

Telicity Marking in Mandarin Chinese

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1. Introduction

In this study I discuss the mechanisms that Chinese utilizes to mark telicity. The first issue I would like to address is the atelic reading of an Accomplishment with the perfective viewpoint in Chinese. The sentences in (1) and (2) demonstrate the contrast between English and Chinese Accomplishments.

(1) John wrote a letter, *but did not finish writing it.

- (2) a. Zhangsan xie-*le* yi feng xin,
Zhangsan write-PRF one CL letter
'Zhangsan wrote a letter,
b. ...ranhou ba xin ji-le¹ (telic)
then BA letter send-PRF
'...and then mailed it off.'
c. ...keshi zhi xie-*le* yi ban (atelic)
but only write-PRF one half
'...but only wrote a half of it.'

The English sentence in (1) illustrates that an Accomplishment does not allow an 'incomplete' reading; the letter-writing event must be completed and there must be a letter that is completely composed. In contrast, an Accomplishment in Chinese does not have such a constraint. A sentence such as (2a), which has a quantized object, can either have a telic reading as demonstrated by the sentence in (2b) or an atelic one as illustrated by the sentence in (2c).

Several proposals have been made to account for the difference. Smith (1997), for example, argues that Chinese perfective aspect (expressed by verb-*le* as in (2a)) implies completion of an event but does not entail it. The implicature can be canceled as illustrated by the subordinate clause after the conjunction word *keshi* 'but' in (2c). Tsai (1984) claims that an Accomplishment in Chinese always consists of two parts: the *process* and the *result state*. These two parts must be expressed by overt lexical items. According to Tsai, the reason that the sentence in (2a) has an incomplete reading is due to the fact that the result state is not overtly expressed.

The above two possible approaches both nicely account for the atelic reading of an Accomplishment such as (2a) in Chinese. However, there exist sentences that may be considered as counterexamples to their analyses. Observe the sentence in (3):

- (3) Lisi **hen** **kuaide** xie-*le* na feng xin, *keshi mei xie-*wan* (telic)
Lisi very quickly write-PRF that CL letter but not write-finish
*'Lisi quickly wrote that letter, but did not finish writing it.'
*'Quickly, Lisi wrote that letter, but did not finish writing it.'

¹ The sentence in (2b) is a BA construction. It differs from a canonical sentence in that the object appears before the main verb.

The second issue I would like to address in this study is the mechanism(s) that Chinese uses to mark telicity. As Smith (1997) argues, Chinese uses resultative complements such as the morpheme *wan* 'to finish' to mark telicity as demonstrated by the sentence in (4) below:

- The morpheme *wan* in (4) expresses absolute completion of event and therefore, the conjunction is contradictory. Tsai's (1984) analysis nicely accounts for the telic-only reading of this sentence given that both the process (i.e., *xie*, 'to write') and the result state (i.e., *wan* 'to finish') are overtly expressed. Most of the previous studies assume that the morpheme *wan* functions like other resultative complements without any further discussion. Nevertheless, there exists semantic and syntactic evidence showing that *wan* acts differently from other types of resultative complements. The sentences in (5) are two examples of resultative constructions in Chinese.

- It has been argued that there are two types of resultative constructions in Chinese (e.g., Huang 2006, Sybesma 1999, Tang 1997, and Zhang 2001): the V-V compound resultative as in (5a) and the V-de phrase resultative as in (5b). These two types of constructions in general are interchangeable. However, the morpheme *wan* can only appear in the V-V compound construction as in (6a) but not in a V-de phrase construction as in (6b).

- Given that *wan* acts differently from other resultative complements, an alternative account is needed. In Section 2, I will review previous studies that have dealt with the atelic reading of an Accomplishment. I will then provide an alternative account for the telicity marking in Chinese and the syntactic distribution of the morpheme *wan* in Section 3. Finally, I give a summary in Section 4.

2. The atelic reading of an Accomplishment in Chinese

As presented in Section 1, an Accomplishment in English in general only has a telic reading with the perfective viewpoint aspect. However, the quantity of the direct object plays an important role in determining the (a)telicity of an event. Take the sentences in (7) and (8) for example.

- (7) a. John wrote **a letter** in an hour. (telic)
 b. John wrote **letters** for an hour. (atelic)
- (8) a. John ate **two apple** in 3 minutes. (telic)
 b. John ate **apples** for 3 minutes. (atelic)

The verbs of the two sets of sentences in (7) and (8) belong to verbs of creation and consumption, respectively. They are similar in that the quantity of the direct object determines the (a)quantity of the event. In the a-sentences, the direct objects contain a specific quantity and according to Tenny (1987, 1994), they *measure out* the events; therefore, both sentences have a telic reading. On the other hand, the direct objects in the b-sentences contain a non-specific quantity and the sentences have an atelic reading. The examples in (7) and (8) suggest that lexical verbs are not solely responsible for the computation of situation aspect.

Given that lexical verbs do not determine the aspectual value alone and that the properties of the direct object may affect which class a predicate belongs to, many previous studies have claimed that verb-class is compositional. Verkuyl (1972, 1993), for instance, argues that the interpretation of verb class depends on the particular verb, NPs, PPs, and sentential complements of a verb constellation. The computation of verb class depends on the values of its component forms. To capture the compositionality of aspect, Verkuyl (1972, 1993) proposes that nouns contain the feature *Specified Quantity of A* ([SQA]), which can be of either a positive or negative value. The feature [+SQA] is presented if a noun is introduced by quantifiers such as cardinal numbers like *one, three, more than two but less than four* or by a definite article. Similarly, verbs also carry information on whether or not they can build on a telic eventuality. A lexical verb contains the feature [ADD TO]. For Verkuyl, this feature on verb signals whether or not the verb contains a certain process, which is a consequence of the denotation of a verb involving a certain dynamics. With a positive value, the verb may be partially responsible for a telic reading as the feature on the structural arguments are also responsible for the aspectual computation; the feature [-ADD TO] causes an atelic reading without controversies. One major difference between the two features is that [+/- SQA] is determined in the functional domain while [+/- ADD TO] is by the lexical meaning of a verb.

However, as we have seen, one of the most significant differences between Chinese and in English is that an Accomplishment in Chinese allows an atelic reading. The sentence in (9) gives another example:

- (9) Lisi xie-le yi/na ben shu, keshi mei xie-wan (atelic)
 Lisi write-PRF one/that CL letter but not write finish
 *‘Lisi wrote a/that book but did not finish writing it.’

The book-writing event in the sentence in (9) is incomplete even the direct object has a specified quantity. In the following sub-sections, I review several studies that have tried to account for the atelic reading of an event denoting Accomplishment.

2.1 Pragmatic accounts

In order to explain the atelic reading of a sentence such as (9), Smith (1997) argues that an Accomplishment in Chinese may be either terminated or completed. She further claims that the simple perfective aspect in Chinese pragmatically suggests completion. Therefore, it is possible to cancel the implicature. This explains the grammaticality of (9). Completion of an event, on the other hand, is unambiguously expressed with Resultative Verb Complements (RVC) as demonstrated by the sentence in (10).

- (10) Wo xie-**wan**-le yi feng xin, (*keshì zhi xie-le yi ban).
 I write-**finish**-PRF one CL letter but only write-PRF one half
 'I finished writing one letter (*, but only finished writing half of it.)'

The RVC morpheme *wan* 'to finish' in (10) signals absolute completion of the event and therefore this sentence only has a telic reading. The same phenomenon can be found in Malagasy. Travis (2005), for example, states that Malagasy is what might be called an 'atelic language'. In the most used verb forms with the prefix *an-*, no commitment is made to the end point of the described event and completion of the event is a conversational implicature. For example, when hearing (11a) the hearer will assume that the children are gathered; nevertheless, the implicature of completion can be canceled as shown in (11b).

- (11) a. namory (n+**an**+ *v*vory) ny ankizy ny mpampianatra (Travis, 2005)
 PST.an.meet the children the teacher
 'The teachers gathered the children'
 b. ...nefa tsy nanana fotoana izy
 but NEG PST.have time they
 '...but they didn't have time.'

This shows that the prefix *an-* in the verb *vory* 'to meet' in (11a) does not commit to the completion of the event. In order to ensure the completion, another verbal form (i.e., *a* + *ha*) is used in Malagasy as shown in (12a). The morphemes *a* + *ha* make the verb *vory* 'to meet' unambiguously complete.

- (12) a. nahavory (n+**a**+**ha**+ *v*vory) ny ankizy ny mpampianatra
 PST.an.meet the children the teacher
 'The teachers gathered the children'
 b *... nefa tsy nanana fotoana izy
 but NEG PST.have time they
 '...but they didn't have time.'

Smith's (1997) pragmatic account nicely accounts for the ambiguity an Accomplishment has in Chinese. The context will determine the (a)telicity of the event. It is not an isolated phenomenon as Malagasy shows similar property. However, this pragmatic account cannot explain why an Accomplishment modified by a manner adverb such as the sentence in (3) only has a telic reading.

The sentence in (3) contains an adverbial *hen kuaide* 'very quickly'. Like English, the adverbial can be either a manner adverb or a temporal one and the sentence is ambiguous. In the first reading, Lisi wrote the letter with a quick manner; in the second reading, the period of time that Lisi spent on writing the letter is short. However, the letter-writing event in both sentences must be completed. Smith's approach is unable to explain the telic-only reading of (3).

2.2 Semantic accounts

Many semantic studies on verb classes have shown that an event has internal structure. It is argued that Accomplishment and Achievement are complex events that can be decomposed into several sub-events. For instance, Dowty (1979) argues that verb classes are derived from a primitive stative predicate combining with a set of three different aspectual operators such as BECOME, DO, and CAUSE. Following Dowty (1979), Tsai (1984) claims that an Accomplishment in Chinese contains a *process* part and a *result state* part. However, different from English, both these two parts must be overtly expressed. According to Tsai (1984), the result state in a sentence such as *John wrote a letter* in English is not overtly expressed. But in Chinese, the state must be expressed by a lexical item. This argument nicely explains why a sentence such as (2a) has an atelic reading given that the result state is not overtly expressed. However, Tsai's argument cannot explain the telic-reading only of (3) since the result state is not overtly expressed.

Recall that Verkuyl (1972, 1993) claims that the direct object contains the property “ α ”, which mainly refers to the specified quantity. To explain the atelic reading of an Accomplishment in Chinese, one may assume that in addition to its quantity, other properties of the direct object may also be responsible for the computation of telicity. Soh & Kuo (2005), for example, attribute the ambiguity of a sentence such as (2a) to a special property of the direct objects. They argue that not all events denoting Accomplishment in Chinese are ambiguous. Observe the sentence in (13) below:

- (13) ??Ta zuo-le yi ge dangao, keshi mei zuo-hao
he make-PRF one CL cake but not make-finish
'He baked one cake, #but he did not finish baking it.'

According to Soh & Kuo (2005), an Accomplishment with a creation verb such as the cake-making event in (13) only has a telic reading.² To explain the atelic reading of a sentence such as (2a), which also contains a creation verb (i.e., *xie* 'to write'), Soh & Kuo (2005) argue that the sentence is good because it has a different type of direct object. According to their study, objects of creation verbs, the *creation objects*, can be generally divided into two groups: (a) No Partial Objects (NPO), and (b) Allow Partial Objects (APO). An NPO is a type of object that cannot be considered as a 'real' object until the process of creation reaches its inherent end point. For example, a cake cannot be considered as a cake until every component of the cake is finished. Other examples of NPO include *yi ge zi* 'one character', *yi jian fangzi* 'one house', *yi ge quanquan* 'one circle', and many others. Therefore, based on their arguments, *zuo-le yi ge dangao*, 'made one cake' in (13) only has a telic reading because there is no cake if the event is not finished. In the second group, the APO, the object can be considered to exist before the end point is reached. The direct object *yi feng xin* 'one letter' is one of the examples. This explains why (2a) can have a terminative reading because a letter can be considered as a letter even the letter is not completed. Their analysis can be summarized in (14).

- (14) Creation verb + NPO = telic reading
Creation verb + APO = telic/atelic readings

In sum, Soh & Kuo (2005) attributes the two different readings of an Accomplishment to the properties of the direct argument. When a creation verb contains a NPO, a sentence with perfective viewpoint aspect has a telic reading; when a creation verb contains an APO, both telic and atelic readings are possible. However, as indicated by footnote 2,

² Soh and Kuo's (2005) judgments on the sentence in (13) are different from mine as the sentence sounds perfect to me and some speakers I consulted with.

judgments on the interpretation of a sentence such as (13) remain controversial. Also, a DP such as *liang wan fan* ‘two bowls of rice’ in (15), which is not a creation verb, allows an atelic reading.

- (15) Kan ni, chi-*le* liang wan fa, na yi wan ye meiyou chi
 look you eat-PRF two CL rice that one CL also not eat
 ‘Look at you! You ate two bowls of rice, but you can’t eat them up.’

The sentence in (15) contains a consumption verb, which also allows an atelic reading just like a creation verb does. According to Tenny (1987, 1994), both creation and consumption verb have some ‘affect’ on their direct objects, and these affected objects are identified as ‘Incremental Theme’ objects. However, Soh & Kuo (2005) only discussed the properties of one type of Incremental Theme objects but not all. To make their proposal more convincing, one needs to give an analysis that also accounts for the atelic reading of a sentence that contains a consumption verb such as the one in (15).³

3 An Alternative Account

As demonstrated, both the pragmatic and semantic analyses do not fully account for the atelic reading of an Accomplishment in Chinese. I would like to suggest that a syntactic account may provide a solution. In this section, I discuss the semantic functions and syntactic distribution of the morpheme *wan* ‘finish’. Different from previous studies such as Smith (1997), I argue that *wan* should not be analyzed as a resultative complement. Instead, I claim that this morpheme is a pure telic morpheme that turns an atelic event into a telic one.

3.1 The semantic function of *wan* ‘finish’

Yang (2011) argues that perfective *-le* is simply a perfective marker and it does not mark telicity. This argument partially explains the ambiguity of a sentence containing an Incremental Theme. A sentence such as (2a) has both a telic reading and an atelic one. Completion of an event, on the other hand, is unambiguously expressed with resultative complement such as *wan* ‘to finish’ in (16):

- (16) Ta xie-**wan**-*le* na feng xin, (*keshì zhi xie-*le* yi ban).
 he write-**finish**-PRF that CL letter but only write-PRF one half
 ‘He finished writing that letter, (* but only wrote half of it.)’

As suggested by Smith (1997), *wan* in a sentence such as (16) functions as a resultative complement. The two sentences in (17) are two additional examples of resultative construction in Chinese.

- (17) a. Lisi ku-**shi**-*le* na tiao shoupa
 Lisi cry-wet-PRF that CL handkerchief
 ‘The handkerchief was wet as a result of Lisi’s crying.’
 b. Lisi ca-**gan**-*le* na ge bolibei
 Lisi wipe-dry-PRF that CL glass
 ‘The glass was dry as a result of Lisi’s wiping.’

³ A potential problem of this analysis is that we will need to assume that there are two types of objects of consumption: one type allows a partial consumption and one does not. For example, the direct object *liang wan fan* ‘two bowls of rice’ belongs to the first group where two different readings are available. However, it is hard to define what type of object can be partially consumed. I leave this for future research.

As can be seen, the resultative complements in both sentences in (17) appear immediately after the main verb and before the direct object. They describe the state of the direct object as a result of the action denoted by the main verb.⁴ For example, the adjective *shi* 'wet' in (17a) describes the state of the handkerchief as a result of Lisi's crying. This type of resultative complement has been identified as V-V compound resultative construction (e.g., Huang 2006). Most of the previous studies assume that the morpheme *wan* functions like other resultative complements without any further discussion (e.g., Smith 1997). As a resultative complement *wan* directly appears after the main verb; it has the structure of V-V compounds. Based on previous studies on resultative constructions in Chinese and English (e.g., Huang 2006, Snyder 1995, Sybesma 1999, Travis 2010, among others), the complement *wan* can be assumed to be base-generated as the head of XP that functions as the complement of VP as in (17a) or (17b).

However, there exists evidence suggesting that *wan* is different from other resultative complements both syntactically and semantically. Hence, I would like to propose that *wan* is not base-generated as the head of XP serving as the complement of the VP. Instead, I argue that *wan* and other 'phase complements' (Li & Thompson 1981) are overt realization of the head of Inner Aspect Phrase in Chinese.

According to Li & Thompson (1981), a phase complement is a special type of resultative complement. The phrases in (18) give some examples:

(18) Phase Complements:

- a. chang-**wan** 'sing-finish = finish singing'
- b. cai-**zhao** 'guess-be on target = guess (something) right'
- c. zuo-**hao** 'do-complete task = complete the task of doing'
- d. kan-**dao** 'see-arrive = succeed in seeing'

These phrase complements are similar in that they all appear after an event denoting Activity and have the same distribution as a regular V-V compound. Semantically, most of these complements contain some idiosyncratic information but they are similar in that they all express telic information. However, the definition of *wan* (and other phrase complements) given by Li & Thompson (1981) seems to suggest that it functions differently from a regular resultative complement. Li & Thompson state that the second element of all the V-V compounds in (18) is a phase complement expressing "something more like the *type* of action described by the first verb or the *degree* to which it is carried out than the result (pp. 65)." For example, in a phrase such as *chang-wan-le na shou ge* 'sing-finish-le that CL song', *wan* simply indicates that the singing action is completed and finished. It says nothing about the result state of the object. This is different from a regular V-V compound where the second element is used to describe the state of the direct object as a result of the action denoted by the first verb.

One may argue that *wan* can function as an adjective which has the meaning of 'done/completed' and therefore, it can be used to describe the final state of the direct

⁴ It is possible for a resultative complement to be predicated on the subject directly in Chinese as demonstrated by the sentence in (i). This is different from English where a reflexive is needed in order for the resultative complement to be predicated on the subject as demonstrated by the two sentences in (ii).

- i. Lisi ku-lei-le
Lisi cry-tired-PRF
'Lisi got tired as a result of crying.'
- ii. a. John cried himself silly.
b. *John cried silly.

object. However, in a sentence without a specific direct object such as (19), *wan* cannot be predicated on the object.

- (19) Women *chi-wan fan zai zou* (Cheng, to appear)
 we eat-finish food then leave
 'We'll only leave after we're done eating.'

The sentence in (19), taken from Cheng (to appear), contains the verb *chi fan* 'eat rice'. According to Cheng, the majority of events denoting Activity are transitive and the object is there only because the complement slot of the verb has to be filled syntactically; therefore, the object *fan* 'rice' is a "dummy object" and has no referential value. Cheng (to appear) argues that *wan* mark telicity of an event and has scope over the entire event. The phenomenon suggests that *wan* is different from other resultative complements in that it is predicated on neither the object (if any) nor the subject.

Another piece of evidence showing the difference between a phase complement and other resultative complements can be demonstrated by the sentences in (20).

- (20) a. Ta *qi-lei-le na pi ma* (V-V compound)
 he ride-tired-PRF that CL horse
 'He rode the horse and as a result the horse got tired.'
- a'. Ta *qi-de na pi ma hen lei* (V-de phrase)
 he ride-de that CL horse very tired
 'He rode the horse and as a result the horse got tired.'
- b. Ta *chang-wan-le na shou ge* (V-V compound)
 he sing-finish-PRF that CL song
 'He finished singing that song.'
- b'. *Ta *chang-de na shou ge hen wan* (V-de phrase)
 he sing-de that CL song very finish

Recall that there are two types of resultative constructions in Chinese as suggested by many previous studies (Huang 2006, Sybesma 1999, Tang 1997, and Zhang 2001). The sentences in (20a) and (20a') show that a regular predicate such as *lei* 'tired' may function as a resultative complement and appear in both types of constructions. However, *wan* 'finish' can only appear in a V-V compound as demonstrated by (20b). It cannot appear in a V-de phrase construction as illustrated by (20b').

If *wan* is the same as other resultative complements, it is mysterious that it can only appear in one of the two resultative constructions. The observations presented above suggest that a different analysis is needed for the morpheme *wan* and other phase complements. I would like to argue that *wan* is a pure telicity marker that makes an atelic event become a telic one. This is similar to a sentence like (21) in Bulgarian taken from Slabakova (2001).

- (21) Toj *na-pis-a pisma *časa/ za 3 časa*
 he PV-write.AORIST.3sg letters *for 3 hours/ in 3 hours
 'He wrote letters in 3 hours.'

As illustrated, the quantity of the direct object in the sentence in (21) is not specified but with the preverb, *na*, attached to the verb, the sentence only has a telic reading.

3.2 The syntax of *wan* ‘finish’

I have demonstrated that the morpheme *wan* should not be analyzed as a resultative complement that functions as the complement of VP. The next issue I would like to address is the place where *wan* is located in syntax. According to Travis (2005, 2010), there are three locations where telicity markers may be encoded: (a) the head of vP (or VP1), (b) the head of Inner Aspect Phrase, and (c) the complement of VP (or VP2).

As I have argued, the morpheme *wan* is not a resultative complement and therefore, we can exclude the possibility that it is base-generated as a head of XP functioning as the complement of the lower VP. This leaves us two options based on Travis’ arguments. The first option is that the telic morpheme *wan* is in the head of vP. Several previous studies have argued that the head of the higher VP of a VP shell structure (either vP or VP1 depending on one’s analysis) may be encoded with telicity markers. Slabakova (1997), for example, argues that Bulgarian preverbs are base-generated as the head of vP. Similarly, Butt & Ramchand (2005) suggest that in Hindi-Urdu light verbs seem to introduce telicity as demonstrated by (22).

- (22) a. Maya-ne kek khaa-yaa (atelic)
Maya-Erg cake eat-Pfv
‘Maya ate cake/ of the cake.’
b. Maya-ne kek khaa li-yaa (telic)
Maya-Erg cake eat TAKE-Pfv
‘Maya ate the cake (and the cake is finished).’

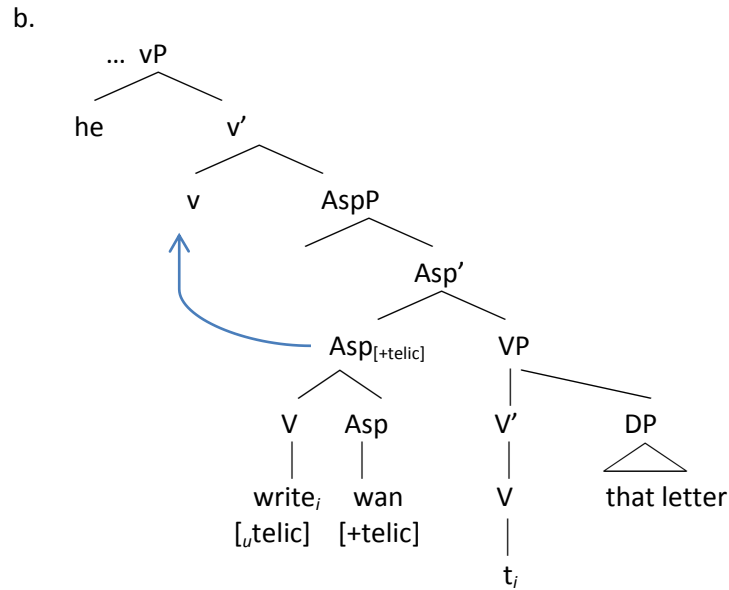
Without the light verb *li* ‘TAKE’, the sentence has an atelic reading as in (22a). According to Butt & Ramchand (2005), the light verb *li* in (22b) is base-generated as the head of vP. However, there are reasons for us to believe that v (or V1) is not the right location for *wan*. Semantically, *wan* does not contain any meaning that is related causation. Syntactically, we can clearly see that *wan* is not in v as demonstrated by a BA sentence such as (23):

- (23) Ta ba na pan mian chi-wan-le
he BA that plate noodle eat finish-PRF
‘He ate (and finished) the plate of noodles.’

Sybesma (1999) argues that the morpheme BA is base-generated as the head of vP. The sentence in (23) then indicates that *wan* is not in v as it is attached to the main verb and appears after the morpheme BA. I follow Sybesma (1999) in assuming that BA is in v; therefore, I claim that *wan* is not in v.

As I have demonstrated, *wan* is neither in v nor does it function as the complement of V. I would like to suggest that *wan* and other phase complements are base-generated as the head of Inner Aspect Phrase. It’s a pure telicity marker containing the feature [+telic]. I would like to propose that a sentence such as (16), repeated as (24a), which contains the morpheme *wan*, has the partial structure in (24b):

- (24) a. Ta xie-wan-le na feng xin
he write-finish-PRF that CL letter
‘He finished writing that letter.’



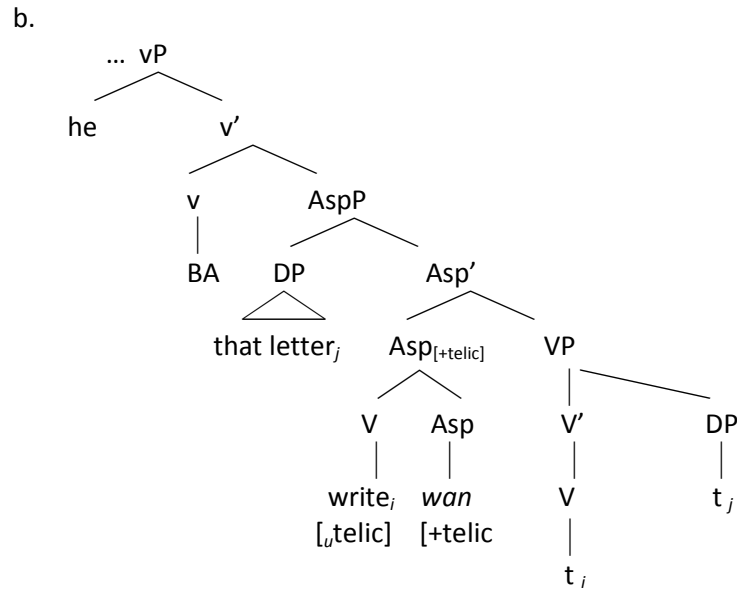
As shown, the head of Inner Aspect Phrase is what is responsible for the telicity assignment. I follow Slabakova (2001) in assuming that dynamic events such as Accomplishments and Activity verbs contain the feature $[_u\text{telic}]$ that needs to be checked. I claim that in Chinese the valued telicity feature of V is strong and therefore, the checking relation must be local. The verb is required to move and is adjoined to InAsp. Since Asp contains the feature $[+\text{telic}]$, the uninterpretable feature on V is valued as $[+\text{telic}]$. The cluster $[V+\text{Asp}]$ then further moves to the little v. Finally, the DP in the Spec, vP moves out of vP due to the EPP feature.

One related issue I would like to discuss here is whether or not the direct argument moves out of its merged position to the Spec, InAspP in Chinese. Ritter & Rosen (2005) claim that a telic event contains a feature $[\text{Quant}]$ on Asp and this feature must be checked by the object with the same feature that moves to the specifier of Inner Aspect Phrase. On the other hand, the direct object stays in its merged position when the event is atelic and does not contain the feature $[\text{Quant}]$. Differently, Slabakova (2001) argues that in English the value of Asp is assigned by the direct object and the direct object always moves to the specifier of Inner Aspect Phrase regardless its quantity. When the object is $[+\text{SQA}]$, Asp is telic; when the object is $[-\text{SQA}]$, the Asp is atelic. These two approaches have different analyses regarding the movement of the direct object.

Based on Ritter & Rosen's (2005) approach, the direct object must move to the Spec, AspP when the phrase is headed by the morpheme *wan* given that it contains the feature $[+\text{telic}]$. However, as the cluster $[V + \text{wan}]$ further moves to the little v, we are unable to see the movement of the direct object.

However, in a BA sentence such as (25a) we can see the movement. As discussed in the previous section, Sybesma (1999) argues that BA is the overt realization of the light verb CAUSE, which is base-generated as the head of vP. Based on this assumption, then the structure of (25a) can be represented by (25b).

- (25) a. Ta ba na feng xin xie-wan-le
 he BA that CL letter write-finish-PRF
 'He finished writing that letter.'



As can be seen, the direct object always appears before the main verb in a BA sentence and it must be definite or at least, specific. The derivation is as follows: first, V is merged with the direct object that is in the Spec, VP. The verb then moves and is adjoined to the head of Inner Aspect Phrase that is realized as the morpheme *wan*. The movement is due to the strong telic feature on V, which requires the uninterpretable feature to be valued locally. The direct object then moves to the Spec, InnerAspP. Note that, according to Sybesma (1999), the main verb does not move to v when it is occupied by BA. The structure then shows the movement of the Theme argument in a telic event as the object is in between BA and the main verb.

The BA construction seems to support Ritter & Rosen's (2005) argument that the object moves to a position that is inside the lexical domain when the event is telic. However, as suggested by Cheng (to appear), the morpheme *wan* also appears in a sentence without any referential object, the sentence in (26) gives another example:

- (26) Zuotian Lisi chi-*wan* fan cai hui jia
 yesterday Lisi eat-finish rice then return home
 'Lisi went home after eating yesterday.'

As argued by Cheng, the object *fan* 'rice' is a 'dummy' object and is there simply for a pure syntactic reason. Given that there is no real object that can measure out the event, the morpheme *wan* itself seems to be able to make an event telic without the help of an Incremental Theme. In other words, the cardinality of the direct object is not the element that is directly responsible for marking telicity. This is different from the mechanism that English utilizes where telicity of a dynamic event is determined by the quantity of its object.

Therefore, I claim that the movement of the direct objects in Chinese is not to measure out the event as the direct objects do in English. However, given that most studies that adopt a syntactic approach to situation aspect generally assume that Verkuyl's generalization is derived via a Spec-head relation in the syntactic projection that is dedicated to the computation of telicity. The direct object must be somehow related to the computation of telicity. How to account for the telic reading of a sentence with the morpheme *wan* is the issue I will address next.

Let us take a look another sentence such as (27) that also contains the BA construction.

- (27) Ta ba xin xie-wan-le
 he BA letter write-finish-PRF
 'He finished writing the letter(s).'

As can be seen, the preverbal object in (27) is a bare noun that does not contain any numbers and determiners. However, when translating this sentence, we must interpret the direct object as a definite noun. The context will help us in determining the number of the object. What makes the bare noun definite need further discussion. First, bare nouns in Chinese can be generic, existential or definite (either singular or plural). The three main usages of bare nouns in Chinese are represented by the sentences in (28):

- (28) a. Wo hen xihuan **xiaogou** (generic)
 I very like puppy
 'I like puppies very much.'
 b. Wo kan-guo **xiaogou** (existential)
 I see-PRF puppy
 'I have seen puppies (before).'
 c. Wo yijing xi-wan-le **xiaogou** (definite)
 I already wash-finish-PRF puppy
 'I already bathed the puppy/puppies.'

The bare noun *xiaogou* 'puppy' in the sentence in (28a) only has a generic reading. It does not refer to any specific puppies but puppies in general. In (28b), the puppy has an existential reading and can be either singular or plural. Finally, the puppy in (28c), which contains the telic morpheme *wan*, must be definite. There must be one or more puppies that were bathed before the speech time. The examples above suggest that when a sentence contains a telic marker such as *wan* and is episodic, its bare direct object must be interpreted as definite.

The use of the morpheme *wan* is similar to the use of preverbs in Russian and other Slavic languages in general. Slabakova (2005) argues that the VP telicity value depends on the presence of absence of a perfective prefix but not on the object quantization. The four sentences in Russian in (29) demonstrate this point.

- (29) a. Maša jela tort (atelic)
 Masha eat-PAST cake-ACC
 'Masha was eating cake/Masha used to eat cake.'
 b. Maša s-jela tort (telic)
 Masha PERF-eat-PAST cake-ACC
 'Masha ate **the** cake.'
 c. Maša jela kusoček tort (atelic)
 Masha eat-PAST piece cake-GEN
 'Masha was eating a piece of cake/Masha used to eat a piece of cake.'
 d. Maša s-jela kusoček tort (telic)
 Masha PERF-eat-PAST piece cake-GEN
 'Masha ate a piece of cake.'

Both sentences in (29a, c), without the preverb *s*, have an atelic reading although the object is non-quantized in (29a) and quantized in (29c). On the other hand, the VPs in (29b, d) are both telic as they contain the prefix, regardless of the non-quantized object in (29b) and the quantized one in (29d).⁵

⁵ Slabakova (2001) argues that some Slavic languages have verbs whose telicity is determined by the cardinality of their direct objects. The sentences in (iii) and (iv) give a demonstration:

To account for the distribution of the preverbs in Russian, Nossalik (2009) argues that they are base-generated as the head of Inner Aspect Phrase. Following Borer (2005), Nossalik claims that Asp dominates an open value that must be assigned range. There are several different ways for Asp to be assigned range. For example, in English, the range is assigned by the object that measures out an event via a Spec-head relation between the object and Asp. According to Borer (2005), this assignment is indirect given that English does not have a telic morpheme. On the other hand, a language such as Russian, which has a telic morpheme, the range is assigned directly by the morpheme. To explain the definite reading of the direct object in a sentence such as (29b), Nossalik argues that Accomplishments in Russian receive the telic feature directly from a preverb that merges onto Asp. This telic feature ([quantity] feature in her term), is copied onto the DP in the Spec, AspP, through Spec-head agreement. Therefore, the argument in the Spec, AspP must have a specific quantification and this is why the object in (29b) is interpreted as definite with a specific quantity. For Nossalik (2009), the movement of the direct object to the Spec, InAspP in Russian is not so much about measuring out an event given that the preverb is what is responsible for the computation of telicity. Rather, she argues that the element in the Spec, InAspP is the argument that undergoes some sort of identifiable change or is affected during the course of the event. Recall that Tenny (1987, 1994) claims that it is the affected argument that measures out an event. Nossalik's idea is that only those objects that undergo some change and are affected by the event appear in the Spec, of InAspP. She used some intransitive verbs to support this argument. Observe the two sentences in Russian in (30):

- (30) a. Petja **ubežal**
 Petja *u*-run-PEFT
 'Petja ran away.'
 b. Petja **priš'**ol
 Petja *pri*-walk-PEFT
 'Petja came.'

The two sentences in (30) both contain an intransitive verb with a preverb and have a telic reading. Given that there is no affected object that can measure out the event; the only arguments that can be affected over the course of the event are the surface subject. The two verbs in the sentences are both so-called 'motion' verbs. Nossalik (2009) argues that the surface subjects in both sentences are the arguments that undergo a change of location. Therefore, the sentences have a telic reading as there are affected arguments. The phenomenon observed in the two sentences in (30) is similar to that of a sentence containing an intransitive verb and the morpheme *wan* in Chinese. We have seen some examples and the three sentences in (31) give additional examples.

- (31) a. Lisi pao-*wan*-le
 Lisi run-finish-PRF
 'Lisi is done running.'

iii.	Mexanicite	remontiraxa	koli	(atelic)
	mechanics-DET	repair-3PS/PAST	cars	
	'The mechanics repaired cars.'			
iv.	Mexanicite	remontiraxa	koli-ta	(telic)
	mechanics-DET	repair-3PS/PAST	cars-DET	
	'The mechanics repaired cars.'			

Without any nominal determiner, (iii) has an atelic reading; with the determiner as in (iv), the sentence has a telic reading. According to Slabakova, as late borrowing into the language, these verbs behave like English in that the cardinality of the DP object determines the interpretation.

- b. Lisi chi-*wan-le*.
Lisi eat-finish-PRF
'Lisi is done eating.'
- c. Lisi qi dian jiu duanlian-*wan-le*
Lisi 7 o'clock then exercise-finish-PRF
'Lisi was done exercising as early as 7 o'clock.'

The sentence in (31a) is like the one in (30a) where the subject is what undergoes change of location. In (31b) the verb *chi* 'to eat' can be analyzed either as transitive or intransitive. The direct object is the argument that undergoes some change when *chi* is transitive. On the other hand, when *chi* is intransitive, we can assume that the subject *Lisi* is the argument that undergoes some change during the course of eating event. The subject *Lisi* in (31c) is the agent that does the exercises but is also the argument that is affected by the event. I follow Nossalik (2009) in assuming that the movement of the direct object do the Spec, Inner Aspect Phrase is not to measure out the event in Chinese. Therefore, a BA construction in Chinese should not be used as a type of evidence demonstrating the correlation between telicity and movement of object the as Ritter & Rosen (2005) and Travis (2010) have claimed. At least, the BA construction should not be used as a demonstration showing that the movement of the object is due to event-measuring given that Chinese utilizes a different mechanism as English.

In sum, I have discussed two different mechanisms that languages use to mark telicity. In English, it is the quantity of the direct object that is responsible for the computation. It must be both *affected* and *quantized*. On the other hand, for languages such as Bulgarian, Russian, and Chinese, the quantity of the direct object is not directly responsible for the computation of telicity. However, there must be an *affected* argument that undergoes some change during the course of the event.

3.3 An alternative account for the two readings of an Accomplishment

We can now move the discussion to the two readings of an Accomplishment with an Incremental Theme object. Different from English, an Accomplishment with an Incremental Theme object in Chinese can be either telic or atelic. Recall that Smith (1997) argues that an event denoting Accomplishment with perfective aspect in Chinese pragmatically suggests completion. Travis (2010) shows that Japanese, Malagasy, and many other languages have the same properties and she calls these languages 'atelic' languages. However, I will provide a syntactic account for the two different readings. Let us take a look at the example in (2), repeated as (32a) below:

- (32) a. Zhangsan xie-*le* yi feng xin,
Zhangsan write-PRF one CL letter
'Zhangsan wrote a letter,
- b. ...ranhou ba xin ji-*le* (telic)
then BA letter send-PRF
'...and then mailed it off.'
- c. ...keshi zhie xie-*le* yi ban (atelic)
but only write-PRF one half
'...but only wrote a half of it.'

To explain the two readings of (32a), I follow Travis (2010) in assuming that Accomplishment and Activity have the same syntactic structure with the difference in the projection of the feature [+telic] in an Accomplishment. According to Travis (2010), the only difference between these two types of event is that the [+telic] feature is projected in the Aspect Phrase between the two verb phrases in an Accomplishment. To

Therefore, the sentences in (33a, b) have the same structure. Both sentences contain a telic morpheme in the head of Inner Aspect Phrase. They are both events denoting Accomplishment. On the other hand, a sentence like (33c) has the same structure as (33a, b) but it contains no [+telic] morphemes in the head of InAspP.

- The derivation of (33a) and (33b) are the same. The verb *xie* 'to write' in both sentences contains the feature [_v telic] that must be checked and therefore it is adjoined to InAsp, which is overtly realized either as *wan* or the null telic morpheme. As the value of InAsp does not depend on the quantity of the direct object like English, the quantity of the direct object is irrelevant to the computation. However, the direct object must be affected during the course of the writing event.

Lin (2006) shows that when a sentence contains no viewpoint aspect markers in Chinese, it has a default aspectual value depending on the type of verb the sentence has. For example, the two sentences in (34) contain two types of events and they have different default viewpoint aspect.

- Lin (2006) argues that the default viewpoint aspect for atelic events is imperfective and that the default viewpoint for telic event is perfective. The sentence in (34a) contains a stative event without any overt viewpoint aspect markers. However, the event holds at

the current moment and therefore, it is imperfective. On the other hand, the sentence in (34b) contains a telic resultative event; without any viewpoint aspect markers, the sentence has a perfective reading. The glass-breaking event must have happened before the sentence is produced.

In the same spirit, I would like to argue that dynamic events have the default value [-telic] when there is nothing projected in Asp. Therefore, a sentence such as (32a) has two different structures corresponding to its meanings in telicity. The basic structures are represented in (35) below.

- (35) a. ...[vP Lisi... [AspP [Asp \emptyset_{Telic} [VP write _[u Telic] a letter]]] → telic
 b. ...[vP Lisi...[AspP [Asp [VP write _[u Telic] a letter]]] → atelic

On the one hand, the sentence has a telic reading due to the null morpheme \emptyset_{Telic} in Asp that assigns the value to the verb as in (35a). On the other hand, the sentence has an atelic reading due to the default value of dynamic events as demonstrated by (35b).

The proposal made above explains why an Accomplishment modified a manner adverbial such as *hen kuaide* ‘very quickly’ only has a telic reading. It is possible that this manner adverb is only used to modify a telic event. In other words, the adverb is only licensed by a telic event such as the one in (35a).

4. Summary

In this study I have discussed one of the mechanisms that Chinese uses to mark telicity: the use of a telic morpheme in the head of Inner Aspect Phrase. I argued that the morpheme *wan* ‘finish’ is base-generated as the head of Inner Aspect Phrase whose aspectual value is [+telic]. Different from a language such as English whose aspectual value depends on the quantity of the direct object, *wan* is solely responsible for the computation of telicity. I have also argued that the movement of direct object to the Spec, InAspP is not to measure out the event. Rather, I argued that the movement is due to the affectedness of the argument in the course of the event. Therefore, I suggested that a BA sentence in Chinese should not be used as a piece of evidence showing the Spec-head agreement relation between Asp and the direct object in a telic event as suggested by some previous studies.

In order to explain the two readings of an Accomplishment in Chinese, I have claimed that there is a null telic morpheme which is the counterpart of the morpheme *wan* ‘finish’ when the sentence has a telic reading. The morpheme contains the feature [+telic] and has the same function of *wan*. On the other hand, to explain the atelic reading of an Accomplishment, I argued that dynamic events in Chinese have the default value [-telic] when there is no morpheme projected in Asp. Since Chinese uses a different mechanism from English, the cardinality of the direct object is irrelevant to the computation of telicity. This explains why in a sentence such as (2a), which contain a quantized object, have an atelic reading.

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