the observations about English. Chapter 3 will introduce the possible combinations of Mandarin aspectual markers and how they interact with different situation types. Chapter 4 will present an analysis of double-*le* sentences. The semantic contributions of verbal-*le* and sentence-*le* will be first discussed in Sections 4.1 and 4.2. In Section 4.3, double-*le* will be discussed from a semantic perspective, a pragmatic perspective, and a discourse perspective. Chapter 5 will be the conclusion of this thesis.

Chapter 2. The Basic Notions of Aspect

2.1. Grammatical Aspect and Situation Aspect

Before we discuss the distinction between grammatical aspect and situation aspect, we first make clear the difference between aspect and tense. According to Comrie (1976), “tense relates the time of the situation referred to to some other time, usually to the moment of speaking” (Comrie, 1976: p.1-2); whereas “aspects are different ways of viewing the internal temporal constituency of a situation” (Comrie, 1976: p.3). The distinction between (2a), (2b), and (2c) is temporal in nature:

- (2) a. Peter was in New York.
b. Peter is in New York.
c. Peter will be in New York.

In (2), the three tenses – past, present, and future, anchor the situation of Peter’s in New York to the time axis. The past tense in (2a) locates the situation prior to the speech time *now*, the present tense in (2b) locates the situation at (or around) the speech time *now*, and the future tense in (2c) locates the situation subsequent to the speech time *now*. In contrast, the distinction between (3a) and (3b) is aspectual in nature (examples from de Swart, 2012: p. 752 - 753):

- (3) a. Sarah wrote a dissertation in 2009.
It was completed in September.
I think she is still working on it.
She never finished it, for she died in September of that year.
- b. Sarah was writing a dissertation in 2009.
It was completed in September.
I think she is still working on it.
She never finished it, for she died in September of that year.

Both sentences have the past tense, but in (3a) the whole of the situation of Sarah’s dissertation-writing is presented as a single unanalysable whole, with the beginning, middle, and end; the dissertation is finished, and no writing is going on at the speech time anymore. Thus any claim that denies the completeness of the event is not allowed to follow (3a). However, (3b) does not present the situation in this way, but rather make explicit reference to the internal structure of the situation; it indicates the situation of Sarah’s dissertation-writing is in progress at some point in the past, but does not indicate the completion of the dissertation. Thus both the claim that denotes the dissertation is finished before the speech time and the claim that denies the completion of the dissertation, e.g. the writing event is still ongoing at present or the writing event has terminated without the dissertation being completed, are allowed to follow (3b). The distinction between (3a) and (3b) is that between perfective and imperfective aspect, which is, according to Comrie (1976), that “perfectivity indicates the view of a situation as a single whole, without distinction of the various separate phases that make up that situation; while the imperfective pays essential attention to the internal structure of the situation” (Comrie, 1976: p.16). In Smith (1991) grammatical aspect is also called ‘viewpoint aspect’, since the perfective views a situation from outside and the imperfective views a situation from within. The presence of the English imperfective (precisely, Progressive) marker *-ing* in (3b) and its absence in (3a) makes the difference between the two expressions.

Besides the perfective/imperfective contrast which is often viewed as the most prominent aspectual distinction, languages also show other aspectual distinctions, for instance, the

Perfect/non-perfect contrast in English. The Perfect is considered as a temporal operator in Reichenbach (1947) and Verkuyl (1999), but it is included into the category of aspect in Comrie (1976). What makes the Perfect differ from other aspects is that “it tells us nothing about the situation in itself, but rather relates some state to a preceding situation” (Comrie, 1976: p. 52). Example (4) shows the Perfect/non-Perfect distinction:

- (4) a. I have drunk three glasses of wine. [Perfect]
 b. I drank three glasses of wine. [non-Perfect]

(4a) describes a state resulting from the prior situation of *I drink three glasses of wine*, whereas (4b) describes the situation of *I drink three glasses of wine* in itself; it is as a whole located in the past. (4a) with the Perfect has the implication that I am still drinking, whereas (4b) with the non-Perfect does not have such implication.

Grammatical aspect is claimed as a different notion from situation aspect, also called Aktionsart, lexical aspect, or aspectual class (Filip, 2012; de Swart, 1998, 2000, etc). Situation aspect concerns the properties of eventualities (Bach, 1981), and it is determined at the level of predicate-argument structure (Krifka, 1989; Verkuyl, 1972, etc.), which is labeled as the level of ‘eventuality description’ in de Swart (1998, 2000). The examples in (5) and (6) show that the situation aspect of a sentence is compositional: it as a whole is determined by the semantic nature of the verb, by the properties of the verb’s complement, and by the way the verb is related to its complement (Krifka, 1989; Verkuyl, 1996) (examples are adapted from Smith, 1991: p.7, example 5 and 6):

- (5) a. Mary walked to the park. [telic]
 b. Mary walked in the park. [atelic]
- (6) a. Bill smoked a cigar. [telic]
 b. Bill smoked cigars. [atelic]

The basic division among eventualities is best known as the telic/atelic distinction, in the terminology of Garey (1957). Telic events are directed towards a goal which is the inherent end point of the event; when the goal is reached, the event is complete. In contrast, atelic events are simply processes that “are realized as soon as they begin” (Garey, 1957: p. 106); they don’t have an inherent end point but an arbitrary final end (Smith, 1991; Filip, 2012). In (5), the event expressed by (5a) is telic because the predicate *walk* has a directional complement, which indicates that the walking event has an inherent endpoint: when the park is reached; by contrast, the event expressed by (5b) is atelic because the complement of the predicate *walk* is locative, which means that the walking event has no inherent endpoint: it can last forever. In (6), (6a) with a count object NP describes a telic event while (6b) with a mass object NP presents an atelic event. The difference between these two events is that smoking a particular cigar contains an inherent endpoint: when the cigar is finished; whereas smoking the unspecified number of cigars does not define an inherent endpoint.

Eventualities can be distinguished into different situation types, as claimed in Vendler (1957), Smith (1991), Filip (2012), and many others. In Vendler’s classification, there are four types of situation: State (7a), Activity (7b), Accomplishment (7c), and Achievement (7d).

- (7) a. Bill was in love with Susan. / Peter was in New York.
 b. Bill smoked cigars. / Sarah ate apples. / Mary walked in the park.
 c. Bill smoked a cigar. / Sarah ate an apple. / Mary walked to the park. / Sarah wrote a dissertation/three letters.
 d. Peter reached the top of the mountain. / Mark crossed the finish line.

The common feature of States like *be in love with Susan* and *be in New York* in (7a) and Activities like *smoke cigars*, *eat apples*, and *walk in the park* in (7b) is that they describe durative atelic situations with no inherent endpoint. The difference between these two types of situations is that States are static and entail no change and no internal structure, whereas Activities are dynamic that they consist of homogeneous successive stages, namely, a development over time (Vendler, 1957; Smith, 1991; Filip, 2012; de Swart, 2012). Situations like *smoke a cigar*, *eat an apple*, *write a dissertation/three letters* and *walk to the park* in (7c) are Accomplishments. They are dynamic, durative, telic events consisting of a process of successive stages and an inherent endpoint. And, situations like *reach the top of the mountain* and *cross the finish line* in (7d) are Achievements. They are dynamic, telic, and instantaneous events, with a result of a change of state. Besides Vendler's, people present other ways of classifying the eventualities. For instance, Smith (1991) adds one more situation type to Vendler's classification, namely, Semelfactives, which are instantaneous atelic events, such as *knock* or *cough*. And, in de Swart (1998, 2000), eventualities are classified into three types - state, process and event, in which states and processes are events without an inherent endpoint and having a homogenous reference, whereas processes are events with an inherent endpoint and having a quantized reference. In this thesis, I will not go into a deeper discussion about the classifications and the related concepts of situation types. For more discussions on these issues, see Filip (2012).

2.2. The Compositional Structure of Aspect

Since I have discussed the distinctions between tense, grammatical aspect, and situation aspect, I now turn to the question that how these notions interact. De Swart (1998, 2000, 2012) provides a layered structure in which tense scopes over grammatical aspect, which in turn scopes over situation aspect, as shown in (8):

(8) [tense [grammatical aspect*¹ [eventuality description]]]

“Eventuality descriptions denote sets of eventualities [...] aspectual markers are interpreted as eventuality modifiers, so they map sets of eventualities (of a certain situation type) onto sets of eventualities (of some possibly other situation type). Tense operators [...] map the event onto the time axis via its location time in relation to the speech time.” (de Swart, 2000: p. 3)

(9) spells out the layered structure of (3a) and (3b):

- (9) a. Sarah wrote a dissertation in 2009.
[Past – in 2009 [Sarah write a dissertation]]
- b. Sarah was writing a dissertation in 2009.
[Past – in 2009 [PROG [Sarah write a dissertation]]]

The eventuality *Sarah write a dissertation* is an accomplishment in Vendler's classification because the event contains a progress and an inherent endpoint: when the dissertation is finished. In (9a), the Simple past tense operator anchors this telic eventuality onto the time axis before the speech time *now*, the sentence, therefore, expresses a past complete event: Sarah finished the dissertation. Since in English the grammatical aspectual marker is optional (de Swart 1998, 2000), there is no overtly marked perfective marker in sentences like (9a). In contrast, in (9b), the

¹ The Kleene star indicates that grammatical aspectual markers can occur zero, one or more times in the structure (de Swart 2012).

Progressive marker *-ing* modifies the eventuality from an event into the state of that event being in progress, i.e. *Sarah's dissertation-writing is in progress*; the Simple past tense operator picks out this result from the application of the aspectual marker *-ing* and locates it onto the time axis before the speech time *now*. Sentence (9b), therefore, describes the dissertation is under way at some point in the past, but is not finished yet.

Languages like English allow one sentence to have more than one aspectual marker, as give in example (10). In such sentences, the aspectual markers are applied recursively, that is, an aspectual marker operates on a structure which already has an aspectual marker (de Swart 1998, 2012). (10) involves both the Perfect (PERF) and the Progressive (PROG) marker.

- (10) Jane has been writing a letter.
[PRES [PERF [PROG [Jane write a letter]]]]

In (10), the Progressive marker *-ing* first maps the set of events *Jane write a letter* onto the set of states: *Jane's writing a letter being in progress*. The Perfect marker, then, picks out this set of state as an input and maps it onto the set of consequent states of Jane's writing a letter. Because of the Present tense, this consequent state is located at the speech time, giving rise to the meaning that the consequent state is currently relevant. The order of the applications of the two aspectual markers cannot be the other way around. If the Perfect operates on the sentence first, it will map the event of *Jane write a letter* into the result state of this event; this result state, however, cannot be picked out by the Progressive marker because in English the Progressive is normally restricted to non-stative predicates (de Swart, 2012).

The sentences with multiples aspectual markers are a challenge to the principle of Semantic Compositionality which claims that “the meaning of an expression is a function of, and only of, the meaning of its parts together with the method by which those parts are combined” (Pelletier, 1994). For sentences which contain exactly one situation type and exactly one (or zero) grammatical aspectual marker, the aspectual meaning of the sentences is a composite of the meanings of the both aspectual components. However, for sentences which contain one situation type and two or more aspectual markers, the aspectual meaning of the sentences is not merely a combination of each aspectual component because the aspectual markers are applied recursively. This means that in order to understand the aspectual meaning of the sentences, people have to know not only the aspectual nature of each aspectual component, but also the scope relationships between each aspectual marker.

2.3. Conclusion

In this chapter, I have introduced some basic notions of aspect, mainly based on the observations about English. First, I have clarified the distinction between tense and aspect: tense relates the time of a situation to the speech time, while aspect provides a viewpoint on a situation. Secondly, I have discussed that grammatical aspect and situation aspect are essentially different notions: situation aspect is about the property of a situation; it is determined at the predicate-argument level; situations can be divided into different situation types, such as State, Activity, Accomplishment, and achievement. In contrast, grammatical aspect, such as Perfective, Imperfective, and the Perfect, provides a way of viewing the situations, for instance, Perfective views a situation from outside while Imperfective views a situation from within. Thirdly, I have talked about the layered structure of aspect. In sentences with multiple aspectual markers, the aspectual meanings of the sentences are the results of the aspectual markers being applied recursively. This challenges the Principle of Compositionality. Having handled the basic notions of aspect and aspectual markings in English, in the next chapters, I will focus on the multiple aspectual markings in a language which lacks of tense but has a rich aspect system, namely, Mandarin Chinese.

Chapter 3. Multiple Aspectual Markings in Mandarin Chinese

3.1. Situation Types in Mandarin Chinese

In this study, I follow Vendler (1957) and classify eventualities into four situation types: States, Activities, Accomplishments, and Achievements.

States are stable situations with no dynamics; they may hold for a moment or an interval, with an arbitrary endpoint, e.g. *ai* ‘love’, *xiangnian* ‘miss’, *danxin* ‘worry about’, *taoyan* ‘hate’, *zhidao da’an* ‘know the answer’, *zhu zhai Beijing* ‘live in Beijing’. In this study, States are further divided into stage-level States and individual-level States (based on Carlson’s (1977) classification of predicates), and bounded States and unbounded States. Stage-level States are temporary properties of a subject, e.g. *ai*, *xiangnian*, *danxin*, *taoyan* and *zhu zhai Beijing*, while individual-level States are inherent properties of a subject, e.g. *zhidao da’an* (Smith, 1991). Bounded states are states that have a temporal boundary, e.g. *ai (...)* *shi nian* ‘love (...) for ten years’, while unbounded states are states without a temporal boundary, e.g. *ai (...)* ‘love (...)’.

Activities are dynamic, durative, atelic events; they have successive stages and an arbitrary endpoint, e.g. *youyong* ‘swim’, *paobu* ‘run’, *shuijiao* ‘sleep’. In English, a verb phrase with a mass noun, e.g. *smoke cigars*, *eat apples*, has an Activity interpretation, while a verb phrase with a count noun, e.g. *smoke a cigar*, *eat an apple*, has an Accomplishment interpretation. However, Mandarin is known for having no formal distinction between count nouns and mass nouns, because it is lack of articles and inflection or agreement on nominals (and verbs) (Li and Thompson, 1981; Smith, 1991; de Swart, 2012, etc). As a result, Mandarin bare nouns, namely, nouns without articles, or demonstratives, or numerals, are used widely and allow more than one interpretation, as shown in (11):

- (11) Ta mai-le zhu.
he sell-LE pig
a. ‘He sold a pig.’
b. ‘He sold the pig(s).’
c. ‘He sold his pig(s).’
d. ‘He sold some pigs.’

The bare noun *zhu* is interpreted as count in (11a - c), so (11a - c) have an Accomplishment interpretation; whereas it is interpreted as mass in (11d), so (11d) has an Activity interpretation. In this study, to make this issue less complicated, I just put verb phrases with a bare noun argument into the category of Accomplishment.

Accomplishments are durative, telic events which consist of a process and an outcome, namely, a change of state, e.g. *xie yi-feng xin* ‘write a letter’, *chang na-shou ge* ‘sing that song’, *he san-bei jiu* ‘drink three glasses of wine’. In my discussion about the morpheme *le* (verbal-*le*, sentence-*le*, and double-*le*) in Chapter 4, I will further divide Accomplishments into telic Accomplishments and atelic Accomplishments:

A telic Accomplishment consists of a telic verb predicate and an object (of any kind, e.g. bare, numeral) such as (12a - b), or an atelic verb predicate and a numeral object such as (12c). Telic verb predicates include verbs which are with the feature [telic], such as *mai* ‘sell’, *mai*² ‘buy’, and verbs with a Resultative Verb Complement (RVC) like *-wan* ‘finished’, as in *xie-wan* ‘write up’. RVCs occur with many verbs and “often change the lexical meaning of a verb by extending the span to include the direction or result of an event” (Smith, 1991. p. 370). Verbs with a RVC are like English inherently telic verbs such as *eat up*, *drink up*, *write up*, and *build up* (de Swart,

² Mandarin *mai* ‘sell’ and *mai* ‘buy’ have the same syllable. But they are different characters with different tones.

2012). On the other hand, atelic verb predicates are verbs without the feature [telic], such as *xie* ‘write’, *zao* ‘build’, *chi* ‘eat’, and *he* ‘drink’.

- (12) a. Ta mai-le na-ben shu.
 He buy-LE that-CL book
 ‘He bought that book.’
 b. Ta xie-wan-le na-feng xin.
 he write-finished-LE that-CL letter
 ‘He finished that letter.’
 c. Ta xie-le san-feng xin.
 he write-LE three-CL letter
 ‘He finished three letters.’

By contrast, an atelic Accomplishment are composed of an atelic verb predicate and a bare noun object, e.g. *xie xin* ‘write a letter/the letter’³ in (13a), or an “indefinite”⁴ object (*yi*-classifier-noun), e.g. *xie yi-feng xin* ‘write a letter’ (13b), or an specified singular object (demonstrative-classifier-noun), e.g. *xie na-feng xie* ‘write that letter’ (13c).

- (13) a. Ta xie-le xin.
 he write-LE letter.
 ‘He wrote a letter/ the letter.’
 b. Ta xie-le yi-feng xin.
 he write-LE one-CL letter
 ‘He wrote a letter.’
 c. Ta xie-le na-feng xin.
 he write-LE that-CL letter
 ‘He wrote that letter.’

One distinction between telic Accomplishments and atelic Accomplishments is that telic Accomplishments with the perfective marker verbal-*le* convey a completive interpretation; whereas atelic accomplishments with verbal-*le* express a terminative interpretation. Therefore, sentences in (12) cannot be followed by a claim which denies the completeness of the events; whereas sentences in (13) can. This contrast is shown in (14) (14a is 12c, and 14b is 13b):

- (14) a. Ta xie-le san-feng xin, # keshi mei xie-wan.
 he write-LE three-CL letter, but not write-finished
 # ‘He finished three letter, but he didn’t finish them.’
 b. Ta xie-le yi-feng xin, keshi mei xie-wan.
 he write-LE one-CL letter, but not write-finished
 ‘He wrote a letter, but he didn’t finish it.’

There are also semantic distinctions between telic Accomplishments and atelic Accomplishments when they co-occur with sentence-*le* or double-*le*. These issues will be discussed in Section 4.2.2. and Section 4.3.1.

³ Because I put verb phrases with a bare noun argument into the category of Accomplishment, in this study I only discuss the indefinite and definite interpretations of the bare nouns.

⁴ I put double quotes around ‘indefinite’ because Mandarin doesn’t have indefinite article, but it is claimed in many studies (e.g. Rullmann and You, 2006) that Mandarin ‘*yi* (a/one)-classifier’ corresponds to English indefinite ‘a’ when *yi* is unstressed; and it corresponds to English ‘one’ when *yi* is stressed. In the case of atelic Accomplishment sentences, *yi* is unstressed.

Last but not least, Achievements are dynamic, telic, instantaneous events with an outcome of a new state. Typical examples are *daoda shangding* ‘reach the top of the mountain’, *chong-guo* (RVC) *zhongdianxian* ‘cross the finish line’, *tiao-xia* (RVC) *xuanxia* ‘jump off the cliff’, and *zhao-dao* (RVC) *yaoshi* ‘find the key’.

3.2. Mandarin Aspectual Markers

Mandarin Chinese is well-known for lacking the category of verbal tense. As a result, it has a rich aspectual system. Since Mandarin does not have verbal inflections either, the grammatical aspect distinctions are rendered by aspectual morphemes in sentences. Smith (1991) points out that in Mandarin, there are two perfective morphemes verbal-*le*⁵ and *-guo*, and two imperfective morphemes *zai* and *-zhe*. In this study I propose that sentence-*le*⁶ is also an aspectual morpheme which indicates a new state has started; it resembles the English perfect marker but it doesn’t presuppose a past situation (see Section 4.2. for more discussion). Like English, Mandarin aspectual morphemes are optional. Sentences without aspectual morphemes have the neutral viewpoint, that is, they have both the imperfective and the perfective interpretations.

3.2.1. The Perfective Markers: Verbal-*le* and *-guo*

According to Smith (1991), the two perfective morphemes verbal-*le* and *-guo* differ in that verbal-*le* presents a closed situation with both the initial and the final endpoints, whereas *-guo* not only presents a closed situation but also indicates that there is a change of state subsequent to the final endpoint of the situation, in other words, it marks “a discontinuity between the situation and the present” (Smith, 1991). The pair of examples (15a) and (15b) (from Chao, 1968) shows the contrast between verbal-*le* and *-guo*:

- (15) a. Wo shuai-duan-le tui.
 I fall-break-LE leg
 ‘I broke my leg (it’s still in a cast).’
 b. Wo shuai-duan-guo tui.
 I fall-break-GUO leg
 ‘I have broken my leg (it has healed since).’

(15b) with *-guo* indicates a discontinuity between the situation and the present, i.e. my leg was broken in the past but now it has healed, whereas (15a) with verbal-*le* does not. Examples (16) and (17) illustrate that *-guo* can co-occur with all situation types, whereas verbal-*le* doesn’t appear with unbounded States:

- (16) a. * Wo ai-le ta. [unbounded State]
 I love-LE him.
 b. Wo ai-le ta shi nian. [bounded State]
 I love-LE him ten year
 ‘For the duration of ten years, I loved him.’
 c. Ta you-le yong. [Activity]
 he swim-LE swim
 ‘He swam.’

⁵ Verbal-*le* is the morpheme *le* which appears immediately after verbs. A detailed discussion about verbal-*le* will be presented in 4.1.

⁶ Sentence-*le* is the morpheme *le* which appears at the end of sentences. A detailed discussion about sentence-*le* will be presented in 4.2.

- d. Ta xie-le yi-feng xin. [Accomplishment]
 he write-LE one-CL letter
 ‘He wrote a letter.’
- e. Women daoda-le shan-ding. [Achievement]
 we reach-LE mountain-top
 ‘We reached the top of the mountain.’
- (17) a. Wo ai-guo ta. [unbounded State]
 I love-GUO him.
 ‘I loved him (but now I don’t).’
- b. Wo ai-guo ta shi nian. [bounded State]
 I love-GUO him ten year
 ‘I loved him for ten years (but now I don’t).’
- c. Ta you-guo yong. [Activity]
 he swim-GUO swim
 ‘He has taken a swim.’
- d. Ta xie-guo yi-feng xin. [Accomplishment]
 he write-GUO one-CL letter
 ‘He once wrote a letter.’
- e. Women daoda-guo shan-ding. [Achievement]
 we reach-GUO mountain-top
 ‘We have reached the top of the mountain (and we are no longer there)’

It is claimed that the verbal *-le* construction is best translated with the English Simple Past, and the *-guo* construction with the English perfect. But, as it is also mentioned in Smith (1991), the meaning of *-guo* is not fully rendered in the translation with the English perfect because the perfect does not include the notion of discontinuity. Therefore, some *-guo* sentences are better translated with Simple past, as shown in (17).

3.2.2. The Imperfective Markers: *zai* and *-zhe*

The two imperfective morphemes *zai* and *-zhe* differ in that *zai* is a typical Progressive marker which focuses on the dynamic internal stages of a situations, whereas *-zhe* has a static focus on states. The pair of sentences in (18) shows this contrast:

- (18) a. Ta zai chang na-shou ge.
 he ZAI sing that-CL song
 ‘He is singing that song.’
- b. Ta chang-zhe na-shou ge zou-jin-le bangongshi.
 he sing-ZHE that-CL song walk-enter-LE office
 ‘He came into the office while singing that song.’

(18a) with *zai* indicates the state of the event of *he sing that song* is in progress, while (18b) with *-zhe* presents an internal stage of the event in a static manner. Smith (1991) points out that *-zhe* appears with stage-level States (like *be in love with him*, *miss him* in 20a) but not with individual-level States (like *know the answer* in 20b). Traditionally, *zai* is claimed to be restricted to non-stative predicates, like English Progressive. However, I claim that *zai* is like *zhe* that it does not apply to individual-level States (as shown in 19b), but it does apply to stage-level States (as shown in 19a). When *zai* appears with stage-level States, the sentences may gain extra meaning

effects (e.g. become a stronger expression)⁷. Examples (19c - e) and (20c - e) show that both *zai* and *-zhe* co-occur with stage-level States, Activities, Accomplishments, but not with individual-level States and Achievements.

- (19) a. Wo zai ai/xiangnian ta. [stage-level State]
 I ZAI love/miss him
 'I am in love with/missing him.'
 b. * Wo zai zhidao da'an. [individual-level State]
 I ZAI know answer
 c. Ta zai you-yong. [Activity]
 he ZAI swim
 'He is swimming.'
 d. Ta zai xie yi-feng xin. [Accomplishment]
 he ZAI write one-CL letter
 'He is writing a letter.'
 e. * Women zai daoda shan-ding. [Achievement]
 we ZAI reach mountain-top
- (20) a. Wo ai/xiangnian-zhe ta. [stage-level State]
 I love/miss-ZHE him
 'I am in love with/missing him.'
 b. * Wo zhidao-zhe da'an. [individual-level State]
 I know-ZHE answer
 c. Ta you-zhe yong. [Activity]
 he swim-ZHE swim
 'He is swimming.'
 d. Ta xie-zhe yi-feng xin. [Accomplishment]
 he write-ZHE one-CL letter
 'He is writing a letter.'
 e. * Women daoda-zhe shan-ding. [Achievement]
 we reach-ZHE mountain-top

3.2.3. The “New State Marker”: Sentence-*le*

Unlike the perfective aspectual markers which focus on a situation as a whole, and unlike the imperfective aspectual markers which pay attention to the internal stages of a situation, I claim that sentence-*le* focuses on the initial point of a situation, indicating a new state has started. Examples in (21) show that sentence-*le* can co-occur with all situation types:

- (21) a. Wo ai(-shang)/xiangnian ta le. [stage-level state] [unbounded state]
 I love/miss him LE
 'I start to love/miss him.'
 b. Wo ai/xiangnian ta shi nian le. [stage-level state] [bounded state]
 I love/miss him ten year LE
 'I have loved/missed him for ten years now.'

⁷ De Swart (2012) also points out that there are examples like the McDonalds's slogan (i) in which the English Progressive applies to (stage-level) stative verbs, and gives rise to special meaning effects to the sentences.

(i) I'm lovin' it!

- c. Wo zhidao da'an le. [individual-level state]
 I know answer LE
 'I have known the answer.'
- d. Ta you-yong le. [Activity]
 he swim LE
 (i) 'He has started swimming.'
 (ii) 'He has started to go swimming.'
- e. Ta xie na-feng xin le. [Accomplishment]
 he write that-CL letter LE
 'He has started writing that letter.'
- f. Women daoda shan-ding le. [Achievement]
 we reach mountain-top LE
 'We have reached the top of the mountain.'

3.3. Possible Combinations of Mandarin Aspectual Markers

I've found that in Mandarin, there are at most two grammatical aspectual markers in one sentence. The possible combinations are: verbal-*le* and sentence-*le* (double-*le*), -*guo* and sentence-*le*, *zai* and -*zhe*, and *zai* and sentence-*le*.

3.3.1. Double-*le*, -*guo* and Sentence-*le*

These two structures are discussed together because they give rise to the similar aspectual meanings to the sentences (as shown in 22 and 23). As I mentioned in Section 3.2.1, verbal-*le* and -*guo* differ in that verbal-*le* does not give information after the final end of the situation while -*guo* does. But this distinction disappears when sentence-*le* is added, because sentence-*le* marks the new situation (i.e. the state which results from the culmination of the situation) has started. Examples (22) and (23) show how the two multiple aspectual markings appear with different situation types:

- (22) a. * Wo ai-le ta le. [unbounded State]
 I love-LE him LE.
 b. Wo ai-le ta shi nian le. [bounded State]
 I love-LE him ten year LE
 'I have already loved him for ten years.'
- c. Ta you-le yong le. [Activity]
 he swim-LE swim LE
 'He has already done the swimming (activity).'
- d. Ta xie-le yi-feng xin le. [Accomplishment]
 he write-LE one-CL letter LE
 'He has already finished one letter.'
- e. Women daoda-le shan-ding le. [Achievement]
 we reach-LE mountain-top LE
 'We have already reached the top of the mountain.'
- (23) a. ?? Wo ai-guo ta le. [unbounded State]
 I love-GUO him LE.
 '? I have loved him (but now I don't).'
- b. ?? Wo ai-guo ta shi nian le. [bounded State]
 I love-GUO him ten year LE
 '? I have loved him for ten years (and I no longer do)'

- c. Ta you-guo yong le. [Activity]
 he swim-GUO swim LE
 ‘He has already done the swimming (activity).’
- d. Ta xie-guo yi-feng xin le. [Accomplishment]
 he write-GUO one-CL letter LE
 ‘He has already finished one letter.’
- e. Women daoda-guo shan-ding le. [Achievement]
 we reach-GUO mountain-top LE
 ‘We have reached the top of the mountain.’

As in the case with verbal-*le*, double-*le* cannot appear in sentences that denote unbounded states, as shown in (22a). However, although both *-guo* and sentence-*le* can apply to States (unbounded States as well as bounded States), States sentences with the ‘*-guo* and sentence-*le*’ marking like (23a - b) sound quite odd. This problem, I assume, is due to the ‘discontinuity’ meaning of *-guo* clashes with the ‘current relevance’ meaning of sentence-*le*. (22c - e) and (23c - e) show that there is no semantic distinction between dynamic situations with double-*le* and those with ‘*-guo* and sentence-*le*’. Soh and Gao (2006) claim that in double-*le* sentences, sentence-*le* takes wide scope over verbal-*le*. I propose that in ‘*-guo* and sentence-*le*’ sentences, sentence-*le* also takes wide scope over *-guo*. To be more specific, in a sentence with a double-*le* marking or with a ‘*-guo* and sentence-*le*’ marking, verbal-*le* or *-guo* operates on the situation first, indicating the endpoint of the situation; then, sentence-*le* marks the state resulting from the end of the situation has started.

3.3.2. *Zai* and *-zhe*

The sentences with the ‘*zai* and *-zhe*’ marking present an internal stage of a situation in a static manner. The distribution of this structure is limited to stage-level unbounded States, Activities and Accomplishments, as shown in (24):

- (24) a. Wo zai ai/xiangnian-zhe ta. [stage-level State] [unbounded State]
 I ZAI love/miss-ZHE him
 ‘I am in love with/missing him.’
- b. * Wo zai ai/xiangnian-zhe ta shi nian. [stage-level State] [bounded State]
 I ZAI love/miss-ZHE him ten year
- c. * Wo zai zhidao-zhe da’an. [individual-level State]
 I ZAI know-ZHE answer
- d. Ta zai you-zhe yong. [Activity]
 he ZAI swim-ZHE swim
 ‘He is swimming.’
- e. Ta zai xie-zhe yi-feng xin. [Accomplishment]
 he ZAI write-ZHE one-CL letter
 ‘He is writing a letter.’
- f. * Women zai daoda-zhe shan-ding. [Achievement]
 we ZAI reach-ZHE mountain-top

I propose that the static reading of the ‘*zai* and *-zhe*’ sentences arises because *-zhe* has scope over *zai*. I take (24e) as an example. The Progress marker *zai* operates on the sentence first, modifying the eventuality *he write a letter* from an event into the state of that event being in progress: *his writing a letter being in progress*. *-Zhe* then operates on this state, giving a static focus on the state. The sentence, as a result, has a static reading. The scope relation between *zai* and *-zhe*

cannot be reversed, because normally the Progressive *zai* only combines with dynamic situations (and with unbounded stage-level States, cf. 19a); but sentences with *-zhe* expresses a static state.

3.3.3. *Zai* and Sentence-*le*

The ‘*zai* and sentence-*le*’ marking is rarely used. Sentences with such marking express an (expected) state has indeed started. Mostly, such expressions are found in conversations, for example, (25a), (25c), and (25d).

- (25) a. Ta bu gen ni shuohua le, shuoming ta zai taoyan ni le. [stage-level State]
 he not to you speak LE, mean he ZAI hate you LE
 ‘He does not talk to you, which means he hates you now.’
- b. * Wo zai zhidao da’an le. [individual-level State]
 I ZAI know answer LE
- c. Yijing liang dian le, ta yinggai zai you-yong le. [Activity]
 already two o’clock LE, he should ZAI swim LE
 ‘It’s already 2 o’clock. He should have started swimming.’ (He is in a swimming class.)
- d. Ta zai xie na-feng xin le. Bie cui ta le! [Accomplishment]
 he ZAI write that-CL letter LE. don’t rush him le-Aux. of Mood
 ‘He has started writing that letter. Don’t rush him!’
- e. * Women zai daoda shan-ding le. [Achievement]
 we ZAI reach mountain-top LE

As in the case with *zai*, the ‘*zai* and sentence-*le*’ marking cannot apply to individual-level States and Achievements. I propose that in ‘*zai* and sentence-*le*’ sentences, sentence-*le* takes wide scope over *zai*. The Progressive *zai* first modifies the eventuality from an event to the state of that event in progress. Sentence-*le* then indicates the starting point of that state, giving rise to the meaning that the state has indeed started. The reading of the sentence cannot be derived by having the opposite scope relation between *zai* and sentence-*le*. If sentence-*le* operates on the sentence first, it would give rise to the reading of a state has started; if the Progressive *zai* can apply to this state, it would give rise to the meaning of ‘the state that has started is ongoing’. This result reading is different from the real reading of the sentences.

3.4. Conclusion

In this chapter, I have given an overview of the multiple aspectual marking system in Mandarin Chinese. I have proposed that, in Mandarin, situations could be divided into four situation types: States, Activities, Accomplishments, and Achievements, just follow Vendler’s classification (1957). Due to the individual properties of Mandarin, I have claimed that States need to be further divided into stage-level States and individual-level States, or bounded States and unbounded States; furthermore, Accomplishments need to be further divided into telic Accomplishments and atelic Accomplishments (especially when they appear with verbal-*le*, sentence-*le*, and double-*le*, see Chapter 4). Mandarin makes up for its lack of verbal tense by a rich aspectual system. According to Smith (1991), there are two perfective markers verbal-*le* and *-guo*, two imperfective markers *zai* and *-zhe*, and a zero-marked which indicates the neutral viewpoint. I have proposed that sentence-*le* is also an aspectual marker which resembles the English Perfect but does not posit a previous situation. It is called “new state marker” because it denotes a new state has started. I have found that Mandarin allows a sentence to contain at most two grammatical markers. The possible combinations of the aspectual markers are double-*le* (verbal-*le* and sentence-*le*), -

guo and sentence-*le*, *zai* and *-zhe*, and *zai* and sentence-*le*, in which sentence-*le* takes wide scope over verbal-*le*, or *-guo*, or *zai*, and *-zhe* takes wide scope over *zai*.

In the next chapter, I will zoom in Mandarin sentences with the double-*le* marking. In order to examine the sentences with double-*le*, I will first discuss the semantic contributions of verbal-*le* and sentence-*le*: the notions of the two *les* and how they interact with the situation types. After handling the two *les*, I will analyze sentences with double-*le* in the following steps: first, I will look at how they interact with each situation type; secondly, I will discuss the extra flavor of double-*le* from both semantic and pragmatic perspectives; thirdly, I will present a discourse analysis of the double-*le* sentences; and finally, I will discuss the scope relations between double-*le* and some linguistic elements, e.g. negation markers, modal auxiliaries, question markers, and frequency adverbs.

Chapter 4. An Analysis of Double-*le* Sentences

As we have seen in the previous chapter, in Mandarin, one sentence may have verbal-*le* that appears immediately after the verb or sentence-*le* that occurs in the final position of the sentence, or have both verbal-*le* and sentence-*le* co-occurred, namely, double-*le*. There has been many studies dealing with the semantics of sentences with a single-*le* marking, which have focused exclusively on either verbal-*le* (e.g. Sybesma 1997, 1999; Klein, Li, and Hendriks 2000; Wu 2005) or sentence-*le* (e.g. Soh and Gao 2008, Soh 2009). However, the studies on the semantics of sentences with a double-*le* marking are very limited (e.g. Chappell 1986; Soh and Gao 2006). Therefore, this chapter aims to carry out a thorough analysis on the semantics and uses of double-*le* sentences. Since double-*le* is composed by a verbal-*le* and a sentence-*le*, before I go into the double-*le* sentences, I will first discuss the individual semantic contribution of verbal-*le* and sentence-*le*, respectively, which will be presented in Section 4.1 and Section 4.2. In Section 4.3, I will discuss the semantic behavior of double-*le* and compare it to verbal-*le* and sentence-*le*, and try to account for the specific uses of double-*le* sentences in particular discourse contexts. In Section 4.4, I will draw my conclusion.

4.1. The Semantic Contribution of Verbal-*le*

4.1.1. The Notion of Verbal-*le*

Many studies (e.g. Chao 1968; Li and Thompson 1981; Smith 1991; Sybesma 1997; Soh and Gao 2006) have agreed on that verbal-*le* is generally associated with notions such as completion, boundedness and perfectivity as it is always used to indicate the final end of an event. However many (e.g. Liu 1988; Sybesma 1997; Klein et al. 2000; Lin 2003; Wu 2005) have also claimed that besides the completion interpretation, verbal-*le* may give rise to other readings, for instance, the terminative reading, or the inchoative reading, or the present continuative reading (e.g. Liu 1988; Sybesma 1997; Klein et al. 2000; Lin 2003; Wu 2005). Let's look at the following examples (examples are adapted from Lin 2003 and Sybesma 1999):

- (26) a. Ta mai-**le** ta-de nei ji-tou zhu, (# keshi mei mai-wan).
he sell-LE he-DE that several-CL pig, (# but not sell-finished)
'He sold those few pigs of his (# but he did not sell them all).'
- b. Ta zuotian xie-**le** yi-feng xin, (keshi mei xie-wan).
he yesterday write-LE one-CL letter, (but not-have write-finished)
'He wrote a letter yesterday (but he didn't finish it).'
- c. Ta hong-**le** lian, feichang ganga-de zou-kai le.
he red-LE face, very embarrass-DE walk-away LE.
'He blushed and walked away very embarrassedly.'
- d. Wo (zai Boston) zu-**le** yi-jian gongyu.
I (in Boston) rent-LE one-CL apartment
'I rented/ have rented / am renting an apartment (in Boston)⁸.'

In (26a), the sentence expresses that the event has been successfully completed: he has no pigs left. The addition of any assertion that denies the completeness of the event, for example, *keshi mei mai-wan* 'but he did not sell them all' is infelicitous. In contrast, sentence (26b) may express that the event has been terminated, but not necessarily completed. Therefore it is not

⁸ Although the sentence is not a progressive sentence that it is incompatible with the progressive marker *zai*, it is translated as such to indicate that the renting-event has begun before the speech time and still holds at the speech time (Lin 2003).

contradictory to conjoin it with an assertion that the event is incomplete, e.g. *keshi mei xie-wan* ‘but he didn’t finish it’. It should be noted that the default interpretation of sentences like (26b) is completion unless the negation of the completion is indicated otherwise in its linguistic context. In sentence (26c), because the predicate *hong-le lian* ‘blush’ expresses an activity which is an atelic event that is realized as soon as it begins, verbal-*le* in this sentence is claimed to denote not the completion but the inception of the activity⁹ (Liu 1988; Sybesma 1997). In (26d), the sentence is claimed to have different interpretations depending on the contexts: it may either describe a completed event or a present continuative event¹⁰, i.e. I rented an apartment in Boston but now I am no longer living there or I rented an apartment (before the speech time) and now I am still living there.

Therefore, a divergence comes out regarding the definition of verbal-*le*. Because of the claim that verbal-*le* may give rise to not only the completive/terminative reading, but also the inchoative or the present continuative reading, some studies, e.g. Liu (1988) and Lin (2003), have argued that verbal-*le* is a realization operator with a neutral viewpoint rather than a perfective maker. But others, e.g. Soh and Gao (2006), and Soh (2009), have argued against this point of view because they claimed that the inchoative or the present continuative reading is not a possible interpretive effect of verbal-*le*, but rather an effect of sentence-*le*¹¹. Therefore they maintain that verbal-*le* is a perfective aspectual marker and they claim that the completive/terminative interpretation of verbal-*le* is depending on what kind of predicate verbal-*le* co-occurs with. In this study I follow Soh, Gao and many other’s argument since people, e.g. Smith (1991), have found that the neutral viewpoint in Mandarin is always zero-marked, namely, sentences have no overt grammatical aspectual markers such as *-le*, or *zai*. For instance, stative sentences which convey the neutral viewpoint are always zero-marked. Many studies (e.g. Li and Thompson 1981; Smith 1991; Soh and Gao 2006; Soh 2009) have pointed out that verbal-*le* is infelicitous in stative sentences in general¹², as illustrated in (27).

- (27) Wo xihuan / danxin / taoyan / xiangnian (*-le) ni.
 I like / worry / hate / miss (*-LE) you
 ‘I like/ worry about/ hate/ miss you.’

Furthermore, Mandarin non-stative sentences conveying the neutral viewpoint are zero-marked as well, for instance (28a):

⁹ However, one could object that in (26c) verbal-*le* marks the process of blushing has been completed/terminated. But Liu (1988) countered this objection in his study. He presented examples like (i) and argued that there is no process from not bright to bright; the only thing verbal-*le* marks is that “there is this fact of brightness” (Liu 1988, p. 326, also cited in Sybesma 1997: p. 82):

- (i) Zhei-ge xingqi zhi qing-le yi-tian.
 this-CL week only bright-LE one-day
 ‘This week the weather was only bright for one day.’

¹⁰ However, Soh and Gao (2007) argued that in sentence (26d), verbal-*le* only gives rise to a completed/terminative reading; the present continuative reading of the sentence is due to the sentence-*le* (although it is not overtly marked).

¹¹ Soh (2009) claims that the inchoative (or the present continuative reading) is available when *-le* is verb-final and sentence-final like (i) (the variation of 26c), but not generally available when *-le* is verb-final but not also sentence-final. Moreover, the inchoative reading is always available when *-le* is sentence-final, regardless of whether it is also verb-final.

- (i) Ta lian hong-le.
 he face red-LE
 ‘He blushes/blushed. / He becomes/became blushed.’

¹² Verbal-*le* can appear with bounded States (cf. 31b). This will be discussed below in 4.1.2.

- (28) a. Zhangsan xiu zixingche.
 Zhangsan repair bicycle
 (i) ‘Zhangsan repaired a bicycle/ bicycles.’
 (ii) ‘Zhangsan is repairing a bicycle / bicycles.’
 (iii) ‘Zhangsan repairs bicycles.’
 b. Zhangsan xiu-le zixingche.
 Zhangsan repair-LE bicycle
 ‘Zhangsan repaired a bicycle/ the bicycle.’

Sentence (28a) may be interpreted as perfective (i), imperfective (ii) and habitual (iii), but it immediately loses the imperfective and the habitual readings when verbal-*le* is inserted, as given in (28b). Note that although (28a) can have the perfective or the imperfective reading, people still prefer to add verbal-*le* to express the event is complete or the progressive *zai* to express is event is ongoing.

In Dahl (1985), he presents a list of the prototypical occurrences of Perfective. Unsurprisingly, verbal-*le* is found in all their Mandarin counterparts. Two examples from the list are given below (the complete list is presented Appendix A):

- (29) Ni zhidao zuotian wo chu-le shenme shi ma?
 you know yesterday I happen-LE what matter MA-question particle
 Wo turan cai-dao-*le* yi-tiao she.
 I suddenly step-got-LE one-CL snake
 ‘Do you know what happened to me yesterday? ...(narrative)...
 Suddenly I STEP on a snake.’

- (30) Qu-nian, nanhai de baba ji-gei-*le* ta yi-bi qian.
 last-year, boy DE father sent-give-LE him one-CL money
 Nanhai shou-dao-*le* qian jiu gei nvhai mai-*le* yi-ge liwu.
 boy receive-got-LE money at once for girl buy-LE one-CL present
 ‘Last year, the boy’s father SEND him a sum of money ...
 When the boy GOT the money, he BUY a present for the girl.’

One may object that zero-marked sentences can also be used in situations like (29) and (30) because they can also convey a perfective reading (cf. 28a). This is true, but according to several Mandarin native speakers I consulted, the uttering of verbal-*le* is much more preferred in such situations because the zero-marked sentences are too weak to express the perfective meaning of the events. The native speakers also pointed out that by adding verbal-*le* the sentences sound more natural and complete.

Thus, In this study, I claim that verbal-*le* is a perfective marker which follows Li and Thompson (1981), Smith (1991), Soh and Gao (2006), Soh (2009), and many others.

4.1.2. The Interpretations of Verbal-*le* in Situation Types

The distribution and the interpretation of verbal-*le* are quite sensitive to the situation type verbal-*le* appears with (Lin 2003; Wu 2005; Soh and Gao 2006, 2007; Soh 2009). Verbal-*le* is claimed in Smith (1991) that it does not appear in stative sentences; however I have found that it is not fully true. As shown in (31a - d), verbal-*le* does not appear with unbounded stage-level States like (31a), but it does appear with bounded stage-level States like (31b - c), and individual-level States like (31d).

- (31) a. * Wo xihuan / danxin / taoyan / xiangnian -le ni.
 I like / worry / hate / miss -LE you
 b. Wo xihuan / danxin / taoyan / xiangnian -le ni liang nian.
 I like / worry / hate / miss -LE you two year
 ‘I liked/worried about/hated/missed you for two years. (But the states no longer hold now.)’
 c. Wo zai Beijing zhu -le san nian.
 I in-PREP Beijing stay -LE three year
 ‘I stayed in Beijing for three years. (The state of me staying in Beijing no longer holds now.)’
 d. Ta zhidao-le na-jian shi.
 he know-LE that-CL case
 ‘I knew that matter.’

Verbal-*le* in (31b) and (31c) marks the arbitrary endpoint of the situations, i.e. the state of I like/worry about/hate/miss you or the state of I stay in Beijing lasted for a certain period of time and was terminated before the speech time. Sentence (31d) is controversial. In Sybesma (1999), it is viewed as an unfinished sentence, but Lin (2003) as well as the native speakers I consulted claim that it is a finished sentence; moreover, Soh (2009) argues that it describes an Achievement instead of a State. This debate might also hold in sentences like *Ta mingbai/dongde/liaojie-le na-jian shi* ‘He knew/understood that matter’ in which *mingbai/dongde/liaojie* have the similar meaning as *zhidao* in (31d). In this study, I claim that the situation *zhidao na-jian shi* ‘know that matter’ is an individual-level State. In (31d), verbal-*le* indicates that at some point before the speech time the state started.

Example (32a - f) illustrate that verbal-*le* can appear with Activities (such as 32a), Accomplishments (such as 32b - e) and Achievements (such as 32f). Soh and Kuo (2005) and Soh and Gao (2006) have claimed that the situations expressed by Accomplishment sentences with a resultative verb complement (RVC) like *-wan* ‘finished’ or with a numeral object must be complete when verbal-*le* is present. Following them, I divide Accomplishments into two categories: telic Accomplishments (Accomplishments with a RVC or a numeral object, e.g. 32d - e), and atelic Accomplishments (Accomplishments without a RVC or a numeral object, e.g. 32b - c).

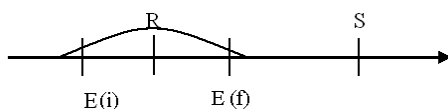
- (32) a. Ta you-le yong.
 he swim-LE swim
 ‘He swam.’
 b. Ta xie-le xin.
 he write-LE letter
 ‘He wrote a letter/the letter.’
 c. Ta xie-le yi-feng xin.
 he write-LE one-CL letter
 ‘He wrote a/one letter.’
 d. Ta xie-wan-le xin.
 he write-finished-LE letter
 ‘He finished the letter(s).’
 e. Ta xie-le liang-feng xin.
 he write-LE two-CL letter
 ‘He finished two letters.’
 f. Ta daoda-le shan-ding.
 he reach-LE mountain-top
 ‘He reached the top of the mountain.’

Sentences (32a - c) suggest that verbal-*le* gives rise to a terminative meaning in Activity sentences and in atelic Accomplishment sentences. (32a) expresses the activity *he swims* has happened and terminated in the past. (32b) describes the event that *he write a letter or he write a particular letter* has ended, but it doesn't necessarily indicates the completion of the letter. Sentence (32c) like (32b), expresses only the termination of the letter-writing event, but not the completion of the letter. The *yi*-classifier structure is ambiguous between the numeral 'one' and the indefinite article 'a', as a result, the effect of a numeral object in Accomplishment sentences, namely, the completion reading, is not easily detected in sentences with *yi*-classifier like (32c) (Soh and Kuo, 2005; Soh and Gao, 2006). Sentences (32d - f) show that verbal-*le* indicates the completion of the events in telic Accomplishment sentences and Achievement sentences. (32d) and (32e) express that the letter(s) was/were finished before the speech time. (32f) denotes that the instantaneous event of *he reach the top of the mountain* is a past event; he is not on the top of the mountain at the moment of speaking.

As I have discussed above in Chapter 2, the basic division among the situation types is the telic/atelic distinction. Telic situations are directed toward a goal and the goal is the inherent endpoint of the situations; when the goal is reached, a change of state occurs and the events are completed. In contrast, atelic situations are processes which are realized as soon as they begin; they don't have an inherent endpoint but an arbitrary endpoint. States and Activities do not have an inherent endpoint, therefore they are atelic situations. Accomplishments without a RVC or a numeral object are events (with an inherent endpoint) which can be terminated without having reached their inherent endpoints, thus they can be considered as atelic and called 'atelic Accomplishments'. In contrast, Accomplishments with a RVC or a numeral object are events (with an inherent endpoint) which cannot be ended without having reached their inherent endpoints, therefore they are telic situations and be called 'telic Accomplishments'. Achievements are instantaneous events that result in a change of state, thus they are telic. Examples (31) and (32) suggest that the interpretation of verbal-*le* goes with: with atelic situations, i.e. States, Activities and atelic Accomplishments, verbal-*le* signals the termination (the arbitrary endpoint) of the situations; whereas with telic situations, i.e. telic Accomplishments and Achievements, verbal-*le* marks the completion (the inherent end point) of the situations.

According to Reichenbach's scheme¹³ (1947), the temporal scheme of verbal-*le* is illustrated in (33).

(33) Temporal schema for verbal-*le*



We blow up the reference time (R) from a point to duration. Verbal-*le*, as a Perfective marker, denotes a single complete event (E), with an initial point E(i) and an inherent or arbitrary endpoint E(f), included in the reference time: $e \subseteq r$. Comrie (1976) and Dahl (1985) have pointed out that in all languages there is a strong tendency for perfective to be restricted to the past tense. The Perfective in Mandarin also shows this tendency. Situations marked by verbal-*le* always have a past time reference which is preceding the speech time (S) *now*: $r < now$.

¹³ According to Reichenbach (1947), locating a situation in time linguistically involves three times: Speech Time, the moment of speech; Situation Time, the time at which an event or state occurs or holds; and Reference Time, the temporal standpoint or perspective from which a situation is presented.

4.2. The Semantic Contribution of Sentence-*le*

4.2.1. The Notion of Sentence-*le*

Sentence-*le* is the morpheme *le* when it appears in the final position of the sentence. Some previous studies (e.g. Huang and Davis 1989; Li 1990) have proposed that verbal-*le* and sentence-*le* derive from the same morpheme *le* which should receive a unified analysis because both *les* convey the same meaning, namely, the boundary of an event (i.e. the ‘one *le*’ approach). In contrast, many others (e.g. Chao 1968; Li and Thompson 1981; Chappell 1986; Sybesma 1999) have claimed that verbal-*le* and sentence-*le* are distinct morphemes because the semantics associated with the two *les* are different (i.e. the ‘two *les*’ approach), as exemplified in (34) (adapted from Chappell 1986: example 2 and 3, p. 225):

- (34) a. Wo zai meiguo zhu-le ershi nian.
I in-PREP America stay-LE twenty year
‘I stayed in America for 20 years.’
b. Wo zai meiguo zhu ershi nian le.
I in-PREP America stay twenty year LE
‘I have stayed in America for 20 now.’

It is claimed that sentence (34a) with a verbal-*le* expresses that my staying in America is a past terminated event: when I utter this sentence, I am no longer staying in America. In contrast, sentence (34b) conveys that the state of staying in America begun twenty years ago and still holds at the moment of speaking, that is, I am still living in America now. In this study, I follow the ‘two *les*’ approach because I agree with their intuition about the minimal pairs like (34) and I do find that the distributions and the interpretations of verbal-*le* and sentence-*le* are different, which will be presented in the following discussion.

Compared to verbal-*le* which is generally considered as a perfective aspectual marker, the definition of sentence-*le* is quite controversial. In Rohsenow (1978), Li and Thompson (1981), etc., they treat sentence-*le* as a marker of Perfect that marks a current relevant state resulting from a prior situation. Lin (2003) proposes a variant of the Perfect analysis and argues that sentence-*le* marks the realization of an event plus the result state brought about by the realization of the event. Dahl (1985) argues that sentence-*le* signals the ‘perfect of result’ (Comrie 1976) which is different from the Perfect in the sense that the Perfect expresses a present state resulting from an earlier event whereas the ‘perfect of result’ indicates that a present state differs from the earlier state by the event’s taking place. And, Soh (2009) argues that sentence-*le* is associated with a “change of state” or a “contrary to expectation” reading. The common point of these arguments is that they all claim that sentence-*le* entails an earlier situation preceding the current state. In contrast, Sybesma (1999) provides a different viewpoint. He claims that sentence-*le* is, in a way, added to the sentence, and that it conveys something like “the state of affairs expressed in the part of sentence preceding *le* has just begun” (Sybesma, 1999: p. 62). According to Sybesma, sentence-*le* marks a change which can be either objective or subjective: when sentence-*le* marks objective change, it indicates that the state of affairs described in the sentence preceding *le* has begun and it is a new state; when it marks subjective change, it indicates that although the state of affairs itself is not new, it may be new to the hearer. Therefore, the main focus of sentence-*le* is on marking an inception of a (subjectively or objectively) new state; of course, there should be an earlier situation before the new one, but sentences with sentence-*le* do not necessarily indicate the presence of an earlier situation, for example (35) and (36),.

- (35) Ta you liang-ge nv'er le.
she have two-CL daughter LE
'She has two daughters now.'
- (36) Ta xiang baba le.
he resemble father LE
'He resembles his father now / He starts to resemble his father.'

As suggested in Sybesma (1999), the examples (35) and (36) can be paraphrased into: 'the state of affairs that [she has two daughters] or [he resembles his father] has begun' or 'it is now the case that [she has two daughters] or [he resembles his father]'. Sentence-*le* marks the change but it does not necessarily imply that the speaker believes that the subject did not have two daughters before or he did not resemble his father before¹⁴. I quite agree with Sybesma's intuition.

Dahl (1985) also provides a list of the prototypical occurrences of Perfect¹⁵. By looking at the correlate Mandarin sentences used in the list, it can be found that although sentence-*le* is used in most Perfect situations (except for the experiential Perfect situations where *-guo* is always used), it is not always used alone to express the perfect meaning. For instance, in situations like (37) and (38), people prefer to use sentence-*le* plus verbal-*le* (i.e. double-*le*) or sentence-*le* plus a resultative verb complement. (The complete list is presented in Appendix B).

- (37) Q: Ni gege haoxiang conglai bu ba shu du-wan.
your brother seem never not BA book read-finished
'It seems that your brother never finishes books.'
A: (Bu-shi.) Ta du-wan-(le) zhe-ben shu le.
(not-be.) he read-finished-(LE) this-CL book LE
'(That is not quite true.) He READ this book (=all of it).'
- (38) Q: Ni erzi kesou duo-chang shijian le?
your son cough how-long time LE?
'(Of a coughing child:) For how long has your son been coughing?'
A: Ta ke-le yi-ge xiaoshi le.
he cough-LE one-CL hour LE
'He COUGH for an hour.'

In situations like (39) and (40), sentence-*le* can be used alone. But I claim that these sentences only describe a new state has begun and holds now; they do not necessarily indicate that the new state is resulting from some previous situation.

- (39) Q: Ni zuotian jin-cheng dating-dao shenme le?
you yesterday enter-town find-got what LE
'What did you find out when you came to town yesterday?'
A: Guowang si le.
king die LE
'The king DIE.'

¹⁴ Soh (2009) claims that the use of sentence-*le* in (36) indicates that the speaker believes that the subject didn't resemble his father before (see Soh 2009, p.645), which is not agreed by many Mandarin native speakers I consulted.

¹⁵ which includes the prototypical occurrences of *perfect of result*, *experiential perfect*, *perfect of persistent situation*, *perfect of recent past* (Dahl 1985, p. 132).

- (40) Context: The speaker has just seen the king arrive (an unexpected event).
 Guowang lai le.
 king come LE
 ‘The king ARRIVE.’

Therefore, in my discussion of sentence-*le*, I follow Sybesma’s (1999) argument and claim that sentence-*le* is a marker of change or a marker of a new state: it indicates the inception of a new state, and does not necessarily posit a previous situation preceding the new state. This differs from the earlier studies which argue that sentence-*le* is a marker of Perfect (or the marker of Perfect of result, etc.) and always entails a prior situation.

4.2.2. The Interpretations of Sentence-*le* in Situation types

Verbal-*le*, as mentioned above, is incompatible with unbounded stage-level States. Such restriction does not appear in sentence-*le*, as shown in (41a). Examples (41a) to (41j) illustrate that sentence-*le* is able to co-occur with all situation types.

- (41) a. Wo xihuan / danxin / taoyan / xiangnian ni le.
 I like / worry / hate / miss you LE
 ‘I (start to) like/ worry about/ hate/ miss you.’
 b. Wo xihuan / danxin / taoyan / xiangnian ni liang nian le.
 I like / worry / hate / miss you two year LE
 ‘I have liked / worried about/ hated/ missed you for two years now.’
 c. Ta zhidao na-jian shi le.
 he know that-CL case LE
 ‘He has known that matter.’
 d. Wo zai Beijing zhu san nian le.
 I in-PREP Beijing stay three year LE
 ‘I have stayed in Beijing for three years now.’
 e. Ta youyong le.
 he swim LE
 (i) ‘He has started swimming.’
 (ii) ‘He has started to go swimming.’ [habitual]
 f. Ta xie xin le.
 he write letter LE
 ‘He has started writing letters.’
 g. Ta xie na-feng xin le.
 he write that-CL letter LE
 ‘He has started writing that letter.’
 h. Ta xie-wan xin le.
 he write-finished letter LE
 ‘He has finished the letter(s).’
 i. Ta xie liang-feng xin le.
 he write two-CL letter LE
 ‘He has finished two letters.’
 j. Ta daoda shan-ding le.
 he reach mountain-top LE
 ‘He has reached the top of the mountain.’

When the sentence describes a State, such as (41a) to (41d), the use of sentence-*le* provides an inchoative interpretation in the sense that it marks the initial point of a state. Furthermore, it

requires the state still holds when the sentence is uttered. Sentence (41a) expresses ‘the state that [I like/worry about/hate/miss you] has begun’. Sentence (41b) expresses that ‘the state that [I like/worry about/hate/miss you] has begun; and till the moment of speaking, the state has already lasted two years. Sentence (41c) indicates that ‘the state of affairs that [he knows that matter] has begun’. And, sentence (41d) conveys that ‘the state of affairs that [I live in Beijing] has begun and it lasts for three years till now’.

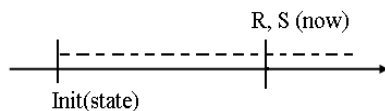
When the sentence describes an Activity, such as (41e), the sentence is ambiguous whether the event referred to is understood as a habit or not. If it is a habit, the use of sentence-*le* indicates that the state of affairs that [he goes to swim as a habit] has begun, as in (ii). If it is not a habit, the sentence means something like ‘he has started to swim’, as in (i); and this is a likely interpretation when the sentence is preceded by an expression like ‘Look!’ or something else to the same effect (Sybesma, 1999).

When the sentence describes an Atelic Accomplishment, such as (41f) and (41g), the use of sentence-*le* indicates that the state of affairs that [he writes a letter] or [he writes a particular letter] has begun. Whether the letter is completed or not is not expressed by the sentences.

When the sentence describes a Telic Accomplishment or an Achievement, such as (41h - j), the use of sentence-*le* indicates that the state that ‘the event has reached its culmination point’ has begun. The sentences (41h - j), therefore, would be paraphrased into ‘it is now the case that [he finished the letter(s)/the two letters] or [he reached the top of the mountain]’. Since the events have reached their inherent end point, the sentences only express a completive reading.

I define sentence-*le* as a ‘new state’ marker that it marks the inception of a new state. The above analysis suggests that, in sentences describing atelic situations, i.e. States, Activities and Atelic Accomplishments, the state begins when the situation is initiated and this is what gives rise to the inchoative reading of the sentences, as in (41a - g); while in sentences describing telic situations, i.e. telic Accomplishments and Achievements, the states begins when the situation reaches its inherent end point and this is what gives rise to the completive reading of the sentences, as in (41h - j). Moreover, I claim that sentence-*le*, unlike the English Perfect, does not presuppose a situation preceding the current state expressed by the sentence. The temporal scheme of sentence-*le* is diagrammed as follows:

(42) Temporal schema for sentence-*le*



(Because we are discussing sentences without time adverbials, the Reference time (R) of such sentences overlaps the Speech time (S) *now*: R O *now* [O: overlap]). Sentence-*le* marks the initial point of a state (s) which is located before the Reference time (R) and the speech time (S) *now*: Init(s) < R, Init(s) < *now*. The state continues and still holds at the speech time, that is, the state overlaps with the reference time and the speech time: s O R, and, s O *now*.

4.3. The Semantic Contribution of Double-*le*

Double-*le* sentences are with the configuration of ‘verb - LE - noun phrase - LE’ in which verbal-*le* and sentence-*le* co-occur. In terms of the principle of Semantic Compositionality which states that “the meaning of an expression is a function of, and only of, the meaning of its parts together with the method by which those parts are combined” (Pelletier, 1994), the interpretation of double-*le* sentences, therefore, should follow from the combination of the semantic contributions of verbal-*le* and sentence-*le*. This is exactly what Soh and Gao (2006) suggested and they also proposed that sentence-*le* scopes over verbal-*le*, that is, in double-*le* sentences, verbal-*le* operates

on the sentence first, and sentence-*le* second. There are other people, for example, Chappell (1986), who hold quite the opposite opinion that they claim the semantics of double-*le* is not equal to the combination of its parts because it introduces extra information to the sentences which is not presented in the semantics of either verbal-*le* or sentence-*le*. In this study of double-*le*, I will take both arguments into consideration and explicate my own view of double-*le*.

4.3.1. The Interpretations of Double-*le* in Situation types

Like verbal-*le* and sentence-*le*, the distributions and the interpretations of double-*le* varies with the situation types.

4.3.1.1. Double-*le* with States

As in the case with verbal-*le*, double-*le* is found not to appear with unbounded stage-level States, as shown in (43).

- (43) * Wo xihuan/ danxin / taoyan / xiangnnian-le ni le.
 I like / worry / hate / miss -LE you LE

When a duration phrase is added, sentence (43) immediately becomes grammatical, as shown in (44).

- (44) Wo xihuan / danxin / taoyan / xiangnian -le ni liang nian le.
 I like / worry / hate / miss -LE you two year LE
 ‘I have already liked/worried about/hated/missed you for two years. (Implication: ‘So long!’ or ‘Too long!’)

Unlike (31b) in which verbal-*le* is used to express a past terminated state which is not relevant with the current time, and unlike (41b) where sentence-*le* indicates merely the inception of a currently relevant state, sentence (44) with double-*le* expresses that ‘it is now the case that [I have liked/worried about/hated/missed you for two years]’, and very importantly, this state is not expected to change in the future. Also, (44) presupposes a negative state that ‘I don’t like/worry about/hate/miss you’ just before the current state¹⁶. Moreover, as also suggested in Chappell (1986), the uttering of double-*le* always accompanies the speaker’s viewpoint in terms of an situation fulfilling certain expectations, for example, sentence (44) might express a “so long” or “too long” reading in which the speaker complains or appreciates that the duration of the state surpasses his/her expectation. This issue is considered as pragmatic and will be discussed in Section 4.3.2.2.

Other stative sentences, for instance, sentences (45a - c), are free to combine with double-*le*:

- (45) a. Ta zhidao-le na-jian shi le.
 he know-LE that-CL case LE
 ‘He has already known that matter. (Presupposition: he did not know that matter before.)’
 b. Wo mingbai-le OT lilun le.
 I understand-LE OT theory LE
 ‘I have already understood OT theory. (Presupposition: I did not understand OT theory before.)’

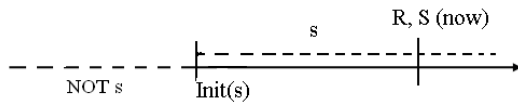
¹⁶ This is due to the ‘already’ flavor inside of the double-*le* sentences. See 4.3.2.1.

- c. Wo zhu-zai-le Beijing le.
 I stay-in-LE Beijing LE
 ‘I have already stayed in Beijing. (Presupposition: I did not stay in Beijing before.)’

Sentences (45a) would be paraphrased into ‘the state of affairs that [he has known that matter] has indeed begun’; he did not know it just a while ago, but now he does. Sentence (45b) would be paraphrased into ‘the state of affairs that [I have understood OT theory] has indeed begun’; I did not understand it before, but now I do. And, sentence (45c) would be paraphrased into ‘the state of affairs that [I have lived in Beijing] has indeed begun’; I did not live there before, but now I do.

To sum up, in sentences describing States, double-*le* indicates that a state started before the speech time, still holds at the speech time, and will continue into the future. Also, sentences with double-*le* presuppose a negative state just before the current state. The temporal schema of double-*le* with States is presented in (46):

(46) Temporal schema for double-*le* with States



The initial point of the state (*s*) is before the speech time (*S*) *now*: $\text{Init}(s) < \text{now}$; the reference time (*R*) overlaps the speech time *now*: $r \text{ O } \text{now}$; the state overlaps the reference time, thus, it also overlaps the speech time *now*: $s \text{ O } r$ and $s \text{ O } \text{now}$. Moreover, double-*le* posits a negative state ($\neg s$) just before the current state (*s*): $\neg s < s$.

4.3.1.2. Double-*le* with Activities and Atelic Accomplishments

Double-*le* can appear in sentences describing Activities such as (47) and atelic Accomplishments such as (48).

- (47) a. Ta you-le yong le.
 he swim-LE swim LE
 ‘He has already done the swimming (activity).’
 b. Ta pao-le bu le.
 he run-LE step LE
 ‘He has already done the running (activity).’
 c. Ta shui-le jiao le.¹⁷
 he sleep-LE sleep LE
 ‘He has already done the sleeping (activity).’
- (48) a. Ta xie-le xin le.
 he write-LE letter LE
 ‘He has already written the letter(s).’

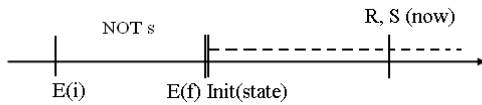
¹⁷ Many linguists are confused about whether *sleep* is a state or an activity. In sentences like *The child is asleep*, it is a state; whereas in sentences like *The child is sleeping*, it is an activity (Smith 1991). As for Mandarin *shuijiao* ‘sleep’, I consider it as a verb predicate denoting an activity not a state because Mandarin uses a different expression for the state *be asleep*, namely, ‘*shui zhao le*’, and the verb *shuijiao* only appears in sentences describing an activity, just like other Activity predicates like *paopu* ‘run’, or *youyong* ‘swim’.

- b. Ta chang-le ge le.
Ta sing-LE song LE
'He has already sung the song(s).'
- c. Ta xie-le na-feng xin le.
he write-LE that-CL letter LE
'He has already written that letter.'
- d. Ta chang-le zhe-shou ge le.
he sing-LE this-CL song LE
'He has already sung this song.'

The sentences in (47) and (48) express that an event was terminated and the state resulting from the termination of the event has begun; the state still holds at the moment of speaking and it is not going to change in the future. For instance, sentence (47c) expresses that the subject had a sleep, after that, he woke up; he is still awake when the sentence is uttered; moreover, the speaker of the sentence implies that the subject should not or need not sleep again because he has already slept, or in other words, the speaker does not expect the current state of the subject, i.e. being awake, to change. Sentence (48d) expresses that the subject has already sung the particular song once (whether he has sung the complete song is left open), and at the speech time the subject is in the state of not singing that song. Moreover, the sentence implies that the subject need not or should not sing that very song again.

To sum up, in sentences describing Activities or atelic Accomplishments, double-*le* indicates that a situation has terminated and the state that results from the termination of the situation has begun; the result state still holds at the speech time and is not going to change in the future. The temporal schema for double-*le* with Activities or atelic Accomplishments is displayed in (49):

(49) Temporal schema for double-*le* with Activities or atelic Accomplishments



in which an event (E) terminated before the speech time *now*: $e < now$. There is no temporal gap between the final endpoint of the event and the initial point of the result state (s): $e(f) \approx^{18} \text{Init}(s)$. The result state began before the speech time (S) *now*: $\text{Init}(s) < now$. The reference time (R) overlaps the speech time *now*: $r \text{ O } now$. The state (s) overlaps the reference time, therefore, it also overlaps *now*: $s \text{ O } r$ and $s \text{ O } now$. Such sentences express a change of state in which verbal-*le* gives an arbitrary endpoint to an event with a state (s) and sentence-*le* marks the new state resulting from the termination of the event has begun: $\neg s < s$.

4.3.1.3. Double-*le* with Telic Accomplishments and Achievements

Double-*le* can appear with telic Accomplishments and Achievements. Because verbal-*le* marks the inherent endpoint of telic situations, double-*le* gives rise to a complete reading to the telic Accomplishment sentences and the Achievement sentences, as shown in examples (50) and (51).

- (50) a. Ta xie-wan-le xin le.
he write-finished-LE letter LE
'He has already finished the letter(s).'

¹⁸ See Kamp & Reyle (1993).

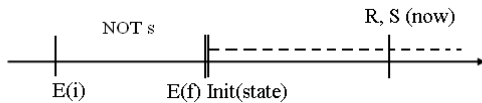
- b. Ta chang-wan-le ge le.
he sing-finished-LE song LE
'He has already finished singing the song(s).'
- c. Ta xie-le liang-feng xin le.
he write-LE two-CL letter LE
'He has already finished two letters. (Implication: "Too many!" or "So many!")'
- d. Ta chang-le san-shou ge le.
he sing-LE three-CL song LE
'He has already sung three (complete) songs. (Implication: "Too many!" or "So many!")'

- (51) Ta daoda-le shan-ding le.
he reach-LE mountain-top LE
'He has already reached the top of the mountain.'

The sentences in (50) and (51) express that before the speech time, a telic event has reached its inherent endpoint, which is marked by verbal-*le*; and the state that results from the completion of the event has begun, which is indicated by sentence-*le*; the result state still holds at the moment of speaking and is going to continue into the future. For instance, (50a) expresses that the letter(s) was (were) finished at some point in the past; the result state of the completion of the letter(s), i.e. being not writing the letter(s), has begun; and this result state still holds now and is not going to change. (50a) implies that the subject *he* needn't write the letter(s) since he had already finished it (them). Sentence (51) expresses that he reached the top of mountain at some point in the past; now he is in the state of not being at the top of the mountain. (51) implies that he needn't go up to the top of the mountain at least for the time being. Moreover, it has been found that sentences with a plural object, like (50c) and (50d), express a positive ("so much!") or a negative ("too many!") viewpoint of the speaker towards the events expressing in the sentences. The implications conveyed by double-*le* sentences will be discussed in Section 4.3.2.2.

To sum up, in sentences describing telic Accomplishments or Achievements, double-*le* denotes that a situation has completed; the state resulting from the completion of the situation has begun; the result state still holds at the moment of speaking and is not going to change in the future. The temporal schema for double-*le* with telic Accomplishments or Achievements is presented in (52):

(52) Temporal schema for double-*le* with telic Accomplishments or Achievements



in which an event (E) completed before the speech time *now*: $e < now$. There is no temporal gap between the final end point of the event and the initial point of the result state (s): $e(f) \infty \text{Init}(s)$. The result state began before the speech time (S) *now*: $\text{Init}(s) < now$. The reference time (R) overlaps the speech time *now*: $r \text{O} now$. The state (s) overlaps the reference time, therefore, it also overlaps *now*: $s \text{O} r$ and $s \text{O} now$. Such sentences express a change of state in which verbal-*le* marks the inherent endpoint of an event with the state (s) and sentence-*le* indicates the new state resulting from the completion of the event has begun: $\neg s < s$.

Although (46) is not that obvious, (49) and (52) clearly show that the semantics of double-*le* combines the individual semantics of verbal-*le* and sentence-*le* in which sentence-*le* has scope over verbal-*le*. I also find that double-*le* sentences do present other information than just the combination of the two single -*les*, for instance, double-*le* with States presupposes a negative

state preceding the current state; the use of double-*le* implies that the current state will continue into the future; double-*le* sentences always provide the speaker's positive/negative viewpoint towards an event. In the next section, I will try to explain these special features of double-*le* sentences.

4.3.2. The Extra Flavor of Double-*le*

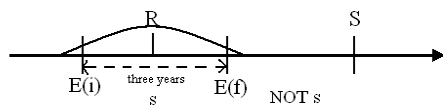
4.3.2.1. From a Semantic Perspective

Let's first compare the sentences in (53) (adapted from Chappell 1986: 2 – 4, p. 225):

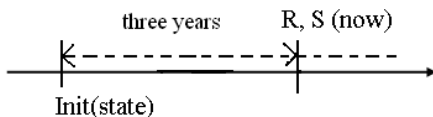
- (53) a. Wo zai Beijing zhu-le san nian, (*mingtian yao zou).
 I in-PREP Beijing stay-LE three year, (*tomorrow will go)
 'I stayed in Beijing for three years (* and I am going to leave tomorrow).'
- b. Wo zai Beijing zhu san nian le, (mingtian yao zou).
 I in-PREP Beijing stay three year LE, (tomorrow will go)
 'I have stayed in Beijing for three years now (and I am going to leave tomorrow).'
- c. Wo zai Beijing zhu-le san nian le, (? mingtian yao zou)
 I in-PREP Beijing stay-LE three year LE, (? tomorrow will go)
 'I have already been staying in Beijing for three years (?and I am going to leave tomorrow).'

(53a) with verbal-*le* expresses a past and closed situation which has no impact on the present moment of speaking. It is, therefore, incompatible with the following clause *mingtian yao zou* 'going to leave tomorrow' because the two clauses have distinctive reference times. (53b) with sentence-*le* presents a state of affair which has started before the speech time and it still holds at the speech time. Such sentence has a neutral viewpoint towards whether this state of affair will continue into the future or not, therefore, it is compatible with the following clause *mingtian yao zou* which denotes a change of state. (53c) with double-*le* also indicates a state has started before the speech time, and still holds at the speech time. Furthermore, it implies that the current state will not change in the future. (53c), therefore, is incompatible with the following clause *mingtian yao zou*. The temporal schemes for sentences (53a - c) are illustrated in (54a - c):

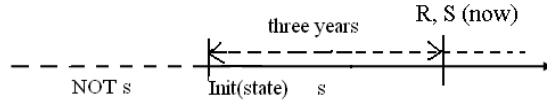
- (54) a. Temporal scheme for (53a) with verbal-*le*



- b. Temporal scheme for (53b) with sentence-*le*



c. Temporal scheme for (53c) with double-*le*



I put the sentence with verbal-*le* aside and focus on the difference between the sentence with sentence-*le* and the sentence with double-*le*. I find that both sentences express a current state which has started before the speech time and holds at the speech time. But the state conveyed by the sentence-*le* sentence can be changed in the future (if there is a linguistic context denoting the change of state, like in 53b) while the state conveyed by the double-*le* sentence must continue into the future. Furthermore, the sentence-*le* sentence does not presuppose a negative state ($\neg s$) preceding the current one (s) whereas the double-*le* sentence does. The differences between these two types of sentences, especially the matter regarding whether the sentence presupposes a prior negative state, are more clearly demonstrated in the pair of sentences in (55) (from Chappell 1986: p. 239):

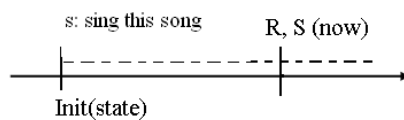
- (55) a. Duomingge chang zhe-shou ge le.
 Domingo sing this-CL song LE
 ‘Domingo has started singing this song.’
 b. Duomingge chang-le zhe-shou ge le.
 Domingo sing-LE this-CL song LE
 ‘Domingo has already sung this song.’

Sentence (55a) expresses the state of affair that [Domingo sings this song] has begun. A possible context for this sentence would be two people are listening to an opera. One of them likes one song from the opera particularly. When Domingo starts singing that very song the speaker utters the sentence (55a). And very likely, the sentence is preceded by an expression like ‘Listen!’ or something else to the same effect. I admit that there is a state of Domingo does not sing this song before the current state of [Domingo is singing this song], but the sentence does not necessarily indicate this layer of meaning.

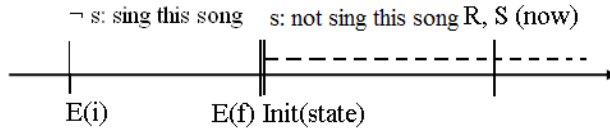
In contrast, sentence (55b) with double-*le* expresses that the event that [Domingo sings this song] has ended in the past and the new state that [Domingo does not sing this song] has started. The implication of this sentence is that Domingo needn’t or shouldn’t sing this song again since he has already sung it. A possible context for (55b) would be one person comes in the middle of a concert, looks at the programme list, and asks his friend sitting next to him who comes on time, “*Duomingge hai chang zhe-shou ge ma?*” (Is Domingo going to sing this song?). His friend replies with (55b) to point out that Domingo has already finished singing that particular song earlier in the concert so that he will not sing it again.

The temporal schemes for (55a) and (55b) are illustrated in (56):

- (56) a. Temporal schema for (55a) with sentence-*le*



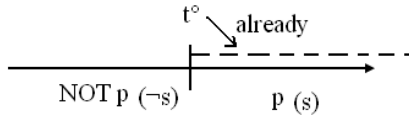
b. Temporal schema for (55b) with double-*le*



The above examples suggest that the situations expressed by sentences with verbal-*le* or with sentence-*le* have only one single phase: sentences with verbal-*le* describe a single event, seen as a whole, located in the past; sentences with sentence-*le* denote the beginning of a single state. By contrast, the situations expressed by sentences with double-*le* contain two phases: the first phase is a situation that is on-going, proceeding to its endpoint; the second phase is a new state, which is resulting from the termination/completion of the prior situation. The endpoint of the first phase is marked by verbal-*le*, and the initial point of the second phase is marked by sentence-*le*. In addition, sentences with double-*le* imply that the current state will not change in the future, and such implication is not present in sentences with only verbal-*le* or sentence-*le*. I propose that the semantics of double-*le* involves not only the combination of the semantics of verbal-*le* and sentence-*le*, but also an extra flavor of ‘there is a transition from a negative state to a positive state and the positive state holds at the speech time and will continue into the future’. This extra flavor, I claim, resembles the semantics of English ‘already’ proposed in Löbner (1987).

According to Löbner (1987), the definition of *already* is that “it presupposes that there is a phase of not-*p* ($\neg s$) which has started before t° and might be followed by **at most one** phase of *p* (*s*) which reached till t° . [...] *already*(*p*, $t^{\circ 19}$) is wrong if the previous state of not-*p* ($\neg s$) continues to prevail at t° ” (Löbner, 1987: p. 67). Graphically, the meaning of *already* is displayed in (57):

(57)



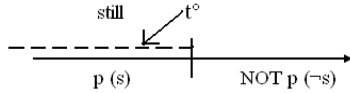
Since Löbner (1987) claims that the prior phase of state can just be followed by at most one opposite phase of state, in this study I posit that generally there should be no more than two phases in semantic representations. The uttering of *already* indicates a transition of state: the subject of the sentence is no more in the first phase of state, but already in the second phase of state. According to my hypothesis, because the sentences with *already* already contain two phases of states, no more phases, i.e. changes of state, should follow. Since I claim that double-*le* sentences contains the flavor of *already*, the uttering of double-*le* also marks that the subject has had a transition of state and at the moment of speaking he is in the second phase of state; any further change of state is inappropriate. This explains the incompatibility between (53c) and the clause *ming tian yao zou* denoting a further change of state; and the implication of (55b) that the singer shouldn’t or needn’t sing that particular song again. What’s more, this extra ‘*already*’ flavor inside of double-*le* sentences explains my claim that double-*le* stative sentences like (46) and (54c) presuppose a negative state before the current state: the current state is the second phase of state; therefore there should be a negative phase of state preceding the current one.

¹⁹ t° is the evaluation point. In sentences without a temporal adverbial, the evaluation point is the speech time *now*.

As for sentences with only sentence-*le*, since they can be followed by a statement denoting a change of state, as shown in (53b), they only contain one phase of state, precisely, the first phase of state. This actually bears out the claim that sentence-*le* merely marks a state of affair has just begun and it doesn't presuppose a previous negative state.

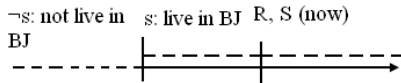
According to Löbner (1987), *still* is the dual²⁰ of *already* that “it presupposes that there is a phase of p (s) which has started before t° and might be followed by at most one phase of not-p (\neg s) till t° ”, [...] “*still*(p, t°) is true if that phase of p includes t° ” (Löbner, 1987: p. 68). Graphically the meaning of *still* is given in (58):

(58)

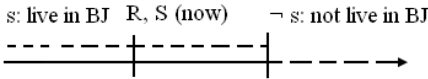


Already indicates that the current state expressed by the sentence is the second phase of state, therefore no more phase of state should follow; while *still* indicates that the current state expressed by the sentence is the first phase of state, therefore adding one more phase of state after the current one is acceptable. The contrast between *already* and *still* is shown in (59):

(59a) a. John is already living in Beijing, (* and he will leave next week.)



(59b) b. John is still living in Beijing, (and he will leave next week.)

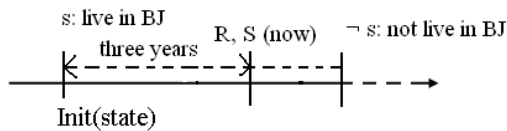


Sentences with *still* like (59b) and sentences with sentence-*le* like (53b) (repeated in 60) seem to have some similarities as they both express a single phase of state which has started before the speech time; holds at the speech time; and can be followed by a negative phase of state.

(60) Wo zai Beijing zhu san nian le, (mingtian yao zou).

I in-PREP Beijing stay three year LE, (tomorrow will go)

‘I have stayed in Beijing for three years now (and I am going to leave tomorrow).’



(cf. 54b)

However, this doesn't mean that sentences with sentence-*le* contain the flavor of *still* or the other way around. In fact, sentence-*le* is found being incompatible with *still* ‘hai’, as shown in (61).

²⁰ Löbner (1987) claims that the dual of a quantifier is the outer negation of the inner negation. Inner negation results in exchanging the positive and the negative semiphases, while outer negation concerns the decision whether the parameter t° falls into the first or the second semiphase.

- (61) a. Yuehan zhu-zai Beijing le.
 John stay-in-PREP Beijing LE
 ‘John has started staying in Beijing.’
 b. Yuehan hai zhu-zai Beijing
 John still stay-in-PREP Beijing
 ‘John is still staying in Beijing.’
 c. * Yuehan hai zhu-zai Beijing le.
 John still stay-in-PREP Beijing LE

It appears to me that the sentences with *still* differ from the sentences with sentence-*le* in that the former describe a (not new) situation in progress whereas the latter express the inception of an (objectively or subjectively) new situation; in other words, sentences with *still* convey a Progressive meaning that they focus on the internal structure of the situations whereas sentences with sentence-*le* pay essential attention to the initial point of the situations. As a result, *still* ‘hai’ and sentence-*le* cannot co-occur in a sentence.

In contrast, double-*le* and *already* ‘yijing’ can appear together in a sentence. *Yijing* in double-*le* sentences is optional. When it is present, it served to reinforce the meaning of affirmation of occurrence of a situation (Chappell, 1986). Thus, we can find that sentences (62a) and (62b) have the same interpretation but (62b) sounds stronger.

- (62) a. Yuehan zhu-zai-le Beijing le.
 John stay-in-PREP-LE Beijing LE
 b. Yuehan yijing zhu-zai-le Beijing le.
 John already stay-in-PREP-LE Beijing LE
 ‘John is already staying in Beijing. / John has already started staying in Beijing.’

To sum up, because of the *already* flavor insides of double-*le* sentences, double-*le* sentences contain two phases, namely, a current positive state and a prior negative state. The negative phase is the state of a past event whose (inherent/arbitrary) final end is marked by verbal-*le*, and the positive phase is the new state after the end of the past event whose starting point is marked by sentence-*le*. As for sentences describing States which don’t have a past event, the uttering of double-*le* indicates a negative state just preceding the current one. I posit that there should be no more than two phases of state in semantic representations. The states expressed by double-*le* sentences are the second phase states, therefore, they shouldn’t be followed by any change of state.

4.3.2.2. From a Pragmatic Perspective

Let’s first compare the sentences in (63) and the sentences in (64):

- (63) a. He has drunk a glass of wine.
 b. He has drunk three glasses of wine.
 (64) a. He has already drunk one glass of wine.
 b. He has already drunk three glasses of wine.

The sentences in (63) without *already* neutrally express that an event has taken place, while the sentences in (64) with *already* express an affirmation of the assumption that an particular event has taken place, also, it involves the speaker’s viewpoint in terms of the event fulfilling his/her certain expectations. In (64), the speaker’s viewpoint towards the wine-drinking event in (64a) is different from that in (64b), which is due to the different post-verbal objects the two sentences

have. For (64a) with a singular object, the implication of the sentence is that ‘the expected event has happened once and once is enough’. This expression may be used in situations like the subject *he* has had his daily-allowed amount of wine which is one glass; the speaker utters this sentence to warn that the subject shouldn’t drink more. For (64b) with a plural object, the implication of the sentence is that the event has been carried out to an extent which is out of the speaker’s expectation. This can be viewed positively or negatively depending on the context. If the context is positive, the expression is understood as praise or an admiration as it expresses the meaning of ‘he has drunk so much wine!’ If the context is negative, the expression is understood as a criticism or a complaint as it conveys the meaning of ‘he has drunk too much wine!’ The implications conveyed by the sentences in (64) are not present in the sentences in (63).

Because Mandarin double-*le* sentences contain the flavor of *already*, I suppose that the pragmatic uses of double-*le* sentences mirror the pragmatic uses of English sentences with *already*, which means: first, double-*le* sentences express an affirmation of an expected event has taken place; secondly, in addition to the basic meaning, double-*le* sentences contain implications; thirdly, the implication of a sentence varies according to the kind of the post-verbal complement the verb combines with, e.g. a singular post-verbal NP or a plural post-verbal NP. My data bear out my supposition, which will be presented in 4.3.2.2.1 and 4.3.2.2.2.

4.3.2.2.1. Double-*le* Sentences with a Singular post-Verbal Complement

When the post-verbal complement is singular, e.g. a singular referential object NP, verb measure²¹ *once*, etc., and when the post-verbal complement is a bare noun, the double-*le* sentences imply that there is no need for the events expressed by the sentence to happen again, or informally, “once is enough for the time being” (Chappell, 1986: p.227). Consider the sentences in (65):

- (65) a. Ta he-le yi-bei hongjiu le.
 he drink-LE one-CL wine LE
 ‘He has already drunk a glass of wine.’
- b. Ta he-le hongjiu le.
 he drink-LE wine LE
 ‘He has already had his drink of wine. / He has already had some wine.’
- c. Ta xie-le yi-feng xin le.
 he write-LE one-CL letter LE
 ‘He has already finished a letter.’
- d. Ta chang-le zhe-shou ge le.
 he sing-LE this-CL song LE
 ‘He has already sung this song.’
- e. Ta yaoqing-le ta-de pengyou le.
 he invite-LE his friend LE
 ‘He has already invited his friend(s).’
- f. Ta qu-le yi-ci nali le.
 He go-LE once there LE.
 ‘He has already gone there once.’

For (65a) and (65b), the implication of the two sentences is that he shouldn’t have more wine because he has already had his drink of wine (e.g. only one glass of wine is allowed per day). For (65c), the implication of the sentence is that he needn’t write more letters for the time being

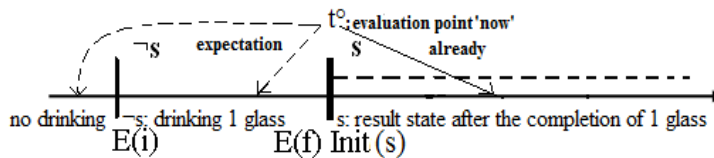
²¹ Verb measures, or called verb classifiers in Chappell (1986), indicate the number of times an action is repeated.

because he has already finished one letter and one letter is good enough. For (65d), the sentence expresses that he needn't or shouldn't sing this particular song again because he has already sung it. For (65e), the sentence implies that it is not necessary (for the speaker, or the listener, or somebody else) to contact the friends of him because they are already invited by him. And, for (65f), the sentence is uttered to express that he needn't go to the particular place again because he has already gone there once and once is enough. Such implications expressed by double-*le* sentences are absent in sentences containing only sentence-*le* or verbal-*le*. As we have mentioned, with verbal-*le*, the sentences are merely statements of fact, expressing past events which have no impact on the present moment of speaking; with sentence-*le*, the sentences neutrally an inception of a state of affair which contain no speaker's viewpoint of the situation.

Double-*le* sentences with a singular post-verbal complement are normally used in situations where the speaker wants to indicate the current state expressed the sentence surpasses other's expectation. I take sentence (65a) as an example. One circumstance for uttering (65a) could be: my grandfather likes drinking wine but according to the doctor's advice he shouldn't drink more than one glass of wine per day. One day, at the table, my mother wants to fill the wine glass of my grandfather because she thinks he hasn't drunk the glass of wine of that day (either he hasn't drunk wine at all or the amount of wine he has drunk hasn't reached the one glass of limit), but I know that my grandfather had already drunk one glass of wine, so I tell my mother not to give him more wine.

Graphically we get the following picture of the meaning of the double-*le* sentence with a singular complement:

(66)



The *already* flavor of double-*le* sentences indicates that the current state of the subject is the second phase of state in the sentence's semantic representation, which means before t° (the evaluation point: *now*), the current state (the second-phase state) had already begun: $\text{Init}(s) < t^\circ$. In (65a), the current state is the result state after the completion of the one glass of wine; the initial point of this state happened before the speech time *now*. Double-*le* sentences are uttered in circumstances where the others (e.g. the listeners) are expecting the initial point of the second-phase state would be after t° : $\text{Init}(s) > t^\circ$. In (65a), the listener might think the subject is either in the state of drinking one glass of wine or in the state of not drinking wine at all. As a result, (65a) is uttered to point out that the subject had finished drinking the one glass of wine. Besides, because the double sentences already contain two phases of states, namely, the state of the event ($\neg s$) and the result state after the completion of the event (s), no more change of state should happen after the current one. This gives rise to the 'the event has happened once and once is enough for the time being' reading of the sentences.

4.3.2.2.2. Double-*le* Sentences with a Plural post-Verbal Complement

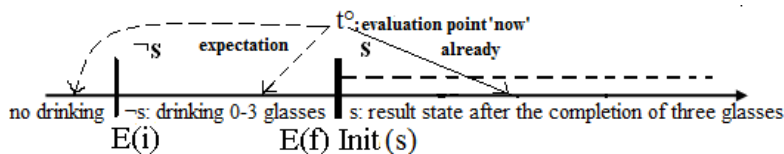
When the post-verbal complement is plural, e.g. a plural referential object NP, verb measure *twice/2+N times*, etc., the double-*le* sentences express in addition to the basic meaning that a certain event had already taken place, an implication that the event had taken place to an extent which is more than the speaker's (and/or the other's) expectation towards that event. Consider sentences (67a - f) (sentences 67a - c repeat sentences 44, 50c, and 50d):

- (67) a. Wo xihuan / danxin / taoyan/ xiangnian -le ni liang nian le.
 I like / worry / hate / miss -LE you two year LE
 'I have already liked/worried about/hated/missed you for two years.'
- b. Ta xie-le liang-feng xin le.
 he write-LE two-CL letter LE
 'He has already finished two letters.'
- c. Ta chang-le san-shou ge le.
 he sing-LE three-CL song LE
 'He has already sung three (complete) songs.'
- d. Ta he-le san-bei hongjiu le.
 he drink-LE three-CL wine LE
 'He has already drunk three glasses of wine.'
- e. Ta yaoqing-le ba-ge pengyou le.
 He invite-LE eight-CL friend LE
 'He has already invited eight friends.'
- f. Wo qu-le san ci nali le.
 I go-LE three time there LE
 'I've already gone there three times.'

The events expressed by these sentences are understood to have either excessive length of time (with temporal NPs, e.g. *two years* in 67a), excessive amount (with object NPs, e.g. *two letters*, *three songs*, *three glasses of wine*, and *eight people* in 67b - e), or excessive number of times (with verb measures, e.g. *three times* in 67f). If the speaker holds a positive viewpoint to the events, his uttering of the double-*le* sentences is to express praise (or self-praise when the subject of the sentences is in 1st person) or an admiration (“so many!”, “so long!”); if the speaker holds a negative viewpoint to the events, his uttering of the double-*le* sentences aims to express a criticism or a complaint (“too many!” or “too long!”). I take sentence (67d) and sentence (67f) as examples. Sentence (67d) implies that the amount of wine the subject *he* has drunk, i.e. three glasses of wine, is more than the speaker’s (or/and the other’s) expectation. Such expression can be uttered either in situations where the speaker admires the subject’s strong capability of drinking wine or in situations where the speaker complains that the subject has drunk too much wine. As for sentence (67f) where the speaker is identical with the subject (*wo* ‘I’), the implication of the expression is that the number of times that I go to the particular place, namely, three times, exceeds my expectation. This expression is used either in situations where I boasts that I’ve been to that place so many times or in situations where I think the number of times I’ve been to that place is too many and I don’t expect another going.

Graphically we get the following picture of the meaning of the double-*le* sentences with a plural post-verbal complement:

(68)



The ‘already’ flavor of double-*le* sentences indicates the current state the subject of the sentence is in is the second phase of state, which means the initial point of the current state (the second-phase state) precedes t° (the evaluation point: now): $\text{Init}(s) < t^\circ$. The double-*le* structure is used because the speaker (and/or the others) was expecting the initial point of the second-phase state would be somewhere later than t° : $\text{Init}(s) > t^\circ$. For instance, (67d) is uttered because the amount

of wine the subject *he* has drunk, namely, three glasses of wine, is more than the speaker's (and/or the other's) expectation, namely, less than three glasses of wine. Besides, because double-*le* sentences contain two phases of states: the state of the event (\neg s) and the result state after the completion of the event (s), no more change of state should follow the current (result) state.

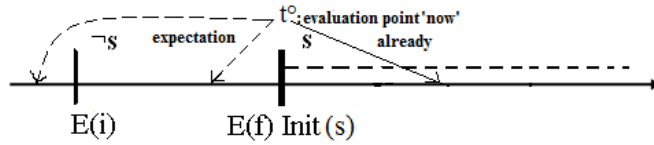
The implications conveyed by double-*le* sentences are not presented in their correlate sentences containing only sentence-*le*, as shown in (69).

- (69) a. Wo xihuan / danxin / taoyan/ xiangnian ni liang nian le.
 I like / worry / hate / miss you two year LE
 'I have liked/worried about/hated/missed you for two years now.'
- b. Ta xie liang-feng xin le.
 he write two-CL letter LE
 'He has finished two letters now.'
- c. Ta chang san-shou ge le.
 he sing three-CL song LE
 'He has sung three (complete) songs now.'
- d. Ta he san-bei hongjiu le.
 he drink three-CL wine LE
 'He has drunk three glasses of wine now.'
- e. Ta yaoqing ba-ge pengyou le.
 he invite eight-CL friend LE
 'He has invited eight friends now.'
- f. Wo qu nali san ci le.
 I go there three time LE
 'I've gone there three times so far.'

The sentences in (69) merely denote the inception of a state of affair; they are neutral with respect to the implication encoded in double-*le* sentences, namely, surpassing the speaker's (and/or the other's) expectation. For instance, sentence (69c), the correlate sentence of (67c), expresses that at the moment of speaking, the subject has drunk three glasses of wine, and he might continue to drink more. Such expression is simply a statement of fact that it doesn't contain a positive or a negative viewpoint of the speaker towards the event. And, sentence (69f), the correlate sentence of (67f), describes only a matter of fact, namely, I have been to the particular place three times; the self-praise or the complaint implication expressed by the double-*le* sentence is not present in (69f). Therefore, (69f) is appropriate in a context where I still expect another going. Note that, this is not to say that sentence-*le* sentences cannot be used in the similar contexts to double-*le* sentences but rather to point out that sentence-*le* sentences and double-*le* sentences contain different implications of use, particularly, in terms of the speaker's viewpoint.

To sum up, Mandarin double-*le* sentences, like English sentences with *already*, express in addition to the basic meaning that an expected event had taken place, a viewpoint of the speaker towards the event's taking place. I divide the double-*le* sentences into two main types: those with singular post-verbal complements and those with plural post-verbal complements. With singular post-verbal complements, the double-*le* sentences imply that the event has happened once and once is enough for the time being; with plural post-verbal complements, the double-*le* sentences imply that the event has been carried out to an extent which is more than the speaker's and/or other people's expectation, and this can be positively or negatively viewed depending on the context. (70) is the graphical representation of the meaning of double-*le* sentences:

(70)



4.3.3. A Discourse Analysis of Double-*le* Sentences

All double-*le* sentences encode an affirmation of a (contextually) given assumption that a certain event has taken place, which means they require the event is “old” information which must have been fore-shadowed in the preceding contexts; and, in conversations, they are uttered only in situations where both the speaker and the listener are familiar with the event in question. Therefore, we find that double-*le* sentences are not suitable to open a discourse, for instance, they cannot be used in narrative contexts which are introducing (contextually) new information, for shown in (71):

- (71) # *Laoban song-gei-le Lili liang-zhang dianying-piao le. Lili yaoqing-le Coco boss give LE Lily two -CL film-ticket LE. Lily invite-LE Coco gen ta yiqi qu le. Kan-wan dianying zhi-hou, tamen qu-le yi-jia with her together go LE. watch-finished film after, they go-LE one-CL yidali canting le, xiangshou-le yi-dun kekou-de dacan le. Italian restaurant LE, enjoy-LE one-CL delicious-DE dinner LE*
 #‘Lily’s boss has already given her two tickets for the film. Lily has already invited Coco to go with her. After the film, they have already gone to an Italian restaurant and have already had a delicious dinner.’

In (71), the uses of double-*le* are inappropriate. Because narratives contexts are always talking about past events, verbal-*le* sentences are the most preferred expression for situations like (71).

Furthermore, double-*le* sentences are not used as the answers to pure information questions (as also mentioned in Chappell, 1986) since such questions do not necessarily contain any mention of the event, for instance (72):

- (72) Question:
 Ta wei-shen-me ku?
 he why cry?
 ‘Why is he crying?’
- Answer:
 a. # Ta da-sui-le yi-ge huaping le.
 he hit-broken-LE one-CL vase LE
 ‘He has already broken a vase.’
 b. # Ta da-sui yi-ge huaping le.
 he hit-broken one-CL vase LE
 ‘He has broken a vase now.’
 c. Ta da-sui-le yi-ge huaping.
 he hit-broken-LE one-CL vase
 ‘He broke a vase.’

In (72), the question contains no assumption of the occurrence of the event of *he breaks a vase*, therefore it cannot elicit the double-*le* sentence (72a) as its answer because (72a) requires the

event is given in the preceding discourse. Since the question is asking for information of what happened before the speech time, i.e. a past event, the sentence with verbal-*le* (72c) is the appropriate answer.

As I've discussed in the previous section, in addition to the affirmation of the occurrence of an expected event, double-*le* sentences always contain the implication that the current state is going to continue into the future; in other words, at least for the time being, the event which has terminated before the current state is not expected to happen again. Therefore, double-*le* sentences are always used as the answers for questions like 'why the particular event does not happen right now' or 'why the particular event is not going to happen', etc., as shown in (73).

(73) a. Question :

Ni zen-me bu qu chi-wanfan?
you why not go eat-dinner
'Why don't you go to have dinner?'

Answer:

Wo chi-le wanfan le.
I eat-LE dinner LE
'I've already had my dinner.'

b. Question:

Ta zen-me bu chang na-shou ge le?
he why not sing that-CL song LE-question particle
'Why doesn't he sing that song?'

Answer:

Ta chang-le na-shou ge le.
Ta sing-LE that-CL song LE
'He has already sung that song.'

c. Question:

Ni wei-shen-me bu xiang qu na-ge difang?
you why not want go that-CL place
'Why don't you want to go to that place?'

Answer:

Wo qu-le san ci nali le.
I go-LE three time there LE
'I've already been there three times.'

Moreover, since double-*le* sentences carry the speaker's viewpoint, either positive or negative, they are always preferred in conversations or speeches where the speaker wants to express a strong attitude towards a situation over the expressions with only verbal-*le*. Consider the two pairs of sentences in (74) and (75):

(74) a. Ni zhidao ma? Wo qu-le san ci xiaweiyi le!
you know MA-particle? I go-LE three time Hawaii LE
'You know what? I have been to Hawaii three times!'

b. Ni zhidao ma? Wo qu-le san ci xiaweiyi!
you know MA-particle? I go-LE three time Hawaii
'You know what? I went to Hawaii three times!'

(75) a. Wo dasao-le fangjian le, zuo-le fan le, shua-le wan le, ta juran hai
I clean-LE room LE, make-LE meal LE, brush-LE dish LE, he actually still
bu manyi!
not satisfy

- ‘I have already cleaned the rooms, made the dinner, and washed the dishes. I can’t believe that he’s still unsatisfied!’
- b. Wo dasao-le fangjian, zuo-le fan, shua-le wan, ta juran hai bu manyi!
 I clean-LE room, make-LE meal, brush-LE dish, he actually still not satisfy
 ‘I cleaned the rooms, made the dinner, washed the dishes. I can’t believe that he’s still unsatisfied!’

In situations like (74) and (75), the expressions which are carrying a strong viewpoint of the speaker are often required, e.g. an expression conveying a self-praise or an expression conveying a complaint. As a result, the double-*le* sentences (74a) and (75a) are always the preferred option than other expressions such as sentences with only verbal-*le* like (74b) and (75b). Note that this doesn’t mean that sentences with verbal-*le* cannot be used in such contexts, but rather to point out that the verbal-*le* expressions, compared with the double-*le* expressions, are weaker in conveying the speaker’s viewpoint.

4.3.4. The Scope of Double-*le*

I agree with Soh and Gao (2006) that sentence-*le* scopes over verbal-*le* in double-*le* sentences. The semantics of double-*le* sentences is explained as follows. Verbal-*le* operates on the sentence first, marking the final point of an event and giving rise to a terminative/completive reading of the event. Sentence-*le* marks the inceptive point of a new state which is resulting from the termination/completion of the prior event; the new state still holds at the speech time and is not expected to change at least for the time being. In this section, I will discuss the scope relationships between double-*le* and expressions like negations, modal auxiliaries, question markers, and frequency adverbs.

4.3.4.1. Negation Markers and Modal Auxiliaries

Double-*le* sentences express that a particular event had taken place in which the perfectivity of the event is marked by verbal-*le*. As a result, double-*le* should be incompatible with the negation markers like *bu* ‘not’ and *mei/mei-you*²² ‘not have, there is not’, and the auxiliaries like *hui* ‘will/can’ or *neng* ‘can’, since these expressions don’t appear in perfective situations, in other words, they don’t appear with verbal-*le*, as shown in (76) and (77):

- (76) a. * Ta bu chang-le nei-shou ge.
 he not sing-LE that-CL song
 b. * Ta mei/mei-you chang-le nei-shou ge.
 he not/not have sing-LE that-CL song
 c. * Ta (bu) hui chang-le nei-shou ge.
 he (not) will/can sing-LE that-CL song
 d. * Ta (bu) neng chang-le nei-shou ge.
 he (not) can sing-LE that-CL song
- (77) a. * Ta bu zai meiguo zhu-le ershi nian.
 he not in-PREP America stay-LE twenty year
 b. * Ta mei/mei-you zai meiguo zhu-le ershi nian.
 he not/not have in-PREP America stay-LE twenty year
 c. * Ta (bu) hui zai meiguo zhu-le ershi nian.
 he (not) will/can in-PREP America stay-LE twenty year

²² *Mei* is the abbreviate of *mei-you*.

- d. * Ta (bu) neng zai meiguo zhu-le ershi nian.
 he (not) can in-PREP America stay-LE twenty year

(76a) and (77a) are ruled out because *bu* ‘not’ and verbal-*le* are contradictory: *bu* ‘not’ changes a situation to an aspectually unbounded state (Swart and Molendijk 1999), whereas verbal-*le* marks an aspectually bounded situation. According to Rohsenow (1978), Sybesma 1997 and Lin 2003, etc., *mei/mei-you* negates the universal existential predicate, that is, it expresses the nonexistence or nonrealization of an event, so it is considered as the negative counterpart of the perfective marker verbal-*le*. As a result, (76b) and (77b) are ruled out because *mei/mei-you* and verbal-*le* bring contradictory meanings to the sentence. Sentences (76c - d) and (77c - d) are wrong because the auxiliaries *hui* ‘will/can’ and *neng* ‘can’ change a situation to an ability which is also an aspectually unbounded state; this state is incompatible with verbal-*le* which indicates an aspectually bounded situation. The negative forms of *hui* and *neng*, i.e. *bu-hui* ‘cannot/won’t’ and *bu-neng* ‘cannot’, have the same effect as *hui* and *neng*, therefore they are also incompatible with double-*le*. Example (76) and (77) show that verbal-*le* has wide scope over the preverbal negation markers *bu* and *mei/meiyou*, the auxiliaries *hui*, *neng*, and the negation preceding *hui* or *neng*.

Examples (78) and (79) show that double-*le* cannot co-occur with the preverbal-negation markers *bu* and *mei/mei-you*, and modal auxiliaries like *hui* and *neng* and the negation preceding them.

- (78) a. * Ta bu chang-le nei-shou ge le.
 he not sing-LE that-CL song LE
 b. * Ta mei/mei-you chang-le nei-shou ge le.
 he not/not have sing-LE that-CL song LE
 c. * Ta (bu) hui chang-le nei-shou ge le.
 he (not) will/can sing-LE that-CL song LE
 d. * Ta (bu) neng chang-le nei-shou ge le.
 he (not) can sing-LE that-CL song LE
- (79) a. * Ta bu zai meiguo zhu-le ershi nian le.
 he not in-PREP America stay-LE twenty year LE
 b. * Ta mei/mei-you zai meiguo zhu-le ershi nian le.
 he not/not have in-PREP America stay-LE twenty year LE
 c. * Ta (bu) hui zai meiguo zhu-le ershi nian le.
 he (not) will/can in-PREP America stay-LE twenty year LE
 d. * Ta (bu) neng zai meiguo zhu-le ershi nian le.
 he (not) can in-PREP America stay-LE twenty year LE

Examples (78 - 79) suggest that double-*le* also takes scope over the preverbal negation markers *bu* and *mei/meiyou*, the auxiliaries *hui*, *neng*, and the negation preceding *hui* or *neng*.

The fact that verbal-*le* cannot appear with auxiliaries like *hui* and *neng* doesn’t mean that it cannot co-occur with auxiliaries at all. Soh and Gao (2006) have pointed out that verbal-*le* can appear with auxiliaries like *shi* ‘be’ and *keneng* ‘may’ and their negative forms, i.e. *bu-shi* and *bu-keneng*, as shown in (80) and (81).

- (80) a. Ta (bu) shi chang-le nei-shou ge.
 he (not) be sing-LE that-CL song
 ‘It is (not) the case that he sang that song.’
 b. Ta (bu) keneng chang-le nei-shou ge.
 he (not) may sing-LE that-CL song
 ‘It is (not) possible that he sang that song.’

- (81) a. Ta (bu) shi zai meiguo zhu-le ershi nian.
 he (not) be in-PREP America stay-LE twenty year
 ‘It is (not) the case that he stayed in America for twenty years.’
 b. Ta (bu) keneng zai meiguo zhu-le ershi nian.
 he (not) may in-PREP America stay-LE twenty year
 ‘It is (not) possible that he stayed in America for twenty years.’

Sentence (80) and (81) suggest that the auxiliaries like *shi* and *keneng* as well as the negation preceding them take scope over verbal-*le*, which is also mentioned in Soh and Gao (2006).

Sentences (82) and (83) show that double-*le* can also co-occur with *shi*, *keneng*, *bu-shi* and *bu-keneng*:

- (82) a. Ta (bu²³) shi chang-le nei-shou ge le.
 he (not) be sing-LE that-CL song LE
 ‘It is (not) the case that he has already sung that song.’
 b. Ta (bu) keneng chang-le nei-shou ge le.
 he (not) may sing-LE that-CL song LE
 ‘It is (not) possible that he has already sung that song.’
- (83) a. Ta (bu) shi zai meiguo zhu-le ershi nian le.
 he (not) be in-PREP America stay-LE twenty year LE
 ‘It is (not) the case that he has already stayed in America for twenty years.’
 b. Ta (bu) keneng zai meiguo zhu-le ershi nian le.
 he (not) may in-PREP America stay-LE twenty year LE
 ‘It is (not) possible that he has already stayed in America for twenty years.’

Sentence (82) and (83) suggest that *shi*, *keneng* and the negation preceding them scope over not only verbal-*le*, but also double-*le* (which means they scope over sentence-*le* as well²⁴).

4.3.4.2. Yes-no Questions

Two main ways to express the yes-no questions in Mandarin are adding the question marker (particle) *ma* in the end of the sentence and A-not-A questions which are formed by reduplicating the verb or the auxiliary and inserting a negative morpheme *bu* (or *mei*²⁵) between the

²³ Sentence (82a) with the negation marker *bu* sounds perfect in situations where the speaker is pointing to the name of that particular song (e.g. in the programme list on the wall). But I must admit that it sounds a little bit odd if it is not put in such scenario. The reason for this is not clear to me because I found the following sentence is perfect.

Ta bu shi chang-le yi/san-shou ge.
 he not be sing-LE one/three-CL song
 ‘It is not the case that he has already sung one/three songs.’

My guess is that double-*le* with *bu-shi* may prefer numeral object than definite or bare objects, but I leave this question open.

²⁴ This is illustrated in the following examples:

(i) Ta (bu) shi zai meiguo zhu ershi nian le.
 he (not) be in-PREP America live twenty year LE
 ‘It is (not) the case that he has lived in America for twenty years now.’
 (ii) Ta (bu) keneng zai meiguo zhu ershi nian le.
 he (not) may in-PREP America live twenty year LE
 ‘It is (not) possible that he has lived in America for twenty years now.’

²⁵ *Mei* cannot be used in the shi-NOT-shi (be-not-be) structure.

reduplicated form (Soh and Gao 2006). Sentences in (84) show that double-*le* can appear in *ma* questions and those A-not-A questions where the auxiliary *shi* ‘be’ or *keneng* ‘may’ is reduplicated, but it cannot appear in those A-not-A questions where the auxiliary *hui* ‘will/can’ or *neng* ‘can’ is reduplicated or the verb is reduplicated.

- (84) a. Ta chang-le nei-shou ge le ma?
 he sing-LE that-CL song LE MA?
 ‘Has he already sung that song?’
 b. * Ta chang-bu (mei)-chang-le nei-shou ge le?
 he sing-not(not)-sing-LE that-CL song LE
 c. * Ta hui-bu (mei)-hui chang-le nei-shou ge le?²⁶
 he can-not (not)-can sing-LE that-CL song LE?
 d. * Ta neng-bu (mei)-neng chang-le nei-shou ge le?
 he can-not (not)-can sing-LE that-CL song LE
 e. Ta shi-bu (*mei)-shi chang-le nei-shou ge le?
 he be-not (*mei) -be sing-LE that-CL song LE
 ‘Is it the case that he has already sung that song?’
 f. Ta ke(neng)-bu (mei)-keneng chang-le nei-shou ge le?
 he may-not (not)-may sing-LE that-CL song LE
 ‘Is it possible that he has already sung that song?’

The fact that (84a), (84e) and (84f) are acceptable suggests that the scope position of double-*le* is lower than the question marker *ma* and the A-not-A questions formed by reduplicating the auxiliary *shi* or *keneng*. And the fact that (84b), (84c) and (84d) are unacceptable indicates that the scope position of double-*le* is higher than the A-not-A questions which are formed by reduplicating the verb or the auxiliary *hui* or *neng*.

4.3.4.3. Frequency Adverbs

Because double-*le* “denotes a finite event or a finite number of events in series” (Chappell 1986: p. 246), it cannot appear in habitual sentences, for instance, the sentences with the frequency adverbs such as *zongshi* ‘always’, *jingchang* ‘often’, *congbu* ‘never’, or *meitian* ‘everyday’, as shown in (85):

- (85) a. * Ta zongshi chang-le nei-shou ge le.
 he always sing-LE that-CL song LE
 b. * Ta jingchang chang-le nei-shou ge le.
 he often sing-LE that-CL song LE
 c. * Ta congbu chang-le nei-shou ge le.
 he never sing-LE that-CL song LE
 d. * Ta meitian chang-le nei-shou ge le.
 he everyday sing-LE that-CL song LE

The sentences in (85) suggest that double-*le* takes scope over the adverbs used in habitual expressions, e.g. *zongshi*, *jingchang*, *congbu* or *meitian*.

To sum up, double-*le* takes scope below the auxiliaries *shi* ‘be’ and *keneng* ‘may’, the negation marker *bu* preceding *shi* and *keneng*, the A-not-A questions formed by reduplicating *shi*

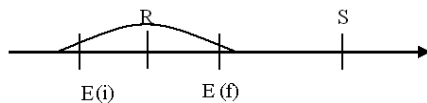
²⁶ Sentences like (84c) are ungrammatical when *hui* in *hui-bu-hui* is interpreted as ‘can’; while they are grammatical when *hui* in *hui-bu-hui* is interpreted as *keneng* ‘may’ and *hui-bu-hui* means ‘Is it possible that...’. This further proves our proposal that verbal-*le* takes scope above ‘can’, but below ‘may’.

or *keneng*, i.e. *shi-bu-shi* or *ke(neng)-bu (mei)-keneng*, and the question marker *ma*; and, double-*le* takes scope above the preverbal negation markers *bu* and *mei/meiyou*, the auxiliaries *hui* ‘will/can’ and *neng* ‘can’, the negation marker *bu* preceding *hui* and *neng*, the A-not-A questions formed by reduplicating the verb or the auxiliaries *hui* or *neng*, and the frequency adverbs *zongshi* ‘always’, *jingchang* ‘often’, *congbu* ‘never’, and *meitian* ‘everyday’.

4.4. Conclusion

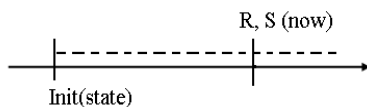
Mandarin verbal-*le* is a perfective aspectual marker. Sentences with verbal-*le* express a past and closed situation which has no impact on the present moment of speaking. Verbal-*le* can appear with all situation types except for the unbounded stage-level States. The interpretation of verbal-*le* is determined by the telicity feature of the situation type verbal-*le* co-occurs with. With atelic situations, i.e. States, Activities, and atelic Accomplishments, verbal-*le* marks the arbitrary endpoint of the situations, giving rise to a terminative interpretation. With telic situations, i.e. telic Accomplishments and Achievements, verbal-*le* signals the inherent endpoint of the situations, giving rise to a completive interpretation. The temporal scheme of verbal-*le* is presented in (33), repeated here in (86)

(86) Temporal schema for verbal-*le*



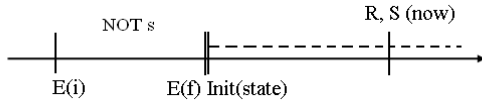
Sentence-*le*, on the other hand, is a marker of change that it signals the initial point of a new state. It resembles the English Perfect but it doesn’t necessarily presuppose a previous situation preceding the current state. Sentence-*le* can appear with all situation types. In sentences describing atelic situations, i.e. States, Activities and atelic Accomplishments, the new state begins when the situation is initiated and this gives rise to the inchoative interpretation. Whereas in sentences describing telic situations, i.e. telic Accomplishments and Achievements, the new state begins when the situation is completed and this gives rise to the completive reading. The temporal scheme of sentence-*le* is presented in (42), repeated here in (87).

(87) Temporal schema for sentence-*le*



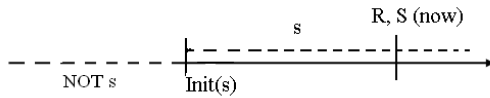
The semantics of double-*le* is a combination of the semantics of both verbal-*le* and sentence-*le*, and sentence-*le* has scope over verbal-*le*. In double-*le* sentences, verbal-*le* operates on the sentence first: it marks the final endpoint of a situation, giving rise to a terminative/completive interpretation of the situation; next, sentence-*le* signals the initial point of a new state that results from the termination/completion of the previous situation; this new state still holds at the speech time and is not going to change in the future. Double-*le*, like verbal-*le*, can co-occur with all situation types except for the unbounded stage-level State. (88) (repeating 49 and 52) is the temporal scheme for double-*le* in Activity, Accomplishment, and Achievement sentences:

(88) Temporal schema for double in Activity, Accomplishment, and Achievement sentences



In sentences describing States, double-*le* indicates a state that has started before the speech time, still holds at the speech time, and will proceed into the future. In such sentences, verbal-*le* marks the inchoative point of the state and sentence-*le* indicates the state begins. Such sentences presuppose a negative state just before the current one. The temporal schema for double-*le* in State sentences is presented in (46), repeated here in (89):

(89) Temporal schema for double-*le* with States



I claim that double-*le* sentences contain an *already* flavor which is not present in either verbal-*le* sentences or sentence-*le* sentences. Based on Löbner (1987), I posit that generally there should be no more than two phases in semantic representations. Both English sentences with *already* and Mandarin double-*le* sentences contain two phases in their semantics, namely, a prior negative phase and a current positive state. The current states expressed by the sentences are the second-phase states, they, therefore, should not be followed by any change of state.

Double-*le* sentences contain an affirmation of the assumption that a particular event had taken place. Furthermore, they often convey the speaker's viewpoint towards the occurrences of the events. Double-*le* sentences with a singular post-verbal complement express the speaker's viewpoint that the given event had happened once and once is enough. In contrast, double-*le* sentences with a plural post-verbal complement imply that an event has taken place to an extent which is more than the speaker's and/or other people's expectation; and, the event can be viewed positively or negatively depending on the contexts.

Double-*le* sentences cannot open a discourse or introduce new information. The uttering of double-*le* sentences require the situation in question is fore-shadowed in the preceding contexts or is familiar to both the listener and the speaker in a conversation. Because double-*le* sentences contain the speaker's viewpoint towards an event, in most cases, they are used in conversations or speeches.

Last but not least, I find that double-*le* is incompatible with the pre-verbal negations *bu* 'not' and *mei/meiyou* 'not have', the auxiliaries *hui* 'will/can' and *neng* 'can' and their negative forms and A-not-A question forms, and the frequency adverbs *zhongshi* 'always', *jingchang* 'often', etc., therefore, I claim that double-*le* take wide scope over these expressions. On the other hand, double-*le* is compatible with the question marker *ma*, the auxiliaries *shi* 'be', *keneng* 'may' and their negative forms and A-not-A question forms, therefore, I claim that double take narrow scope below these expressions.

Chapter 5. Conclusion

The main goal of this thesis is to explore the multiple aspectual markings in Mandarin Chinese, especially, the interpretations and uses of double-*le* marking in sentences. In previous studies, e.g. Smith (1991), Mandarin is claimed to have four aspectual markers, namely, two perfective markers verbal-*le* and -*guo*, and two imperfective markers *zai* and -*zhe*. In this thesis, I propose that sentence-*le* is also an aspectual marker which indicates a new state has begun, so it might be called a “new state marker” or a “marker of change”. I have found that in Mandarin at most two aspectual markers can appear in one sentence. The possible combinations are double-*le* marking (verbal-*le* and sentence-*le*), *guo* and sentence-*le* marking, *zai* and *zhe* marking, and *zai* and sentence-*le* marking. The distributions of the multiple aspectual markings are sensitive to the situation type the markings co-occur with, for instance, double-*le* marking does not appear with temporally unbounded stage-level States, *zai* and *zhe* marking does not co-occur with individual-level States, etc. The scope relations in the multiple aspectual markings are -*zhe* taking wide scope over *zai*, and sentence-*le* taking wide scope over *zai*, -*guo*, and verbal-*le*.

Through my study on double-*le*, I have found that the semantics of double-*le* is a combination of the semantics of verbal-*le* and sentence-*le*. In a double-*le* sentence, verbal-*le* operates on the sentence first, giving rise to a terminative/completive interpretation to the sentence. The application of verbal-*le* on the sentence essentially adds an (inherent or arbitrary) endpoint to the situation. Sentence-*le* then operates on this situation description with an endpoint and marks the new state which results from the termination/completion of the situation has begun. I claim that double-*le* sentences contain an extra flavor of *already* which is not present in their correlate sentences with only verbal-*le* or sentence-*le*. The extra flavor arises because double-*le* sentences contain two phases of state, namely, a prior negative state and a current positive state. The prior negative state is the state of a past event whose final endpoint is marked by verbal-*le*, and the current positive state is the new state after the end of the past event whose initial point is marked by sentence-*le*. The uttering of double-*le* indicates that the subject of the sentence has experienced a transition of state and at the moment of speaking he/she is in the second phase of state. Based on Löbner (1987) and others, I propose that generally there should be no more than two phases in semantic representations. Because double-*le* sentences already have two phases, they shouldn't be followed by another phase according to the hypothesis, and this is why double-*le* sentences always imply that the current state shouldn't or needn't be changed at least for the time being. As for sentences with only verbal-*le* or sentence-*le*, because they contain only one single phase, they don't have the implications that double-*le* sentences with the *already* flavor have. What's more, double-*le* sentences express in addition to the basic meaning that a particular event had occurred, a viewpoint of the speaker towards the occurrence of the event. That's why double-*le* sentences are always uttered in situations where the speaker wants to express an attitude or a viewpoint towards an event, such as conversations and speeches.

The analysis developed in this thesis offers a new perspective for the study of Mandarin aspectual markings. In this thesis, I only zoomed in sentences with double-*le* marking. Further researches on the other multiple aspectual markings are needed. What's more, this thesis mainly focused on Mandarin grammatical aspect, the issues concerning Mandarin lexical aspect or situation aspect were not discussed in detail, for instance, the issues about Resultative Verb Complements (RVCs), or the issues about the situation shifts, i.e. a situation type is shifted into another situation type by adding some expressions such as temporal adverbials, etc (Smith 1991). These issues are very crucial to the study of Mandarin aspect as well, therefore they need to be furthered investigated in researches in the future.

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Appendix A: Prototypical Occurrences of Perfective

Context 1. Do you know what happened to my brother yesterday? I saw it (narrative)...It DIE

Ni zhidao zuotian wo gege chu-le shenme shi ma? Wo kanjian...Ta si-le.
you know yesterday my brother happen-LE what matter MA? I see..... it die LE

Context 2. Q: What your brother's reaction BE to the medicine (yesterday)?

A: He COUGH once. / He COUGH twice.

Q: Zuotian, ni gege dui na-ge yao you shenme fanying?
yesterday, your brother to that-CL medicine have what reaction

A: Ta kesou-le yici. / Ta kesou-le liangci.
he cough-LE once / he cough-LE twice

Context 3: Do you know what happened to me yesterday? ...(narrative)...Suddenly I STEP on a snake.

Ni zhidao zuotian wo chu-le shenme shi ma?
you know yesterday I happen-LE what matter MA?.....
Wo turan cai-dao-le yi-tiao she.
I suddenly step-got-LE one-CL snake

Context 4: Q: How long did it take for your brother to finish the letter?

A: He WRITE the letter in an hour.

Q: Ni gege hua-le duo chang shijian xie-wan na-feng xin?
your brother spend-LE how long time write-finished that-CL letter

A: Ta hua-le yi-ge xiaoshi xie-wan-le na-feng xin.
he spend-LE one-CL hour write-finished-LE that-CL letter

Context 5: Last year, the boy's father sent him a sum of money.....

When the boy GET the money, he BUY a present for the girl.

Qu nian, nanhai de baba ji-gei-le ta yi-bi qian
last year, boy DE father send-give-LE him one-CL money
Nanhai shou-dao-le qian jiu gei nvhai mai-le yi-ge liwu.
boy receive-got-LE money at once for girl buy-LE one-CL present

Appendix B: Prototypical Occurrences of Perfect

Context 1: Q: I want to give your brother a book to read, but I don't know which. Is there any of these books that he READ already?)

A: (Yes,) he READ this book.

Q: Wo xiang gei ni gege yi-ben shu, danshi wo bu zhidao gei na-ben?
I want give your brother one-CL book, but I not know give which-CL?
Zhe-xie shu li you ta yijing du-**guo** de ma?
This-CL(mass) book inside have he already read-GUO DE MA?

A: Ta du-**guo** zhe-ben shu.
he read-GUO this-CL book

Context 2: Q: It seems that your brother never finishes books.

A: (That is not quite true.) He READ this book (= all of it).

Q: Kanqilai ni gege conglai bu ba shu du-wan.
seem your brother ever not BA book read-finished
B. (Bu-shi.) Ta du-**wan-le** zhe-ben shu. / Ta du-**wan** zhe-ben shu **le**.
(not-be.) he read-finished-LE this-CL book. / he read-finished this-CL book LE

Context 3: Q: Is the king still alive?

A: (No,) he DIE.

Q: Guowang hai huo-zhe ma?
king still live-ZHE MA?

A: (Bu,) ta si **le**.
(no,) he die LE

Context 4: Q: You MEET my brother (at any time in your life until now)?

Q: Ni jian-**guo** wo gege ma?
you meet-GUO my brother MA?

Context 5: Child: Can I go now?

Mother: You BRUSH your teeth?

haizi: Wo xianzai neng zou le ma?
Child: I now can go LE MA?

Mama: Ni shua-ya **le** ma? / Ni shua-**guo**-ya **le** ma?

Mother: you brush-tooth LE MA? / you brush-GUO-tooth LE MA?

Context 6: Q: What did you find out when you came to town yesterday?

A: The king DIE.

Q: Ni zuotian jin-cheng dating-dao shenme le?
you yesterday enter-town find-got what LE

A: Guowang si **le**.
king die LE

Context 7: The king ARRIVE.

Guowang lai/dao **le**.
king come/arrive LE

Context 8: When I COME home (yesterday), he WRITE two letters (= that is what he accomplished during my absence)

Zuotian wo dao-jia de shihou, ta yijing xie-(wan)-**le** liang-feng xin **le**.
yesterday I arrive-home DE time, he already write-(finished)-LE two-CL letter LE

Context 9. Q: For how long has your son been coughing?

A: He COUGH for an hour.

Q: Ni erzi kesou duo-chang shijian le?
your son cough how-long time LE?

A: Ta ke-**le** yi-ge xiaoshi **le**.
he cough-LE one-CL hour LE