A nominal temporal marker in Kuikuro (Carib)

Overview. In this talk, we investigate the interpretation of the past nominal temporal marker (NTM) -pe in Kuikuro, a Carib language spoken in Alto-Xingu (Brazil). We argue that -pe locates a maximal situation in the past of a pivot time. In that sense, our analysis of -pe is similar to Tonhauser's (2006) analysis of the Paraguayan Guarani (PG) NTM -kue as a terminative aspect. However, we show that -pe does not have what Tonhauser calls the “existence property,” since it can combine with nouns that denote permanent and stage final properties. In this respect, -pe is closer to the past NTM of Halkomelem discussed by Burton (1997). Our study contributes both to our understanding of Kuikuro and to our knowledge of fine-grained cross-linguistic variation in the interpretation of temporal modification of noun phrases. The data for this talk were obtained by one of the authors in elicitation sessions and documentation of spoken and written language with native speakers of Kuikuro between 2000 and 2015.

Tense. Verbs in Kuikuro can be used without temporal inflection, in which case they describe a present or past eventuality, as illustrated in the following examples from Santos (2007):

(1) u-g-api-gagü matelu-ki. 1-DTR-hit-CONT hammer-INST corn grind-CONT woman ERG
   “I am/was hitting myself with a hammer.”

(2) ana ahu-tagü itão heke
   “The woman is/was grinding corn.”

Future events may be described with the temporal marker -ingo, which is attested not only on nouns but also on verbs, contrary to -pe.

Nominal temporal marker: core uses. The suffix -pe is attested on common nouns (CNs). With absolute (non-possessive) CNs, -pe conveys that the referents of the NP used to be (part of a referent) in the extension of the (unmodified) nominal predicate before the time of evaluation of the NP, as illustrated in example (3):

(3) Context: pointing at a belt made of jaguar skin.
etiko-ha ige-i ekege-pe.
   belt-HA DPROX-COP jaguar-PE
   “This belt is ex-jaguar.”

Other CNs that were tested and can be modified by -pe are kanga-pe (literally “ex-fish”, i.e. fish bone), ii-pe (lit. “ex-tree”, i.e. piece of wood), ipa-pe (lit. “ex-lagoon”, i.e. dried lagoon), taho-pe (lit. “ex-knife”, i.e. piece of a broken knife) and ailene-pe (lit. “ex-celebration”, i.e. a celebration that is over). This is not an exhaustive list. In all cases, the use of -pe entails that the referent of the NP is not in the extension of the nominal predicate at the time of evaluation of the NP. With possessive CNs, -pe may also convey that the possessive relation between the referent of the NP and the possessor used to hold in the past of the time of evaluation of the NP. This is well-illustrated by the contrast between examples (4) and (5):

(4) u-ingü tu-ndagü u-heke e-inha
   1-cloth give-CONT 1-ERG 2-BEN
   “I am giving my clothes to you.”
   “I am lending my clothes to you.”

(5) u-ingü-pe tu-ndagü u-heke e-inha
   1-cloth-PE give-CONT 1-ERG 2-BEN
   “I am giving my ex-clothes to you.”
   “I am giving away my clothes to you.”

An analysis of such examples suggests that -pe has the precedence and change properties described by Tonhauser (2006) in her analysis of PG past NTM -kue. However, -pe differs from PG -kue at least insofar as it lacks the existence property, according to which the referent of a CN modified by a past NTM still exists at the time of evaluation of the NP (what Tonhauser calls the Noun Phrase time). Support for this claim comes from the possibility to combine -pe with CNs that denote permanent and final stage properties or relations, such as jaguar and father, as illustrated in (3) and
In this respect, -pe is similar to the Halkomelem past NTM -elh described by Burton (1997).

(6) apa-pe heke ngüne ha-nügu. (7) üle-pe ige-lü inhagü atati
father-PE ERG house do-PNCT AN-PE take-PNCT buraco INESS
“My late father built a house.” “After this, we took (it) into the hole”

Finally, -pe is also attested on demonstrative/anaphoric pronouns (and nominalized adverbs) that denote times, as illustrated in (7). The -pe adverbial denotes a time that occurs after the time or situation denoted by the unmodified pronoun or nominalized adverb. For instance, we propose that üle-pe means literally “passed this.” The whole adverbial locates the reference time of the clause.

**Analysis.** Our analysis is formulated in Kratzer's (1989, 2002) situation semantics. We analyze property denoting nouns as relations between individuals and situations (9). The suffix -pe (8) combines with a property P of situations and outputs a property of situations s' such that s' follows and abuts (≺) a maximal situation in the extension of P. This entails that (i) every situation in the extension of [[-pe]](P) is preceded by a P situation and (ii) no situation in the extension of [[-pe]](P) is a P situation. We analyze deictic pronouns as Kaplanian indexicals that refer to situations: in (11), d is a constant that refers directly to a situation that the speaker “points to” in context c. The constant d can be type-shifted to a property of situations identical to d in (12), which can then combine with -pe, to yield a property of situations that follow and abut d (13).

**Nominal temporal marker: dependent uses.** Some privative verbs of change of state require the use of -pe on one of their arguments, as illustrated in (13). Interestingly, -pe does not convey that the nominal property does not hold at the NP-time in these examples: (14) is felicitous and true even if the knife was and is still intact:

(14) taho-pe ti-jü leha u-heke i kae-nogo-pengine.
knife-PE remove-PNCT CMPL 1-ERG tree LOC-NMLZ-ABL
“I removed the knife from the tree.”

We argue that these verbs are decomposed into a causative head and a nominal small clause (SC) modified by -pe (see Harley 2008 for related decompositional analysis of causative verbs). In (14), the SC modified by -pe denotes a property of situations that follow and abut a situation of the knife being in the tree. The underlying syntactic structure of the verb phrase is represented in (15):

(15) CAUSE [ TERM [ KNIFE [ IN TREE ]] ]

We analyze -pe in Distributed Morphology (Halle & Marantz 1993) as the exponent of a terminative aspect that is selected by the causative head, while the morpheme ti in (14) spells out the causative head itself. The semantic analysis of -pe proposed in (8) carries over straightforwardly to these cases:

(16) [[CAUSE]]^f = λP.λe. ∃s'[cause(e,s) & P(s)]
(17) [[ TERM [ KNIFE [ IN TREE ]] ]]^f = λs.∃s'[max(λs.in(xx.knife(x),xx.tree(x),s),s') & s' ≺ s]
(18) [[ (15) ]]^f = λe. ∃s'[cause(e,s) & ∃s'[max(λs.in(xx.knife(x),xx.tree(x),s),s') & s' ≺ s]]

Dependent uses of -pe support its analysis as a terminative aspect rather than a tense, since -pe in such examples is not used to locate the evaluation time of a predicate (i.e. a reference or nominal time) but rather to contribute a result state to the description of a complex event. This observation reinforces Tonhauser’s (2008) conclusion that one cannot conclude that a language has nominal tense without carrying a fine-grained semantic analysis of its NTMs. We hope that our work may in the future contribute to a typology of nominal temporal marking informed by semantic theory.

**Glosses:** ABL: ablative; AN: anaphoric pronoun; BEN: benefactive; CMPL: completive; CONT: continuative (aspect); DPROX: proximal deixtic; ERG: ergative; INESS: inessive; LOC: locative; NMLZ: nominalizer; PNCT: punctual (aspect)