T AND ASP AS FUNCTIONAL PROJECTIONS IN TENSELESS LANGUAGES

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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
   'This year I am working in Taipei.'

1b. Wo qunianzai Taibei gongzuo.
   1s last year in Taipei work
   '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 Chinesé. 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

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<table>
<thead>
<tr>
<th>Event</th>
<th>Referencepoint</th>
<th>Speech</th>
</tr>
</thead>
<tbody>
<tr>
<td>&gt;-----X1--------X2---------X3-----&gt;</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Rel PretAbs Pret</td>
<td></td>
</tr>
<tr>
<td>seen</td>
<td>had</td>
<td></td>
</tr>
</tbody>
</table>
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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 straight forwardly 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 $T_i$), but also that of relative tense / aspect (indicated here as Asp). The minimal structure required would be as in Fig. 2. (It is of no account whether or not Asp 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. $T_i$ and Asp; in clause structure

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tax4960  TP
  4
Spec  T'
I_i  4
  $T_i$  AspP
PRET  4
  had  Spec  Asp'
t_i  4
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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 \( Agrp \) (agreement). Laka (1994), on the other hand, discusses the relative hierarchical height of \( T_i \) and \( Neg; \) Her analysis of Basque places \( Neg; \) higher than \( T_i \) in Basque, as opposed to the situation in English. Interestingly enough, regardless of whether \( T_i \) is above \( Neg; \) or vice versa, there is no difference in the interpretation of the clause (4). Thus, both \( T_i \) and \( Neg; \) appear to display a shared scope which is entirely independent of the relative height of either.

4a. Nik ez nuen liburua erosi nahi.
   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 \( Neg; \) is above \( T_i \) in Basque whereas \( T_i \) is above \( Neg; \) 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]. \( (Neg; \rightarrow T_i) \)

b. In a setting in the past, [I do not want to buy the book]. \( (T_i \rightarrow Neg; ) \)

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; elements. In languages such as English, word order evidence suggests that \( Neg; \) is above Asp; so it is difficult to test the scopal variation of \( Neg; \) and Asp; It is, however, possible in some cases to force a negator to appear below an Asp; element. This is not very idiomatic in English, particularly since Asp; almost always attracts the verb, but possible in Swedish with the idiomatic expressions ‘hīla p att’ (lit. Ōbe engaged in‘, used as a progressive marker, i.e. relative present) and vara p ug att (lit. Ōtobe on one’s way to‘, used as a relative future), which have meanings related to those of Asp; elements. If a negation is embedded underneath such an Asp; 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; is interpreted as having unilateral scope over \( Neg; \) 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 \( Neg; \) has scope over the Asp; element, as in (8).

8. Lisa var inte p ug att kpa boken.
   Lisa was NEG going to buy book-DET