1. Introduction

As is widely known, one salient fact about the languages of the East and South-East Asian Sprachbund (such as Thai, Vietnamese or Chinese, to mention but three) is that they lack the category of verbal tense. Thus, a verb may be used in the same morphological form (usually the root form, or the only existing form) regardless of whether the temporal reference is present (1a) or past (1b).

1a. Wo jinnian zai Taibei gongzuo.
    1s this year in Taipei work
    Ô This year I am working in Taipei.'

1b. Wo qunianzai Taibei gongzuo.
    1s last year in Taipei work
    Ô Last year I was working in Taipei.'

This fact poses interesting problems for universalist theories of grammar such as the Principles and Parameters approach to syntax (Chomsky 1981 and related work). Should facts in Chinese and similar languages be taken to imply that the functional category T (responsible for tense in tense languages) is not projected at all in Chinese, or is the natural consequence instead that we should assume that T is projected, but that it behaves differently from T in a language like English? Either of these solutions is problematic from a universalist point of view. In the present paper it will be argued that T is, in fact, projected in Chinese (and presumably in other South East Asian languages) and that it has largely the same function as in English, but that other factors in the syntax of Chinese are responsible for the phenomenon of tenselessness. The data in the present paper are taken from Chineése. It is not clear at this stage whether or not the argumentation carries over to other tenseless languages.

The present paper is structured as follows: in section 2, two types of temporal verb morphology are presented. In section 3, distinctive features of these are outlined with data from other languages, particularly English, Basque and Swedish. In section 4 these features are projected onto data from Chinese, where it is shown that the T/A system of Chinese has important parallels to that of English. In section 5, it is shown how the present analysis tallies well with Laka's (1994) analysis of the interaction between Tense and Negation. Finally, in section 6, an attempt is made to use the structure proposed for Chinese to account for the fact that Chinese is a tenseless language. It is shown that the present proposal is successful in accounting for a subset of the properties of tenselessness in Chinese. Avenues for further research are also outlined.

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2. Two categories: absolute vs relative tense

The initial point of our discussion concerns basically the view of tense proposed in Reichenbach (1947) and developed and modified in Comrie (1985). We distinguish between absolute tense, which makes direct reference to real-time, and relative tense, which makes reference, not to real-time, but rather to a separate point of reference on the time scale. In this paper, I shall not review the details of Comrie's model, the interested reader is referred to Comrie (1985), particularly chapter 6, for an excellent exposition.

In English, absolute tense and relative tense can occur in one clause, giving rise to the so-called complex tenses such as the pluperfect and the future perfect. Thus the relationship between the event depicted and an arbitrary reference point is indicated by relative tense, whereas the relationship between this reference point and the speech act is indicated by absolute tense. This is illustrated in Fig. 1.

Fig. 1. The time structure of the pluperfect

<table>
<thead>
<tr>
<th>Event</th>
<th>Referencepoint</th>
<th>Speech</th>
</tr>
</thead>
<tbody>
<tr>
<td>&gt;-----X1------------X2----------X3------&gt;</td>
<td>Rel PretAbs Pret</td>
<td>seen had</td>
</tr>
</tbody>
</table>

This implies that an English clause with a complex tense involves two different tense categories. Of these, the one normally referred to as tense is absolute tense. Relative tense, on the other hand, is not often discussed in the generative literature. In general, however, the syntactic slot occupied by relative tense is shared with aspect. Thus, a language like Russian, which more or less lacks relative tense (cf Comrie 1985:69), instead has a productive set of aspect morphology. Furthermore, the aspectual category of progressive in English would straightforwardly fill the position as relative present tense (expressing simultaneity between the Event and the Reference point (as in Fig. 1). The slot filled by relative future tense in Basque is also that filled by the aspect perfective (cf Laka 1994:11).

For these reasons (as well as for the economy of structure), it will be assumed in the present paper that relative tense occupies the same functional projection as aspect. An analysis of an English complex tense should therefore include not only the category of absolute tense (indicated here as $T_1$), but also that of relative tense / aspect (indicated here as $Asp_i$). The minimal structure required would be as in Fig. 2. (It is of no account whether or not $Asp_P$ is assumed to project a Specifier. In the interests of structural uniformity, I have included a Specifier in the structure in Fig. 2.)

Fig. 2. $T_1$ and $Asp_i$ in clause structure

```
  tx4960   TP
     4
   Spec   T'
   $I_i$   4
  $T_1$   AspP
   PRET   4
  had    Spec   Asp'
   $t_i$   4
```
Regardless of whether the element occupying the Asp; head in English is an aspectual morpheme or a relative tense morpheme, it seems clear that the structure of English requires the projection of two categories rather than simply one.

3. T; and Asp; - differences and definitions

There are certain differences which can be noted between the behaviour of the categories located in T; and Asp; respectively. The most obvious difference is that T; makes reference to real-time, whereas Asp; does not (this is of course identical to the definition for the difference between absolute and relative tense). Instead, Asp; makes reference to a point in time indicated by a separate reference point (such as that indicated by a time expression such as a time adverb or a temporal subordinate clause). Interestingly, this time reference functions identically regardless of whether the element concerned is relative tense (as in the periphrastic relative future about to) or aspect (as in the progressive -ing form).

2a. When you arrived, I was about to have lunch.

PRET FUT

b. When you arrived, I was having lunch.

PRET PRES

In (2a), the reference point is set at a point in the past, and the event time is defined as being in the relative future, as seen from the reference point. In (2b), which incorporates a form which is aspectual, the time reference behaviour is identical. The reference point is set in the past by the past tense of the auxiliary, while the event point is set as simultaneous with the reference point by the use of progressive aspect.

Secondly, T; elements may only occur with an agreeing time adverbial. Thus, if the time adverbial has future reference, the past tense form of a verb is ungrammatical (3a). On the other hand, Asp; elements may occur with any time adverbial, since they refer either to aspect or relative tense. Thus, if a relative past tense form cooccurs with a time adverbial referring to future time, the clause is grammatical as long as the absolute tense form agrees with the time adverbial. This holds regardless of whether the Asp; form represents relative tense (3b) or aspect (3c).

3a. *When you arrive tomorrow, I was eating lunch.

b. When you arrive tomorrow, I will have eaten lunch.

c. When you arrive tomorrow, I will be eating lunch.

This fact may seem to follow trivially from the first point, namely that T; refers to real-time, whereas Asp; refers to a reference point. Interestingly enough, we will see in the discussion on Chinese that these two properties are, in fact, independent.

Thirdly, T; elements and Asp; elements differ with respect to their interaction with negation. We shall discuss the situation with T; first.
As Ouhalla (1991) has noted, there is evidence for cross-linguistic variation in the hierarchical ordering of various functional projections in the clause. Ouhalla discusses primarily the relative hierarchical height of T_i and Agr_i (agreement). Laka (1994), on the other hand, discusses the relative hierarchical height of T_i and Neg_i. Her analysis of Basque places Neg_i higher than T_i in Basque, as opposed to the situation in English. Interestingly enough, regardless of whether T_i is above Neg_i or vice versa, there is no difference in the interpretation of the clause (4). Thus, both T_i and Neg_i appear to display a shared scope which is entirely independent of the relative height of either.

   I-ERG NEG AUX.1sE.3sE.PRET book-ABS buy want
   ŌI didn't want to buy the book.' (Basque)

b. I did not want to buy the book.

Both of these clauses are interpreted identically, so that it is not evident from the interpretation that Neg_i is above T_i in Basque whereas T_i is above Neg_i in Basque. Either of the following paraphrases would be equally suitable to either example.

5a. It is not the case that [I wanted to buy the book]. (Neg_i>T_i)

b. In a setting in the past, [I do not want to buy the book]. (T_i>Neg_i)

Again, this may seem to be trivial until compared with data from Chinese. We shall express this fact here with the metaphor that T_i is Neg-transparent, in that it shares scope with a Neg; which is lower in the structure (we shall return to Laka's analysis of Basque presently).

This is crucially not the case for Asp_i elements. In languages such as English, word order evidence suggests that Neg_i is above Asp_i, so it is difficult to test the scopal variation of Neg_i and Asp_i. It is, however, possible in some cases to force a negator to appear below an Asp_i element. This is not very idiomatic in English, particularly since Asp_i almost always attracts the verb, but possible in Swedish with the idiomatic expressions *hilla p att* (lit. Òbe engaged in', used as a progressive marker, i.e. relative present) and *vara p ug att* (lit. Ôtobe on one's way to', used as a relative future), which have meanings related to those of Asp_i elements. If a negation is embedded underneath such an Asp_i expression, the scopal interpretation is unambiguous (6).

   Lisa was going to NEG buy book-DET
   ŌLisa was considering not buying the book.' (lit. ŌLisa was about to not buy the book.)

The interpretation of (6) is such that the situation ŌLisa not buy the book' was developing, and is normally only felicitous if, in fact, Lisa does decide to buy the book after all. Crucially, however, in example (6), Asp_i is interpreted as having unilateral scope over Neg_i. Thus (6) can be interpreted as in paraphrase (7a), not as in paraphrase (7b).

7. The situation [Lisa does not buy the book] was developing.

b. #It is not the case that [Lisa would buy the book].

The interpretation in (7b) is natural if we create a situation where Neg_i has scope over the Asp_i element, as in (8).

8. Lisa var inte p ug att kpa boken.
   Lisa was NEG going to buy book-DET
O'Lisa was not going to buy the book.

The construction in (8) simply negates the assertion that Lisa was going to buy the book, and is quite felicitous even if Lisa did not, in fact, buy the book. Thus, the relative interpretation of Asp; elements and Neg; is dependent on the hierarchical relation between them. If Asp; occupies (or can be made occupy) a structurally higher position than Neg; it is also interpreted as having scope over Neg; If (as is the normal case) Neg; has scope over Asp; the interpretation is that of a negation of the remainder of the clause, including the Asp; element. We shall express this by stating that Asp; is Neg-opaque.

We have outlined three criteria which distinguish T; elements from Asp; elements. These are summarized in Fig. 3.

Fig. 3. Criteria distinguishing T; from Asp;

<table>
<thead>
<tr>
<th>T;</th>
<th>Asp;</th>
</tr>
</thead>
<tbody>
<tr>
<td>real-time</td>
<td>no real-time</td>
</tr>
<tr>
<td>time adverbial agreement</td>
<td>no time adverbial agreement</td>
</tr>
<tr>
<td>Neg-transparent</td>
<td>Neg-opaque</td>
</tr>
</tbody>
</table>

Now the stage is set for a closer examination of the Chinese data.

4. The two categories in Chinese

We have suggested that English clause structure should be analysed as having one T; projection and one Asp; projection, and we have demonstrated criteria which distinguish these from one another. Returning to Chinese, we note that it is a tenseless language. The question is therefore if any of the categories defined so far can be of use in our analysis of Chinese.

In this paper we will concentrate on the behaviour of the particle *le* (commonly described as a perfective particle, cf Norman 1988). In a simple clause, in isolation, *le* may be added after the verb to indicate that the action is completed (9).

9. Ta mai-le shu.
   s/he bought-LE book
   OS/he bought books.

However, there is evidence suggesting that there are two positions at which the morpheme *le* may appear. One is immediately postverbal (preceding the object, as in (9)), the other is clause-final (following the object, as in (10)). These are referred to in the literature as *V-le* and *sentence-le* respectively.

10. Ta yao mai shu le.
    s/he want buy book LE
    OS/he now wants to buy books (and this is a newsituation).

It is clear that *V-le* is attached / cliticized to the verb. Sentence-*le*, on the other hand, appears to be adjoined to the clause as whole (rather than to the object), since it is not dependent on the nature of the word preceding it (which need not be an object, cf (11)).

11. Ta yao zou le.
    s/he wants leave LE
    OS/he now wants to leave (after not having wanted to previously).
Furthermore, the scopal interpretation of sentence-*le* is easiest to understand if we take it as having scope over the whole clause (12a), cf the paraphrase in (12b).

12a. [Ta yao mai shu] *le*.
   [s/he want buy book] LE
b. [S/he wants to buy books], and this is a new situation.
   It has come to pass that [s/he wants to buy books].

The minimal structure required to place these two morphemes shown in Fig. 4. NegP has been included although we have not discussed it for Chinese as yet. The two *le* categories have been dubbed $X_i$ and $Y_i$ at this stage.

Fig. 4. The two *le*-s in Chinese structure

```
tx4960
  4
  Spec  X'
    4
  NegP  X_i
    g sentence-*le*
  4
  Neg_i  YP
    4
  Spec  Y'
    4
    Y_i  VP
    4
      V-le
  4
      Spec  V'
    4
      V_i  DP
```

This structure further implies that the verb raises from $V_i$ to serve as a host for *V-le* in $Y_i$. This derives the correct word order, and also accounts for the scopal interpretation of sentence-*le*.

We have thus seen that Chinese clause structure requires two levels (hitherto termed $X_i$ and $Y_i$) which may host the temporal / aspectual particle *le*. A natural question in this situation is whether the fact that both English and Chinese require two such levels is a pure coincidence, or whether the two functional projections in Chinese can somehow be identified with the two projections in English, and, if so, which corresponds to which.

The basis of this question is naturally the universalism of the paradigm itself. Given that Principle and Parameter grammar has clear universalist tendencies, the null hypothesis in such a situation is that the parallelism is not coincidental, but rather that there is a cross-linguistic generalization to be captured. As will be shown shortly, however, our ambition to give a universalist account allows us to capture an interesting generalization concerning the behaviour of *V-le* and sentence-*le*.

---

1 If we had no universalist concerns, we could simply rename $X_i$ SentLe; and $Y_i$ VerbLe; or other such language-specific terms which are not conducive to cross-linguistic comparison.

Let us therefore assume that \( X_i \) and \( Y_i \) are heads corresponding to \( T_i \) and \( \text{Asp}_i \). The next question is then: which corresponds to which? Here the criteria which we defined in section 2 come into play.

Let us begin with the third criterion. How do \( V\text{-}le \) and sentence-\( le \) interact with negations? Here we find a very interesting contrast. \( V\text{-}le \) may not cooccur with the normal negation \( bu \) (\( \text{Onot}^{(1)} \)) at all (13a). Instead, there is a separate negation, \( \text{mei} \) (-\( \text{you} \))(\( \text{Onot-have}^{(1)} \)) which incorporates the concepts of both negation and \( le \) (13b).


\[
\begin{align*}
3s & \quad \text{NEG} \quad \text{buy-LE} \quad \text{book} \\
\text{Intended reading:} & \quad \text{OS/he did not buy books.}^{(1)}
\end{align*}
\]

b. Ta mei-(you) mai shu.

\[
\begin{align*}
3s & \quad \text{not.have-(have)} \quad \text{buy} \quad \text{book} \\
\text{OS/he did not buy books.}^{(1)}
\end{align*}
\]

In structural terms, we can suggest that \( \text{mei} \) is the result of raising of a perfective / past feature from \( Y_i \) to \( \text{Neg}_i \), and the realization of the ensuing portmanteau morpheme as \( \text{mei} \) rather than as a compound of \( bu \) and \( le \) (cf Fig. 5). We shall discuss possible reasons for this movement in section 5.

Fig. 5. The structure of \( \text{mei} \)

\[
\begin{array}{c}
tx4960 \\
4 \\
\text{Neg}_i \\
\text{YP} \\
\text{NEG-LE}_i \\
4 \\
[\text{mei}] \quad \text{Spec} \\
\text{Y}^{(1)} \\
4 \\
\text{VP} \\
\text{t}_i \\
@ \end{array}
\]

The interaction of sentence-\( le \) and \( \text{Neg}_i \) is quite different. Sentence-\( le \) may cooccur with the negation \( bu \). If it does, however, it does not imply the negation of a perfective or past tense action. Instead, sentence-\( le \) takes unilateral scope over the entire clause, including the negation(14).

14. Wo bu yao mai shu le.

\[
\begin{align*}
1s & \quad \text{NEG} \quad \text{want} \quad \text{buy} \quad \text{book} \quad \text{LE} \\
\text{OI no longer want to buy books.}^{(1)}
\end{align*}
\]

Example 14 can only be interpreted such that the entire situation \( \text{II do not want to buy books}^{(1)} \) is a recent development. Since \( X_i \) has unilateral scope over \( \text{Neg}_i \), rather than both sharing scope over the whole sentence, it appears that \( X_i \) is \( \text{Neg-opaque} \), and therefore a suitable candidate for \( \text{Asp}_i \) according to the third criterion presented in section 3. As far as \( Y_i \) is concerned, we can say nothing as yet, since fusion of \( Y_i \) and \( \text{Neg}_i \) creates a situation where \( Y_i \) and \( \text{Neg}_i \) share scope due to actually occupying the same position. This is neither evidence of \( \text{Neg-opacity} \) nor of \( \text{Neg-transparency} \).

Let us continue then with the second criterion. We noted that a defining characteristic of \( T_i \) is that it may not cooccur with an adverbial which disagrees in temporal interpretation, whereas \( \text{Asp}_i \) may. If we begin by examining \( X_i \) in this light, we
see that sentence-\textit{le} may cooccur with a time-setting topic which can have either present or past tense interpretation (15)\textsuperscript{1}.

15. Women dao nali de shihou, fangzi yijing yao jianhao le. we to there DE time house already will built-ready LE

\textit{Ö}By the time we get there, the house is going to be finished soon.\textsuperscript{1}/

\textit{Ö}When we got there, the house was soon to be finished.\textsuperscript{1}

Thus, it appears that sentence-\textit{le} displays another property which is typical of Asp\textsubscript{1} rather than of T\textsubscript{1}. In contrast, this ambiguity is not present with V-\textit{le}. Thus, the only possible interpretation of a corresponding construction with V-\textit{le} is that the action occurred in the past (16a). This can be seen by the ungrammaticality induced by inserting a disagreeing time adverbial into the subordinate clause (16b)\textsuperscript{2}.

16a. Women dao nali de shihou, Lisi yijing mai-le fangzi. we to there DE time Lisi alreadybuy-LE house

\textit{Ö}When we got there, Lisi had already bought a house.\textsuperscript{1}

(#\textit{Ö}When we get there, Lisi will already have bought a house.\textsuperscript{1})

b. *Women mingtian dao nali de shihou, Lisi yijing mai-le fangzi. we tomorrow to there DE time Lisi alreadybuy-LE house

\textit{Ö}*When we get there tomorrow, Lisi had already bought a house.\textsuperscript{1}

Clearly, then, V-\textit{le} in Y\textsubscript{1} behaves in a similar fashion to T\textsubscript{1} elements according to the second criterion from section 2 (in that may not cooccur with a disagreeing time adverbial), while sentence-\textit{le} in X\textsubscript{1} behaves in a similar fashion to Asp\textsubscript{1}, in that it may cooccur with a disagreeing time adverbial.

We have now seen two pieces of evidence connecting sentence-\textit{le} to Asp\textsubscript{1} and one piece of evidence connecting V-\textit{le} to T\textsubscript{1} (with data concerning interaction with Neg\textsubscript{1} as yet unconclusive). The final test concerns the first criterion, namely reference to real-time. As it turns out, neither sentence-\textit{le} nor V-\textit{le} make clear reference to real-time. The fact that an embedded V-\textit{le} derives its temporal interpretation from the clause in which it is embedded is traditionally viewed as evidence of its aspectual, rather than temporal, nature (17).

17. Ni chi-le wan-fan yihou cai keyi chuqu wan. you eat-LE dinner after only. then can go.out play

\textit{Ö}You can go out to play after having had your dinner.\textsuperscript{1}

Likewise, it is possible to construct examples in which sentence-\textit{le} is embedded within a temporal subordinate clause, and it then also derives its interpretation from the clause rather than from real-time (18a).

18. Ta bu yao mai shu le de shihou, women keyi huijia. s/he not want buy book LE DE time we can return.home

\textit{Ö}Whe s/he no longer wishes to buy books, we may return home.\textsuperscript{1}

Thus, neither V-\textit{le} nor sentence-\textit{le} derive their interpretation from real-time. To summarize our tally, observe Fig. 6. The question of a real-time link gives us no clue as to the correspondences of the Chinese projections. The evidence from cooccurrence with time

\textsuperscript{1}I am grateful to Yang Suying for having brought these examples to my attention.

\textsuperscript{2}Unless qualified by delimiting elements, cf Yang (1995:77).
adverbials suggests that sentence-*le* is an instance of Asp;i whereas V-*le* is an instance of T; i. The evidence from interaction with Neg;i suggests that sentence-*le* is an instance of Asp;i, but is inconclusive as far as V-*le* is concerned (since the s-structure hierarchical ordering of Neg;i and V-*le* is neutralized due to fusion).

Fig. 6. T; i and Asp;i features of V-*le* and sentence-*le*

<table>
<thead>
<tr>
<th></th>
<th>V-<em>le</em></th>
<th>Sentence-<em>le</em></th>
</tr>
</thead>
<tbody>
<tr>
<td>Real-time link</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Time adverbial cooccurrence</td>
<td>T; i</td>
<td>Asp;i</td>
</tr>
<tr>
<td>Neg interaction</td>
<td>-</td>
<td>Asp;i</td>
</tr>
</tbody>
</table>

The analysis of V-*le* as a tense morpheme is not new. Rohsenow (1977) has argued that V-*le* should be viewed as a a marker of both perfective aspect and relative anteriority (i.e. relative past tense). Ross (1995), in a very detailed analysis of the semantic functions of V-*le* and sentence-*le*, also argues that V-*le* has the properties of a past tense marker. The present analysis is new in that it primarily deals with purely structural criteria, and attempts to define T; i and Asp;i elements independently of their meaning. It is interesting to note that the results reached are the same.

We shall henceforth tentatively assume that V-*le* is an instance of T; i and sentence-*le* is an instance of Asp;i and examine the consequences of this view. In the following sections we shall attempt to find further evidence to fill the table.

5. Basque and Chinese verb movement

We have noted in section 3 that T; i displays a property that we called Neg-transparency, which implies that Neg;i and T; i show a shared scope, regardless of which is hierarchically above the other in the structure. This was illustrated with data from English, where T; i is above Neg;i, and Basque, where Neg;i is above T; i. In Basque, the situation is slightly more complex, however. Given word order data from Basque involving the obligatory adjacency of the finite verb and the negation, Laka (1994) argues convincingly that the finite verb in Basque raises and adjoins to the negation. This is expressed in what Laka calls the TenseC-command Condition (Laka 1994:23ff).

Fig 7. Laka's Tense C-command Condition (henceforth TCC)

Tense must c-command at s-structure all propositional operators of the clause.

Laka's TCC forces the tensed verb to raise to Neg;i in the syntax, to ensure that T; i c-commands Neg;i at s-structure at the latest. If we follow our previous assumption that V-*le* is an instance of T; i, raising of an element from Y; i to Neg;i can be derived automatically from the TCC with no further stipulation. Thus, the TCC gives us a new criterion which we can use to identify V-*le* with T; i, at the same time as it succeeds in explaining why raising from Y; i to Neg;i must occur (the difference between Basque and Chinese being that in Basque the tensed verb raises and adjoins to Neg;i, whereas in Chinese the temporal feature raises and is realized as the portmanteau morpheme *mei* in Neg;i).

Let us now briefly return to our discussion of the Neg-transparency of T; i. It was argued in section 2 that T; i and Neg;i are always interpreted as having equal scope. The important question is how this equal scope interpretation comes about. We expressed it such that T; i is transparent to some feature in Neg;i which is responsible for the truth-
value of the sentence. Interestingly enough, the TCC offers evidence that this transparency is not mutual, but rather that the equal scope interpretation can only be derived by transparency if T\textsubscript{i} is above Neg\textsubscript{i}; not vice versa. If Neg\textsubscript{i} is above T\textsubscript{i}, T\textsubscript{i} must raise to Neg\textsubscript{i} to ensure the equal scope interpretation.

This seems to indicate that Neg-transparency and the TCC are, in fact, two realizations of the same principle, namely that T\textsubscript{i} and Neg\textsubscript{i} must have equal scope at s-structure. This can be expressed informally as the Equal Scope Principle (Fig. 8).

**Fig. 8. The Equal Scope Principle**

If category X is Neg-transparent, it must be interpreted as having equal scope with Neg. If X\textsubscript{i} is above Neg\textsubscript{i}, the Neg-transparency in itself allows the relevant Neg-features to percolate up to X\textsubscript{i}, which is sufficient to ensure this interpretation. If X\textsubscript{i} is below Neg\textsubscript{i}, it must raise to join Neg\textsubscript{i} at s-structure. T\textsubscript{i} is such a category X.

We have now shown further evidence that V-le in Chinese should be viewed as an instance of T\textsubscript{i}. If this is the case, we must try to explain what it is that makes Chinese a tenseless language inspite of this.

### 6. Why is Chinese tenseless?

There are two important ways in which Chinese is a tenseless language. These will be illustrated with reference to V-le. Firstly, V-le is unable to make reference to real-time out of an embedded context (19a), and secondly, V-le is necessarily perfective in its use, so that it may not be used with unbounded verbs (19b).

19a. Ni chi-le fan yihou, keyi chuqu wan.  
2s eat-LERice after can go.out play  
*After you have eaten, you may go out to play.*

19b. *Wo qunianzhu-le zai Taipei.*  
*s1 last.year live-LE at Taipei*  
*Last year I lived in Taipei.*

Both of these serve as counter evidence to our suggestion that V-le is a T\textsubscript{i} element. Let us examine the first fact first.

We have hitherto assumed that reference to real-time is a feature of T\textsubscript{i} rather than of Asp\textsubscript{i}. We have done so on the basis of evidence from a language like English, where T\textsubscript{i} is above Asp\textsubscript{i}. The facts in English admit of another explanation, however. Reference to real-time is, in English, a property of the higher of the two levels T\textsubscript{i} and Asp\textsubscript{i} (viz. T\textsubscript{i}), whereas lack of this reference is a property of the lower one (viz Asp\textsubscript{i}). If we assume that this property does not follow from the nature of the category, but rather from its hierarchical level in the clause, it followsthat we would not expect T\textsubscript{i} in Chinese to be able to access real-time.

Instead, we should expect Chinese Asp\textsubscript{i} (i.e. sentence-le) to be able to refer to real-time. However, since the primary function of sentence-le is to indicate that the sitution as such is new (and is aspectual rather than temporal), its reference to real-time is also rather weak (and can, in fact, be blocked by embedding, as was seen in example (18)). Thus

---

1 It the structure in Fig 9, noreference has been been made to the C\textsubscript{i} projection. This is a major study in its own right.
it appears that only the higher of the two levels T₁ and Asp; is able to access real-time, and of these, only T₁ can derive any temporal information from such a reference. This would imply that absolute tense with reference to real-time is only a possibility in a language where the higher category is identical to T₁, i.e. where T₁ c-commands Asp; (as in English).

The second problem concerns the ungrammaticality of V·le occurring with unbounded verbs. This, if anything, should be taken as evidence of the aspectual nature of V·le.

Given the analysis of V·le as a relative tense morpheme, it might be assumed that the incompatibility of V·le with a stative verb may be derived from a reinterpretation of a stative verb as incorporating a progressive aspect which corresponds to a relative present tense. This avenue is not available, however. Such an analysis would imply that V·le always necessarily refers to a reference point other than real-time, whereas V·le in actual fact often does refer to real-time (whenever it is not embedded).

Thus, it seems clear that V·le incorporates the aspectual specification of perfectivity. On the other hand, it is equally clear from examples like (16) that it is not purely an aspectual morpheme, but also has a past tense specification (realized, due to its structural position below Asp; as relative tense). It is likely that the tense properties derive from the fact that it is generated in the head T₁ (a suggestion for which we have support from other structural criteria independent of the semantics of tense and aspect). The question is therefore where the aspectual properties derive from.

A possible solution has been outlined by Ross (1995). Ross suggests (op.cit. 110) that states are unanchored in time. If this is the case, then it is no surprise that they should be incompatible with tense-marking. Crucially, this would seem to hold for relative tense, but not for absolute tense (since absolute tense languages like English are capable of expressing states in the past tense). The exact consequences of the difference in behaviour between absolute and relative tense with respect to this suggestion remain to be studied in detail.

7. Summary

In the preceding sections, it has been argued that the fact that Chinese is a tenseless language does not derive from the lack of a T₁ projection. Instead it has been argued that Chinese possesses the same T₁ projection and Asp; projection which we assume for English and other tense languages. Cross-linguistic data from English, Swedish and Basque are given to present criteria distinguishing T₁ from Asp; and on the basis of these criteria, it is shown that V·le should be identified with T₁, whereas sentence·le should be identified with Asp;. What then causes Chinese to lack the category of verbal tense as we know it is not a lack of the T₁ projection, but rather the hierarchical ordering of T₁ and Asp; with Asp; above T₁, blocking the absolute time reference of T₁. Finally, as a tentative generalization, it is proposed that one defining property of tenseless languages is that Asp; c-commands T₁ rather than vice versa. The relevant structure assumed for Chinese is therefore as illustrated in Fig. 91.

1 I am indebted to the researchers Shigeru Tsuchida (on Imorod), Yukihiro Yamada (on Itbayat and Iwasay) and Tsunezku Moriguchi (on Imarlap, Isamoring and Babuyan) for their pioneer work in collecting the comparative wordlists for all these languages and dialects. Without their important work this paper could not have been written.
Fig. 9. The structure of the Chinese clause

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CÁI GÌ CHI PHÔI HOẠT ĐỘNG GIAO TIẾP

Reiko Itani

Quá trình giao tiếp thường được ví như bước nhảy tango của hai người, bước nhảy này đòi hỏi sự “hợp tác” của hai người ban này. Tuy nhiên, chỉ hợp tác thôi thì không bảo đảm sự thành công của điều này, vì có thể đôi ban này đó không thành thạo các bước nhảy. Và quá trình giao tiếp ngôn ngữ cũng có thể như vậy, vì người nói có thể ngớ nhiên người nghe hiểu mình, còn người nghe thì không thể hiểu người nói nói gì. Sự hợp tác trong cuộc thảo luận hữu ích, song nó không phải là khái niệm cơ bản chỉ phơi các hoạt động của những người tham gia cuộc thảo luận.

Đo đó, việc cùng nắm rõ các bước nhảy và những tiền ước giao tiếp của nhau đương nhiên là những kiến thức quan trọng cho sự thành công của các hoạt động này. Tuy nhiên, một vụ sự việc có thể hướng dẫn cho một vụ công chủ yếu đặc biệt đủ những thao tác của bước nhảy. Tương tự như vậy, trong giao tiếp ngôn ngữ, người nghe có thể hiểu ý định của người nói mà không cần có tri thức thỏa đáng. Tôi lấy một ví dụ như sau: A không hề biết âm nào trong tiếng Đức cả.

A: Can you speak German? B: Aber natürlich Ich kann.

Trong ví dụ này, nếu A tin B nói thật thì A hiểu rằng phát ngôn của B là tiếng Đức và như vậy B biết nói tiếng Đức. Vấn đề ở đây là người nói tin nhận biết được khả năng hoặc xác tín của A (chủ không phải là tri thức tiếng Đức của A) trong việc xác nhận phát ngôn của B là tiếng Đức. Điều này điên thay công việc A phải biết tiếng Đức là không nhất thiết. Có rất nhiều minh họa cho thấy quá trình giao tiếp thực tế vẫn diễn ra mà không cần đến tri thức chung của cả người nói lẫn người nghe.

Trong bài viết này, tôi xin được giới thiệu một khái niệm dựa trên sự tri nhận được gọi là “Tình quan yêu thỏa đáng” là yêu tố chỉ phổ biến hoạt động giao tiếp. Đây không phải là một khái niệm đảm bảo sự an toàn cho việc giao tiếp bởi người nói bảo giờ cùng có thể “đánh lạc hướng” người nghe hoặc người nghe có thể không chịu chịu ý đến những gì người nói nói ra. Tuy nhiên, tôi sẽ chứng minh khái niệm này có thể giải thích được nhiều dự kiến, kể cả việc trao đổi kế tranh và tôi sẽ chứng minh nó có hiệu lực.