Nominal Tense? The meaning of Guarani Nominal Temporal Markers

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> **Goals**: 1. Explore the meaning of nominal temporal markers of Guarani
>
>   2. Are these markers nominal tense?
>
> (1)   a.   Jagua-ndadje o-kuaru   o-ñakamby-pe'a-há-pe,   yma
>   dog-SAY   A3-urinate A3-spread.legs-open-NOM-PE long.time.ago
>   ho'a-gui-ve   hi'-ári pare-**kue**, peteĩ fárra-há-pe.
>   A3.fall-ABL-VE 3-on   wall-KUE   one   party-NOM-PE
>   'It is said that dogs urinate with their legs spread open (one up) because
>   a long time ago an old wall fell onto a dog, at a party.'   [P:106]
>   b.   O-ho   peteĩ arriéro o-jeruré-vo   la   h-embireko-**rã**-re.
>   A3-go one   man   A3-ask.for-at LA 3-wife-RA-RE
>   'A man went to ask for his future wife.'   [P:57]
>
> **Spiel:**   1. Guarani markers do not locate the NP time
>
>   2. NPs are tenseless (too) – contra Nordlinger & Sadler (2004), Matthewson (2005)

1. Background

1.1 What is nominal tense?

So far, we've seen tense, aspect and mood realized on verbs (or not).

     (2) *Yesterday, a student knitt**ed**.*

     → *knitting* – true of an individual at some particular time (however long the event lasted)

     → *a student* – property true at particular times (until the student graduates / drops out)

     NP-time interpreted at the time at which the **verbal predicate** is interpreted.

Are NPs always interpreted at the same time the VP is interpreted? NOPE.

     (3) *Every **fugitive** is now in jail.*   Enç(1981)

        Q: Are they <u>still</u> fugitives?

     → property of being a fugitive not true at UT, but **true before UT**

     (4) *ex- soldier, former friend, future president, wife-to-be*

What do these examples have in common?

> → **temporal precedence relation** (revisit (1))
>
> → argued to be nominal 'tenses' by various people (Liuzzi 1987, Lecarme 1996, N&S 2004)
>
> +   Lake Miwok (1951), Potowatomi (1958), Halkomelem (1997), Somali (1996) + 15 others (N&S)

1.2   What's Guarani?

- Guarani – 4 million people in Paraguay and neighboring countries
- two main predicate classes – **dynamic** (A-marker) and **stative** (B-marker)
- Guarani nouns – defined as a subset of the stative property-denoting predicates

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Observations

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(5) a.   **A**-jupi.

   A1sg-climb.

   'I am climbing' or 'I climbed'.

   → NPs not obligatorily realized

   b.   **Che**-kane'o.

   B1sg-tired.

   'I am tired' or 'I was tired'.

   → no temporal marker on the verb

   c.   A-jupi-**ta.**

   A1sg-climb-FUT

   'I will climb'.

   → future time reference   **PIN1**

2.   **Guarani temporal markers**

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-kue ≈ former   **-ra ≈ future**

past-time oriented   future-time oriented

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2.1   Distribution

productive only with NPs (indefinites, possessives, demonstratives, quantificational NPs)

	PROFESSIONS	NONFOOD ARTIFACTS	FOOD ARTIFACTS	NATURAL KINDS (EXCEPT HUMAN RELATIONS)	TEMPORARY HUMAN RELATIONS	PERMANENT/ FINAL-STAGE HUMAN RELATIONS
-kue	√	√	*	*	√ *poss*	*
-rã	√	√	√	√	√ *poss*	√ *poss*

TABLE 1. The acceptability of *-kue* and *-rã* across semantic noun classes.

professions:	*priest, employee, boss, teacher, hairdresser, lawyer*
non-food artifacts:	*chair, house, bridge, refrigerator, machete, store, book*
food artifacts:	*food, milk, meat, cheese, starch, bread* **PIN2**
natural kinds:	*chicken, dog, bull, horse, person, child, woman, forest, water*
temporary human relations:	*owner, neighbor, husband, wife*
permanent relations:	*father, grandfather, daughter, son*

2.2 The Precedence meaning property

> t_{np} – time at which the whole noun phrase is interpreted
>
> t_{nom} – time at which the property denoted by the nominal is true of the NP individual(s)
>
> t_{poss} – time at which the possessive relation is true of the possessor and the possessed.

Precedence relations

(6) one farmer-**RA**   *future farmer*

(7) wall-**KUE**   *former wall*

(8) my house-**KUE**   *my former house, a ruin*
          the house which was mine once

t_{np}	<	t_{nom} = future
t_{nom}	<	t_{np} = UT
t_{nom}	<	t_{np}, t_{poss} = UT
t_{poss}	<	t_{np}, t_{nom} = UT

➔ **Q:** Is t_{np} always UT?   **PIN3**

2.3 The change-of-state meaning property

change-of-state *kue* / *former*

> (9) *Juan is a **former** teacher and he is **still** a teacher.*   **BAD**
>
> (10) *Juan is a **former** teacher and now he's a teacher **again**.*   **GOOD**
>
> *kue* ➔ nominal/possessive predication was **true prior to t_{np}** and <u>ceased</u> to be true prior to t_{np}

➔ Guarani *kue* behaves like English *former*, but not like English past!

(11) *On Wednesday Arthur was sick. He is still sick today.*

➔ past-time oriented precedence relation, but same event (no "change" property)

change-of-state *ra*

> (12) a.   Kuehe   a-hecha   petei   abogado-**ra**-ne
>
>   yesterday   A1sg-see   one   lawyer-RA-   **true at t_{nom}**
>
>   'Yesterday I saw a **future** lawyer'   not yet at t_{np}
>
>   b.   A-hecha-ramo-gua-re   ha'e   abogado-**ma**
>
>   A1sg-see-cond-of-agr   he   lawyer-**already**
>
>   'When I saw him he was a lawyer **already**'   **BAD**

Context : Marco is currently a farmer but he has to move to the city for a couple of years.
          After that he wants to come back to his land and be a farmer again.

> (13) Marco   petei   chocokue   ha   Marco   **avei**   petei   chocokue-**ra**
>
>   Marco   one   farmer   and   Marco   also   one   farmer-RA
>
>   'Marco **is** a farmer and he is **also** a **future** farmer'   **GOOD**
>
> *ra* ➔ nominal/possessive predication is false at a time <u>between t_{np} and t_{nom},</u> ±agnostic about t_{np} **PIN4**

-ra vs. English 'future X'

<u>Context:</u> Pedro, Juan and Mario are presidential candidates (for the same position).

(14) Pedro, Juan   ha   Mario   tendota-**ra.**

Pedro, Juan   and   Mario   president-**RA**

'Pedro, Juan and Mario are presidential candidates / #future presidents'.

→ $\forall$x, $\exists$ a set of **possible worlds** in which x is president at t_{nom} (sometime after t_{np})   PIN5

→ 'ideal worlds' for **each** candidate where everything goes according to plan (<u>inertia-worlds</u>)

-kue – property denoted by the NP is true of the NP individuals at t_{nom} in the **actual** world

-ra – property denoted by the NP is true of the NP individuals at t_{nom} in **a set of possible worlds**

PIN4 - <u>so what are the conditions truth for –ra at t_{np}?</u>

(13) → -ra is agnostic. Marco may or may not be a farmer at t_{np} / utterance time

(14) → Tonhauser: "change property". Neither of the three candidates is a president at t_{np} / utterance time

Q: Is (14) felicitous in a scenario where Juan is the current president but also running for re-election?

PIN1 - <u>what kind of future time reference does –**ta** have?</u>

-ra vs. FUT ta

<u>Context:</u> Pedro, Juan and Mario are presidential candidates (for the same position).

(15) # Pedro, Juan   ha   Mario   tendota-**ta.**

Pedro, Juan   and   Mario   president-FUT

'Pedro, Juan and Mario will be president'.

→ all of these guys will be president at some point in the actual world (one after the other)

→ -ta expresses **predictions** about the future

	Observations
(16) a. Ko-va petei pa'i-**ra**	Preferred context
this-RC one priest-RA	*already enrolled in a seminary*
'This is a future priest'	
	Preferred context
b. Ko-va petei pa'i-**ta**	*prediction about a child*
this-RC one priest-TA	→ how much work is the RC doing?
'This will be a priest'	→ what about the demonstrative?

<u>NOTE:</u> Not all of Tonhauser's consultants had strong preferences for either reading.

Distinction between –ra and –ta is not clear-cut.

2.4 The existence meaning property

existence -*kue*

> *kue* → t_{nom} and t_{np} fall **within** the time of **existence of the NP individuals**
>
> <u>Context:</u>   The town of San Isidro once had a priest called Jose. This man died as a priest
>
> (17) a.   #pe   pa'i-**kue**   Jose
>
>   that   priest-KUE   Jose
>
>   'that ex-priest Jose'   → felicitous only if Jose was not a priest when he died
>
>   b.   ore-pa'i-**kue**   Jose
>
>   our.excl-priest-KUE   Jose
>
>   'our ex-priest Jose'   → *kue* modifies the possessive relation
>
> (17b) → existence meaning property fulfilled by the existence time of the community
>
> <u>NOTE</u>: Not all past-time-oriented nominal temporal markers have the existence property (Halkomelem)

	PROFESSIONS	NONFOOD ARTIFACTS	FOOD ARTIFACTS	NATURAL KINDS (EXCEPT HUMAN RELATIONS)	TEMPORARY HUMAN RELATIONS	PERMANENT/ FINAL-STAGE HUMAN RELATIONS
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-rã	√	√	√	√	√ *poss*	√ *poss*

TABLE 1. The acceptability of *-kue* and *-rã* across semantic noun classes.

Assumptions: natural kind nouns – permanent properties, artifact nouns – temporary properties

Time of existence

> Krifka's temporal trace function + times of existence for entities
>
>   (18) The time of existence $\tau(x)$ of an entity x is:
>
>   a.   the lifetime of x if x is animate, and
>
>   b.   the temporal extension of the spatiotemporal path of x if x is inanimate

→   The existence property of –*kue* accounts for its incompatibility with permanent properties

<u>What about artifacts?</u>

bike-KUE = fine; if the bike is broken, its structural integrity is lost

*cheese-KUE – still cheese even if you cut it in half   → structural homogeneity matters!

structural homogeneity

> If P is the property denoted by the artifact noun, and P(x) is true at time t, then the entity x is structurally homogenous if and only if, for all proper parts y of x, P(y) is true at t.

PIN2   Tonhauser: food artifacts are always homogenous → no **-*kue***

<u>BUT1</u> she only seemed to look at mass noun food artifacts (*cheese, milk, bread, starch*)

<u>BUT2</u>   she did not look at mass noun non-food artifacts

(19) Ko kamby   kesu-**ra**.

this milk   cheese-RA

'This milk is for cheese/to make cheese'

BUT3 Milk as future cheese is fine, but cheese as past milk is bad. Huh?

Tonhauser: **-ra** has a weaker existence meaning property.

> **-ra** → t_{nom} and t_{np} fall within the time of existence of entities **that are spatiotemporal continuations of each other**.

BUT4: caterpillars = future butterflies,   cow = future meat, child ≠ future priest.

WEIRD: Cow meat is a spatiotemporal continuation of a cow, and a butterfly is a spatiotemporal continuation of a caterpillar (which isn't even in a cocoon yet), but a priest is not a good spatiotemporal continuation of a child. I guess?

Existence Property & nominal temporal markers

> **-kue** strong: t_{nom} and t_{np} fall within the lifetime of the NP
>
> **-ra** weaker: t_{nom} and t_{np} fall within the existence of the spatiotemporal continuation
>
> * structural homogeneity accounts for some of –**kue**'s distribution

2.5 What do the Guarani temporal markers mean?

	-kue	**-ra**
Precedence	$t_{nom} < t_{np}$ OR $t_{poss} < t_{np}$	$t_{np} < t_{nom/poss}$ (maybe)
Change	$t_{nom/poss} < t_{cease-to-be-true} < t_{np}$	$\exists\, t'.\ t_{np} < t' < t_{nom} : P(t') = $ false
Existence	$\{t_{nom}, t_{np}\} \subseteq t_{existence(of\ entity\ /\ possessor)}$	$t_{np} \subseteq t_{existence\ of\ entity}$ & $t_{nom} \subseteq t_{existence\ of\ spatiotemporal\ continuation}$

For an entity x that is denoted by a noun phrase marked with –**kue:**

→ the property/relation denoted by the nominal/possessive predication is <u>true of x at a time t prior to t_{np}</u>,

→ it has <u>ceased to be true</u> of x (and y, in case of relations) <u>after t, but prior to t_{np}</u>

→ the <u>time of existence</u> of x <u>includes t and t_{np}</u> (for properties) or the time of existence of the entities x and y minimally includes t and the time of existence of the possessor x also incudes t_{np} (for relations).

For an entity x that is denoted by a noun phrase marked with –**ra**:

→ the property/relation denoted by NP <u>MIGHT become true</u> of x at <u>a time t subsequent to t_{np}</u>

→ it is <u>false of x at a time between t_{np} and t</u>

→ the <u>time of existence</u> of x <u>includes t_{np}</u> and the <u>time of existence of</u> an entity y that is the <u>spatiotemporal continuation of x includes t</u>

3. Temporal interpretation of NPs in Guarani

<u>Assumptions:</u> t_{nom} and t_{poss} defined as situation times during which P(x) = T or R(x,y)=T

Krifka' (1989) temporal trace function: $\tau(P(x)) = t_{nom}$, $\tau(R(x,y)) = t_{poss}$

<u>Proposal:</u> ***-kue*** & ***-ra*** are predicate modifiers applying to the denotation of predicates (Q) and returning novel properties/relations KUE/RA(Q)

3.1 A formal semantic analysis of –kue

-kue

| | *precedence* | *change* | | *existence* | |

Property *-kue*

$\forall P \forall x [\text{ KUE}(P)(x) = 1 \text{ at } t_{np} \text{ in w iff } \exists t_{nom} [\mathbf{t_{nom} < t_{np}} \ \& \ \boldsymbol{\tau(P(x)) = t_{nom}} \text{ in w} \ \& \ \mathbf{t_{np} \subseteq \tau(x)}]]$

For all properties P and entities x, the property KUE(P) is true of x at the noun-phrase time t_{np} in a world w if and only if there is a time t that precedes t_{np} and t is the situation time of P(x) in a world w and t_{np} is included in the lifetime of x.

Relational *-kue*

$\forall R \forall x \forall y [\text{ KUE}(R)(x)(y) = 1 \text{ at } t_{np} \text{ in w iff } \exists t_{poss} [t_{poss} < t_{np} \ \& \ \tau(R(x)(y)) = t_{poss} \text{ in w} \ \& \ (t_{np} \subseteq \tau(x) \vee t_{np} \subseteq \tau(y))]]$

(20)   **Noun classes**

Temporary properties/relations	*priest/friend*	$\tau(P(x)) \subseteq \tau(x)$ / $\tau(R(x)(y)) \subseteq \tau(x)$
Permanent properties/relations	*woman/son*	$\boldsymbol{\tau(P(x)) = \tau(x)}$/ $\boldsymbol{\tau(R(x)(y)) = \tau(x)}$
Final-stage properties/relations	*survivor/father*	$\tau(P(x)) \in \text{FIN}(\tau(x))$ / $\tau(R(x)(y)) \in \text{FIN}(\tau(x))$

(21) Permanent + *-kue* computation

permanent property: $\tau(P(x)) = \tau(x)$

existence property: $\underline{t_{np} \subseteq \tau(x)}$

                    $\mathbf{t_{np} \subseteq \tau(P(x))}$

change property: $\underline{\tau(P(x)) = t_{nom}}$

                    $\mathbf{t_{np} \subseteq t_{nom}}$

precedence property: $\underline{t_{nom} < t_{np}}$

                    contradiction

➔ **-kue** incompatible with permanent properties/relations: *woman-kue, son-kue*

➔ The existence property and the situation time cannot account for the ungrammaticality of food
artifacts modified by *–kue* (structural homogeneity to the rescue)

3.2 A formal semantic analysis of –ra

-ra

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$\boxed{precedence}$ $\boxed{change}$

Property -ra

$\forall P \forall x$ [$RA(P)(x) = 1$ at t_{np} in w iff $\forall w' \in$ **Best(Circ,NOcc, P)** $\exists t_{nom} \exists x'$ [$\mathbf{t_{np} < t_{nom}}$ & $\mathbf{t_{nom} = \tau(P(x'))}$ in w'
& cont(x,x') in w' & $\mathbf{t_{np} \subseteq \tau(x)}$]]

$\boxed{existence}$

*For all properties P and individuals x, the property RA(P) is true of x at the noun-phrase time t_{np} in the
actual world w if and only if for all worlds w' that are in the set of worlds given by Best(Circ, Nocc, P)
there is a time t and an individual x' such that t follows t_{np}, where t is the situation time of P(x') in w' and
x' is a spatiotemporal continuation of x in w', and t_{np} is included in the time of existence of x.*

Relational -ra

$\forall R \forall x \forall y$ [$RA(R)(x)(y) = 1$ at t_{np} in w iff $\forall w' \in$ Best(Circ,Nocc, P) $\exists t_{poss} \exists x' \exists y'$ [$t_{np} < t_{poss}$ & $t_{poss} = \tau(R(x')(y'))$
in w' & cont(x,x') in w' & cont(y,y') in w' ($t_{np} \subseteq \tau(x) \lor t_{np} \subseteq \tau(y)$)]]

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➔ <u>weaker existence meaning</u>: t_{nom} does not have to be within the existence time of the same individual

   t_{nom} within (equal to) the existence time of the spatiotemporal continuation of x in w'

➔ <u>Best(Circ,NOcc, P)</u>

 (Dowty 1979, Portner 1998's progressive) **Kratzer's modality**

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Best(Circumstantial modal base, Non occurrence, property)

⬇   ⬇

inertia worlds   whatever event(s) might prevent P doesn't happen

➔ the world continues to develop after t_{np} and nothing happens to prevent P from becoming true

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(22)   <u>Context</u>: Pointing to some caterpillars

Umi   yso   panambi-**ra**

these   caterpillar   butterfly-RA

'These catterpillars are future butterflies'

Circ(butterfly) = {'The caterpillars look healthy', 'This kind of caterpillar turns into butterflies', ...}

NOcc(butterfly) = {'The caterpillars don't get eaten', 'They don't get stepped on', 'They don't starve', ...}

Special NOcc ordering source → (22) is felicitous even in a context where 99% of caterpillars get eaten

→ **the modal base is dependent on the subject + wider world-space than usual inertia**

PIN5 *-ra* **vs. English '*future* X'** *again*

Context: Pedro, Juan and Mario are presidential candidates (for the same position).

(23) Pedro, Juan   ha   Mario   tendota-**ra.**

Pedro, Juan   and   Mario   president-**RA**

'Pedro, Juan and Mario are presidential candidates / #future presidents'.

→ $\forall x$, $\exists$ a set of **possible worlds** in which x is president at t_{nom} (sometime after t_{np})

→ 'ideal worlds' for **each** candidate where everything goes according to plan (inertia-worlds)

vs.

(24) $\forall P \forall x$ [RA(P)(x) = 1 at t_{np} in w iff $\underline{\forall w' \in \textbf{Best(Circ,NOcc,P)}}$ $\exists t_{nom} \exists x'$ [$\boldsymbol{t_{np} < t_{nom}}$ & $t_{nom =}$

$\tau(P(x'))$ in w' & cont(x,x') in w' & $\boldsymbol{t_{np} \subseteq \tau(x)}$]]

→ Pedro, Juan and Mario are presidents in all the (best) worlds at the same time ?

→ is Best(Circ,NOcc, P) whatever we want it to be?

PIN4 so what are the conditions truth for *–ra* at t_{np} *again*?

(13) → *-ra* is agnostic. Marco may or may not be a farmer at t_{np} / utterance time

(23) → Tonhauser: "change property". Neither of the three candidates is a president at t_{np} / utterance time

Q: Is (23) felicitous in a scenario where Juan is the current president but also running for re-election?

A: Yes, according to the semantics in (24).

t_{np} is in the past of the time at which the property holds true of a spatiotemporal continuation of x

t_{np} is included in the lifetime of x

→   P(x) may or may not be true at t_{np}

→   Marco (13) can be a farmer AND Juan (23) can be a current president

BUT Doesn't this mean that *–ra* does not have the change of state property?   **PIN6**

Predictions

-kue & **-ra** do not affect the temporal interpretation of the noun phrase

t_{nom} / t_{poss} are existentially bound by *–**kue** & **-ra***

→ the situation time cannot be further constrained by a temporal modifier / contextually given time

3.3 The interpretation of Guarani temporal markers in discourse

NPs can be interpreted at the **reference time**, the time of **utterance** or some **contextually given time**.

(25) a. Ha   o-guahe-ma   katu   **h-enda-pe**

and   3rd-arrive-already   indeed 3rd-place-PE

'And he (the frog) had already arrived at his (the boy's) place'.

→ (RT < UT) t_{poss} = RT, **t_{np} = RT** → t_{np} = t_{poss}

b. A-topa   **che-rembireko-pe**   Villarica-pe

A1sg-find   B1sg-wife-PE   Villarica-PE

'I met my wife in Villarica'.

→ (RT < UT) t_{poss} = UT, **t_{np} = UT** → t_{np} = t_{poss}

c. Ko'aga pe   **fugitivo**   o-i-jey-ma   carcel-pe

now   that fugitive   A3-be-again-already   prison-PE

'Now that fugitive is in prison again'

→ (RT = UT) t_{nom} < UT, t_{np} = **contextually given time** before UT → t_{np} = t_{nom}

-kue – PIN3 – t_{np} is not always UT. The location of the NP time is as unrestricted as in (25).

(26) a. Che   a-ha-ramo   nde   re-ju   che-renda-**gue**-pe

B1sg   A1sg-go-cond B2sg   A2sg-come   B1sg-place-KUE-PE

'When I go, you come to my (then) former place (the place where I am now)'

→ (UT<RT) t_{poss} = UT, **t_{np} = RT** → t_{poss} < t_{np}

b. Che-mita-me   ko   pa'i-**kue**   o-ne-e gueteri iglesia-pe

B1sg-child-PE this   priest-KUE   A3-speak still church-PE

'When I was a child, this former priest still spoke in church'

→ (RT<UT) t_{nom} = RT, **t_{np} = UT** → t_{nom} < t_{np}

c. Pe   pa'i-**kue**   h-enoi 1960-pe

that   priest-KUE   3-born 1960-PE

'That ex-priest was born in 1960'

→ (RT<UT)   RT<t_{nom}<UT, t_{np} = UT → t_{nom} < t_{np}

(27)   a.   Kuehe   a-jogua   che-syrykoi-**ra**

                yesterday   A1sg-buy   B1sg-motorbike-RA

                'Yesterday I bought my motorbike'.

                → (RT<UT) t_{poss} = UT, **t_{np} = RT** → $t_{np} < t_{poss}$

        b.   A-topa-ta   nde-termo-**ra**

                A1sg-find-FUT   B2sg-thermos-RA

                'I will find a thermos for you'

                → (UT<RT) t_{poss} = RT, **t_{np} = UT** → $t_{np} < t_{poss}$

        c.   A-topa-ro-gua-re   Juan-pe,   ha'e   petei   abogado-**ra...**

                A1sg-meet-cond-past   Juan-PE   3pron   one   lawyer-RA...

                ko'aga   ha'e-ma   petei   abogado-**kue**

                now   3pron-already   one   lawyer-**kue**

                'When I met Juan he was a future lawyer. Now he's already a former lawyer'.

                → (RT < UT)   RT<t_{nom} < UT, t_{np} = RT → $t_{np} < t_{poss}$

➔   ***-kue*** and ***–ra*** do not affect the location of the NP time or the location of the $t_{nom/poss}$

➔ t_{np} is a contextually given time

   Q: Is this fact surprising?

   Do we not expect *kue* and *ra* NPs to behave more like embedded tense rather than matrix tense?

3.4 Locating the Nominal and Possessive Times

nominal/possession time existentially bound by the nominal temporal marker

                → it cannot be located by an NP internal modifier or through discourse context.

(28)   a.   Mbo'e-ha-ra   **ochenta-gua**   o-vy'a.

                teach-nom-ag   eighty-of   A3-happy

                'Teachers of the eighties are happy.'

        b.   Mbo'e-ha-ra-**kue**   **ochenta-gua**   o-vy'a

                teach-nom-ag-KUE   eighty-of   A3-happy

                'Former teachers of the eighties are happy.'

                → t_{np} & t_{nom} located in the eighties.

(28b) – individuals who were former teachers in the eighties are happy now

➔   temporal modifier locates the t_{np}, not the t_{nom}

(29) **Ambue ary-pe** petei doytor-**kue** o-mo-nguera in-angiru-pe i-mba'asy

     other year one doctor-KUE A3-cause-healthy 3-friend-pe 3-sickness

     'Last year, an ex-doctor healed his friend's sickness'.

➔ Strong preference for the reading in which the healer was a former doctor at the time of healing

     t_{np} = RT, t_{nom} = unspecified time prior to t_{np}

➔ if t_{nom} could be located by last year, then speakers should accept a context in which the healer was a doctor last year

    -kue does not anaphorically locate the time of the nominal predicate / possession

    No data given for *-ra*, but Tonhauser claims that (28) and (29) do have counterparts for *–ra*. **PIN7**

4. Are these guys tenses?

Reference time – RT   Event/Situation time – ET/ST   Utterance time – UT

4.1 Characteristics of verbal tense markers

- TENSE-1: Verbal tense markers relate RT and the perspective time (UT)
- TENSE-2: Verbal tense markers can relate the perspective time (UT) and the ET/ST
- TENSE-3: Verbal tense markers can relate UT and RT *or* the RT and the ET

(30)   *Yesterday, John went to the zoo. At 6 PM, he had already eaten.*

TENSE-1**:** *went, had* ➔ RT < UT (+*yesterday, at 6 PM* constrain the reference time)
TENSE-2: *went* ➔ ST < UT
TENSE-3: *had eaten* ➔ ST<RT<UT

4.2 How Guarani –kue and –ra don't behave like TENSE-1 markers

Properties of TENSE-1 markers

1. they do not exhibit semantic restrictions. Any VP is fine.
2. they don't co-occur on the same finite verb
3. they do not encode a state change
4. their denotation is restricted by modifiers
5. the relation may be contextually determined
Sheila had a party last Friday and Sam got drunk.

Guarani nominal markers

1. *–kue* is picky. See section 2.
2. see example (31)
3. Change meaning property
4. See section 3.4, example (28)
5. See section 3.4, example (29)

(31) A-hecha   pa'i-**ra-ngue**-pe.

   A1sg-see   priest-RA-KUE-pe

   'I am seeing the former future priest'.

→ he wanted to be a priest at some time in the past, but failed

→ Always RA-KUE, never KUE-RA → they're not both tenses.

Q: maybe **–*kue*** is aspect and **–*ra*** is tense?

TENSE-1 **vs. Guarani nominal markers**

	TENSE-1 markers	*-kue*	*-ra*	
no semantic restrictions	√	X	√	
distinct markers cannot cooccur	√	X/√	X/√	
no change of state	√	X	X/ **?**	PIN6
restricted by modifiers	√	X	X / **?**	PIN7
may be contextually determined	√	X	X / **?**	PIN7

4.3 How they don't behave like TENSE-2

Properties of TENSE-2 markers

1. they do not exhibit semantic restrictions. Any VP is fine.
2. they don't co-occur on the same finite verb
4. their denotation is restricted by modifiers
   Last night, Matt partied with his friends.

Guarani nominal markers

1. **–*kue*** is picky. See section 2.
2. see example (31)
4. See section 3.4, example (28)

If *–kue* and *–ra* were tense-2 markers, it would mean that they had access to perspective time, which is fixed → not more than one NP time per sentence

            < UT   = UT

(32)   *Every **fugitive** is back in **jail** and is not happy about it*

TENSE-2 **vs. Guarani nominal markers**

	TENSE-1 markers	*-kue*	*-ra*	
no semantic restrictions	√	X	√	
distinct markers cannot cooccur	√	X/√	X/√	
~~no change of state~~	√	X	X/ **?**	PIN6
restricted by modifiers	√	X	X / **?**	PIN7
~~may be contextually determined~~	√	X	X / **?**	PIN7

4.4 How they don't behave like TENSE-3

TENSE-3 markers can co-occur since they express different relations on the same verb (ST – RT – UT)

+ the relation between RT and ST can encode a state change

Properties of TENSE-3 markers

1. they do not exhibit semantic restrictions. Any VP is fine.
4. their denotation is restricted by modifiers
5. the relation may be contextually determined

Guarani nominal markers

1. **−kue** is picky. See section 2.
4. See section 3.4, example (28)
5. See section 3.4, example (29)

TENSE-3 **vs. Guarani nominal markers**

	TENSE-1 markers	*-kue*	*-ra*	
no semantic restrictions	√	X	√	
~~distinct markers cannot cooccur~~	~~√~~	~~X/√~~	~~X/√~~	
~~no change of state~~	~~√~~	~~X~~	~~X/ ?~~	**PIN6**
restricted by modifiers	√	X	X / ?	**PIN7**
may be contextually determined	√	X	X / ?	**PIN7**

5. **Conclusions**

➔ *-kue* and *−ra* are not PURE tenses, maybe they are combined tense/aspect markers

➔ Lecarme (1996), Nordlinger & Sadler (2004), etc did not compare what they claim to be nominal tenses to verbal tenses ➔ the claim that nominal tenses exist is not empirically supported.

➔ a precedence relation is not enough for something to be a tense

➔ maybe we need more data, at least for −ra, before we dismiss the possibility of it being nominal tense

6. **Somali −kii (past tense determiner)**

6.1 Basic definite determiner facts

➔ T/D & K/G "genders"

➔ Nouns can have one gender in the singular and another in the plural.

'a student'	arday	'students'	arday
'the student'	arday**ga**	'the students'	arday**da**
'T.DEF student'	arday**gii**	'T.DEF students'	arday**dii**

6.2 Change of state?

Context

We are talking about several students. Maxamed is the one who dropped out of college/graduated.

(33)	M.	waa	arday**dii**	hore.	Hadana		arday	ma	aha
	M	decl.	students.tdef	former	now		student	not	is

'Maxamed is a former student and now he's not a student anymore'.

(34)	Maxamed	waa	arday**dii**		hore
	Maxamed	decl.	**students.TDEF**		former

'Maxamed is one of the former students'

(35)	… ee	**wali**	ardayga	ah	
	which	**still**	student	is	→ *still* works just fine

'who is still a student'   → SAME EVENT ?

➔   Maybe Somali *–kii* **does not have the change of state property** ?

Context

Yesterday I went to a bike shop and out of all of the bikes they had I chose one for my sister.
I didn't have enough money yesterday. Tomorrow I'll go back to the shop and buy the bike I chose.

(33)	Baskiilka	bari	baan	gadanaya
	Bike.def	tomorrow	foc.1st	buy.future

'I will buy the bike tomorrow'

(34)	Baskiil**kii**	bari	baan	**gadanaya**
	Bike.Tdef	tomorrow	foc.1st	buy.future

'I will buy the bike tomorrow'

Guarani consultant: *-kue* in (34) would mean the bike is broken, change of state.

Somali Consultant: *-kii* = familiar bike. "The bike which you know that I will buy"

➔ Somali **-*kii*** encodes **precedence**, but **definiteness** adds discourse saliency into the picture

6.3 *Existence*

(35)   Madaxweyni-**hii**   wuu   dhintay
       President-defM.past   Foc.3rd.male   die.3ms.past
       'The president died'   (Lecarme 2012)

       vs. #*that priest – kue*

   ➔   Maybe Somali –***kii* does not mean "former"**, like Guarani –***kue***

6.4 *What can it mean?*

Lecarme(2012) ➔ maybe it has to do with visibility, whether the NP is in the visible domain or not

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Context

Nurto and Axmed are walking down a street and we see a beautiful house. Nurto asks who built the house. Axmed answers that Yoonis built the house.

(36)   Yaa   dhisay   gurigan?
       Who   built   house.this
       'Who built the house?'
                               ➔ **no Tense Det if we're in front of the house!**

(37)   Yoonis   waa   dhisay   guriga(n)   /   **gurigii**
       Yoonis   decl.   built   house.this   **house.TDEF**
       'Yoonis built the house'

Context

Nurto and Ahmed talked about Yoonis's house yesterday. Today, Ahmed finds out that it was actually Bedel who built the house they were talking about yesterday. Ahmed tells Nurto.

(38)   Yoonis   ma   dhisin   ee   Bedel   baa   dhisay   **gurigii**/ *ga / *gan
       Yoonis   not   built   it   Bedel   foc.   Built   house.TDEF/*def/*dem
       'Yoonis didn't build the house, but Bedel built it'

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If (37) can be the answer to (36) when both speakers are still in front of the house, maybe it's not only about visibility. –*kii* does encode some "< UT" relation, but it does not seem to be like Guarani –*kue*.