

Evidence for future tense in Paraguayan Guarani

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If future time reference is necessarily non-factual, and non-factual assertions are necessarily accompanied by a modal attitude, can there be pure future tenses in natural languages or is future time reference always modal? While Yavaş (1982) argues that all future markers are modal, Comrie (1989:53) rejects this as a “conceptual non-argument” and suggests that the question of whether pure future tenses exist “can only be answered on the basis of the investigation of grammatical expressions of future time reference across a number of languages” (Comrie 1985:44). This talk explores the meaning of the Paraguayan Guarani future marker *-ta* on the basis of data collected during recent fieldwork, and presents language-internal evidence that it is a future tense, not a combined future tense/modal marker.

1. The meaning of Guarani *-ta*

Guarani *-ta* realizes future time reference whenever it occurs, a necessary requirement for future tenses according to Comrie (1985). In (1), *-ta* locates the eventuality it modifies (the making of a big and pretty wax figure) in the future of the utterance time.

- (1) A-japó-**ta** ta'anga araaity kakuaa porā-va.
I-make-FUT figure wax big pretty-REL.CL
'I will make a big and pretty wax figure.'

Like the St'át'imects future marker *kelh* (Matthewson 2006), *-ta* can also express future time reference with a past perspective time. In (2a), *-ta* locates the eventuality of the dependent clause in the future of the (past) matrix event time. (2b) expresses that it will rain at a time in the relative future of the past perspective time included in yesterday.

- (2) a. Ha he'i o-u-**ta**-ha pende-recha-mi.
and he.say he-come-FUT-that you.pl-see-DIMINUTIVE
'And he said that he'll come see you.'
b. Kuehe o-ky-**ta** kuri.
yesterday 3-rain-FUT THEN.PAST
'Yesterday it was going to rain.'

Unlike future markers of other languages (e.g. English *will*, German *wird*), *-ta* cannot realize present time reference (e.g. with dispositional or epistemic modality (*Don't worry, he'll be with his friends*)). *-ta* is compatible with the modal attitudes of intention (1a), expectation (2a) and prediction (3); these have been identified in the typological literature (e.g. Dahl 1985; Bybee et al. 1994) as the modal attitudes realized by future tenses.

- (3) Nde-ru i-tarová-**ta** voi i-mandu'á-ramo upéva-rehe.
your-father 3-crazy-FUT surely 3-hear-if this-about
'Your father will go crazy if he hears about this.'

2. Is *-ta* a pure future tense or a future tense with a modal meaning component?

On the basis of the truth conditional meaning properties of *-ta* I identify in the first part of the talk, we can entertain (at least) the two hypotheses about the meaning of *-ta* given in (4). According to both hypotheses, H1 and H2, *-ta* encodes that the eventuality *P* (type $\langle s, \langle i, t \rangle \rangle$) it applies to is located at a time *t'* in the future of the perspective time *t* ($t < t'$).

- (4) **H1:** $-ta \Rightarrow \lambda P_{\langle s, \langle i, t \rangle \rangle} \lambda w \lambda t [\forall w' (w' \in MB(w, t) \rightarrow \exists t' (\underline{t} \leq t' \wedge P(t')(w')))]$
H2: $-ta \Rightarrow \lambda P_{\langle s, \langle i, t \rangle \rangle} \lambda w \lambda t [\exists t' (\underline{t} \leq t' \wedge P(t')(w))]$

According to **hypothesis H1**, *-ta* is a combination of a future tense and a modal marker. The eventuality *P* is located at a future time *t'* in (all) those worlds *w'* that are accessible, given the modal base MB (a contextually-determined function from world-time pairs to sets of worlds), i.e. in those worlds in which the speaker's (or agent's) intentions, expectations or predictions are fulfilled. Under **hypothesis H2**, the meaning of *-ta* does not include a modal meaning component. Rather, I propose, the set of worlds is restricted by *semantic blocking*: Guaraní has modal markers that can realize future time reference with *other* modal attitudes (e.g. epistemic/metaphysical (5a), bouletic (5b) and deontic (5c) modality), and *-ta* is blocked from realizing future time reference with these modal attitudes. Modal attitudes that are not realized by overt markers (i.e. intention, expectation, prediction) are left to be realized by *-ta*. (I follow Bohnemeyer (2000) in assuming that future tenses need not be realized in all contexts with future time reference (contra Yavaş 1982)).

- (5) a. A-purahei-**ne**. b. A-purahei-**se**. c. A-purahei **va'era**.
 I-sing-MIGHT I-sing-DES I-sing MUST
 'I might sing.' 'I want to sing.' 'I must sing.'

3. Future time reference in negated sentences

The truth conditional meaning properties of *-ta* leave open whether H1 or H2 is more adequate. Language-internal evidence in favor of H2 comes from the way in which future time reference is realized in negated sentences. The key observation here is that *-ta* is not used to express future time reference with sentential negation (realized by the circumfix *nd-...-i*). Instead, the suffix *-mo'ã* is used in matrix (6a) and subordinate clauses (6b).

- (6) a. Nd-ai-ke-**mo'ã-i**. b. Ai-kuaa Juan nd-o-jahu-**mo'ã-i-ha**.
 NEG-I-sleep-MOA-NEG I-know Juan NEG-he-bathe-MOA-NEG-that
 'I will not sleep.' 'I know that Juan will not bathe.'
 c. Ore-sy nda-i-pochy-**mo'ã-i** upéva-re
 our-mother NEG-she-angry-MOA-NEG this-because.of
 'Our mother will not get angry because of this.'

Just like *-ta*, *-mo'ã* realizes future time reference with both present and past perspective times, and is compatible with the modal attitudes of prediction, intention (6a) and expectation (6c). The fact that *-mo'ã* and *-ta* are compatible with the same modal attitudes is surprising under H1: if *-ta* explicitly encodes a modal meaning component, *-mo'ã* could encode a different one. In contrast, the parallel behavior of the two future markers is predicted by H2, the semantic blocking account: both markers are compatible with exactly those modal attitudes not realized by overt modal markers.

4. Theoretical implications

Guaraní provides novel evidence for the existence of future tenses and insight into the relation between future tenses and modal (future) markers. The talk identifies and discusses criteria for future tense, and situates Guaraní *-ta* with respect to future markers of other languages, e.g. the Hua markers, which have been reported to be compatible with all modal attitudes (Haiman 1980), St'át'imcets *kelh*, and English *will* (e.g. Hornstein 1990).

Selected references: BOHNEMEYER, J. (2000) Time reference across languages. Lecture notes from LOT summer school, Tilburg. COMRIE, B. (1989) On identifying future tense. *Tempus–Aspekt–Modus*, Abraham, W. & Janssen, T. (eds.), Tübingen: Niemeyer. HAIMAN, J. (1980) *Hua*. Amsterdam: Benjamins. YAVAŞ, F. (1982) Future reference in Turkish. *Linguistics* 20, 411-429.