Temporal reference in the absence of tense in Paraguayan Guaraní

Roumyana Pancheva and María Luisa Zubizarreta, USC

Languages without overt tense have been analyzed in two ways: as having (i) covert tense [7,5,11], or (ii) no tense and, either (ii-a) including ‘R(ference) T(ime) < Eval(uation) T(ime)’ in the meaning of perfective aspect [6], or (ii-b) allowing the free time variable of aspechual morphemes to refer to the discourse-salient RT, just as a tense pronoun would [12,8]. [12] analyzes (Paraguayan) Guaraní as (ii-b). We propose a truly tenseless account, without reference to RTs: EvalT binds the time variable of aspect, and EvalT may shift, as happens in restricted contexts in languages with tense, but here more freely.

Covert tense or no tense? In languages without overt tense, predicates are interpreted as past or present, depending on aktionsart, viewpoint, modification by time adverbials, and context, (1a) [2,4,5,6,7,8,12]. But for future reference, some languages require a prospective marker, even with future adverbs, (1b,c); others do not, (2). The obligatory use of a prospective for the future is the main argument for covert tense [7,5,12].

The argument relies on a likely semantic universal: tense languages describe future events not with a future tense but with a present tense and a (typically modal) prospective, or with non-past tense [3]. The absence of future tense follows if tenses may not denote RTs > EvalT [1]. The same restriction would apply to covert tense. Accordingly, languages with no overt tense have been argued to have: A) covert non-future tense (3a) and an obligatory prospective (3b), [7,5]; B) no tense and no obligatory prospective, with future RTs available as referents for the time variable of viewpoint aspect (3c), (2), [4]; C) no tense and an independently needed prospective [2]. Guaraní falls in C): it is argued to have no tense, as the prospective, while typically required (1), can be omitted in some main clauses [12] (see also [8]).

(1) a. A.jahu     b. # Ko’éro a.jahu    c. (Ko’éro) a.jahu.ta  
   1SG.bathe     tomorrow 1SG.bathe tomorrow 1SG.bathe.PROSP 
   ‘I am/was bathing.’    lit. ‘I bathe tomorrow.’    ‘I will bathe (tomorrow).’

(2) Táan    in=mèet-ik  le=nah=o’   Yucatec Mayan, [4]   
   PROG A1SG =do:APP-INCOMPL (B3SG) DET=house=D2  
   ‘I am/was will be building the house.’

(3) a. [\[ NON-FUTi \]]^eC is defined iff g(i) ≤ tC; if defined, [\[ NON-FUTi \]]^eC = g(i).
   b. [\[ PROSP \]] = λp ∈ D^i, λt (t < t’ & p(t’))  
   (modal aspects of semantics [7,5,12] not shown)
   c. [[[ AspP … ]] = λt (P(e) & τ(e) AT t)  
      (viewpoint type determines how AT is interpreted)

A new analysis of Guaraní. The free variable of aspect refers to the salient RT post-LF, just like the tense pronoun in (3a) does. Main clauses make available only present and past, but not future, salient RTs, in contrast to Yucatec Mayan, and -ta is needed for future reference. Special rules are posited for the main clauses where -ta can be omitted: non-initial conjuncts and clauses modified by causal adverbials.

ÉvalT. Tenses refer to RTs and locate them relative to an ÉvalT, τ, in (3a), which is the speech time by default in matrix clauses. We suggest that in the absence of tense, the time variable of aspect or of a prospective marker is directly bound by the ÉvalT of the clause, itself a null temporal pronoun in the C-domain (4a). Present reference results with imperfective aspect (4b), and future reference with -ta (4c).

(4) a. [\[ τ, λt (P(e) & τ(e) AT t)]]^eC b. λe (P(e) & τ(e) ≥ tC)  
    c. λe (t < t’ & P(e) & τ(e) AT t’)

The challenge is to derive past reference. For this, we turn to the narrative present in tense languages.

Narrative present. Present tense can describe past events in narration (5). Formally, the analysis involves bi-contextual evaluation [9]. The ÉvalT for tense is shifted back from the speech time to the narrative time tN (6a). Present tense has its usual meaning, placing the RT at the (back-shifted) ÉvalT tN (6b). Indexical adverbs are still evaluated relative to the speech time tC (6c). We suggest that bi-contextual evaluation is involved in past reference in Guaraní, with a back-shifted ÉvalT binding the time variable of aspect, (7a-b), and indexical adverbials interpreted relative to the speech time (7c). In tense languages, this mechanism is restricted to narratives, and is associated with discourse effects, because a past tense is also available. In Guaraní this is the only way to achieve past reference, so it is not restricted to narratives.
Narrative present for the future. The narrative present can also describe future events, (8). Here the EvalT for tense is shifted after the speech time (t\textsubscript{N} > t\textsubscript{C}). Bi-contextual evaluation keeps the time of the attitude and it binds the time variable of the embedded predicate, resulting in a simultaneous reading. The same analysis applies to (11), where the (past) EvalT binds the time variable of the attitude and it binds the time variable of the embedded predicate, resulting in a simultaneous reading. The same analysis applies to (11), where the (past) EvalT binds the time variable of -\textit{ta}, and the embedded event can be located anywhere relative to the speech time (see also [13]).

Complements. The proposal accounts for other key facts of Guarani. [12] points out that back-shifted readings are not available in (10) (without aspectual markers). The EvalT for the embedded clause is the time of the attitude and it binds the time variable of the embedded predicate, resulting in a simultaneous reading. The same analysis applies to (11), where the (past) EvalT binds the time variable of -\textit{ta}, and the embedded event can be located anywhere relative to the speech time (see also [13]).

Narrative sequences/co-ordinations. In tense languages, narrative progress in the past is usually modeled through updates on RT: an event occurs at RT\textsubscript{1} and introduces a new RT\textsubscript{2} slightly after RT\textsubscript{1} [9]. On our proposal, tenseless Guarani allows no reference to RTs. Narrative progress is accomplished through updates on the shifted ET: an event occurs at ET\textsubscript{1} (t\textsubscript{N1}) and introduces a new time slightly after ET\textsubscript{1}. That time becomes the shifted ET\textsubscript{2} (t\textsubscript{N2}) for the subsequent clause. The ETs bind the time variables of -\textit{ta} (12) or of viewpoint aspect (13). We also submit that the ET update (ET\textsubscript{1}< ET\textsubscript{2}) accomplishes temporally what a prospective marker would, and is what allows omission of -\textit{ta} in cases like (13), [11].

Typology. On this proposal, the distinction among the three types of languages without overt tense is:

<table>
<thead>
<tr>
<th>type</th>
<th>example language</th>
<th>tense</th>
<th>reference to RTs</th>
<th>prospective marker obligatory for purely temporal reference</th>
<th>indep. needed prospective</th>
<th>EvalT shift in future contexts without prospective</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>Gitxsan</td>
<td>covert</td>
<td>yes</td>
<td>yes (tense constraint)</td>
<td>--</td>
<td>restricted to narratives</td>
</tr>
<tr>
<td>B</td>
<td>Y. Mayan</td>
<td>no</td>
<td>no</td>
<td>no</td>
<td>no</td>
<td>not restricted</td>
</tr>
<tr>
<td>C</td>
<td>Guarani</td>
<td>no</td>
<td>no</td>
<td>yes</td>
<td></td>
<td>restricted to narratives</td>
</tr>
</tbody>
</table>