

Aspect in Chinese : toward a unidimensional model

INTRODUCTION

The work that I want to talk about today is very much work in progress, and I will be talking about a small part of it because of the time limitation. Still due to lack of time, I'll have to skip the first page of the handout, which I will briefly summarize:

So, essentially, what I wanted to say in the PREVIOUS APPROACHES part is that one could classify the research on Chinese aspect in roughly two trends (ignoring the work by Klein & colleagues in 2000):

- a first trend tries to adapt Vendler's 1957 proposal regarding lexical aspect to Chinese, or alternately, Smith's 1991 proposal of a partition between situation aspect and viewpoint aspect with 5 situation types. In this current, Chinese linguists may point that the verb types inspired by Vendler's work are not totally adequate for Chinese.
- a second trend is more radical in that it rejects a strict partition of aspect in two components, showing that for Chinese, we need to consider at least three relevant layers for the analysis of aspect. We could follow Xiao & McEnery's 2004 work in calling these layers "nucleus", "core" and "clause".

1.3. The question is whether "layers" are relevant to aspectual meaning

It is quite striking in Xiao & McEnery's work that some of the features they use [see Table 1] are able to describe aspect values at the three levels they address. But basically, while dynamicity, durativity and resultativity seem to be features determined at the "nucleus" (lexical verb) level, both boundedness and telicity can be assigned at the "nucleus" level, and be modified at the "core" level (by adding direct object NPs) as well as at the "clause" level (through addition of certain PPs, verbal classifiers and the progressive aspect adverb).

Table 1. Features that can be (re-)assigned at different levels in Xiao & McEnery's (2004) model

Feature	Nucleus level	Core level	Clause level
[±dynamic]	yes		
[±durative]	yes		
[±bounded]	yes	yes	yes
[±telic]	yes	yes	yes
[±result]	yes		

Note that [+result] entails [+telic]; [+telic] entails [+bounded]

Apart from the possibility of modifying a situation type as late as the clause level, Xiao & McEnery's proposal also presupposes that all of the features described above are "visible" for grammatical aspect markers inserted at the "clause" level. (for instance, the progressive aspect adverb *zài* selects only [+dynamic] situations).

I think that, if aspectual features such as \pm durative, \pm bounded etc. are relevant to all levels of description (verb proper, verb compounds, verb phrases, clauses and sentences), we should be able to describe the building of sentential aspectual meaning by paying attention to the basic level of aspectual definition (the verb), and then tracking the various elements that have the capacity to modify this basic definition, through what I will call “aspectual type coercion”.

But before claiming this, I need to show that the distinction between verbal/situation aspect on the one hand and grammatical/viewpoint aspect on the other hand, is not an easy one to establish for Chinese.

2. THE INTRICACY OF SITUATION AND VIEWPOINT ASPECT IN MANDARIN CHINESE

Today I will focus on one aspect marker, the perfective verbal suffix *-le*.

Two points will be made :

a- First of all, contrary to what is usually assumed about “grammatical aspect markers” in Chinese, it is not obvious that this marker intervenes only as late as the “clause” level;

b- Second, whereas aspect markers are not mandatory in Chinese, *-le* sometimes is (notably with telic predicates).

> I would like to argue that both these facts concur against analyzing aspect in Chinese in terms of hierarchically organized “levels”;

Rather, I think that an approach in terms of an **extended relevance of basic aspectual features**, with “**aspectual coercion**” acting as a pervasive process, might be more explanatory.

Let us turn to the verbal suffix *-le*:

It is well-established by a number of authors (See Smith 1997, Klein et al. 2000, Xiao & McEnery 2004 among numerous others) that the verbal suffix *-le* is a grammatical marker of perfective aspect in Chinese. For Xiao & McEnery 2004, it is one of the 4 perfective aspects, two of which, the verb suffixes *-le* and *-guo*, occur **at the “clause” level**, while the other two (reduplication and resultative verb compounding) apply at the “nucleus” or lexical level.

-le's own contribution to the perfective meaning is so-called “actualization”: asserting that a perfective situation is relevant to speech time.

However, many authors have also pointed this suffix's potential for **situation** or even **verb-type** modification (as opposed to viewpoint aspect).

If both uses of *-le* are confirmed, this makes it difficult to posit a level-by-level derivation of situation types into sentential aspect. Let us look more closely.

2.1. *-le* as a verb-type modifier

In a compositional approach to aspect in Chinese, Lin (2004) goes as far as including *-le* in his rules for verb-type derivation. As seen in Table 2, for him, Chinese has only two basic verb

types (States and Activities), and the two other types (Achievements and Accomplishments) are derived as shown, using the suffix *-le* :

Table 2. Event types according to Lin (2004, 105)

primitive event types: Activity, State
State + <i>-le</i> = Achievement
Activity + Achievement = Accomplishment

How this works can be seen in sentences (1-3).

(1) State

这 双 鞋 很 破。
 zhe shuang xie hen po
 this CL shoe very broken
 This pair of shoes is lousy.

(2) State + *-le* → Achievement

这 双 鞋 破了。
 zhe shuangxie po-le
 this CL shoe broken-PRF
 This pair of shoes is worn out.

(3) Activity + [_{Achievement} State+ *-le*] → Accomplishment

这 双 鞋 穿破了。
 zhe shuangxie chuan-po-le
 this CL shoe wear-broken-PRF
 This pair of shoes has been worn to tatters.

Many authors mention the productivity of the combination of $V_{[state]}-le$ to create Achievements (see Teng 1975 among others).

This analysis differs from that of Xiao & McEnery's, for whom telicity is already present in RVCs (like the compound verb in example 3), as a result of verb compounding. Thus, for them, the RVC *chuan-po* 'wear-to-the-point-of-breaking' is intrinsically telic, and the perfective suffix *-le* only contributes "actualization", and "termination" (rather than completion).

However, I cannot fully agree, since when only the State verb *po* '(to be)broken', by definition atelic and unbounded, is associated to the perfective suffix *-le*, the verb gets an achievement meaning, which is to say **the perfective suffix provides a boundary** (initial in this case) to account for the object becoming 'broken'. See example 2 above.

In example 4, we can see that the temporal adverbial *liang ge yue* 'two months' quantifies the resulting state from its initial boundary onward up to Speech Time:

(4) 这双鞋破了两个月了。

zhe shuang xie po-le liang ge yue le
this CL shoe broken-PRF two CL month FP

This pair of shoes has been worn out for two months.

Thus, we have to admit that *-le* contributes to the temporal delimitation of situations, sometimes all by itself, and sometimes in addition to / in accordance with other delimitating elements (such as verb composition in Resultative Verb Compounds or reduplication, or the presence of quantified objects or duration/frequency adverbials).

I think that in this case (the association of *-le* with a State verb), an analysis in terms of type-change is more to the point than an analysis in terms of viewpoint aspect.

As a matter of fact, *-le* is not the only “viewpoint aspect marker” able to modify certain situation types.

Unfortunately, I don’t think I have the time today to go into the details of examples 5 and 6, with the progressive adverb *zai* and its potential for turning telic situations into atelic ones.

Let us now turn directly to another property of the perfective suffix *-le*.

2.2. Bare predicates and the mandatoriness of perfective suffix *-le*

In Chinese, it is often said that grammatical aspect markers are not mandatory, so that, with so-called ‘bare predicates’, sentential aspect may be derived from situation aspect alone. For instance, Smith & Erbaugh (2005) use Bohnemeyer & Swift’s (2004) default correlation between telicity and perfectiveness to derive viewpoint aspect from verbal (situation) aspect. In a similar way, Jin 2008 claims that, when viewpoint aspect is not stated, sentential aspect is built directly on the aspectual features already present in the verb.

More precisely though, this is the case **only with atelic situations**, where bare predicates produce various imperfective meanings, depending on the type of verb/situation:

Sentences 7-8 illustrate this point for State verbs while sentences 9-10 do so for activities.

(7) Individual-level stative predicates

钻石 昂贵。

zuànshí ángguì
diamond expensive

Diamonds are expensive. (generic imperfective)

(8) Stage-level stative predicates

小心，粥很烫！

xiaoxin zhou hen tang
careful congee very hot

Be careful, the congee is very hot! (deictic present imperfective)

Activities

(9) 小李 洗 衣服。

Xiaoli xi yifu

Xiaoli wash clothes

Xiaoli washes clothes (as an occupation or as a habit). (habitual imperfective)

(10) 小李 修 電腦。

Xiaoli xiu diannao

Xiaoli repair computer

Xiaoli repairs computers (as an occupation or as a habit). (habitual imperfective)

Note that, contrary to their English translation, *xi* ‘wash’ and *xiu* ‘repair’ are not telic predicates *per se*. They do not contain any ‘culminating point’. In order to get such a culminating point, it is necessary to go through verb compounding (as exemplified in sentence 3).

As can be seen from the preceding examples, bare stative predicates give the sentence a generalizing or generic imperfective meaning (i-level predicates) or a present imperfective meaning (s-level predicates), while bare activities give the sentence a habitual or generalizing imperfective meaning.

To be more specific about both examples involving Activities, the non-specific, non-referential nature of the object NP ‘clothes’ and ‘computers’ ensures that the VP is atelic. If on the contrary, such objects are quantified, the VP becomes a telic Accomplishment, and the verb can no longer stay bare. Which is what happens in 11.

(11) 小李 修*(了) 一部 電腦。

Xiaoli xiu*(-le) yi bu diannao

Xiaoli repair-PFV one CL computer

Xiaoli repaired a computer.

The same is true of activity verbs with an incorporated Object Noun, where the Object is interpreted as specific and the predicate cannot stay bare. See 12.

(12) 小李 洗*(了) 脸

Xiaoli xi*(-le) lian

Xiaoli wash-PFV face

Xiaoli washed her face.

#Xiaoli washed a face.

Thus, we can see that there is (at least) one notable exception to the non-mandatoriness of viewpoint aspect markers.

The facts are: **when telic predicates head an independent clause**, the clause cannot stand without the verbal suffix *-le*.

As for verbs that are **intrinsically telic**, such as monomorphemic achievements (*ying* ‘win’) or accomplishments (*gai* ‘build’), they have to bear the perfective suffix *-le* in independent clauses, as shown in 13.

(13) 法国 队 赢*(了)。

faguo dui ying*(-le)

France team win-PFV

The French team won.

Even when they are combined with non-quantified objects, they cannot stay bare in independent clauses. What is more, their object, although expressed as a bare noun, has to be interpreted as **referential and specific** as shown in 14:

(14) 法国 队 赢了 球赛。

faguo dui ying*(-le) qiusai

France team win-PFV match

The French team won the match.

In 14, although the object NP bears no quantifier and no determiner, its referential interpretation still makes it a “quantized NP” in the sense of Pulman (2002: 299)¹, as was the case with incorporated Objects as exemplified in sentence (12).

This overall observation is in line with Xiao & McEnery’s (2004) quantitative analysis based on a corpus study: “*-le* shows a strong preference for telic and bounded situations” (p; 101); “a strong tendency for *-le* to occur with situations including a spatial or temporal endpoint” (p. 105)

Intermediate summary :

Thus, the question we’re left to answer is :

Why is it that when a situation is not telic, adding perfective *-le* makes the sentential aspect telic, while, when a situation is already telic, *-le* is obligatory.

¹ For Pulman (2002: 199), quantized NPs include: “Singular referential definites, demonstratives, possessives, NPs with (non-negative) quantifiers or numeric determiners”. Non-quantized NPs include: “Those with negative determiners (‘no...’, ‘none of the...’), bare plurals, mass terms, attributive definites, some plural definites”.

Of course this is based on English and would need to be refined for Chinese, where bare NPs may have a variety of interpretations in terms of number and definiteness.

We have to turn to the notion of aspectual coercion in order to explain the facts. Moreover, telicity is usually considered to be a feature associated with verb types or situation types. But we can see that in Chinese, telicity is a feature that may intervene either at the verb or the clause level, associated to so-called viewpoint aspect. Thus, I consider that a layered approach to the construction of sentential aspect, and especially, a strong distinction between situation and viewpoint aspect, is not the best way to account for the pervasiveness of this feature, and maybe others (which are not the focus of today's talk). [Maybe, as was hinted by Vladimir Plungian earlier today, the whole "viewpoint" metaphor is not very useful when describing languages that are very different from English]

3. ASPECTUAL COERCION: A PARTIAL EXEMPLIFICATION IN CHINESE

Aspectual coercion has been the focus of much research with different frameworks, and today, due to lack of time, I won't try to define the phenomenon in any strict sense.

Moens & Steedman (1988), Pulman (1997, 2002), (De Swart 1998), Pustejovsky (1991), (Michaelis 2004), Dölling (2012), mainly on English facts.

Suffice it to say that, following Michaelis (2004), I assume that it is possible to use the same aspectual classes throughout the derivation of aspect starting from the verb up to the sentence. This is only partially congruent with Xiao & McEnery's (2004) work, as shown earlier in Table 1, where only two aspectual features (boundedness and telicity) seemed to be attributable at 'higher' levels than the "nucleus".

I would like to claim however that potentially all basic features defining verb types may be of use at all levels of analysis.

3.1. Perfective *-le* as a coercion operator

Following both De Swart (1998) and Michaelis (2004)², it may be useful to distinguish between two aspectual coercion processes: namely type-shift and concord.

- While Concord may be said to be the basic operation by which an aspectual element ensures that it gets the right verb type as input,
- Type shift changes the original aspectual specification of the verb to a given aspectual meaning.

If we go back to Chinese perfective *-le*, we may wonder how it really works.

3.1.1. Concord?

As I said earlier, telic predicates cannot occur in an independent clause without perfective *-le*. This is illustrated in 15-16 :

(15)	小李	蓋*(了)	房子
	Xiaoli	gai*(-le)	fangzi

² although the two authors hold theoretically distinct positions as to the nature of coercion (De Swart uses coercion operators while Michaelis takes coercion as a property of certain constructions).

Xiaoli build-PFV house
 Xiaoli built a/his house.

(16) 小李 盖好*(了) 房子
 Xiaoli gai-hao*(-le) fangzi
 Xiaoli build-good-PFV house
 Xiaoli finished building his house.

This could be described as “concord”, since it has to do with feature matching: bounded predicates having intrinsic boundaries, they are compatible only with the kind of viewpoint aspect that allows these boundaries to be focused, namely perfective³.

Or, it could be argued that perfective *-le* “selects” predicates with the correct [+telic] value. However, as I said earlier, this is not the whole picture. So we may wonder, is *-le* rather a type-shift operator?

3.1.2. Type shift?

As a matter of fact, the perfective viewpoint marker *-le* can also be combined with atelic predicates.

As we saw earlier, the combination of state verbs and *-le* perfective marker gives rise to a change-of-state meaning, as can be seen in 17-18:

(17) 我妈 很 老。
 Wo ma hen lao
 1SG mother very old
 My mother is old.

(18) 我妈 老了 (许多)。
 Wo ma lao-le xuduo
 1SG mother old-PRF a_lot
 My mother has grown (a lot) old(er).

So, the combination of state verbs and *-le* perfective marker gives rise to a type change from State to Achievement; we may also recall Lin’s claim that Achievements are derived from States with *-le*.

So that *-le* can be seen as reversing the values of *dynamicity* and *telicity* of the initial situation type, as shown in Table 3.

Table 3. Reversal of dynamicity and Telicity values of State verbs + *-le*

³ Note that such verbs are also compatible with another viewpoint marker, namely *-guo*, usually described as “experiential”, and described by Klein et al. (2000) as a kind of Perfect (reference time being posterior to situation time). As such, *-guo* also allows the intrinsic boundaries of the predicate to be “seen”, since it is not an internal viewpoint.

	Bare	Suffixed with <i>-le</i>
State verb	[-dynamic, -telic]	[+dynamic ; +telic]

However, this kind of type change is not restricted to state verbs, it may also apply to semelfactives (like *xiào* ‘laugh’ in 19) and activities (like *zou* ‘walk’ in 20). It then contributes a telic feature to the initial verb type:

(19) 张三 大声 笑了。
 Zhangsan dasheng xiao-le
 Zhangsan loud laugh-PFV
 Zhangsan laughed out loud.

(20) 张三 走了。
 Zhangsan zou-le
 Zhangsan walk-PFV
 Zhangsan left.

In both cases, the addition of the perfective suffix provides an initial boundary to the situation.

Table 4. Reversal of the telicity value of dynamic atelic verbs + *-le*

	Bare	Suffixed with <i>-le</i>
Activity verb	[+dynamic, -telic]	[+dynamic; +telic]
Semelfactive verb	[+dynamic, -telic]	[+dynamic; +telic]

So it appears that *-le* 了 itself, besides being a perfective marker, has dynamic and telic features. As such, it combines readily, even mandatorily in independent clauses, with dynamic and telic verbs.

And when combined with other verbs, it supplies either of the missing features of dynamicity (for States) and telicity (for States, Activities and Semelfactives).

This is shown in Table 5.

Table 5. Dynamicity and Telicity values of all types of verbs + *-le*

	Bare	Suffixed with <i>-le</i>
State verb	[-dynamic; -telic]	[+dynamic ; +telic]
Activity verb	[+dynamic, -telic]	[+dynamic; +telic]
Semelfactive verb	[+dynamic, -telic]	[+dynamic; +telic]
Accomplishment verb	[+dynamic, +telic]	[+dynamic, +telic]
Achievement verb	[+dynamic, +telic]	[+dynamic, +telic]

4. TOWARDS A UNIDIMENSIONAL MODEL OF ASPECT IN CHINESE

Finally, how can this analysis lead us to regarding the building of aspectual meaning in Chinese in a unidimensional way?

To sum up the discussion so far, I would like to stress again that it is not possible in Chinese to analyze the building of sentential aspect as a well-compartmented process where each hierarchical level is subject to its own aspectual meaning building operations.

Rather, taking perfective suffix *-le* as an example, I showed that so-called ‘viewpoint’ or ‘sentential’ aspect markers contribute to aspectual meaning at various points in the derivation of sentential aspect.

Similar claims could be made for two other viewpoint aspect markers, imperfective durative *-zhe* and progressive *zai*, but I will have to leave this demonstration for another occasion.

I think that these markers do not only contribute viewpoints as a holistic aspectual meaning, but, through ‘coercion’ mechanisms, they also modify verb types by providing the very same features that define verbal aspect in the first place: dynamicity/stativity, telicity, durativity...

This is roughly sketched in Table 6.

Table 6. Basic aspectual features that can be contributed by “sentential”/“viewpoint” aspect markers through aspectual coercion

	“viewpoint” aspect marker	‘coercion’ process
Stativity/Dynamicity	PERFECTIVE <i>-le</i>	concord & shift
	DURATIVE <i>-zhe</i> ⁴	type shift only
Telicity	PERFECTIVE <i>-le</i>	concord & shift
	PROGRESSIVE <i>zai</i>	concord & shift
Durativity	PROGRESSIVE <i>zai</i>	concord & shift

As a next step, I will need to propose a derivation mechanism through which it is possible for those basic features to be maintained or to be modified at different steps. I hope to be able to do so in the near future.

⁴ Durative imperfective suffix not exemplified today.

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