The morpho-syntax of aspect in Xiāng Chinese

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Chapter 1. Introduction

1.1 Basic introduction

The purpose of this thesis is twofold. On the one hand, I investigate the morpho-syntax of the aspectual system in one variety of Xiāng (namely: Chángshā), which is one of the ten sub-families[1] of Chinese (which are Mandarin, Xiāng, Gàn, Wú, Yuè, Hakka, Mǐn, Pínghuà, Jìn, and Huī). In this context, I provide a detailed description and analysis of the aspect system of the Xiāng variety of Chángshā. On the other hand, I conduct the analysis from the perspective of general theories on inner and outer aspect, and the interaction between them, with the intention to contribute to the development of these more general ideas.

1.1.1 The language, its speakers and its major properties

Xiāng is a group of linguistically similar and historically related varieties of Chinese, spoken mainly in Húnán province but also in parts of Guǎngxī, Sìchuān and Shānxī. Scholars divide Xiāng into Old Xiāng and New Xiāng according to the degree to which it has been influenced by Mandarin. Old Xiāng is influenced less by Mandarin than New Xiāng. Xiāng is further divided into five subgroups according to phonological features each variety has: Cháng-Yì, Lóu-Shào, Héngzhōu, Chén-Xù and Yǒng-Quán. The language I investigate in this thesis, Chángshā, belongs to Cháng-Yì

[1] Classification of the dialect groups has varied. The classification widely adopted divides Chinese into seven regional groups: Mandarin, Wu, Gan, Xiang, Min, Yue, and Hakka (Yuan 1961). Three more regional groups have been proposed in 1980s: Jin, Hui and Pinghua. The dialect groups all have their own distinct phonological features, dialect specific vocabulary, and distinctive grammatical characteristics, to the extent that they are not mutually intelligible. The status of the newly proposed regional varieties is still being debated (Li 1989, Kurpaska 2010).

As to the distinction between Old Xiāng and New Xiāng, Old Xiāng varieties (with about 11.5 million speakers), are more conservative, have in general kept the voiced initials of Middle Chinese. For instance, Lóu-Shào, also known as typical Old Xiāng, exhibits the three-way distinction of the Middle Chinese obstruents, preserving voiced stops, fricatives and affricates, while the New Xiāng varieties have altogether lost them and changed them to voiceless unaspirated consonants. According to Norman (1988), Xiāng Chinese belongs to what he calls the middle group of varieties of Chinese. This group, also consisting of Gàn and Wú, originally belonged to the southern group but through many centuries of south-bound migration, has been heavily influenced by Northern varieties of Chinese, that is, Mandarin.

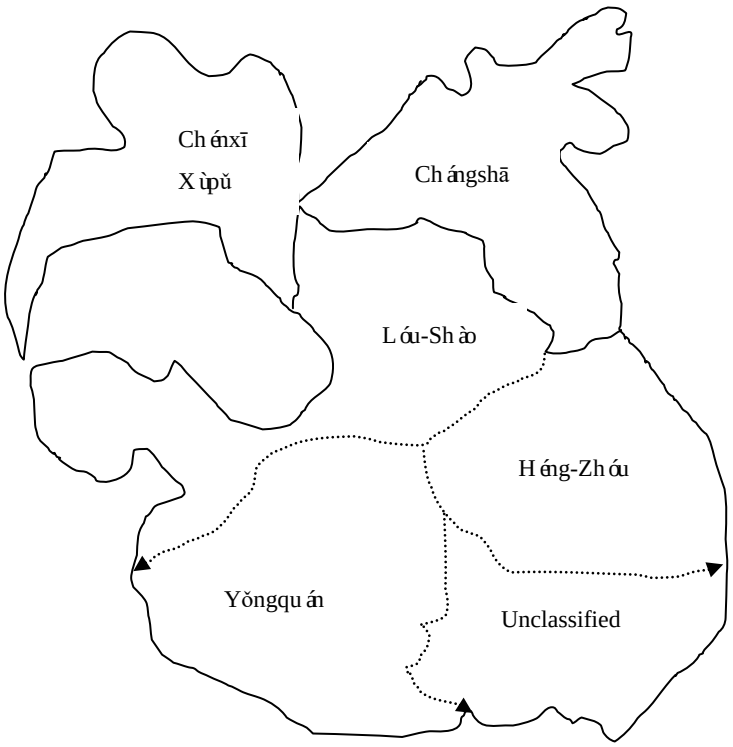
Chángshā is one of the New Xiāng varieties with approximately 17.8 million speakers. But the number is decreasing. Most of the local children do not speak Chángshā dialects. The Chángshā dialect is spoken predominantly in the city of Chángshā, which is the capital of Húnán province, and its neighboring suburbs.

Chénxī and Xùpǔ Xiāng, which will be investigated as well, are spoken in western Húnán by about 3.4 million speakers. Chénxī and Xùpǔ Xiāng belong to Old Xiang. They are geographically separated from the New Xiāng dialects.

The location of Xiāng is shown in Map 1, from the *Language Atlas of China* (2012). The distribution of Chángshā, Xùpǔ, Chénxī and other subgroups of Xiāng dialects are shown in Map 2, from Bāo and Chén (2007).

Map 1. The distribution of Chinese dialects from the *Language Atlas of China* (2012)

Map 2 The distribution of Chángshā, Xiùpǔ, Chénxī and other subgroups of Xiāng dialect from Bāo and Chén (2007).



The Xiāng dialects share many grammatical properties with other varieties of Chinese: the basic word order is SVO, nouns are not inflected for case, gender and number, verbs are not inflected for tense and different types of aspects are marked by particles. There are 5 types of aspects: perfective, progressive, durative, experiential and prospective aspect. There are five tones in Chángshā, as indicated in table 1. Table 2 lists the initials and finals of the language.

Table 1. Tones of Chángshā (from Wǔ 1999)

yin^{33} ping^{41} tone	33	高	kau^{33}	'tall'
yang^{13}ping^{41} tone	13	穷	tɕin^{13}	'sky'
shang^{21} tone	41	口	k^{h}əu^{41}	'poor'
yin^{13} qu^{45} tone	45	菜	ts^{h}ai^{45}	'vegetable'
yang^{41} qu^{45} tone	21	坐	tso^{21}	'to sit'
ru^{41} tone	24	六	ləu^{24}	'six'

Table 2. The initials and finals of Chángshā dialect (from Wǔ 1999)

Initials	Examples		
p	布	pu^{41}	'cloth'
p^{h}	派	p^{h}ai^{45}	'sent'
m	马	ma^{41}	'horse'
f	肥	fei^{13}	'fat'
t	多	to^{33}	'many'
t^{h}	他	t^{h}a^{33}	'he'
l	来	lai^{13}	'come'
tɕ	砖	tɕyɛ^{33}	'brick'
tɕ^{h}	穿	tɕ^{h}yɛ^{33}	'wear'
ɳ	女	ɳv^{41}	'female'
ɕ	新	ɕin^{33}	'new'
k	歌	ko^{33}	'song'
m	马	ma^{41}	“horse”
n	你	ni^{41}	'you'
x	喊	xan^{41}	'shout'
ts	栽	tsai^{33}	'plant'
ts^{h}	菜	ts^{h}ai ^{45}	'vegetable'
s	死	si^{41}	'die'
z	人	zən^{13}	'people'

Finals			
i	洗	ɕi^{41}	'wash'
u	不	pu^{24}	'not'
y	猪	tɕy^{33}	'pig'
a	爬	pa^{13}	'crawl'
ia	吃	tɕia^{24}	'eat'
ua	挂	kua^{45}	'hang'
ya	抓	tɕya^{33}	'catch'
iɛ	叶	iɛ^{24}	'leaf'
ɛ	姐	tɕɛ^{45}	'sister'
ɣ	车	ts^{h}ɣ^{33}	'car'
uɣ	国	kuɣ^{24}	'country'
o	哥	ko^{33}	'brother'
io	脚	tɕio^{24}	'foot'
ai	买	mai^{41}	'buy'
uai	快	k^{h}uai^{45}	'fast'
yai	帅	ɕyai^{45}	'handsome'
uei	鬼	kuei^{41}	'ghost'
yei	水	ɕyei^{41}	'water'
au	高	kau^{33}	'tall'
iau	要	iau^{45}	'want'
iɛ̃	盐	iɛ̃^{13}	'salt'
yɛ̃	穿	tɕh yɛ̃^{33}	'wear'
ɣ̃	闪	sɣ̃^{41}	'spark''
õ	短	tõ^{41}	'short'
an	三	san^{33}	'three'
ian	羊	ian^{13}	'sheep'
uan	关	kuan^{33}	'close'
yan	装	tsyan^{33}	'load'
ən	中	tsən^{33}	'middle'
in	冰	pin^{33}	'ice'
uən	问	uən^{21}	'ask'
yn	群	tɕyn^{13}	'a group of'

This thesis will discuss some interesting, and within Xiāng also unique, properties Chángshā displays with respect to its aspect particles, especially the fact that one marker is used to express two quite different aspects.

1.1.2 Previous linguistic studies on Xiāng

Extensive investigation of the Xiāng dialect started in 1997, when a series of grammar books on Xiāng dialects was published (Cuī 1998, Hè 1999, Bào 1999, Peng Z.Run & Peng J.Guo 2013 among others). The series in question aims at providing a detailed documentation of the Xiāng dialects. Other works include Li (1990), which provides a detailed description of the vocabulary of Chángshā; Wǔ (1990), which focuses on the description of the aspect system in Chángshā; Wǔ (1999), which is the most comprehensive investigation of the grammatical system of Xiāng to date; Wǔ (2005), which provides, in English, a synchronic and diachronic study of the grammar of the Xiāng dialects; and Lú (2007), a grammar of Xiāng written in Mandarin.

It is widely assumed that the syntactic structure of Chángshā is similar to Mandarin (Lú 2007, Wǔ 2010). Little attention has been paid to the analysis of the syntactic properties of Chángshā.

Most of the previous works are concerned with the comparison of the differences between Mandarin and Xiāng, rather than recognizing the idiosyncratic properties in a more general sense or in their own right. Take the expression of aspectual meaning as an example. That one aspect marker is used to express more than one meaning or that more than one element is sometimes needed to express an aspect type has aroused very little attention. It is our purpose to provide an analytical account of the aspectual system in Chángshā (and Xiāng more generally).

1.1.3 Aim of the dissertation

This thesis investigates two particles in Chángshā, *ta*^{21} and *ka*^{41}. The former, *ta*^{21}, is involved in the expression of two types of aspect, which are normally thought of as quite different, imperfective (or even progressive), and perfective; the latter, *ka*^{41}, is a particle that is often characterized as a perfective particle,

but most of the time it is accompanied by *ta*^{21}. Example (1) shows *ta*^{21} as a perfective particle.

(1) tsan^{33}san^{33} k^{h}an^{45} ta^{21} la^{45} pən^{41} xy^{33}.
read TA that CL book
'Tsansan read (in) that book.'
Or: 'Tsansan read that book (fully).'

In (2) we see the same particle, *ta*^{21}, in sentences with a progressive interpretation. It co-occurs with the element *tsai*^{21}*ko*^{24}. If this element occurs in preverbal position, *ta*^{21} is optional, if we find it in sentence final position, *ta*^{21} is obligatory.

(2) a. ŋo^{41}mən tsai^{21}ko^{24} ta^{41} (ta^{21}) ma^{13}tɕian^{41}.
1PL TSAIKO play TA mahjong
'We are playing mahjong.'
b. t^{h}a^{33} k^{h}an^{45} *(ta^{21}) tian^{45}shi^{41} tsai^{21}ko^{24}.
3SG watch TA television TSAIKO
'He is watching TV.'

In (3) we see that *ka*^{41}, often analyzed as a perfective marker, cannot operate without *ta*^{21}.

(3) a. tsan^{33}san^{33} k^{h}an^{45} ka^{41} *(ta^{21}) la^{45} pən^{41} xy^{33}.
read KA TA that CL book
'Tsansan read that book (fully).'
b. Tsan^{33}san^{33} k^{h}an^{45} ka^{41} la^{45} pən^{41} xy^{33} *(ta^{21}).
read KA that CL book TA
'Tsansan has read that book (fully).'

In view of these observations, I formulate the following questions to be dealt with in this thesis:

a) What is the interpretation and distribution of *ta*^{21}?

b) How can we account for the observation that in Xiāng, or in any case in the Chángshā variety of it, the same particle can be involved in the expression of different aspectual meanings?
c) What is the interpretation and distribution of *ka*^{41}?

In what follows I first provide an introduction to the theoretical tools used in this thesis in section 1.2, which includes a discussion of tense and viewpoint aspect (or outer aspect) and situation aspect (or inner aspect) in Mandarin. We will see that there are reasons to assume that there are three inner aspect positions in Mandarin. In section 1.3, I provide an overview of this thesis.

Source of the data

The data in this thesis mainly come from the existing literature and the fieldwork I carried out, supplemented by data of my own (based on my own linguistic intuitions, all checked with natives). I have two main informants: one is a female native of Chángshā, 60 years old, with a primary school diploma; another is a male native of the same city, 50 years old, with middle-school diploma. The fieldwork involved different approaches: (i) direct elicitation of sentences, with the informants explaining the meaning of each element of the sentences investigated; (ii) soliciting grammaticality judgments of existing sentences (with special attention to meaning and use in context).

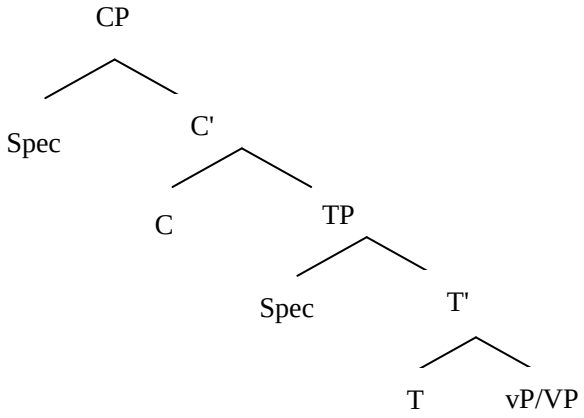
1.2 Theoretical background

In this section, I am going to introduce some theoretical tools that I will use in the present dissertation. I mainly focus on two notions and the way of expressing them in Mandarin. One is tense and another is aspect. I am going to show different ideas on tense and aspect in Mandarin and I will point out which theories I am going to adhere to.

1.2.1 Tense in Mandarin

Any situation in the real world represented in language is located in time by relating the time of the situation to the time of the utterance (in Reichenbach 1947 and Klein 1994, the relation between the time of the situation and the time of the utterance is indirect as it is mediated by Reichenbach's reference time or Klein's topic time; we will not dwell on this, as it plays no role in this dissertation). Languages may make use of various ways to express this relation. The temporal information of a sentence can be expressed through aspectual markers, temporal adverbials or other categories, such as tense. Here we define tense as a grammaticalized category used to locate a situation in time (Klein 2009). Tense may be realized by verbal inflection. For instance, in English, the form V-*ed* is used to indicate that the situation described by the verb happened in the past. There are three basic tenses: past tense, present tense and future tense. In past tense, the situation happens before the speech time, in present tense, the situation takes place at the speech time, and in future tense, the situation happens after the speech time. Structurally, tense is generally assumed to head its own projection, TP (Pollock 1989; Belletti 1990; Chomsky 1991; Chiu 1993; Haegeman 1994; Bobaljik & Jones 1996; Radford 1997; Li 1999, 2007). Above TP is the projection headed by the complementizer, CP. The structure in (4) shows where in the structure the TP is generally assumed to be.

(4)



Not all languages indicate tense through verbal inflection. In Mandarin, verbs are not inflected for tense. Whether this language has tense as defined above, that is associated with a structural position (the head of TP) has been a hot topic. Some researchers claim that Mandarin is a tenseless language (Li & Thompson 1981; Klein Li Ping and Henriëtte Hendricks 2000; Klein 1994; Hu, Pan & Xu 2001; J.W.Lin 2002, 2003, 2006; Smith & Erbaugh 2005; Mei 2002; among others). The main reason for this claim is that there is no morphological marking of a past/non-past distinction in the language. According to them, the temporal interpretation of a sentence is determined by aspectual markers, temporal adverbs, the aspectual nature of the predicate by the context. On the other hand, there are other linguists, like Li (1990), Huang (1982, 1998), Sybesma (2003, 2004, 2007), Lin (2003), Tsai (2008), and Di (2007) among others who argue that Mandarin is a language with structural (or syntactic) tense. The main reasons vary from the observation that the distribution of some temporal phrases or the temporal interpretation of some sentences can only be understood under the assumption of an active tense node, to the identification of the finiteness/nonfiniteness contrast.

In the following, I will introduce some of the analyses related to the question of tense in Mandarin. I will start the introduction with arguing for the existence of the finiteness/nonfiniteness distinction in Mandarin. Finite clauses are traditionally identified with tensed sentences, and non-finiteness clauses are

sentences with no tense. Recently, different views of the relation between tense and finiteness have been presented; see Nikolaeva (2007), Ladislav (2010), Kristin (2016) among others. However, in the present thesis, I assume, following the traditional idea, a finite sentence is a sentence with its own temporal reference, which is temporally anchored onto the context (see Enç 1987; Guéron & Hoekstra 1995; Bianchi 2002; Sybesma 2017 among others). In this definition, the encoding of finiteness depends on the presence of tense. Consequently, if, despite the fact that in Mandarin, neither finiteness nor tense is overtly marked, we can show that the finiteness/nonfiniteness distinction exists nonetheless, we also have shown that Mandarin has tense.

In the literature, many researchers have explored the finite/nonfinite contrast in clauses in Mandarin (see Huang 1982; Li 1990; Tang 1990; Tsai 1995; Paul 2002; Di 2007; Lin 2011, among others). Huang (1982, 1998) points out that though not overtly marked, finiteness can be identified in certain syntactic operations. Huang's argument mainly comes from the distribution of lexical subjects as opposed to non-overt subjects. See (5) - (6) (from Huang 1998:189).

(5) a. Zhāngsān shuō [(tā) lái le].
say 3SG come PERF
'Zhangsan said that (he) came.'
b. Zhāngsān xiāngxìn [(tā) huì lái].
believe 3SG will come
'Zhangsan believes that (he) will come.'

(6) a. wǒ bī Lisi [PRO lái].
1SG persuade Lisi come
'I persuade Lisi to come.'
a'. Lisi zhǔnbèi [PRO lái].
Lisi prepare come
'Lisi prepared to come.'

b. *wǒ bī Lisi [tā lái].
1SG persuade Lisi 3SG come
b'. * Lisi zhǔnbèi [tā lái].
Lisi prepare 3SG come

The embedded subjects in (5) can be null or non-null, but in (6) they must be null. The question is how we can explain the differences between (5) and (6). The basic assumption is lexical subjects in (5) must be licensed, per the Case Filter in (7) (Chomsky 1981).

(7) Case Filter
*NP if NP has phonetic content and has no Case.

According to the Case Filter, an overt NP must be assigned Case to license it. The subject of a clause is assigned case only if it is in a certain configurational relation with the head of a functional projection, which used to be called "INFL" or "AUX" (Huang 1989:188), consequently called I, being the head of IP, which in turn was later split into several different functional projections, such as TP and AgrP (see e.g., Chomsky 1980, 1981). If we assume that the Case Filter applies to Mandarin just like any other language and subject Case is assigned in a uniform way in languages of the world, the fact that Chinese sentences can have overt subjects must then lead to the conclusion that Chinese also has an IP (or TP or AgrP). Huang, following Chomsky and standard assumptions, assumes that there are finite and non-finite IPs: the former can license the subject but the latter cannot, in that case there cannot be an overt subject.

Based on George and Kornfilt (1981), who claim that different languages may encode finiteness with different elements of AUX, a cover term for aspect markers and modals, Huang suggests that the potential occurrence of any element of the AUX category in a sentence can be used to argue for the existence of the finiteness/nonfinitenes distinction. Huang classifies verbs into two types: one type of verbs are those verbs like *shuō* 'say' and *xiāngxìn* 'believe' presented in (5), and another type are the so-called control verbs like *zhǔnbèi* 'prepare', *bī* 'force' presented in (6). Huang argues that the

finiteness/nonfiniteness distinction can be seen between these two types of verbs. The main evidence is the observation that the embedded clauses after *xiāngxìn* 'believe' type verbs can contain aspect markers or modals, as can be seen in (5), while the control verbs cannot, which are presented in (8) - (9). (8) - (9) are from (Huang 1998:189) with some modification.

(8) a. wǒ zhǔnbèi [PRO lái].
1SG prepare come
'I prepared to come'
b. *wǒ zhǔnbèi [PRO huì/ néng/yīnggāi lái].
1SG prepare will/ can/ should/ come

(9) a. wǒ bī Lisi [PRO lái].
1SG force Lisi come
'I forced Lisi to come.'
b. *wǒ bī Lisi [lái zhe/ guo/ le].
1SG force Lisi come DUR/ EXP/ PERF

The embedded subjects in (8) - (9) cannot co-occur with modals and aspect markers. They are different from those in (5) in which aspect markers (as in (5a)) and modals (as in (5b)) can be used. Following George and Kornfilt (1981), Huang (1989) proposes that in Mandarin, a clause is finite if it contains an AUX. The comparison shown in (5) where aspect markers and modals can be used, and (8) - (9) where no modals or aspect markers are acceptable indicates that the finiteness/nonfiniteness distinction exists in Mandarin.

Huang further points out that AUX may contain constituents such as modals or aspect markers, or it may have the form of a zero-morpheme. For instance in (10), where although the sentence is not overtly marked in AUX, the embedded subject can be lexical. The assumption is that the habitual aspect has the form of a zero-morpheme (Huang 1998:190).

(10) Zhāngsān shuō [(tā) měitiān ∅ lái].
say 3SG everyday ASP come
'Zhangsan said that (he) comes/came every day.'

As represented above, Huang argues for the existence of the finiteness/non-finiteness distinction in Mandarin based on the fact that some embedded clauses can contain overt subjects as well as modals or aspect markers like *huì* 'will', while others cannot. However, there are linguists who argue against it (Xu 1985, 1986; Hu, Pan and Xu 2001). For instance, Xu (1985,1986) argues that the ungrammaticality of (8b) does not originate from the nonfinite status of the embedded clause but from the semantic incompatibility between the modality of uncertain possibility and a planned event, since *huì* 'will' in Mandarin denotes not only futurity, but also possibility and uncertainty (Hu, Pan and Xu 2001:112). They point out that if *huì* 'will' denotes possibility, the ungrammaticality in (8b) is expected: there is a semantic contrast between *huì* 'will' that indicates an uncertain possibility and *zhǔnbèi* 'prepare' which indicates a planned event. However, according to us, this conclusion is not necessarily correct. For instance, the verb *shèfǎ* 'try', which indicates an uncertain event, is not semantically incompatible with *huì* 'will', but the sentence is still ungrammatical. See (11b).

(11) a. wǒ shèfǎ [PRO míngtīan lái]
1SG try tomorrow come
b. *wǒ shèfǎ [PRO míngtīan huì lái]
1SG try tomorrow will come
'I try to come tomorrow.'

In (11a), the verb *shèfǎ* 'try' is used and the embedded subject is null, and the sentence is grammatical. However, if the embedded clause contains the modal verb *huì* 'will', as in (11b), the sentence becomes ungrammatical. This indicates that semantics is not the factor that causes (8b) to be ungrammatical.

The existence of the distinction between finiteness and nonfiniteness is further argued for by Li (1985, 1990). Li (1985, 1990) suggests that the difference between finiteness and nonfiniteness in Mandarin can be evidenced by the co-occurrence of time adverbials and aspectual markers, the licensing of negative polarity items, and the realization of aspect (Li 1990:17). I introduce one of her arguments: the differences shown by the two types of verbs

(*tell*-verbs and *persuade*-verbs) with respect to the collocation of a temporal adverb and aspect markers.

Li observes that the collocation of the time adverbial *cóngqián* 'before' and aspectual marker *guo* indicating experiential aspect ('EXP') is constrained by the same-clause condition. See (12).

(12) a. wǒ cóngqián gàosù guo tā [nǐ lái zhèr].
1SG before tell EXP 3SG you come here
'I told him before you came here.'

b. *wǒ cóngqián gàosù tā [nǐ lái guo zhèr].
1SG before tell 3SG you come EXP here

c. wǒ cóngqián qǐng tā [chī guo fàn]
1SG before invite 3SG eat EXP meal
'I invited him to eat before.'

(12a) is grammatical since *cóngqián* 'before' and *guo* 'EXP' occur in the same clause. In (12b), *cóngqián* 'before' and *guo* 'EXP' appear in different clauses, and the sentence is ungrammatical. According to Li, this ungrammaticality results from the violation of the same-clause condition. What is interesting is (12c): *cóngqián* 'before' and *guo* 'EXP' occur in different clauses, but the sentence is grammatical. Li argues that (12c) can be accounted for if one assumes the *guo* 'EXP' in the sentence need not be interpreted in the embedded clause. She points out that the sentence does not mean that the person has actually accepted the invitation and eaten the meal; the sentence only ensures that I have invited him before. *Cóngqián* and *guo* are interpreted as if they are in the same clause. The interpretation of (11c) can be the same as that of (13).

(13) wǒ cóngqián qǐng guo tā chī fàn.
1SG before invite EXP 1SG eat meal
'I invited him to eat before.'

However this cross-clause interpretation is not possible for *tell*- verbs.

(14) a. wǒ gàosù tā tāmen jiè guo yān, tāmen dōu
1SG tell 3SG 3PL give up EXP cigarette 3PL all
bu zài chōuyān le.
NEG again smoke SFP
'I told him that they once gave up smoking. They never smoked again.'

b. *wǒ cóngqián gàosù tā tāmen jiè guo yān.
1SG before tell 3SG 3PL give up EXP smoking

In (14a), the use of *guo* in the embedded clause indicates that the event expressed by the embedded clause has happened. (14b) is ungrammatical. What Li observes is that the cross-clausal aspectual relation is possible with sentences containing *persuade*-verbs but not with *tell*-verbs (Li 1990:20): in the one case the boundary between the matrix and the embedded clause is transparent while in the other it is not. And it is exactly with verbs that have nonfinite embedded clauses according to Huang's conclusions above where the boundary is transparent and those verbs selecting a finite clause for which it is not.

The above are the two analyses arguing for the existence of finiteness in Mandarin. As mentioned earlier, we take a finite sentence as one with its own temporal reference; the encoding of finiteness depends on tense (which may in some cases be strengthened by a temporal adverb). In Mandarin, both finiteness and tense are not overtly marked. However, this does not mean that there is no tense in Mandarin. The analyses provided by Huang and Li show that in Mandarin, we do find a distinction between finiteness and non-finiteness. Then according to our definition, this language must have tense as well.

Establishing a distinction between finiteness and nonfiniteness is only one of the approaches to argue for the existence of structural tense in Mandarin. Other linguists, such as Sybesma (2003, 2004, and 2007); Z.H.Lin (2003), and others argue for the existence of tense from either the perspective of the interpretation of temporal reference or the distribution of certain temporal phrases. In the following I introduce Z.H. Lin (2003) and Sybesma (2003, 2004, 2007).

Z.H.Lin (2003) proposes that there is a syntactic tense category in Mandarin in the form of an empty Op(erator), receiving a value from a c-commanding binder. His main argument comes from the effect of the temporal modifier *yǐqián* 'before' on the temporal interpretation of the sentence. The influence of *yǐqián* on the sentences results from its two properties. Firstly, Lin claims that *yǐqián* can optionally take a time argument. The interpretation of the sentence in which *yǐqián* 'before' appears varies depending on whether the time argument of *yǐqián* is present. With the time argument, the interpretation of the sentence can be generic or episodic (15a) - (15d); without the time argument, the sentence can only be interpreted as generic (16a) - (16d). (15) - (16) are from Lin (2003:9).

(15) a. Lǎowáng sān nián yǐqián chōu xuějiā. (Generic)
three year yiqian smoke cigar
'Laowang smoked cigars three years ago.'

b. Lǎowáng sān nián yǐqián qù le Táiběi. (Episodic)
three year yiqian go PERF Taipei
'Laowang went to Taipei three years ago.'

c. sān nián yǐqián-de Lǎowáng chōu xuějiā. (Generic)
three year yiqian-SUB Laowang smoke cigars
'(Lit.) Laowang of ten years ago smoked cigars.'

d. sān nián yǐqián-de Lǎowáng (yǐjīng) sǐ le. (Episodic)
three year yiqian-SUB Laowang already die PERF
(xiànzài nǐ kàndào-de búshi tā běnrén.)
now 2SG see SUB be-not 3SG own
'(Lit.) Laowang of ten years ago (already) died; the one you see is not real him.'

(16) a. Lǎowáng yǐqián chōu xuějiā. (Generic)
yiqian smoke cigar
'Laowang smoked cigars in the past.'

b. *Lǎowáng yǐqián qù le Táipěi. (INTENDED: Episodic)
yiqian go PERF Taipei
'(Lit.) Laowang went to Taipei in the past.'

c. yǐqián-de Lǎowáng chōu xuějiā. (Generic)
yiqian-SUB Laowang smoke cigar
'(Lit.) Laowang of the past smoked cigars.'

d. *yǐqián-de Lǎowáng qù le Táipěi. (INTENDED: Episodic)
yiqian-SUB Laowang go PERF Taipei
'(Lit.) Laowang of the past went to Taipei.'

In (15a, b) and (16a, b), *yǐqián* 'before' is used as a sentential adverb occurring between the subject and the predicate; in (15c, d) and (16c, d), it is part of the subject, used as a nominal modifier with a modification marker *de*. In (15), the time argument is used and the sentences can be interpreted as generic or episodic. In (16), the time argument is not used and the sentence can only be interpreted as generic.

Secondly, Z.H.Lin holds that *yǐqián* 'before' affects the temporal interpretation of the sentence when it occurs in a predicate-external position (i.e., subject or adverbial position). It has no influence on the temporal interpretation of the sentence when it occurs in the object position. (17) is from Z.H.Lin (2003:13).

(17) a. yǐqián-de Lǎowáng xǐhuān gǒu. (Holds true in the past)
yiqian SUB like dog
'(Lit.) Laowang of the past liked dogs.'

b. Lǎowáng yǐqián xǐhuān gǒu. (Holds true in the past)
yiqian like dog
'Laowang liked dog in the past.'

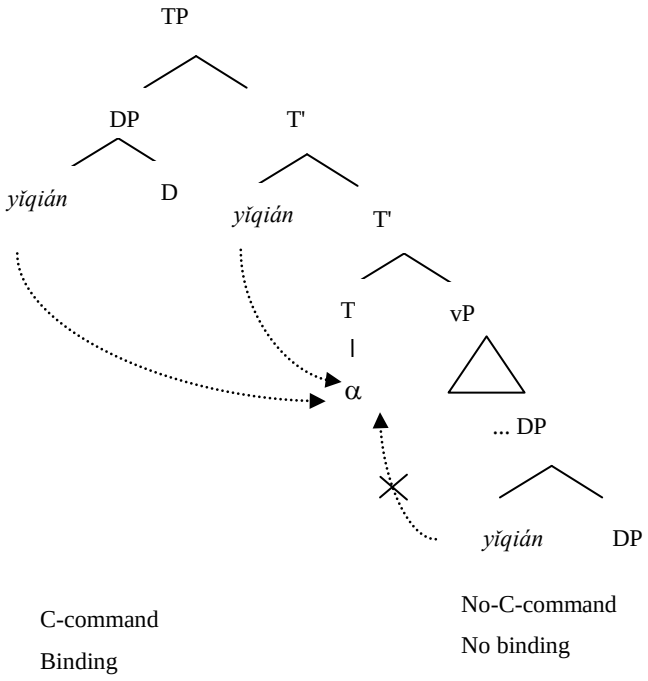
c. Lǎowáng xǐhuān yǐqián de gǒu. (Holds true at the speech time)
like yiqian SUB dog
'(Lit.) Laowang likes the dogs of the past.'

In (17a) - (17b), in which *yǐqián* 'before' occurs external to the predicate (as a modifier of the subject nominal and as a sentential adverb respectively), the state of *xǐhuān* 'like' holds true in the past. In (17c), *yǐqián* occurs internal to the predicate (modifying the object nominal), and the state of 'like' holds true at the speech time.

To account for the influences of *yǐqián* on the interpretation of the sentences, Z.H.Lin proposes that *yǐqián* 'before' projects a maximal projection, *yǐqián*^{Max}, with *yǐqián* occupying the head of this maximal projection, and the time argument in Spec of *yǐqián*^{Max}. The whole projection occupies an adjunct or adverbial position depending on whether it is used as a nominal modification or an adverb. In this structure, if the time argument is present, *yǐqián* 'before' denotes a specific point in the past. If not, the denotation of *yǐqián* 'before' will remain vague, and it will simply denote some unidentified interval of time in the past (Lin 2003:15). With this proposal, the generic/episodic reading of the sentences can be accounted for: if the time argument is present, *yǐqián* 'before' denotes a specific interpretation. Since a specific point of time is a prerequisite for the episodic interpretation of a sentence (Z.H.Lin 2003:15), the sentence with *yǐqián* 'before' and its time argument will be interpreted as episodic. If the time argument is not present, *yǐqián* 'before' will simply denote some unidentified interval of time in the past. That is why the sentence can only be interpreted as generic.

As for the influence that *yǐqián* 'before' has on the temporal reference of the sentence, Lin suggests that they result from the interaction of *yǐqián* 'before' and an empty operator, which according to him, occupies the head of a functional projection, the category Tense. The operator must be valued; it can either be valued by the discourse context or by some temporal expression in the same sentence which c-commands it. In the sentences above, *yǐqián* 'before' functions as the temporal expression. It values the empty tense operator when it c-commands it. For instance, in (17a), *yǐqián* 'before' occurs as a modifier of the subject nominal, it is adjoined to the subject DP. Z.H.Lin, following Kayne (1994), suggests this subject-modifying *yǐqián* 'before' occupies the highest position in the TP and c-commands the empty tense operator (Z.H.Lin 2003:20). It hence binds the empty tense operator and assigns past-time interpretation to it. In (17b) it is used as a sentential adverb, occurring between the subject and the predicate of the sentence, and the effect of assignment is the same. However, if it is an object-modifier, in a predicate-internal position, *yǐqián* does not c-command the tense operator, thus it cannot determine the value of the empty tense operator (17c) (Z.H.Lin 2003:21). The configuration Lin (2003) assumes is presented in (18) with some modification.

(18)



In Z.H.Lin (2003), the head of the T is occupied by an empty operator. In the rest of this dissertation, we accept the analysis of temporal interpretation of Chinese in Lin (2003), but we assume, following Sybesma (2004, 2007) (as will be introduced shortly), that the head of T in Mandarin is occupied by a pronominal variable α. Hence in (18), we replace Op in Lin (2003) with α in the sense of Sybesma (2004, 2007).

Z.H.Lin (2003) is not the only one who argues for the existence of tense in Mandarin. Sybesma (2003, 2004, and 2007) also argues for the idea that Mandarin sentences contain a T-node. As we just saw, the head of this TP is supposedly occupied by a pronominal variable, the interpretation of which is determined partly by the nature of the verb phrase (with an endpoint or not, stative or not) and partly through temporal adverbs and elements in the C-domain of the sentence. The first argument given by Sybesma (2007) is concerned with general theoretical considerations. Following Enç (1987),

Giorgi and Pianesi (1997), Guéron and Hoekstra (1995) and Klein (1994), who claim that without a T node, the temporal interpretation of a sentence would be impossible, Sybesma assumes that that is applicable to all natural languages, which means that sentences in Mandarin will also contain a T node (Sybesma 2007:581).

Secondly, Sybesma, following an argument made by Matthewson (2002), argues that we can actually observe a T node in Mandarin. See (19) (from Sybesma 2007:582).

(19) a. Zhāngsān zhù zài zhèr.
Zhangsan live at here
'Zhangsan lives here.'
b. Zhāngsān 1989 nián zhù zài zhèr.
Zhangsan 1989 year live at here
'Zhangsan lived here in 1989.'

The sentence in (19a) can only have a present tense interpretation. The sentence in (19b), with the temporal adverb gets a past tense interpretation. Importantly, if the subject of (19a) is a deceased person, the sentence is infelicitous in the same way an English sentence like *Winston Churchill lives here* is infelicitous. What this means is that the temporal interpretation of a sentence like (19a) can be set differently using linguistic material like an adverbial, but cannot be manipulated using non-linguistic knowledge. Since the temporal interpretation can only be reset using linguistic material, the source of the temporal interpretation must also be linguistic. Sybesma concludes from this that the structure of a Chinese sentence must contain a T-node. For a more detailed analysis, see Sybesma (2003, 2004, and 2007).

To sum up briefly, above, we have introduced different types of analyses arguing that syntactic tense exists in Mandarin. There are however, others who have argued against the existence of tense in Mandarin. As we have seen above, Xu (1982) and Hu, Pan and Xu (2001) have reasons to believe that finiteness is not a notion relevant for Chinese and consequently cannot be used to argue for the existence of Tense in Mandarin. We now continue to introduce the analysis in J.W.Lin (2002, 2003), who argues against the existence of a TP in Mandarin.

As many others, J.W.Lin (2002, 2003) builds his main argument on the observation that Mandarin lacks verbal morphology to express the distinction between present tense and past tense. He claims the nature of the predicate plays an important role in the temporal interpretation of a sentence (J.W.Lin 2003:261). (20) - (21) are taken from J.W.Lin (2003:261).

(20) a. tā dǎpò yī gè huāpíng.
3SG break one CL flowervase
'He broke a flower vase.'
b. tā bǎ wǒ gǎn chū jiàoshì
3SG BA 1SG drive out classroom
'He drove me out of the classroom.'
c. tā zài Shànghǎi chūshēng.
3SG in Shanghai be.born
'He was born in Shanghai.'

(21) a. tā hěn cōngmíng.
3SG very clever
'He is very clever.'
b. wǒ xiāngxìn nǐ.
1SG believe you
'I believe you.'

The temporal references in (20) are the past and those for (21) are the present. There is no verbal inflection indicating the temporal references, the tenses in these sentences are valued through the situational properties. J.W.Lin builds his analysis on the work by Bohnemeyer and Swift (2001), who assume that there is a certain correlation between the telicity of an eventuality description and its aspectual viewpoint. That is, the default aspectual viewpoint of a telic event is perfective, while the default aspectual viewpoint of an atelic event is imperfective. Under this assumption, a telic predicate like *chī yí ge píngguǒ* 'eat an apple' is interpreted as perfective, whereas *run in the park* is imperfective. Basing himself on Bohnemeyer and Swift's (2001) notion of default aspect, J.W.Lin further assumes that in Mandarin covert tenses are subject to the

restrictions with regard to which aspect they may select, which is given in (22) (from J.W.Lin 2003:264).[2]

(22) a. Covert present tense must select imperfective AspP as its complement.
b. Covert past tense must select perfective AspP as its complement.

Under the restrictions in (22) and the assumption by Bohnemeyer and Swift (2001), J.W.Lin holds that the interpretation of the temporal references in (20) - (21) can be made according to the aspectual information of the sentences. For example, (20a) *dǎpò yīge huāpíng* 'break a vase' describes a telic event. Since the default aspectual viewpoint of telic descriptions is perfective, it is understandable that the temporal reference in (20a) is located in the past. The same analysis can be extended to (20b) - (20c). In (21a) - (21b), the predicates *cōngmíng* 'clever' and *xiāngxìn* 'believe' are atelic. According to the default aspectual point of view, an atelic description is imperfective, and under the aspect selection restrictions in (22a), which says that covert present tense must select imperfective AspP as its complement, the temporal reference in (21a) - (21b) hence can be interpreted as the present tense. Given that the value of the temporal reference can be determined under the aspect selection restrictions in (22), J.W.Lin claims that it is unnecessary to rely on the existence of a covert tense node in Mandarin.

However, careful consideration shows that J.W.Lin's proposal is not without problems. The most important reason is that without any context, a telic event can be understood as being presented in the perfective; it can also be understood as being presented in the imperfective. The tense of the sentence hence can be interpreted as past tense or present tense. See (23) - (24).

(23) Zhāngsān shuā bái tā de xiézi.
paint white 3SG SUB shoe
'Zhangsan is paint his shoes white.'
Or, 'Zhangsan painted his shoes white.'

[2] More on situation and viewpoint aspect in section 1.2.2 below. Here I just mention the general distinction between perfective and imperfective aspect in the sense of Smith (1997).

(24) Zhāngsān shuō chū hěn duō mìmì
speak out very much secrecy
'Zhangsan is telling out many secrets.'
'Zhangsan told out many secrets.'

(23) and (24) are two resultative constructions. Each sentence can have two temporal interpretations, present tense and past tense. These sentences show that aspect selection restrictions do not work here.

What is more, (20c) also raises some questions. In (20c), the verb phrase *chūshēng* 'be born' is telic, the sentence should be interpreted as the past tense according to (22b). However, we observe that the interpretation of the temporal reference cannot be made without an adverbial modifier, be it of place or of time. See (25a).

(25) a. *tā chūshēng.
3SG be.born
INTENDED: 'He was born.'
b. ?? tā 1990 nián chūshēng.
1SG 1990 year be.born
'He was born in 1990.'

In (25a), no adverbial is used and the sentence is ungrammatical. If J.W.Lin is right in the sense that perfective is default in a telic event, and the temporal interpretation is the past, the ungrammaticality of (25a) is unexpected. In fact, as (25b) shows, when we add a temporal adverbial, and the sentence is still not fully acceptable. According to our judgment (and that of other mainland speakers we consulted), the same two question marks should be added to (20c). The sentences get completely acceptable only after the addition of perfective marker *le*:

(26) tā 1990 nián chūshēng .
3SG 1990 year be.born
'He was born in 1990.'

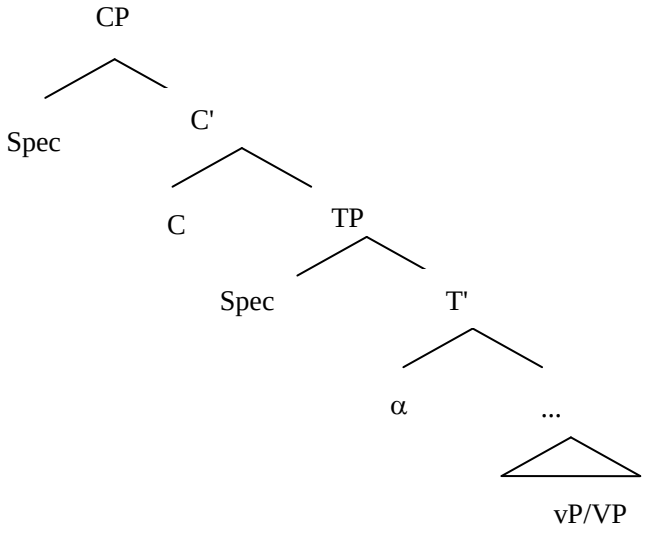
This shows that J.W.Lin's system does not work. The same can be said about (20a), which is much better with *le* as well, as is shown in (27).

(27) tā dǎpò-le yī g è huāpíng.
3SG break-PERF one CL flowervase
'He broke a flower vase.'

To sum up, above, I have introduced different approaches to argue for the existence of TP in the structure of a sentence in Mandarin. Among them, Huang (1989) and Li (1990) start from the identification of finiteness. If we take finiteness to depend on tense, then we can make the argument that, since finiteness is a relevant notion in Mandarin, Mandarin has tense. Lin (2003) tackles the issue from the perspective of various effects that the temporal adverb *yǐqián* 'before' has on the interpretation of temporal references in the sentence. Lin argues that the different functions presented by *yǐqián* 'before' can be attributed to the interaction between *yǐqián* 'before' and an empty tense operator. Sybesma argues for a TP from the perspective of the interpretation of bare stative predicates, in which there are neither aspect markers, nor temporal adverbs, and the interpretation of which can only be manipulated using linguistic material (as opposed to non-linguistically expressed background knowledge). All the analyses show there must be some syntactic elements that interact with the temporal structure of the clause in Mandarin. I have also introduced J.W.Lin (2002, 2003), who argues against the existence of tense in Mandarin. I have shown that neither aspectual properties nor selectional restrictions can provide an account for the interpretation of temporal meaning in a sentence.

Based on the above introduction and the analyses we have presented, in the present thesis, we follow Sybesma (2003, 2004, and 2007), Huang (1982, 1998), Li (1990) and Lin (2003) among others, and assume that despite the absence of any overt markers, Mandarin has a tense node, a T, in the structure of the sentence. Specifically we assume that a Mandarin sentence has the following structure in (28).

(28)



There is a TP above vP/VP, the head of which is occupied by a pronominal variable α, which can be bound, or "set", by aspectual particles, temporal adverbials or other elements in the C-domain. In (28), we can also see that in between TP and vP/VP there may be other projections as indicated by the dots, for instance, aspect, which we are going to introduce now.

Since there do not seem to be any differences in this respect between Mandarin and Chángshā, the variety of Chinese we discuss in this thesis, I will assume the same applies to Chángshā.

1.2.2 Aspect

It is widely assumed that there is a distinction between Viewpoint aspect (also called Grammatical aspect, Outer aspect) and Aktionsart (also called Situation aspect, Lexical aspect, Inner aspect).[3] Viewpoint aspect refers to the way in which an event is presented (Smith 1997; Ramchand 2008; Travis 2010). It can

[3] I will use the terms viewpoint and situation aspect when the semantics is concerned, while when it comes to syntax, I will use Outer and Inner aspect.

be presented as a completed whole, that is, viewed as if from the outside, or going on, that is, viewed as if from the inside (Comrie 1976). The former is called perfective aspect and the latter is called imperfective aspect. Languages differ in their types of viewpoint aspect, yet the contrasting semantics between perfective and imperfective is the most outstanding, all languages show such a contrast.

Viewpoint aspect is distinguished from situation aspect, the latter being an inherent feature of verbs or verb phrases and is determined by the nature of the situation that the verb describes. Such an event can have an endpoint (in which case it is telic), or it does not have an endpoint (in which case we call it atelic).

Both viewpoint aspect and situation aspect have a structural representation. The former is represented by a projection which is structurally placed on top of little v, while the projection associated with the latter is placed between vP and VP, as a result of which we refer to them as Outer aspect and Inner aspect respectively. For discussion and motivation, see Zagona (1993) and Stowell (1995) for Outer aspect and Travis (2010), MacDonald (2008), Borer (1998, 2005), van Hout (2000), Kratzer (2004), and Ritter and Rosen (1998) for Inner aspect. Below, I am going to introduce accounts for the layered structure of aspect in Mandarin that will be relevant in this dissertation.

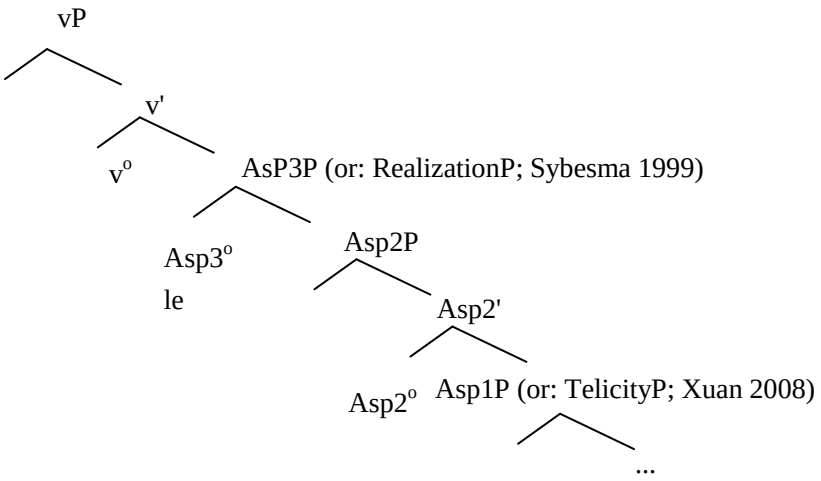
1.2.3 Viewpoint aspect in Mandarin

In this section, I introduce viewpoint aspect in Mandarin, based on what others have said about it. As with tense, I will take it that most conclusions will apply to Chángshā as well, unless indicated otherwise. In Mandarin, viewpoint aspect is marked by particles. Specifically, *le*, a suffix, is a perfective marker indicating that an event has been terminated or completed (Smith 1994). Specifically, in activities, *le* is used to indicate that an event has been terminated, while if it is an accomplishment event, it indicates the completion of the action. Preverbal element *zài* is a progressive marker, indicating that an event is ongoing, and *zhe*, a suffix, either indicates the resultative state or the ongoingness of an action. Suffix *guo* expresses experiential aspect, indicating that an event has taken place at least once before (e.g., see Chao 1968:251). The use of these particles is illustrated in (29).

(29) a. tā chī-le yī wǎn fàn.
3SG eat-PERF one CL meal
'He ate one bowl of rice.'
b. tā zài chī fàn.
3SG PROG eat meal
'He is eating the meal.'
c. wàimiàn xià-zhe yǔ.
outside rain-DUR rain
'It is raining outside.'
d. wǒ jiàn-guo zhè ge rén.
1SG meet-EXP this CL person
'I have met this person once.'

In the literature, views differ with respect to the structural position of these particles. Some argue that *le*, *zài*, *zhe* and *guo*, as viewpoint aspect markers, uniformly appear in Outer aspect (i.e., higher than little v). Others, however, view them differently. For instance, Hu and Shi (2005) argue that the progressive marker *zài* is located higher than the other particles. Tsai (2008) also argues that *zài* and *guo* are higher than *le* and *zhe*; he only places the former in aspect positions above vP. Sybesma (2017) (as before, e.g., Sybesma 1999) claims that *le* is located in an Inner aspect position but interpreted in Outer aspect position. In fact, as we will see, according to Sybesma (2017), there are three Inner aspect positions in Mandarin, as illustrated in (30). Now I just focus on his ideas on the distribution and interpretation of the perfective marker *le*.

(30)



In (30), there are three Inner aspect projections between vP and VP, the perfective marker *le* is located in AsP3, AsP3P indicates whether the projected endpoint of a telic event is realized or not: When Asp3 is occupied by *le*, it is, otherwise, it is not. It is called a RealizationP (Sybesma 1997, 1999). Take (31), where we have an eating event, and a projected endpoint of the fish being finished: it is *le* that indicates that projected endpoint was in fact reached. In sentences without *le*, we may still have the endpoint, but it is not realized: *mâ-yǒu chī-guāng* /NEG-have eat-bare/ 'haven't eaten up', *xiǎng chī-guāng* 'want to eat up'. (For detailed analyses see Sybesma and Shen 2006, and Xuān 2008).

(31) Tāmen chī-guāng-le yú.
3PL eat-bare-ASP fish
'They finished the fish.'

What is important here is that, semantically, as a viewpoint aspect marker, perfective *le* should be in Outer aspect. However, in (30) it is in Inner aspect. Why is it there?

Sybesma provides two arguments for the idea that the perfective marker *le* is below little v. The first one is purely syntactic and builds on his analysis of the *ba*-construction in Mandarin (Sybesma 1999), in which *ba* is treated as an element which occupies little v^{o} (I will come back to the *ba*-construction in chapter 3). He claims that the little v in Mandarin must always be phonologically overt. This can be realized either by the movement of the verb or by inserting the element *ba*. So a transitive phrase is either [V-v *le*] (V has moved into v) or [*ba*-v V *le*] (*ba* has been inserted in v), as illustrated in (32). The point here is, if *ba* occupies v^{o}, then *le* cannot occupy a position in the Outer aspect domain: *ba* always precedes *le*, which in turn always follows V, as in (32b).

(32) a. tā xǐ le yīfu.
3SG wash PERF clothes
'He has washed his clothes.'
b. tā bǎ yīfu xǐ le.
3SG BA clothes wash PERF
'He has washed his clothes.'

Whatever is to the right of *ba* and not inside VP must be in the Inner aspect domain.

Sybesma's (2017) second argument is historical and is based on work by Xuan (2008). It is generally known that *le* started out as a full-fledged resultative element meaning 'complete', related to verb *liǎo* 'to finish', similar to verb *guāng* 'bare' in (31). And it gradually grammaticalized into an aspectual element expressing completion. Xuan (2008, 2011), following Roberts and Roussou (2003), points out that grammaticalization is associated with climbing upwards along the functional nodes in a syntactic structure, taking *le* as an example. In our structure, it started out in AsP1^{o} and over time climbed up the structure to end up in Asp3^{o}.

Having established that *le* is positioned lower than vP, the question left to explain is how it is possible that *le* occupies a position lower than v^{o}, i.e., in Inner aspect, and is at the same time interpreted as if it is in Outer aspect. In one way or another, a relation is established between these two positions to this

effect. Cheng and Sybesma (2004) and Cheng (2016) show that there are certain processes that are sensitive to the relation between these two aspect positions, one above and one below little v. There is also a different type of evidence. In Chénxī, one of the Xiāng dialects, there are two perfective markers: *tau*^{24} and *lia*^{33}, *tau*^{24} being a preverbal element and *lia*^{33} a postverbal one, which we assume has the same distribution as Mandarin *le* (*lia*^{33} seems to be the cognate of *le*; it may have been borrowed from Mandarin). What is interesting is that *tau*^{24} and *lia*^{33} can co-occur:

(33) a. t^{h}a^{33} tau^{24} ɕi^{41} i^{33}fu^{24}.
3SG PERF wash clothes
'He has washed his clothes.'

b. t^{h}a^{33} ɕi^{41} lia^{33} i^{33}fu^{24}.
3SG wash PERF clothes
'He has washed his clothes.'

c. t^{h}a^{33} tau^{24} ɕi^{21} lia^{33} i^{33}fu^{24}.
3SG PERF wash PERF clothes
'He has washed his clothes.'

In (33a), with *tau*^{24}, the sentence means that he has washed his clothes: the washing event has been completed. In (33b), *lia*^{33} follows the verb, *tau*^{24} is not used. The sentence means the same as (33a). In (33c), both *tau*^{24} and *lia*^{33} are used with the same meaning as in (33a) and (33b). Even though (33c) is a grammatical sentence, my informants tell me that sentences with preverbal *tau*^{24} are to be preferred. Older people prefer *tau*^{24} instead of *lia*^{33}. Only young people (or immigrants) will use verb final *lia*^{33}, most likely under the influence of Mandarin. In any case, what these examples show is that *lia*^{33}, like *le*, (presumably) occupies an Inner aspect position, while expressing the Outer aspect meaning of perfectivity, and that, in doing so, it is optionally doubled by preverbal element, *tau*^{24}, which may very well be located in the head of Outer aspect. This confirms the idea that there can be a relationship between these two positions. We will use this finding in chapter 2.

In what follows I continue to use Sybesma (2017), in which Inner aspect in Mandarin is a three-layered structure. This idea of a three-layered Inner

aspect is important for me, since it helps me to provide an analysis to account for the distribution of the different aspect particles in Chángshā. In fact, our analysis of the Chángshā data provides strong evidence for this three layered structure, much stronger than the Mandarin evidence that Sybesma uses. But first we look at other aspects of situation aspect.

1.2.4 Situation aspect: semantics and syntax

Situation aspect concerns the temporal construction of a verb. The earliest investigation of verb meanings can be traced back to Aristotle some 2000 years ago, whose ideas were further developed by Skyle (1963) and Vendler (1967). Vendler classified verbs into four types based on the properties of dynamicity, duration and telicity. The classification of verbs is illustrated in (34).

(34)
(i) States: not dynamic, not telic (*know*, *love*, *belong to*, etc.)
(ii) Activities: dynamic, not telic (*run*, *sing*, *swim*, *walk*, etc.)
(iii) Accomplishments: dynamic, telic (*build*, *bake*, *eat*, etc.)
(iv) Achievements: not dynamic, telic (*die*, *win*, *discover*, *arrive*, etc.)

Note that researchers differ much in viewing the classification of verbs. For example, Smith argues that apart from the above four types of predicates there is another type of predicate: semelfactive predicates (e.g *cough*, *knock*). We just neglect the relevant discussion and take the four classes of verbs as the general division of verbs.

Telicity refers to whether or not the eventuality a predicate refers to involves a natural end- point. A predicate referring to an eventuality with such an endpoint is telic, and a predicate that refers to an eventuality that is not atelic.The widely accepted test for telicity is the use of temporal for-phrases and in-phrases. An event compatible with for-phrase is atelic and an event compatible with in-phrase is telic. For instance, (35a) is telic, the event comes to its end when the agent finishes the apple, it is compatible with an in-phrase but not with a for-phrase. (35b) is atelic; there is no endpoint for the event. We

do not know from the sentence when the action comes to its end. It is compatible with a for-phrase but not with an in-phrase.

(35) a. John ate an apple **for* a few minutes/*in* a few minutes.
b. John ran *for* a few minutes/**in* a few minutes.

This view of distinguishing one verb from another is mainly based on the properties of the verb. However, it is quickly found out that, not only verbal meanings, but properties of verbal arguments and other NPs indicating the goal or result of an action also influence the telicity properties of an event (Verkuyl 1972; Krifka 1989; Travis 1994; Tenny 2000; Borer 2005 among others). For example, in (36), where the verbs are the same in both sentences, a numeral object will lead to a telic event (36a), while a plural noun object will lead to an atelic event (36b). In (37a), the location argument leads to an atelic reading, while in (37b), the goal argument yields a telic reading.

(36) a. John built a house *for months/in a month.
b. John built houses for months/*in a month.

(37) a. He pushed the cart in the park for hours.
b. He pushed the cart to the park in five minutes.

Sentences in (36) - (37) show that the meaning of a verb is not the only factor. The direct object or prepositional phrase can also affect the telicity of an event.

As mentioned above, following Krifka (1992, 1998), Borer (2005b) and Travis (2010) among others, I assume in the present thesis that a telic event is an event that contains an end point. A predicate which of itself is not telic, like an activity, can be compositionally made telic, thus forming an accomplishment, when an end point is added, in the form of an object with a specified quantity, a phrase which indicates the path before the event ends (a path argument), or other phrases which can be used to measure the temporal structure of the event. Achievement verbs are inherently telic.

Telicity is not only an important semantic property of predicates, it plays a great role in syntax too, in the sense that telicity is represented structurally

(Tenny 1987, 1994; Borer 1994, 2005; Travis 1991, 2000, 2010; Ritter and Rosen 2001, 2002). As is clear from the previous section, following the researchers just mentioned, and especially Travis (2010) and Sybesma (2017), I assume the existence of aspectual projections between vP and VP, which constitute the structural representation of situation aspect, especially telicity. In what follows, we will first introduce the semantic properties of telicity in Mandarin and then I introduce the analyses in the literature arguing for the existence of Inner aspect projections encoding telicity in that language. My starting point is Sybesma (2017).

1.2.5 Inner aspect in Mandarin

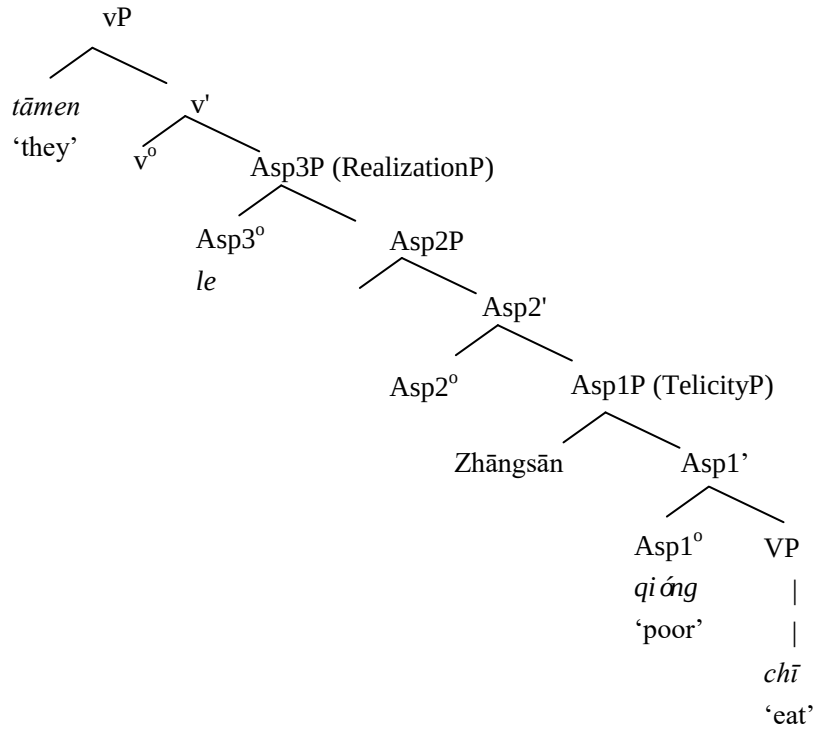
In this section, I introduce two analyses which argue for the existence of syntactic or compositional telicity in Mandarin from different perspectives: Sybesma (1999, 2011, 2017), who starts out from resultative constructions; So and Kuo (2005), who focus on properties of object noun phrases. These two analyses share the idea that telicity in Mandarin is syntactically encoded. But with regard to the structure of inner aspect, these three analyses vary. In Sybesma (1999, 2011, 2017), telicity is split into layers; while in So and Kuo (2005), telicity in Mandarin is like in many other analyses, a single projection.

In what follows, I start with Sybesma (2017), which holds that Inner aspect in Mandarin is a three-layered structure: bottom-up Asp1P, Asp2P and Asp3P between vP and VP. I have introduced Sybesma's analysis of Asp3P in section 3, in which Asp3P was identified as RealizationP, indicating whether the endpoint projected elsewhere (Asp1, as we will see) is realized or not.

Asp1P (or TelicityP; Xuan 2008) has the function of closing off the open end of the event or action denoted by the VP. It is occupied by fully lexical predicative elements, which assign a thematic role to a constituent in their spec. Asp2P lies in between TelicityP and Realization. If occupied, it indicates that the process, which is denoted by the VP and which is closed off by the endpoint denoting element in the head of Asp1P (ot TeleicityP), is no longer accessible for syntactic operations (Sybesma 2017). Another way of looking at it is that it makes the endpoint absolute and definitive. I will explain what is meant by this.

The Asp1P in Sybesma (2017) can be traced back to his analysis of VP construction in Mandarin in 1992, 1997 and 1999, when, based on Teun Hoekstra's work (1980s, 1990s), Sybesma developed a small clause (SC) analysis to deal with Mandarin verb-result phrases and *ba*-sentences (Sybesma 1999). In the SC analysis, resultatives are analyzed as follows: there is a V, which is atelic (it is an activity) and it has a complement which is constituted by bare subject-predicate combination, the small clause, which denotes the endpoint of the activity. The key idea of the SC analysis is that the verb in a resultative construction has an open end, and the process is closed off by a resultative denoting small clause. This idea is compatible with that of Tai and Chou (1975) and Tai (1984), where it is pointed out that, with a few exceptions, telic predicates in Mandarin consist of a verb denoting the action and a separate element denoting the result. Xuan (2008), following work by Travis and others, proposed to move the result denoting small clause into the functional domain right above VP, subsequently calling it TelicityP. Here is (31) again written in (38), with some small adaptations, to illustrate the analysis of a sentence like (39). It is important to emphasize once more that the head of Asp1P is a lexical predicative element which has a thematic relation with the nominal constituent in its spec.

(38)



(39) tāmen chī qióng le Zhāngsān.
3PL eat poor PERF Zhangsan
'They ate Zhangsan poor.'
(e.g. a big group of his friends ate so much that it resulted in Zhangsan becoming poor)

Asp1P, made up by *Zhāngsān qióng* 'Zhāngsān poor', provides the endpoint to the open ended activity denoted by the VP, here headed by *chī* 'eat', and Asp3P expresses whether the endpoint was reached or not (if its head is occupied by *le*, as it is in (38-39), it is, if not it isn't).

Sybesma (2017) introduces a third AspP, Asp2P, in between Asp1P (TelicityP) and Asp3P (RealizationP). The motivation of Asp2P is based on sentences like (40) (from Sybesma 2017, who adapted them from Xuan 2008).

(40) a. Wǒ zǎo jiù bǎ kètīng cā wán le.
1SG early then BA living room sweep finish PERF
'I finished cleaning the living room a long time ago.'
b. Nǐ bǎ mén suǒ-hǎo-le méi-yǒu?
2SG BA door lock-good-LE not-have?
'Did you lock the door?'
c. Wǒ yìzhí méi kàn-chéng nèi-bù diànyǐng.
1SG all.along NEG look-success that-CL film
'I never succeeded in seeing that movie.'

In (40), we cannot interpret the sentences such that, for instance for (40a), *wán* 'finished' predicates of the *kètīng* 'living room' or that, in (40b), *hǎo* 'good, done' predicates of *mén* 'door': these sentences do not express that the living room is finished as the result of a cleaning event or that the door is done as the result of a locking event. Rather, the elements *wán* 'finished', *hǎo* 'good, done' and *chéng* 'succeeded' scope over the event as a whole: the event of cleaning the living room, etc. In Chinese linguistics, these elements are known as "phase complements" (Chao 1986), not to be confused with the term "phase" in minimalism. Since they do not predicate of the object, these elements do not occupy $Asp1^0$, and since they co-occur with *le*, they obviously also do not occupy $Asp2^0$. That is why Sybesma proposes a third position.

Sybesma tries to connect this tree to differences between accomplishments and achievements, suggesting that the difference may be a structural one. Although both telic, achievements and accomplishments are different in the sense that accomplishments involve durativity, dynamicity, or agentivity, while achievements are (near) instantaneous changes from ¬φ to φ (Rothstein 2004:155; as quoted in Sybesma (2017)). As a result, accomplishments are compatible with the progressive, while achievements are not. As (41) shows, the accomplishment expression *write a letter* is compatible with the progressive, while this is not the case for the achievement verb *find*.

(41) a. Mary was writing a letter.
b. *Mary was finding her key.

With a reference to Tai (1984), and Tai and Chou (1975), Sybesma (2017) notes that the Mandarin counterpart of achievement verbs often consist of a process and an endpoint, just like accomplishments. Examples include *kàn-jiàn* 'look-perceive < see' and *zhǎo-dào* 'search-success < find'. The difference between achievements and accomplishments lies in the nature of the element that expresses the endpoint: with accomplishments, the endpoint is a lexical element and it does not block the process preceding it from being syntactically accessible (hence, the possibility of forming a progressive; see (41a,b)), while the endpoint denoting element in achievements is expressed by the type of elements that we called "phase complements" earlier on, and they do block the process expressed by the verb preceding it, with the result that forming a progressive is not possible, as shown by (42) (all examples from Sybesma; % in (42b) shows variation among native speakers consulted).

(42) a. Tā (zhèng) zài cā gān bōlí.
3SG right be.at wipe dry glass
'He is wiping the glass dry.'

b. Nǐ zài gàn shénme?! %Nǐ zài nòng huài wǒ
2SG be.at do what 2SG be.at do broken 1SG
de diànnǎo!
SUB computer
'What are you doing?! You are destroying my computer!'

(43) a. *Wǒ zhèng-zài kàn chéng nèi bù diànyǐng.
1SG right-be.at look success that CL film

b. *Wǒ zhèng-zài zhǎo dào wǒ de yàoshi
1SG right-be.at find out 1SG SUB key

After some discussion, Sybesma concludes that the difference between (42) and (43) is related to the position the endpoint denoting elements occupy: elements in $Asp1^0$ do not block syntactic operations targeting the V, where as elements in $Asp2^0$ do, thus giving a structural account of the difference between accomplishments and achievements. His argument is strengthened by facts like the following, in which both positions are filled:

(44) a. Tā bǎ diànnǎo nòng sǐ diào le!
3SG BA computer do dead off PERF
'He completely destroyed the computer!'

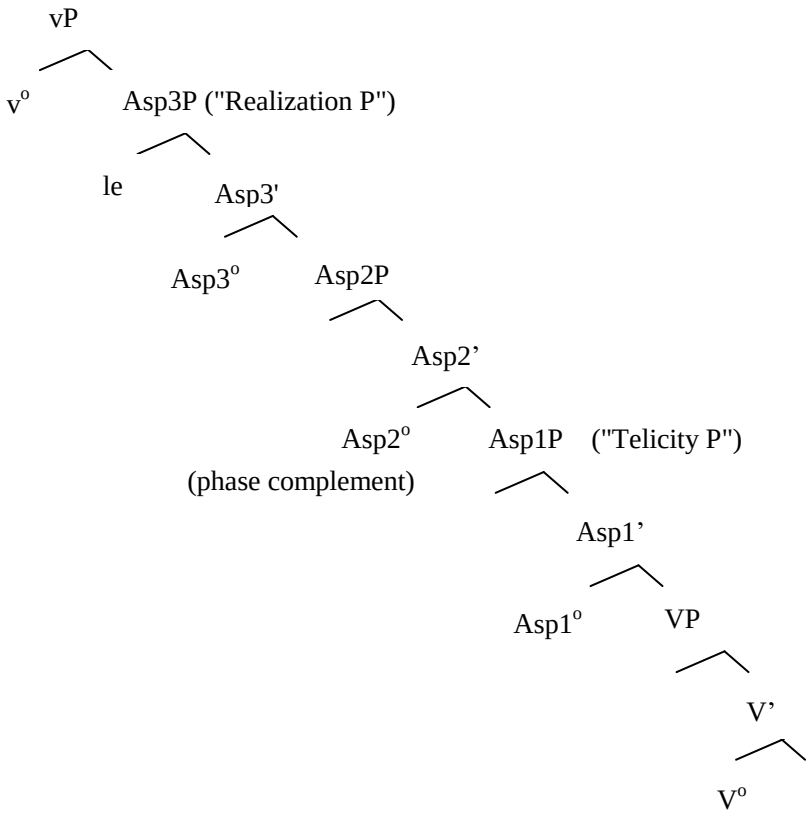
b. Wǒ bǎ yùndòngxié pǎo huài diào le.
1SG BA sneakers run to.pieces off PERF
'I ran my sneakers completely to pieces.'

Note that the progressive is not compatible with them (44a), while it was in (42b); this is shown in (45).

(45) *Nǐ zài nòng huài diào wǒ de diànnǎo!
2SG be.at do broken off 1SG SUB computer

Here is the tree once more, as proposed by Sybesma (2017), even though it is based on Travis (2010) Xuan (2008, 2011).

(46)



The head of Asp1P is where the lexical endpoint is positioned (like *sǐ* 'dead' in (44a) and *huài* 'broken' in (44b)) and the head Asp2P is filled by the elements called phase complement (like *diào* 'off' in these examples), while the head of Asp3P is occupied by perfective marker *le*.

In the following chapter, I assume Sybesma's (2017) analysis, modifying it in at least one place in that I will argue that $Asp2^0$ may be occupied by different types of elements (not just these "phase complements") and that its function varies accordingly.

Above, I focused on Sybesma's (2017) view of Inner aspect in Mandarin. Aside from concretely proposing the three-layered structure in between vP and VP, it also is one way in which researchers have shown that situation aspect is compositional in Mandarin. Other researchers have proposed similar views,

leading to similar structures. In the next section, I review Soh and Kuo (2005), who look at the relation between telicity and properties of object noun phrases.

1.2.6 Telicity in Mandarin

Whether there are telic verbs in Mandarin has aroused a hot discussion in the literature. Tai (1984) holds that there are no simplex accomplishment verbs in Chinese. In many cases, telicity is only implied. The expression of telicity arises with the addition of a resultative complement, as we saw above, or a bounded object, and in the latter case, the telicity is only implied, or so it seems, when we consider examples such as those in (47a), where an accomplishment predicate sentence is followed by a sentence denying the implied result of the first.

(47) a. tā xiě le yī fēng xìn, kěshi méi xiě wán.
3SG write PERF one CL letter, but NEG write finish
'He wrote a letter, but he did not finish it.'
b. # He wrote a letter, but he did not finish it.

The first part of (47a) describes an accomplishment situation, presented in the perfective, and yet, the sentence is compatible with a follow-up sentence that negates the completion of the action in the first sentence. This is different from English. In English, an accomplishment situation presented in the past or perfective followed by an assertion that the event has not been completed causes a contradiction (see (47b)).

However, Soh and Kuo (2005) point out that telicity is not always only implied. It depends on a number of factors, such as the type of verb and the type of object. They suggest that the absence of a contradiction in (47a) has to do with the nature of the object in a creation event like writing a letter. They divide events into two classes: those that Allow Partial Object (APO) and those that allow No Partial Object (NPO). In NPO situations we have a created object which cannot be considered the relevant object until the process of creation has reached its inherent endpoint. For example, *yī-jiān fángzi* 'a/one house' cannot be properly called 'a house' in a building event until the building of the house is

finished. In APO contexts, on the other hand, the object *can* be considered the relevant object before the inherent endpoint of the event is reached. For example, if a drawing event (*huà yī fù huà* 'draw a picture') is stopped before reaching its inherent endpoint, the object created can still be called "a picture".

Based on the distinction between NPO and APO, Kuo and Soh claim that the compatibility of the negating follow-up sentence in (47a) can be attributed to the properties of the object, *yī-fēng-xìn* 'a letter', which, according to them, is an instance of an APO: even an unfinished letter is still a letter.

As Soh and Kuo point out, we see a similar phenomenon with other than verbs of creation in the sense that the nature (esp. divisability) of the object is of utmost important in creating genuinely telic events. Consider the contrast between (48a) and (48b), where completion is necessary with a numeral object but not with a demonstrative object.

(48) a. tā chī le nà gè dàngāo, kěshì méi chī wán.
3SG eat PERF that CL cake but NEG eat finish
'He ate two cakes /that cakes', but he did not finish them /it.'

b. *tā chī le liǎng gè dàngāo, kěshì méi chī wán.
3SG eat PERF two CL cake but not eat finish
'He ate two cakes, but he did not finish them /it.'

In (48a), the object is a definite noun phrase; the sentence is compatible with a negating follow-up sentence, while this is not possible if the object is a quantized noun phrase (48b). Soh and Kuo point out that this is related to the feature specification of nominal phrases. Following Jackendoff (1991), Soh and Kuo assume that nominal arguments may bear the features ±b[ounded] and ±i[nternal] structure. The feature [±b] refers to the boundedness of an entity. The feature [±i] indicates whether the entity has inherent division into discrete members (Soh and Kuo 2005). The feature specification for English nouns is presented in (49) from (Jackendoff 1991:20).

(49) English

Bare mass nouns	[-b,-i]	substances	(*custard*, *water*)
Bare plurals	[-b,+i]	aggregates	(*sandwiches*, *buses*)
Singular count noun	[+b, -i]	individuals	(*the sandwich*, *a bus*)
Numeral plurals	[+b, +i]	aggregates	(*3 sandwiches*, *4 buses*)

However, different from Jackendoff (1991), Soh and Kuo suggest that the features are encoded in the nominal head and nominal projection in a bottom-up manner under a feature percolation rule. See (50) from Soh and Kuo (2004:206, 207).

(50)

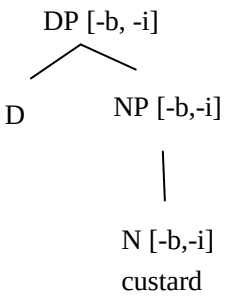
Numeral	[-b]→[+b]
Definite determiner or demonstrative	[-b] →[±b]
Classifier	[-i] →[±i]

In (50), a numeral changes the [-b] feature of its selected constituent to [+b]. A definite determiner or demonstrative changes the feature [-b] of its selected constituent to [±b]. The classifier changes the [-i] feature of its selected constituent to [±i].

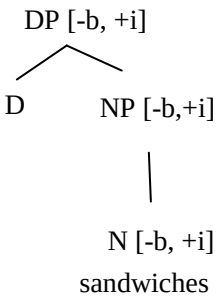
Under the rule in (50), the feature specification for English noun phrases is presented in (51) (from Soh and Kuo (2005:206, 207).

(51)

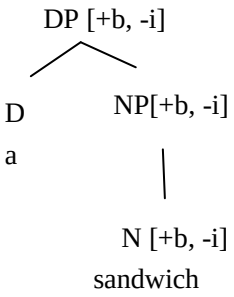
a. Bare mass nouns [-b, -i]



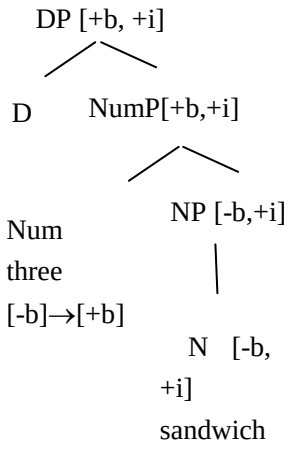
b. Definite plurals [-b, +i]



c. Singular count nouns [+b,-i]



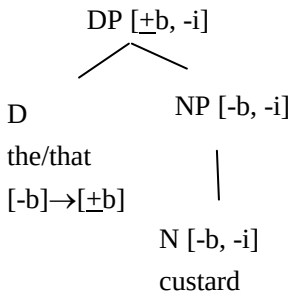
d. Numeral plurals [+b, +i]



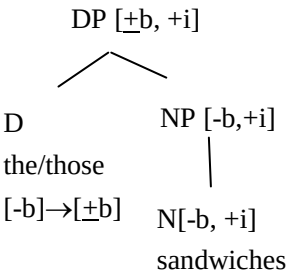
(51) shows the bottom-up feature percolation caused by the numeral. The same feature percolation process can be extended to DP, where the definite determiner and the demonstrative change the boundedness feature of the constituent they select from [-b] to [+b] (cf. Jackendoff 1996). See (52) (from Soh and Kuo 2005:206).

(52)

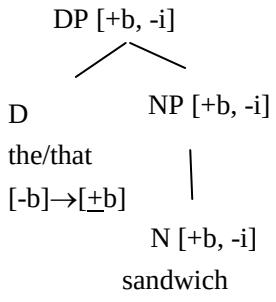
a. Definite mass nouns [±b, -i]



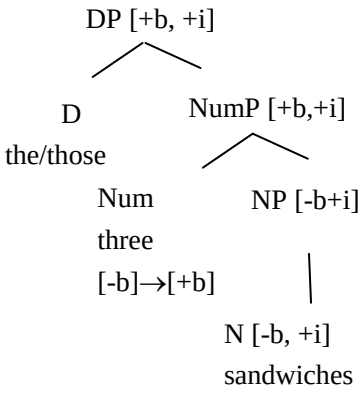
b. Definite plurals [±b, +i]



c. Definite singular count nouns [+b, -i]



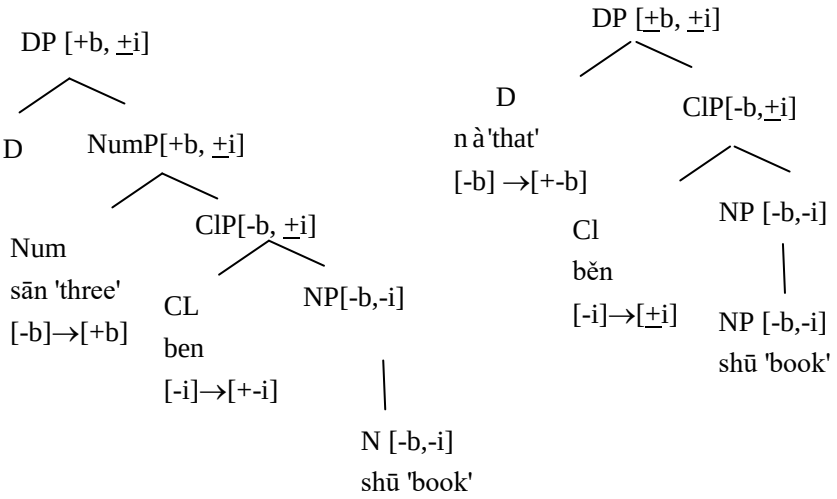
b. Definite numeral plurals [+b, +i]



However, Mandarin is different from English, in the sense that Mandarin head nouns do not differentiate between mass from count as is pointed out in Chierchia (1998): Mandarin head nouns are mass (but see Chang and Sybesma 1999 for counterarguments to this claim). They are specified as [-b, -i]. Based on the rules given in (50), the feature percolation of nominal phrases in Mandarin is presented in (53) (from Soh & Kuo 2005:212).

(53)

a. Numeral expressions [+b, +-i] b. Demonstrative noun phrase[+-b, +-i]



(53) shows that in Mandarin a DP with an object containing a numeral ends with [+b] feature, and a DP with an object containing a demonstrative ends with [±b] through the process of bottom-up feature percolation. The feature percolation in the DP projection explains why a perfective accomplishment with a numeral object is not compatible with the negation with the entailed result, while it can if the object contains a demonstrative phrase.

The importance of all this for this thesis is that, in this thesis, based on the analysis of feature percolation in nominal phrase in Soh & Kuo (2005), I assume that in Mandarin only accomplishment verbs with an object containing a numeral compose a genuinely telic event, while if the object contains a demonstrative phrase it may express a telic or an atelic event.

1.2.7 Summary of Chapter 1

This chapter presents an introduction to the language we will investigate (the Chángshā variety of Xiāng) and to some theoretical tools that I will use in my analysis. I have introduced the properties of tense and aspect (Outer aspect and

Inner aspect) in Mandarin. I concluded that Mandarin has a TP and that the perfective marker *le* is located in an Inner aspect position but interpreted in an Outer aspect position. Furthermore, Inner aspect in Mandarin is a three-layered structure.

The main purpose of this thesis is to investigate the morpho-syntax of aspect in Xiāng, to find out what the properties of the aspect system in Xiāng are in the perspective of general linguistics. I assume that in the relevant respects, Xiāng is like Mandarin: it has a TP and a three-layered Inner aspect. This framework, will enable me to present a novel approach to the use of the elements *ta*^{21} and *ka*^{41} in the Cháng shā dialect.

1.3 Overview of the thesis

This thesis aims at investigating the morpho-syntax of aspect in Xiāng, more in particular the variety spoken in Chángshā. The purpose is twofold: language specific as well as more generally theoretical. On the one hand, I will provide an analysis of the expression of aspect in Xiāng, while on the other hand I point out that the cases we are dealing with are not isolated from linguistics in general.

The main motivation comes from two observations. First, I observe that there are cases in which one aspect particle is applied to express more than one aspectual meaning. For instance, I observe that in Chángshā, one of the Xiāng varieties, in some cases, the particle *ta*^{21} can be used to express a perfective meaning, but in some other cases, it can also be used to express a progressive/durative meaning. It is not clear how people distinguish the perfective meaning from the progressive/durative meaning since they are expressed by the same particle. Secondly, there is the particle *ka*^{41}, which has been analysed as a perfective marker as well but I think that this is mistaken: first, in many contexts it cannot be a perfective marker and aside from that, it can co-occur with *ta*^{21}.

These observations lead to the following research questions:

a) What is the interpretation and distribution of *ta*^{21}?

b) How can we account for the observation that in Xiāng, or in any case in the Chángshā variety of it, the same particle can be involved in the expression of different aspectual meanings?
c) What is the interpretation and distribution of *ka*^{41}?

Within the Inner aspectual framework presented above, I point out that there are two particles sharing the same morphological form: one is used as a perfective marker, *ta*^{21}$_{\text{PERF}}$; the other is used as a progressive marker, *ta*^{21}$_{\text{PROG}}$. The difference between the two particles lies in the different syntactic positions they occupy. *ta*^{21}$_{\text{PERF}}$ indicating whether an event is realized or not, is structurally higher than *ta*^{21}$_{\text{PROG}}$, indicating that the action presented is ongoing and continuous. Both *ta*^{21}$_{\text{PERF}}$ and *ta*^{21}$_{\text{PROG}}$ are located in Inner aspect positions, lower than little v and higher than V.

Aside from arguing that *ta*^{21}$_{\text{PROG}}$ is a progressive marker occupying one of the inner aspect positions, I point out that there is another progressive marker, in Outer aspect position. That is, we have two progressive markers in Xiāng. One is *ta*^{21}$_{\text{PROG}}$, the other is the preverbal *tsai*^{21}*ko*^{24}. What differentiates *ta*^{21}$_{\text{PROG}}$ from *tsai*^{21}*ko*^{24} is that the latter is located in Outer aspect, while *ta*^{21}$_{\text{PROG}}$ is in Inner aspect position. As we will explain, *tsai*^{21}*ko*^{24} focuses on the meaning of ongoingness, while *ta*^{21}$_{\text{PROG}}$ focuses on the meaning of both ongoingness and continuation. Another difference is that, unlike *tsai*^{21}*ko*^{24}, *ta*^{21}$_{\text{PROG}}$ must always be accompanied by other material. Using the framework introduced above as well insights from Tsai (2008) on tense anchoring, I will explain why this is the case.

As noted before, *ka*^{41} was treated as a perfective marker in the previous literature. In the present thesis however, it is argued that *ka*^{41} should not be treated as perfective marker. The main reason is that its distribution is much more restricted: it only appears in telic events, to give one example. Instead of treating *ka*^{41} as a perfective marker, I explore the possibility of locating it in the position labeled as Asp2^{0} in the tree structure introduced above (the "phase complement" position). I argue that it indicates that the process expressed by V that precedes the endpoint denoted by the result denoting element in Asp1^{0} is not accessible for further syntactic operations. For instance, it is not possible for the event to be

presented in the progressive. *ka*^{41} occupies the same position as *ta*$^{21}{}_{\text{PROG}}$, mentioned above. These two markers never co-occur.

As we will see towards the end, in Chángshā and Xiāng in general, all three Inner aspect positions can be lexically realized. *ta*$^{21}{}_{\text{PERF}}$ occupies Asp3^{o}; *ka*^{41} and *ta*$^{21}{}_{\text{PROG}}$ occupies Asp2^{o}, and a lexical result predicate may be located in Asp1^{o} position.

As indicated above, the significance of this thesis is meant to lie in the description and analysis of aspect in Xiāng, but also more generally in that it will support analyses in which Inner aspect plays a role. Furthermore, the thesis underscores the claim that Chinese languages are not all the same. Although the basic analysis is the same, the way the different positions in the structure are realized is different. For instance, although Mandarin has "phase complement" it does not have an element like Xiāng *ka*^{41}. Also, whereas this language has one element that can express both perfective and progressive/durative aspect, *ta*^{21}, Mandarin uses two different elements for these purposes, *le* and *zhe* respectively.

1.4 Summary of the following chapters

Following this introductory chapter, there are altogether 4 more chapters in this thesis.

In chapter 2, I provide an analysis to account for the interpretation and distribution of the postverbal aspect particle *ta*^{21}. It is multi-functional. The interpretation of *ta*^{21} varies according to context. It can be a perfective marker, *ta*$^{21}{}_{\text{PERF}}$, indicating that an action has been completed. It can also be a progressive marker *ta*$^{21}{}_{\text{PROG}}$, indicating that an action is in ongoing and continuous. The central question in this chapter is how it is possible that one element can express two such different aspectual notions. I provide an analysis to distinguish the contexts for the different interpretations of *ta*^{21}. I point out that we have two different *ta*^{21}s, labeled *ta*$^{21}{}_{\text{PERF}}$ and *ta*$^{21}{}_{\text{PROG}}$, which share the same morphological form. I argue that both are located in the Inner aspect domain, however, *ta*$^{21}{}_{\text{PROG}}$ is structurally lower than *ta*$^{21}{}_{\text{PERF}}$. An interesting difference between *ta*$^{21}{}_{\text{PERF}}$ and *ta*$^{21}{}_{\text{PROG}}$ is that the latter, unlike the former, must always be accompanied by other material, such as a preverbal progressive

marker *tsai*^{21}*ko*^{24} or an element of the same form in sentence-final position. I explain this by adopting Tsai's (2008) ideas on Tense anchoring. Tsai assumes that for a sentence to be grammatical Tense has to be supported one way or another. One way in which this can be done is by moving aspectual element into the T-position. I argue that, because it is too deeply embedded in Inner aspect, *ta*$^{21}{}_{\text{PROG}}$ is unable to move up to combine with T to anchor the sentence to tense, while *ta*$^{21}{}_{\text{PERF}}$ is high enough to do so. Since it cannot do it itself, *ta*$^{21}{}_{\text{PROG}}$ needs other elements to do the job.

In chapter 3 I provide an analysis of the distribution and interpretation of the use of *ka*^{41}. The central questions in this chapter are:

a) What is the semantic interpretation and syntactic distribution of *ka*^{41}?
b) How can we explain the use of *ka*^{41}? Is it just an idiosyncratic property of Xiāng or an instantiation of certain properties in general sense?

I show that the general idea in the literature that *ka*^{41} is a perfective marker is not correct. After discussing several options, I conclude *ka*^{41} is an element that is located it in the position labeled as Asp2^{0} in the tree structure introduced above (the "phase complement" position). I argue that it indicates that the process expressed by V that precedes the endpoint denoted by the result denoting element in Asp1^{0} is not accessible for syntactic operations. For instance, it is not possible for the event to be presented in the progressive. It provides a definitive end to the event.

In Chapter 4, I provide three analyses that are used to further support the proposed analysis of *ta*^{21} in chapter 2. The first analysis is built on data from Xùpǔ, another Xiāng variety. The second one is based on the distinction between *zhe*$_{\text{PERF}}$ and *zhe*$_{\text{PROG}}$ in Mandarin. In the third analysis, I show that historically *zhe* has been evolved from a perfective marker to an imperfective marker. *ta*^{21} is the cognate of *zhe*. In this sense, the use of *ta*$^{21}{}_{\text{PERF}}$ and *ta*$^{21}{}_{\text{PROG}}$ can be seen as similar to that of the two *zhe*s.

Chapter 5 presents the conclusion. In this chapter, I summarize the main assumptions and analyses of each chapter. I also point out the relevance of the present research to analyses of aspect in Mandarin syntactic theory more generally and I present some questions for further research.