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## **A Tenseless Analysis of Mandarin Chinese Revisited: A Response to Sybesma 2007**

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Sybesma (2007) argues for the existence of a syntactic T node in Chinese on the basis of general theoretical considerations and parallel empirical data from Dutch and Chinese. This reply shows that a tenseless analysis of Chinese is an equally viable alternative or even a better one, given some empirical problems that the tensed analysis has to face. The tenseless analysis is backed up not only by its ability to explain the data in a more elegant way but also by syntactic facts that seem to be unrelated coincidences under a tensed analysis but are natural consequences under a tenseless alternative.

*Keywords:* tenseless language, tenseless analysis, temporal interpretations, Chinese

### **1 Introduction**

It has often been claimed or assumed that Mandarin Chinese is syntactically a tenseless language in that it has no grammaticalized morphosyntactic forms that locate events or constrain topic times in the present, past, or future of a reference time.<sup>1</sup> However, Sybesma (2007) has challenged this claim, arguing that Mandarin Chinese, just like Dutch, should have a syntactic Tense head, though it is a null one. This article aims to contribute to the debate over tensed and tense-

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<sup>1</sup> See Lin 2003b, 2006 and Smith and Erbaugh 2005, for example.

less analyses of this language. It will show that a tenseless analysis is as viable as a tensed analysis, or even better, for the data discussed by Sybesma as well as other relevant data. Sybesma's arguments for a tensed analysis will be reviewed in detail and shown to be not conclusive. In addition, semantic and syntactic facts will be adduced to favor a tenseless analysis over a tensed one.

## 2 Sybesma's (2007) Analysis

Sybesma (2007) points out two reasons to doubt the claim that Mandarin Chinese (abbreviated as *Chinese* hereafter) has no Tense (T) node. The first is a general consideration. According to Sybesma, a T node seems to be necessary to obtain temporal interpretations for current successful theories of tense; and if these theories are correct and applicable to all natural languages, sentences in Chinese should also have a T node. The second reason is that Chinese sentences in isolation such as (1) have a clear temporal interpretation, in this case a present interpretation, but it is not clear where the interpretation comes from. In particular, Sybesma argues that the interpretation does not come from the context, because "there is no context" for such sentences, and that only linguistic cues can do the job. Therefore, Chinese should have a T node.

- (1) Zhāngsān zhù zài zhèr.  
 Zhangsan live at here  
 'Zhangsan lives here.'

If Chinese has a T node, the next question to ask is what it really does. Sybesma's answer is that the T node is a mere agreement morpheme, agreeing with temporal adverbs. His arguments are based on some parallel phenomena between Chinese and Dutch. According to him, atelic predicates in Dutch with a present tense are fully acceptable, but the same predicates with a past tense sound very odd in isolation without a time adverbial.<sup>2</sup>

- (2) a. Ik woon in Rotterdam.  
 1s live in Rotterdam  
 'I live in Rotterdam.'  
 b. #Ik woonde in Rotterdam.  
 1s live.PST in Rotterdam  
 'I lived in Rotterdam.' (infelicitous in isolation)  
 c. Ik woonde in 1989 in Rotterdam.  
 1s live.PST in 1989 in Rotterdam  
 'I lived in Rotterdam in 1989.'  
 (Sybesma 2007:582)

<sup>2</sup> However, in other contexts such as subordinate clauses, the same sentence is fine.

From these data, Sybesma concludes that tense morphemes are meaningless, serving only as agreement markers. He refers to the agreement between tense and temporal adverbs as *tense agreement*.

Very interestingly, Sybesma points out that the same pattern holds true of Chinese, as shown by the sentences in (3), though unlike Dutch, Chinese has no overt tenses. He takes this similarity to mean that Chinese has tense agreement, just like Dutch.

- (3) a. Wǒ zhù zài Lùtèdān.  
1s live in Rotterdam  
'I live in Rotterdam.'
- b. #Wǒ zhù zài Lùtèdān.  
1s live in Rotterdam  
Intended: 'I lived in Rotterdam.' (infelicitous in isolation)
- c. Wǒ 1989 nián zhù zài Lùtèdān.  
1s 1989 year live in Rotterdam  
'I lived in Rotterdam in 1989.'

According to Sybesma, telic predicates in Chinese and Dutch also behave alike in that past telic events in both languages must use the perfective construction overtly, indicating that the endpoint of the event has been realized. He points out that in Chinese normally the perfective marker *le* must be used and in Dutch the prefix *ge* is used. Simply adding a past temporal adverbial does not rescue a sentence that lacks *le* or *ge*. The examples in (4) and (5) are Chinese and Dutch sentences, respectively.

- (4) a. #Wǒ mǎi yì-běn shū.  
1s buy one-CL book  
Intended: 'I bought a book.' (infelicitous in isolation)
- b. #Wǒ zuótiān mǎi yì-běn shū.  
1s yesterday buy one-CL book  
Intended: 'I bought a book yesterday.' (infelicitous in isolation)
- c. Wǒ mǎi-le yì-běn shū.  
1s buy-PERF one-CL book  
'I bought a book.'
- d. Wǒ zuótiān mǎi-le yì-běn shū.  
1s yesterday buy-PERF one-CL book  
'I bought a book yesterday.'  
(Sybesma 2007:583)
- (5) a. #Ik kocht een boek.  
1s buy.PST a book  
'I bought a book.' (infelicitous in isolation)
- b. #Ik kocht gisteren een boek.  
1s buy.PST yesterday a book  
'I bought a book yesterday.' (infelicitous in isolation)

- c. Ik heb een boek gekocht.  
 I<sub>s</sub> have a book buy.PST-PARTICIPLE  
 ‘I bought a book.’
- d. Ik heb gisteren een boek gekocht.  
 I<sub>s</sub> have yesterday a book buy.PST-PARTICIPLE  
 ‘I bought a book yesterday.’  
 (Sybesma 2007:583–584)

According to Sybesma, the past tense marker in Dutch agrees with *ge*; that is, the realization element *ge* is always accompanied by a tense marker. He suggests that the same is true of Chinese (i.e., that *le* is accompanied by a tense marker), citing my proposal (Lin 2006) that *le* is not simply aspectual but includes a tenselike component in its meaning. Sybesma does not say clearly what is behind the meaning of *le*, but his remark implies that a past tense in Chinese requires the presence of *le* because of some kind of tense agreement.

### 3 Comments on Sybesma 2007

#### 3.1 A Response to Sybesma’s First Point

Recall that Sybesma holds the view that a sentence can only be interpreted if it contains a T node. Moreover, current successful theories of temporal interpretation seem to have a T node as a necessary component. I do not doubt that this view is correct for well-studied Indo-European languages such as English. However, if more languages are taken into consideration, it becomes clear that not every theory of temporal interpretation relies on the existence of a syntactic T node. This is in particular true for tenseless languages such as Yucatec Maya and Kalaallisut, whose systems of temporal interpretation have been analyzed in detail in recent years. Bohnemeyer (2002, 2009) and Bittner (2005, 2008), analyzing Yucatec Maya and Kalaallisut, respectively, have utilized aspectual information and temporal (discourse) anaphora to account for temporal interpretation without resort to a syntactic T node. Of course, the fact that other languages do not have a T node does not mean that Chinese does not have a T node, either. However, if Bohnemeyer’s and Bittner’s analyses of the tenseless languages in question are correct, they provide evidence that a T node is not universally present in every language. Nor is it required in every successful theory of temporal interpretation. In fact, similar remarks may apply to Chinese; see, for example, my tenseless analysis of Chinese in Lin 2003b, 2006. Of course, whether or not Chinese possesses a T node is not only a theory-internal question; it is an empirical one as well. Arguments should be given based on data from Chinese. In section 4, I will present such data, which favor a tenseless analysis over a tensed one.

#### 3.2 A Response to Sybesma’s Second Point

Recall that Sybesma remarks that one can actually observe the present or past interpretation of a sentence even when it has no temporal adverbial or other time-related expression, but that this temporal information cannot come from the context, because “there is no context.” He does not

really define what he means by “context.” If the notion of “context” means the presence of a temporal adverbial or a discourse, surely there is no context for the type of sentence under discussion. However, if “context” is understood in a normal way as in the semantics literature, an utterance in isolation still has a context, namely, the situation where the speaker is located. In particular, the speaker’s here and now are part of it. Therefore, the speaker (and the addressee as well) can have access to such information and use it to interpret the sentence. In Lin 2006, I argue that this is exactly what happens with sentences such as (1), repeated here. (1) receives a present interpretation because the speech time is included within the event time of living here, because of the sentence’s imperfective aspect. A formal tenseless analysis of this type of sentence will be provided later.

- (1) Zhāngsān zhù zài zhèr.  
 Zhangsan live at here  
 ‘Zhangsan lives here.’

It might also be too strong a claim for Sybesma to say that *linguistic* context (material) is the only factor that influences the temporal interpretation of a sentence. The role that nonlinguistic context plays in sentence interpretation can be illustrated by pronouns or demonstratives such as *you*, *I*, *he*, *this*, or *that*. As is well known, the referents of such expressions depend heavily on nonlinguistic context. For example, to really understand what *I* refers to, one needs to know who is making the utterance. If nonlinguistic context can play a role in the interpretation of pronouns or demonstratives, it can do the same job for the temporal interpretation of sentences.

### 3.3 A Response to Sybesma’s Empirical Arguments

Finally, let us consider the argument based on the parallelism between Chinese and Dutch. This argument has its point but is not conclusive, because there is no a priori reason to assume that morphological realization in one language must have a (null) counterpart in another language in order to obtain the same or similar final (semantic) output. In what follows, I will illustrate a parallelism between English bare plurals and Chinese bare nouns, which arguably mirrors the parallelism between tensed verbs in Dutch and bare verbs in Chinese.

It is well known that bare plurals in English do not have a constant interpretation, as illustrated in (6).

- (6) a. Dogs are intelligent.  
 b. I saw dogs.  
 c. Dogs are widespread.

In (6a), the bare plural *dogs* seems to have the force of the quantifier *most* or *almost all* in that exceptions are admitted. In (6b), *dogs* has an existential reading. In (6c), *dogs* seems to refer to a kind of animal.

Chinese bare nouns behave like English bare plurals with respect to flexibility of interpretation. (7a–c) are Chinese counterparts to (6a–c), and the bare nouns have exactly the same interpretations as the corresponding English bare plurals.

- (7) a. Gǒu hěn cōngmíng.  
 dog very intelligent  
 ‘Dogs are intelligent.’
- b. Wǒ kànjiàn gǒu.  
 I see dog  
 ‘I saw dogs.’
- c. Gǒu dào chù dōu shì.  
 dog everywhere all be  
 ‘Dogs are everywhere/widespread.’

The parallelism between English bare plurals and Chinese bare nouns might suggest that the latter are syntactically inflected with a plural marker just as the former are and that the inflection is a null one. This is indeed a possibility. However, such a proposal is rarely heard, possibly because one need not make it in order to obtain the correct semantic interpretations. Without postulating a null morphological plural marker, let us assume (as in Krifka 1995, Lin 1999) that Chinese bare nouns denote kinds just as Carlson (1977) has suggested for English bare plurals.<sup>3</sup> If Carlson (1977) is correct in suggesting that the various interpretations of English bare plurals can be derived from their kind meaning via the lexical and aspectual properties of a verb, then Chinese bare nouns can obtain their various interpretations in a similar way without postulating a (null) plural morphology (see Chierchia 1998, Lin 1999).<sup>4</sup>

The upshot of the above remark is that a given semantic output need not be produced by exactly the same syntactic form in different languages. This can apply to temporal interpretations in different languages, which might look similar but are derived through (perhaps slightly) different means.

Sybesma’s (2007) arguments for tense agreement also leave room for reconsideration. As noted, Sybesma argues that the tense morpheme in Dutch is meaningless and is a mere agreement morpheme, agreeing with a temporal adverb. So a past tense morpheme (in Dutch and in Chinese) always occurs with a temporal adverb. However, this analysis has both theoretical and empirical problems. If tense morphemes were mere agreement morphemes, we would expect a present tense morpheme to obey the same restriction: it should agree with a temporal adverb, just like past tense morphemes do on this analysis. Apparently, this is not the case, as the Dutch sentence (2a) shows. Thus, under Sybesma’s tense agreement proposal, an inconsistency seems to exist between the present tense morpheme and the past tense morpheme. Even if variation between a present and a past tense morpheme could be allowed, this proposal is still empirically problematic, because

<sup>3</sup> Gerstner and Krifka (1993) and Krifka (1995) have suggested that bare nouns should be able to name kinds in any language that allows bare nouns in the first place.

Note also that there are many languages where singular reference to kinds is possible—for example, Hebrew, Hindi, and Russian (Dayal 1999, Doron 2003).

<sup>4</sup> Another approach is to propose that bare (plural) arguments are ambiguous between a kind reading and a weak indefinite reading (see Wilkinson 1991, Diesing 1992).

Chinese sentences with a past interpretation do not always require the presence of a temporal adverbial denoting a past interval. Such sentences actually abound. Examples (8)–(14) to be discussed later are all counterexamples to Sybesma's claim.

In fact, one doesn't have to resort to tense agreement to explain why the past interpretation in Dutch and Chinese is infelicitous when a sentence without a temporal adverb is uttered in isolation. As I propose elsewhere (Lin 2003b, 2006), examples such as (3b), repeated here, have a present interpretation because the default topic (reference) time provided by the utterance context is the speech time.

(3) b. #Wǒ zhù zài Lùtèdān.

I live in Rotterdam

Intended: 'I lived in Rotterdam.' (infelicitous in isolation)

(3b), when read in isolation, does not have a past interpretation simply because the context does not provide any past time interval as the topic (reference) time. Once the discourse—for example, a previous sentence—provides such a past topic time, the past interpretation becomes readily available.

A similar but slightly different account can be given for the past tense morpheme in Dutch. According to Kratzer (1998), a tense morpheme may introduce a variable over time intervals and receive its value from the contextually determined assignment function. Suppose that this is the case in Dutch. Then the Dutch example (2b), repeated here, is infelicitous simply because no past time is available for the contextually determined variable assignment.

(2) b. #Ik woonde in Rotterdam.

1s live.PST in Rotterdam

'I lived in Rotterdam.' (infelicitous in isolation)

This explains why the Chinese (3b) and the Dutch (2b) are both unacceptable when read in isolation. Though the mechanisms are slightly different in the two languages, the source of the unacceptability of (2b) and (3b) is actually the same, though one language has a syntactic tense and the other does not.

Finally, consider Sybesma's reported parallelism between telic predicates in Chinese and Dutch. According to Sybesma, past telic events in both languages must use the perfective construction overtly, indicating that the endpoint of the event has been realized. However, the parallelism is restricted to certain constructions—in particular, the combination of an incremental process verb with an object NP such as *gài yí dòng fāngzǐ* 'build a house' and *xiě yì běn shū* 'write a book'. Other types of telic predicates do not always need an overt perfective marker to indicate realization of the endpoint of the event. This can be illustrated by examples (8)–(14), taken from Lin 2003a. In (8), the main verb *dǎ-pò* 'break' is a resultative compound verb followed by an object NP, but a perfective marker is not required to indicate the completion of the event. (9) and (12) are like (8) in that the verbs are resultative compound verbs. (10) and (11) are similar to each other in that a locative phrase is placed before an achievement verb. In (13) and (14), the verb is followed by an embedded CP.

- (8) Tā dǎ-pò yí-ge huā ping.  
he hit-broken one-CL flower vase  
'He broke a flower vase.'
- (9) Tā bǎ wǒ gǎn-chū jiàoshì.  
he BA me drive-out classroom  
'He drove me out of the classroom.'
- (10) Tā zài Shànghǎi chūshēng.  
he in Shanghai give.birth  
'He was born in Shanghai.'
- (11) Wǒ zài lù shàng yùjiàn yí-wèi lǎo tàitai, shuō tā yíshī pǐbāo.  
I in road on meet one-CL old woman say she lose purse  
'I met an old woman in a street, who said she lost her purse.'
- (12) Tā dǎ-kāi shūbāo, ná-chū yì dié chāopiào gěi wǒ kàn.  
he do-open schoolbag take-out one pile paper.money give me see  
'He opened the schoolbag and took out a pile of paper money, and showed it to me.'
- (13) Tā gēn wǒ shuō Lǐsì bú qù.  
he to me say Lisi not go  
'He told me that Lisi wouldn't go.'
- (14) Tā qiángpò wǒ xiū tāde kè.  
he force me take his class  
'He forced me to take his class.'

So we have a variety of telic constructions that do not need an overt perfective marker to indicate telicity. This indicates that the obligatory presence of the perfective marker *le* in (4) is a special requirement of a specific construction rather than a general rule. One cannot conclude from (4) that Chinese must have a null tense to agree with the perfective marker *le*, as Sybesma seems to have suggested.

In addition to the above problem, the distribution of *le* is not restricted to past contexts. For example, (15a) has a present interpretation, whereas (15b) has a future interpretation.<sup>5</sup>

- (15) a. Zhāngsān yǎng-le yì-tiáo jīnyú.  
Zhangsan keep-ASP one-CL goldfish  
'Zhangsan keeps a goldfish (as a pet).'
- b. Děng nǐ míng nián bì-le yè, wǒ mǎi yí-bù chē gěi nǐ.  
wait you next year graduate-ASP graduate I buy one-CL car for you  
'After you have graduated next year, I will buy a car for you.'

Such examples cast doubt on the claim that *le* is a marker agreeing with a past tense.

<sup>5</sup> See Lin 2003b for more discussion of such sentences.



## 4 Empirical Arguments for the Lack of Tense

In this section, I will present some examples whose temporal interpretations pose problems for a tensed analysis but do not challenge a tenseless analysis. The tenseless analysis will then be further backed up by four syntactic arguments.

### 4.1 Semantic Arguments

As noted, a large number of Chinese sentences do not contain any temporal adverbial or aspectual marker but nevertheless have a very clear temporal interpretation. This is true for both dynamic and stative sentences. For example, (16) has a past interpretation and (17) a present interpretation, though neither has any overt temporal markers.

(16) Zhāngsān dǎ-pò yí-ge bēizi.  
 Zhangsan hit-broken one-CL glass  
 ‘Zhangsan broke a glass.’

(17) Wǒ hěn jǐnzhāng.  
 I very nervous  
 ‘I am very nervous.’

For the sake of argumentation, let’s tentatively assume with a universalist that the existence of T is part of Universal Grammar and therefore a T node comes for free in Chinese. Under this assumption, a past tense for (16) and a present tense for (17) can be postulated for free, thus accounting for the temporal interpretations of these two sentences. This analysis encounters problems, however. If a past tense can be postulated for (16) for free, the same should apply to (17), predicting that it has a nonexisting past interpretation. Being a stative sentence, however, it would have a past interpretation only if it contained a temporal adverbial or if the discourse provided a past topic time. Note that one cannot say that a past interpretation is not available for (17) because it does not contain a temporal adverbial, as Sybesma (2007) claims. If the past interpretation of (17) were ruled out because of lack of agreement between a null tense and a temporal adverb, (16) would be equally ruled out as an unacceptable sentence for the same reason; but (16) is fine.

In fact, the contrast between (16) and (17) reflects a fundamental distinction often seen in tenseless languages, namely, the perfective versus imperfective distinction or bounded versus unbounded distinction. The frameworks of temporal interpretation in Chinese proposed in Lin 2003b, 2006 and Smith and Erbaugh 2005 are based on exactly this kind of aspectual distinction. Proponents of a tensed analysis of Chinese must postulate an extra and possibly ad hoc condition to block (17) from being construed as a past state.<sup>6</sup> Thus, there is a cost that a tensed analysis has to pay but a tenseless analysis does not.

<sup>6</sup> Note that it is impossible to claim that a past tense is incompatible with a stative situation, because a past state is possible when the sentence contains a temporal adverbial denoting a past interval.

How does a tenseless analysis such as mine (Lin 2003b, 2006) account for (17)? It employs aspectual properties of sentences to account for the temporal interpretations.<sup>7</sup> Very briefly, this theory says that perfective (bounded) event descriptions obtain a past interpretation by default and imperfective (unbounded) event descriptions obtain a present interpretation by default.<sup>8</sup> This result is obtained via the semantics of perfective and imperfective aspect, respectively, given in (18), and the default rule in (19).

- (18) a. Perfective aspect =  $\lambda P_{\langle i,t \rangle} \lambda t_{\text{Top}} \lambda t_0 \exists t [t \subseteq t_{\text{Top}} \wedge P(t) \wedge t_{\text{Top}} < t_0]$ <sup>9</sup>  
 b. Imperfective aspect =  $\lambda P_{\langle i,t \rangle} \lambda t_{\text{Top}} \exists t [t_{\text{Top}} \subseteq t \wedge P(t)]$

- (19) An expression  $\phi$  of type  $\langle i,t \rangle$  that serves as a translation of a matrix sentence is true iff  $\llbracket \phi \rrbracket (s^*) = 1$ , where  $s^*$  is the speech time.

According to this framework, imperfective aspect requires that the topic time of a sentence be included within the situation time, whereas perfective aspect requires that the situation time be included within the topic time (see Klein 1994, Kratzer 1998). On this theory, (17) has a present interpretation, because the speech time (i.e., the default contextually determined topic time) is included within the situation time, as shown in (20).

- (20)  $\llbracket \text{AspP} \rrbracket = \lambda P_{\langle i,t \rangle} \lambda t_{\text{Top}} \exists t [t_{\text{Top}} \subseteq t \wedge P(t)] (\lambda t. \text{nervous}'(I')(t))$  by functional application  
 $= \lambda t_{\text{Top}} \exists t [t_{\text{Top}} \subseteq t \wedge \text{nervous}'(I')(t)]$   
 $\llbracket \text{IP/CP} \rrbracket = \lambda t_{\text{Top}} \exists t [t_{\text{Top}} \subseteq t \wedge \text{nervous}'(I')(t)] (s^*)$  by rule (19)  
 $= \exists t [s^* \subseteq t \wedge \text{nervous}'(I')(t)]$

On the other hand, if this type of sentence contains a temporal adverbial denoting a past interval or a time frame set up by the discourse, the default rule (19) will not apply, because the temporal adverbial or time frame will fill in the value of the topic time variable, giving rise to a past interpretation. An example is given in (21).<sup>10</sup>

<sup>7</sup> Smith and Erbaugh's (2005) theory of temporal interpretation in Chinese and Bittner's (2008) analysis of Kalaallisut are also based upon the aspectual properties of a sentence. Their accounts are very similar, though the details differ.

<sup>8</sup> What type of aspect is involved is predicted by Bohnemeyer and Swift's (2004) notion of default aspect.

<sup>9</sup> The condition " $t_{\text{Top}} < t_0$ " is not present in Lin 2003b, which relies more on pragmatic reasoning to derive the same effect.

<sup>10</sup> A previous discourse may also license a past interpretation for this type of sentence. For example, Speaker A's utterance in (i) licenses the past interpretation of Speaker B's reply.

- (i) Speaker A: Nǐ qù nián zhù zài nǎlǐ?  
 you last year live in where  
 'Where did you live last year?'  
 Speaker B: Wǒ zhù zài Lùtèdān.  
 I live in Rotterdam  
 'I lived in Rotterdam.'

In such cases, the temporal adverbial in Speaker A's utterance fills in the value of the topic time variable of Speaker B's utterance, perhaps through discourse binding.

- (21) a. Zuótiān xiàwǔ wǒ hěn jǐnzhāng.  
 yesterday afternoon I very nervous  
 ‘I was very nervous yesterday afternoon.’  
 b.  $\lambda t_{\text{Top}} \exists t [t_{\text{Top}} \subseteq t \wedge \text{nervous}(I')(t)](\text{yesterday-afternoon}')$   
 $= \exists t [\text{yesterday-afternoon}' \subseteq t \wedge \text{nervous}'(I')(t)]$

Therefore, the above-mentioned problem with the tensed analysis does not arise under a tenseless analysis. This analysis demonstrates how the context of a sentence affects the temporal interpretation.

It is worth noting in passing that this tenseless analysis also explains why (22) is infelicitous when the subject refers to a deceased person, as Sybesma (2007:581) points out.

- (22) Zhāngsān zhù zài zhèr.  
 Zhangsan live at here  
 ‘Zhangsan lives here.’

According to the tenseless analysis in Lin 2006, (22) should obtain the same present interpretation as (17) as a result of default imperfective aspect and the default interpretation rule (19). On this analysis, if the subject is a deceased person, world knowledge will tell us that this sentence is impossible, for a deceased person cannot still live in the real world.

A similar point can be made for a sentence like (23).

- (23) Zhāngsān yǐjīng líkāi bàngōngshì.  
 Zhangsan already leave office  
 a. ‘Zhangsan has already left his office.’  
 b. \*‘Zhangsan had already left his office.’

The aspectual adverb *yǐjīng* ‘already’ requires that the event denoted by the main predicate take place before a reference time, which should be the speech time in the case of (23). This interpretation is predicted by the tensed analysis as long as the sentence contains a present tense. However, the tensed analysis also predicts that (23) should have a reading according to which the event of leaving occurs before a past reference time, because a past tense, which constrains the topic (reference) time to a past interval, should be available for free just like a present tense. Again, a tensed analysis predicts an ambiguity that does not actually arise.

In contrast, a tenseless analysis as in Lin 2006 does not have the problem of overgenerating unwanted readings, because there is no past tense to constrain the location of the topic time to begin with. It is the utterance context of a sentence that determines the topic time, which can only be the speech time in the case of (23). On this approach, other topic times must be made available through the previous discourse or by a temporal adverbial as in (24).

- (24) Sān diǎn de shíhòu Zhāngsān yǐjīng líkāi bàngōngshì.  
 three o'clock MOD time Zhangsan already leave office  
 ‘Zhangsan had already left his office by 3 o'clock.’

Next, consider embedded relative clauses such as the ones in (25) and (26).

- (25) Zhāngsān huì qǔ yí-wèi hěn yǒuqián de nǚrén.  
 Zhangsan will marry one-CL very rich REL woman  
 a. ‘Zhangsan will marry a woman who is rich now.’  
 b. ‘Zhangsan will marry a woman who will be rich at the time of the marriage.’  
 c. \*‘Zhangsan will marry a woman who was rich before the time of the marriage.’
- (26) Zhāngsān huì mǎi yì-běn Lǐsì xiě de shū.  
 Zhangsan will buy one-CL Lisi write REL book  
 a. ‘Zhangsan will buy a book that Lisi wrote before the speech time.’  
 b. ‘Zhangsan will buy a book that Lisi wrote before the act of buying (but not necessarily before the speech time).’

(25) is ambiguous: that is, the time of the woman’s being rich can be the same as the time of the marriage or the speech time, but it cannot be before the time of the marriage. Note that this kind of past reading is allowed when the relative clause is perfective, as in (26). Again, a tensed analysis wrongly predicts that a past tense should be available for free for the relative clause in (25) just as it is in (26), unless an ad hoc stipulation is employed to block the occurrence of a past tense.<sup>11</sup> Even if such a stipulation could be proposed, this type of theory owes an explanation of why English is not subject to the same restriction. In English, the sentence *Zhangsan will marry a woman who was rich* is perfectly acceptable.

In contrast, a tenseless analysis does not have the above-mentioned problem. According to the approach taken in Lin 2006, the ambiguity of (25) is accounted for as follows. Ogihara (1996) has proposed that the scope of a relativized DP determines the temporal (in)dependence of the relative clause. When a relativized DP is quantifier-raised (QR-ed) to VP, it is within the scope of the tense of the verb. Therefore, the tense of the relative clause is temporally dependent on the tense of the verb. In contrast, when a relativized DP is QR-ed to IP, it is outside the scope of the tense of the verb. Therefore, the tense of the relative clause is temporally independent of the tense of that verb. Although Chinese does not have overt tense morphology, in Lin 2006 I have suggested that something similar applies in this language—but the role of tense is replaced by that of aspect. That is, when a QR-ed object DP is adjoined to VP within the scope of the matrix aspect, the matrix event time will be the evaluation time or topic time of the embedded aspect, depending on what aspect is involved. When it is adjoined to IP outside the scope of the matrix aspect, the speech time will be the evaluation time or topic time of the embedded aspect. Therefore, Chinese sentences like (25) are ambiguous. When the relativized DP is QR-ed to VP,

<sup>11</sup> According to Sybesma (2007:582), the cooccurrence restriction between a temporal adverb and a past tense marker is relaxed in subordinate clauses in Dutch. Therefore, one cannot stipulate that embedded relatives must have a temporal adverb in order to be interpreted as an event in the past.

the LF representation of (25) is (27), deriving reading (25b); when it is QR-ed to IP, the LF representation is (28), deriving reading (25a).<sup>12</sup>

- (27) LF: [<sub>CP</sub>[<sub>IP</sub> Zhāngsān<sub>1</sub> [<sub>I'</sub> huì [<sub>Asp</sub>[<sub>VP</sub><sub>2</sub>[<sub>DP</sub> yí-wèi [<sub>NP</sub>[<sub>CP</sub> hěn yǒuqián de] nǚrén]]<sub>2</sub>  
 Zhangsan will one-CL very rich REL woman  
 [<sub>VP</sub><sub>1</sub> e<sub>1</sub> qǐ e<sub>2</sub>]]]]]]  
 marry
- (28) LF: [<sub>IP</sub><sub>2</sub>[<sub>DP</sub> yí-wèi [<sub>NP</sub>[<sub>CP</sub> hěn yǒuqián de] nǚrén]]<sub>2</sub> [<sub>IP</sub><sub>1</sub> Zhāngsān<sub>1</sub> [<sub>I'</sub> huì  
 one-CL very rich REL woman Zhangsan will  
 [<sub>Asp</sub>[<sub>VP</sub> e<sub>1</sub> qǐ e<sub>2</sub>]]]]]]  
 marry

For a detailed, step-by-step computation showing how these two LF representations obtain their final temporal interpretations, see Lin 2006. On this approach, there is simply no way to derive the impossible reading in which the time of the woman's being rich is before the matrix event time, as a tensed analysis is able to do.

Summarizing, we have seen that a tensed analysis of Chinese predicts some readings that are consistently missing, whereas a tenseless analysis does not have this problem. Therefore, unless a tensed analysis has provided non-ad hoc solutions to the problem, a tenseless analysis of Chinese should be favored.

## 4.2 Syntactic Arguments

If a syntactic tense does not exist in Chinese, it is predicted that some properties tied to this head should be absent. In this section, I will argue that lack of a copula in constructions with a nominal predicate, lack of subject expletives, possible lack of the finite versus nonfinite distinction, and possible lack of case-driven movement are consequences of the absence of a syntactic T node. The evidence given will thus lend further support to a tenseless analysis of Chinese.

*4.2.1 Sentences with a Bare Nominal Predicate as the Main Predicate* It is well known that every English sentence must contain a verb, even if a nominal predicate can be predicated of the subject semantically. For example, as the contrast between (29a) and (29b) shows, the copular verb *be* must be present in order for such sentences to be grammatical.

- (29) a. Today is Wednesday.  
 b. \*Today Wednesday.

A possible reason for the obligatory presence of this semantically vacuous copular *be* is that English is a tensed language and the tense morphology (feature) needs to be checked by a verb (see Tang 2001).

<sup>12</sup> I assume that modal auxiliaries are under I(nfl), which does not contain any tense feature. So the label *I* does not have any sense associated with verbal inflection. It is used here only for the sake of convenience and familiarity.

Very interestingly, Chinese contrasts with English with regard to the presence of a verb. A bare nominal predicate alone is sufficient to constitute the main predicate, and such constructions abound, as illustrated in (30).

- (30) a. Jīntiān xīngqítīān.  
today Sunday  
'Today is Sunday.'
- b. Tā dà bízi.  
he big nose  
'He has a big nose.'
- c. Wǒ-de yuè gōngzī 320 yuán.  
my monthly salary 320 dollar  
'My monthly salary is 320 dollars.'
- d. Wǒmén quán cūn cái liǎng qiān rén.  
we whole village only two thousand people  
'There are only two thousand people in our whole village.'
- e. Yuànzǐ lǐ yí-piàn qīhēi.  
yard in one-CL darkness  
'It is all darkness in the yard.'
- f. Tā yī-bǎ yǎnlèi, y-bǎ bíti, hǎo shāngxīnde yangzi.  
he one-CL tears one-CL nasal.mucus very sad look  
'Lit. He has one handful of tears and one handful of nasal mucus and seems very sad in his look. (His eyes and nose are running and he looks very sad).'
- g. Tāmén nǐ yí jù, wǒ yí jù, shuō ge méi ting.  
they you one word I one word say CL not stop  
'As for them, you said one word, I said one word, talking nonstop.'
- h. Wǒmén liǎng-ge fūqī yìchǎng, . . .  
we two-CL husband.and.wife one.time  
'Lit. We two are husband and wife one time, . . .'

Note that it cannot be assumed that the constructions in (30) are derived by deletion of the verb *shì* 'be' or *yǒu* 'have' in that *shì* 'be' or *yǒu* 'have' cannot be reconstructed in every case; see (30d–h).

Such constructions raise a very interesting question: why can a bare nominal predicate constitute the main predicate of a sentence in Chinese, unlike in English? A straightforward answer is this: a bare nominal predicate can constitute the main predicate of a sentence without a verb in Chinese because the language does not have a syntactic tense; hence, there are no tense features that need to be checked or find a host.

*4.2.2 Lack of Expletive Subjects* Another property typically associated with a T head is the requirement that all clauses have a subject (Chomsky 1981, 1982). This "subject requirement," namely, the Extended Projection Principle (EPP), forces the pleonastic subject *there* to appear in the following construction:

(31) There is a fly in your soup.

The EPP does not seem to be universal, however, because languages such as Chinese need not have an overt subject, as (32) illustrates.

(32) Yǒu yì-zhī cāngyíng zài nǐ de tāng lǐ.  
 have one-CL fly in you POSS soup inside  
 ‘There is a fly in your soup.’

In fact, apart from impersonal *there*, Chinese also lacks the other two types of expletive subjects recognized in traditional English grammar: extraposition *it* and weather *it*. Compare (33) with (34).

(33) a. It is raining.  
 b. It is impossible that John has left.

(34) a. Xià yǔ le.  
 fall rain ASP  
 ‘It is raining now.’  
 b. Bù kěnéng Zhāngsān yǐjīng zǒu le.  
 not possible Zhangsan already leave ASP  
 ‘It is impossible that Zhangsan has left.’

Analyses of expletive constructions abound in the literature, and a review of all of them is beyond the scope of this article. Roberts and Roussou’s (2002) analysis, however, fits our purposes here. Roberts and Roussou argue that the subject requirement and the verb-second (V2) requirement<sup>13</sup> are reduced to a single property of tense, as formulated in (35), in connection to the position where T is spelled out.<sup>14</sup>

(35) The head containing T must have a filled specifier.  
 (Roberts and Roussou 2002:127)

In English, tense is spelled out in T, so Spec,TP must be filled—hence the subject requirement. In V2 languages, on the other hand, tense is spelled out in C because of verb raising, so Spec,CP must be filled—hence the V2 requirement.

Details aside, if Roberts and Roussou’s analysis is correct, a very simple account for the lack of overt pleonastic subjects in Chinese suggests itself immediately: Chinese lacks syntactic tense; therefore, no features associated with it are there to force the presence of a pleonastic subject.

<sup>13</sup> The V2 requirement dictates that a declarative C that attracts the inflected verb in a V2 language must have a filled specifier position.

<sup>14</sup> This is a much simplified formulation given by Roberts and Roussou at the beginning of their paper. More accurately, they have employed the notion of Tense dependence to account for the facts. See their paper for further discussion.

4.2.3 *Possible Lack of the Finite versus Nonfinite Distinction* Finiteness of a clause is another typical property that is said to be associated with a T head. For example, in English, a clause with an inflected verb is a finite clause, whereas a clause with a bare verb preceded by the infinitive marker *to* is a nonfinite clause. If Chinese does not have a T head, it is predicted that Chinese should have no finite versus nonfinite distinction.<sup>15</sup> Indeed, there seems to be no strong evidence for the finite versus nonfinite distinction in Chinese. All the tests used to identify such a distinction (see, e.g., Huang 1982/1998, Li 1985, C.-C. J. Tang 1990, T.-C. Tang 2000) have been shown to be invalid by Hu, Pan, and Xu (2001). For example, Huang (1982/1998:248) and Li (1985) have argued that finite and nonfinite clauses in Chinese can be differentiated by the distribution of the modal auxiliary *huì* ‘will’, assumed by Li to be a future tense marker. According to Huang and Li, *huì* ‘will’ can appear in finite clauses, but not nonfinite clauses. Compare the following examples from Li 1990:22:

- (36) \*Wǒ quàn/bī tā huì lái.  
 I persuade/force he will come  
 ‘I tried to persuade/force him to come.’
- (37) Wǒ gào sù tā huǒchē huì kāi.  
 I tell him train will leave  
 ‘I told him that the train would leave.’

However, as T.-C. Tang (2000) and Hu, Pan, and Xu (2001) rightly point out, the ungrammaticality of (36) is due to semantics rather than to syntax. Tang notes that verbs like *quàn* ‘persuade’ and *bī* ‘force’ lexically require that their embedded verb be a dynamic verb. Since *huì* ‘will’ is stative, (36) is unacceptable. I fully agree with this view, because if one wants to persuade or force an agent to carry out some action, that action must be volitionally controllable by that agent.

The strongest piece of evidence for the finite versus nonfinite distinction reported in the literature is perhaps the distribution of overt NP subjects in embedded clauses. According to Huang (1982/1998), Li (1985, 1990), C.-C. J. Tang (1990), T.-C. Tang (2000), and others, embedded constructions where a lexical subject may not appear (e.g., (38a–b)) are nonfinite clauses in Chinese, whereas those that allow a lexical subject (e.g., (39)) are finite clauses. This is because the subject position of a nonfinite clause is an ungoverned position and no case can be assigned to such a position by a tensed I (Chomsky 1981). Therefore, only a null subject, (i.e., PRO) can appear in that position.

- (38) a. \*Lǐsì shěfǎ tā lái.  
 Lisi try he come  
 ‘Lisi tried to come.’
- b. \*Wǒ bī Lǐsì tā lái.  
 I force Lisi he come  
 ‘I forced Lisi to come.’

<sup>15</sup> For a review of the notion of finiteness, see Nikolaeva 2007.



- (39) Zhāngsān shuō tā huì lái.  
 Zhangsan say he will come  
 ‘Zhangsan said he would come.’

However, Hu, Pan, and Xu (2001) and Xu (2003) argue against this position. They provide examples showing that all the subject positions of the so-called control structures can actually be lexicalized when an appropriate adverbial is inserted between the matrix verb and the embedded subject position, as illustrated by (40a–b) (adapted from Hu, Pan, and Xu 2001:1131).<sup>16</sup>

- (40) a. Wǒ quàn Zhāngsān rúguǒ méi yǒu rén mǎi zhè běn shū,  
 I persuade Zhangsan if no have people buy this CL book  
 tā zuìhǎo yě bú yào mǎi.  
 he had.better also not will buy  
 ‘I persuaded Zhangsan that if no one else bought this book, he had better not, either.’  
 b. Nǐ zuìhǎo shèfǎ jīntiān sǎn-le huì yǐhòu, nǐ zìjǐ yī-ge rén lái.  
 you had.better try today end-ASP meeting after you self one-CL man come  
 ‘You had better try to come by yourself this afternoon after the meeting is over.’

On the basis of such examples, Hu, Pan, and Xu (2001) and Xu (2003) conclude that the constraint on the occurrence of a lexical subject in the so-called nonfinite clause is not a restrictive syntactic constraint but is due to the Obviation Principle, which says that an overt pronoun tends to be obviative with respect to the closest prominent NP. If this view is correct, then the distribution of overt and covert NP subjects is not a matter of finiteness. The lack of the finite versus nonfinite distinction may be the direct consequence of the lack of a T head in Chinese.

There is a further piece of evidence that the choice of a lexical pronoun or an empty NP does not necessarily reflect a structural distinction related to T and the associated case assignment, but can be determined by the meaning relation between the dominating verb and the embedded structure. Dong (2003) has made a very interesting observation about the use of a covert or overt pronoun/anaphor in possessive constructions in Chinese. In examples like (41a–b), either an overt or a covert possessor is acceptable, but in ones like (42a–b), only a covert possessor is acceptable.

- (41) a. Zhāngsān ài tāde/zìjǐde/∅ qīzi.  
 Zhangsan love his/self’s/∅ wife  
 ‘Zhangsan loves his wife.’  
 b. Zhāngsān xǐ-le tāde/zìjǐde/∅ yīfu.  
 Zhangsan wash-ASP his/self’s/∅ clothes  
 ‘Zhangsan washed his clothes.’

<sup>16</sup> Hu, Pan, and Xu (2001) also point out that the lexical subject position in constructions like (40a–b) can be replaced by the anaphor *zìjǐ* ‘self’. Also see Xu 2003 for the point that *zìjǐ* in such constructions can be a subject rather than an intensifying adverbial.

- (42) a. Mǎlì chángcháng liú \*tāde/\*zìjǐde/∅ yǎnlèi.  
 Mary often flow her/self's/∅ tears  
 'Mary's tears are often flowing.'
- b. Māma zài wèi dìdì \*tāde/\*zìjǐde/∅ nǎi.  
 mother PROG feed brother her/self's/∅ breast-milk  
 'Mother is breast-feeding the younger brother.'

According to Dong, the choice of an overt or covert possessor is somehow governed by the relation among the subject, the main verb, and the embedded object. While one can love one's own wife or wash one's own clothes, it's also possible to love some other person's wife or wash some other person's clothes. Therefore, when the possessive NP is *tāde* 'his', the meaning of the sentence is ambiguous. In contrast, for activities like tears flowing or breast-milk feeding, our world knowledge tells us that the possessor of the object NP must be the subject of the verb. The possessive relation in such examples is self-evident. Dong points out that when the object NP of a verb is an inalienable part of the subject and the possessive relation is self-evident, the possessor is normally expressed by a null NP. On the basis of this observation, she concludes that the choice of an overt or covert possessor is determined by the meaning relation among the subject, the verb, and the object NP.

The upshot of the above discussion is that if Dong's proposal is correct, the choice between an overt or covert NP in Chinese need not be altogether grammatically determined, but can involve semantics and pragmatics as well, because there doesn't seem to be a strong reason to assume that the NP structure of the object NP in (42) differs from that in (41). Arguably, the distinction between (38) and (39) can be likened to that between (41) and (42). Just as the VPs *liú yǎnlèi* 'tears flow' and *wèi nǎi* 'feed breast-milk' require that the embedded possessor of the object NP be anaphoric to the subject, so a verb like *shěfǎ* 'try' requires that the subject of its embedded clause be anaphoric to the matrix subject. Therefore, a null subject is used in both cases. In contrast, verbs like *shuō* 'say' and *gàosù* 'tell' are like the verbs *ài* 'love' and *xǐ* 'wash' in the sense that one can express a thought or statement about other individuals as easily as one can about oneself. If this parallel argument is valid, then the possibility of an overt or covert subject in clauses embedded under verbs like *shěfǎ* 'try' and *gàosù* 'tell' is not necessarily grammatically determined by the finiteness or nonfiniteness of the embedded clause. In other words, in Chinese there might be no true distinction between finite and nonfinite clauses, and subordination could be indicated by the position of the embedded verb alone. This, I suppose, is a direct consequence of the lack of a syntactic T head in Chinese.

*4.2.4 Possible Lack of Case-Related A-Movement* Ritter and Wiltschko (2009) have argued that one possible consequence of the lack of the functional category T is the absence of case-motivated A-movement, because case might be a direct consequence of T, as Pesetsky and Torrego (2001) have argued. Though it is beyond the scope of this reply to discuss case-related movement in Chinese, it is worth discussing two types of constructions that have been claimed to involve case-motivated movement: passive and raising.

The most recent analysis of Chinese passives, illustrated in (43), is proposed by Huang, Li, and Li (2009).

- (43) Zhāngsān bèi Lǐsì dǎ-le.  
 Zhangsan PASS Lisi hit-ASP  
 ‘Zhangsan was hit by Lisi.’
- (44) Zhāngsān bèi dǎ-le.  
 Zhangsan PASS hit-ASP  
 ‘Zhangsan was hit.’

These authors refer to constructions like (43), which have a passive morpheme *bèi* followed by an agent NP, as *long passives*; and they refer to constructions like (44), which do not have an agent NP, as *short passives*. They argue that there are many difficulties with deriving (43) from the traditional case-motivated NP-movement because of the following properties: (a) the subject position is not a nonthematic position, (b) subject-oriented adverbs may modify the subject, (c) *bèi* + NP does not form a constituent, (d) long-distance movement is allowed, (e) the construction displays island sensitivity, and (f) a resumptive pronoun is possible. According to Huang, Li, and Li, these properties can best be accounted for if long passives involve  $\bar{A}$ -movement (null operator (NOP) movement) in a ‘*tough*-movement’ style rather than case-motivated A-movement as sketched in (45), where the passive morpheme *bèi* selects a clausal complement.

- (45) [<sub>IP</sub> Zhāngsān . . . [<sub>V'</sub> bèi [<sub>IP</sub> NOP<sub>i</sub> [<sub>IP</sub> Lǐsì dǎ-le t<sub>i</sub>]]]]
- 
- predication
movement

As for short passives, Huang, Li, and Li argue against an agent deletion analysis and propose a ‘*get*-passive’-like analysis for them instead. On this analysis, *bèi*, a deontic modal or light verb, selects an experiencer as its subject and a predicative VP as its complement. The patient of the passive verb is itself an empty category, a PRO, which moves to Spec,VP and is controlled by the base-generated subject. This analysis accounts for, among many other properties, obligatory null objects, lack of resumptive pronouns, the impossibility of long-distance movement, and the absence of the particle *suǒ*.

If Huang, Li, and Li’s analysis of Chinese passives is correct, it implies that unlike English passives, Chinese passives do not involve case-motivated movement. Even if PRO movement in short passives is claimed to be A-movement, it is not case-motivated, because PRO does not need case and cannot be governed.

As for raising constructions, consider (46) and (47).

- (46) a. Hǎoxiàng Zhāngsān bú qù deyangzi.  
 seem Zhangsan not go as.if  
 ‘It looks as if Zhangsan doesn’t want to go./It seems that Zhangsan doesn’t want to go.’

- b. Zhāngsān hǎoxiàng bú qù deyangzi.  
 Zhangsan seem not go as.if  
 ‘It looks as if Zhangsan doesn’t want to go./It seems that Zhangsan doesn’t want to go.’
- (47) a. Kěnéng Zhāngsān bú qù.  
 likely Zhangsan not go  
 ‘It’s likely that Zhangsan won’t go.’
- b. Zhāngsān kěnéng bú qù.  
 Zhangsan likely not go  
 ‘Zhangsan is likely not to go.’

It’s difficult to argue that *seem*-type constructions such as (46b) involve NP-raising, because the word *hǎoxiàng* ‘seem’ is more like an adverb than a verb in that it cannot be negated, nor can it form an A-not-A question, a typical property associated with verbs in Chinese. The word order variation in (46) can easily be accounted for as follows: a sentence-level adverb is free to occur before or after the subject of the sentence.

In contrast, *kěnéng* in (47) is indeed a predicate, because it can be negated and form an A-not-A question. Even if this is the case, it is not clear that (47b) is derived from (47a) by case-motivated NP-movement, because (47a) is just as grammatical as (47b). A case-motivated movement analysis of (47b) would predict that (47a) involves an embedded nonfinite clause and that the whole construction cannot be used independently without the embedded subject being moved. Since this is not the case, I conclude that the contrast between (47a) and (47b) does not provide compelling evidence for case-motivated movement.

To sum up, the most typical evidence for case-motivated movement, adduced from English, does not have a straightforward counterpart in Chinese. From this, of course, I dare not conclude that Chinese completely lacks case-motivated movement, because the discussion is limited. But the above evidence implies that Chinese might not have the kind of familiar case-motivated movement associated with a tense feature. I take this to be suggestive evidence that Chinese lacks a T node.

### 4.3 Conclusion

Before moving to the next section, let me note that there is a very good chance for a tenseless analysis to unify the seemingly unrelated syntactic facts discussed in this section: namely, they are all correlated with the absence of a T node in Chinese. In contrast, under a tensed analysis of Chinese, these syntactic facts look more like unrelated coincidences. This consideration thus favors a tenseless analysis of Chinese over a tensed one.

However, this conclusion raises a major issue about Chinese syntax. On the basis of data from Blackfoot, Ritter and Wiltschko (2009) have argued that lack of a functional T head correlates with lack of structural case and case-motivated movement. Wiltschko (2003) reaches a similar conclusion for Halkomelem. Given that Chinese displays similar properties, an interesting question arises. Is Chinese like Blackfoot and Halkomelem with respect to the absence of structural case

due to absence of tense? If the answer is yes, could Chinese be analyzed as caseless, too? Though I cannot resolve this major issue here, I can offer a speculative answer. As I discuss in Lin 2006, the role of tense in a tensed language such as English seems to be replaced by aspect in Chinese. Could it be that aspect, instead of tense, is related to case, if case exists in Chinese? I will leave this question for future research.

### 5 A Brief Note on St'át'imcets

In connection with Chinese, it is worth discussing St'át'imcets (Lillooet Salish), a superficially tenseless language for which a tensed analysis has been defended in the greatest detail so far (Matthewson 2006). It is interesting to see whether the analysis is successful.

According to Matthewson (2006), superficially tenseless sentences in St'át'imcets can be interpreted as either present or past, as illustrated in (48).

- (48) a. táyt-kan  
       hungry-1SG.SUBJ  
       'I was hungry/I am hungry.'
- b. k'ác-an'-lhkan  
       dry-DIR-1SG.SUBJ  
       'I dried it/I am drying it.'
- c. sáy'sez'-lhkan  
       play-1SG.SUBJ  
       'I played/I am playing.'
- (Matthewson 2006:676)

Matthewson points out that the default temporal interpretations of superficially tenseless sentences in St'át'imcets are greatly influenced by the aspectual class of the predicate. Stative predicates strongly prefer present tense interpretations in out-of-the-blue contexts, while accomplishments by default have past tense interpretations. Achievements also strongly prefer past interpretations. In contrast, activities can be freely interpreted either way. However, beyond the default interpretations, all superficially tenseless predicates may have either a present or a past interpretation regardless of their aspectual class.

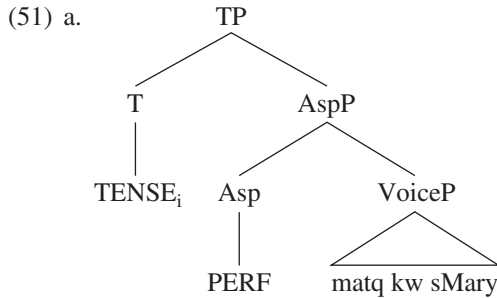
Matthewson (2006) puts forth a tensed analysis of St'át'imcets. She proposes that all superficially tenseless sentences in St'át'imcets contain a phonologically null tense morpheme, TENSE, which introduces a variable over the reference time and whose value is contextually determined by the assignment function. This tense morpheme introduces a presupposition restricting the reference time to a nonfuture interval. The denotation of this tense morpheme is given in (49), and the temporal meaning of (50) is calculated in (51).<sup>17</sup> In (49) and (51), the index *i* is the

<sup>17</sup> According to Matthewson (2006:683 and n. 4), imperfective aspect is overtly marked in St'át'imcets. Absence of the overt imperfective marker indicates the perfective aspect. That's why the aspect in (51) is perfective.

variable introduced by TENSE and  $g$  is the contextually determined assignment function that gives the variable  $i$  a value.

(49)  $\llbracket \text{TENSE}_i \rrbracket^{g,c}$  is only defined if no part of  $g(i)$  is after  $t_c$  (the utterance time). If defined,  $\llbracket \text{TENSE}_i \rrbracket^{g,c} = g(i)$ .

(50) matq [kw s-Mary]  
walk [DET NOM-Mary]  
'Mary walked/Mary is walking.'



b.  $\llbracket (51a) \rrbracket^{g,c} = \lambda w \exists e [\text{walk}(e)(w) \ \& \ \text{agent}(\text{Mary})(e)(w) \ \& \ \tau(e) \subseteq g(i)]$   
(where no part of  $g(i)$  follows  $t_c$ )

c. There is an event  $e$  of Mary walking, whose running time  $\tau(e)$  is included in the contextually salient nonfuture time  $g(i)$ .  
(Matthewson 2006:680)

According to Matthewson (2006:681), (51c) predicts that (50) can be interpreted in the past or in the present, depending upon whether the discourse has a past reference time or a present reference time. On this analysis, the only difference between English and St'át'imcets is that the TENSE morpheme in the latter is slightly less restrictive than English PAST.

The greatest difficulty with Matthewson's analysis is the incompatibility between the meaning of perfective aspect and the present interpretation. Following Bar-el's (2005) study of Skwxwú7mesh, a Central (Coast) Salish language, Matthewson assumes that absence of an overt imperfective marker in St'át'imcets indicates perfective aspect, which is an inclusion relation of the event time within the reference time. However, normally the inclusion relation under discussion is understood in such a way that the whole maximal event including the initial and final endpoints is included within the reference time (see Klein 1994, Kratzer 1998). This means that any entire event denoted by a superficially tenseless sentence in St'át'imcets must fall within an interval whose final endpoint is no later than the speech time. In other words, St'át'imcets shouldn't allow a superficially tenseless sentence to be interpreted in such a way that the running time of the event extends beyond the speech time. This prediction, however, contradicts the present interpretation of the sentences in (48). This problem implies either that the null tense analysis proposed by Matthewson is still inadequate or that her assumption regarding perfective aspect needs to be revised.

If these observations are correct, then even the most detailed tensed analysis of a (superficially) tenseless language in the literature hasn't been completely successful.

## 6 Concluding Remarks

This article has shown that Sybesma's (2007) arguments for the existence of a syntactic T node in Chinese still leave room for reconsideration. His evidence does not force us to conclude that Chinese must have a T node. In fact, it was shown that a tensed analysis of Chinese overgenerates unwanted readings. On the other hand, the tenseless alternative presented here accounts for the same range of data without encountering the same problems. This tenseless analysis is further supported by syntactic evidence such as the ability of a nominal predicate to serve as the main predicate, the impossibility of expletive subjects, the lack of a clear distinction between finite and nonfinite clauses, and the possible absence of case-related movement.

In addition to the above conclusions, it is worth emphasizing that functional categories may vary from language to language; it is not necessarily true that all languages share the same set of functional categories. It is under this assumption that a tenseless analysis of Chinese should be preferred to a tensed analysis not only because of syntactic economy but also because of Occam's razor, as my earlier works (Lin 2003b, 2006) have suggested. Of course, by this short reply, I dare not hope to have settled the debate over tensed and tenseless analyses of Chinese. However, I believe that the discussion and the empirical facts reported here have made a significant contribution to this debate.

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