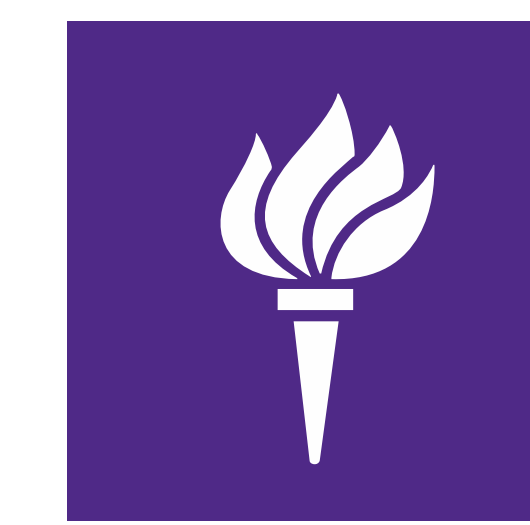# Graded nominal tense in Kipsigis

Maria Kouneli (mk5023@nyu.edu), Department of Linguistics, NYU

Deniz Özyıldız (dozyildiz@umass.edu), Department of Linguistics, UMass Amherst

## 1. Introduction

- Kipsigis has **graded nominal tense**, "NT."
  [Nilotic, Kenya, ~2m. speakers; Ethnologue 2015]

- The language encodes **current**, **recent** and **distant past tense** on nominals, a rare and underdocumented phenomenon.

  - The first **language (at least) in Africa to be described, in the formal linguistics literature, as having graded NT**.
  - The second, after Somali, as having NT at all.
    [Nordlinger & Sadler 2004, Lecarme 1996]

- **Proposal**: Kipsigis NT markers are partial identity functions on entities. They trigger the presupposition that an individual was salient at a past time interval.

- **Fieldwork**: Our data come from original fieldwork with 6 native speakers, conducted in Nairobi (fall 2017), and via Skype (spring 2018).

## 2. Background on graded tense

- Languages like English distinguish the past, present, and future.

- Others (e.g., many Bantu languages) distinguish **how far in the past/future** an event occurs. This is **graded tense** (Cable 2013, Mucha 2017, a.o.).

  (1) Temporal remoteness distinctions in ChiBemba
  a. baàléébomba
  'They were working.'
  (before yesterday)
  b. baáléébomba
  'They were working.'
  (yesterday)
  c. baàcíláábomba
  'They were working.'
  (earlier today)
  d. baábomba
  'They've just worked.'
  (immediately prior to UT)

  [adapted fron Givón 1972 via Cable 2013]

## 3. Kipsigis verbal tense system

- **Unmarked non-past**:

  (2) a. Myán-ì     John.
  be.sick-IPFV John.
  'John is sick.'
  Acceptable context: What is Joing doing right now?
  Unacceptable context: What did John do/was John doing yesterday?

  b. kwàany-é John kímnyéet.
  make-IPFV John ugali.
  'John makes/is making ugali.'

- **Graded past tense, three levels of past**:

  (3) a. *(kà)-láal     làakwèet.
  PAST1-cough girl.NOM
  'The girl coughed (earlier today).'          **[ka-: current past]**

  b. *(kò)-láal     làakwèet.
  PAST2-cough girl.NOM
  'The girl coughed (yesterday/a few days ago).'     **[ko-: recent past]**

  c. *(kì)-láal     làakwèet.
  PAST3-cough girl.NOM
  'The girl coughed (long ago).'          **[ki-: distant past]**

- **Optional for negative perfective forms, obligatory elsewhere**:

  (4) Context: "John got sick yesterday…"
  a. Acha, ko-ma-myen     John.
  no   PAST2-NEG-be.sick John
  'No. John didn't get sick.'
  b. Acha, ma-myen    John.
  no   NEG-be.sick John
  'No. John didn't get sick.'

## 4. Background on nominal tense

- Nominal interpretation is sensitive to time.

  (5)  Every fugitive is now in jail.          [Enç 1981]

- In some languages, overt functional NT morphemes modify the interval of time an NP predicate applies to an individual. (6) features an indefinite.

  (6)  Juan ha'e     pa'i-**kue/-rã**.
  Juan 3.PRON priest-KUE/-RA
  'Juan is a former/future priest.'   [Paraguayan Guaraní; Tonhauser 2007]

- In others, only definite nouns can be marked for tense. In Somali, NT morphology appears on the definite determiner (Lecarme 1996). In (7), NT marked nominals are used anaphorically, hence definite:

  (7)  "A boy and a girl came…"
  {Wiil-**kii**      baa, wiil-**ka**     ayaa} qoslay.
   boy-DET.PAST FOC  boy-DET.PRES FOC      laughed
  'The boy laughed.'          [Somali; Ivan & Özyıldız 2017]

- See Nordlinger & Sadler (2004) for a cross-linguistic survey. In-depth studies of specific languages include Lecarme (1996, 1998, 2008, 2016) and Ivan & Özyıldız (2017) for Somali, Tonhauser (2006, 2007) for Paraguayan Guaraní, and Thomas (2014) for Mbyá Guaraní.

## 5. Kipsigis nominal tense system

- There are 3 past NT morphemes that must occur with a prox. demonstrative.

- The NT morphemes are similar to the verbal temporal morphemes (cf. 3).

- They agree with the nouns that they modify in Number.

  (8)  **Current past -kaan** (verbal prefix ka-):
  a. làakwà-nì-**kâan**
  girl-DEM-PAST1
  'this girl from earlier today'
  b. làakóo(k)-chù-**kâan**
  girls-DEM-PAST1
  'these girls from earlier today'

  (9)  **Recent past -koonye** (verbal prefix ko-):
  a. làakwà-nì-**kóonyè**
  girl-DEM-PAST2.SG
  'this girl from yesterday'
  b. làakóo(k)-chù-**kóochè**
  girls-DEM-PAST2.PL
  'these girls from yesterday'

  (10) **Remote past -kiinye** (verbal prefix ki-):
  a. làakwà-nì-**kíinyè**
  girl-DEM-PAST3.SG
  'this girl from long ago'
  b. làakóo(k)-chù-**kíichè**
  girls-DEM-PAST3.PL
  'these girls from long ago'

- **NT marking in Kipsigis is optional.**

  (11) kà-ôo     pèelyàat.
  PAST1-big elephant
  'The elephant (from today/2 days ago/long ago) was big (today).'

- NT is independent of the tense of the matrix clause.

  (12) **kì**-boot-e     ngoog-i-**kaan**
  PAST3-bark-IPFV dog-DEM-PAST1
  'The dog (from earlier today) was barking (long ago).'

**Selected References: Cable 2013.** Beyond the past, present, and future: towards the semantics of 'graded tense' in Gĩkũyũ." *Nat. Lang. Sem.* **Ivan & Özyıldız. 2017**. The temporal presuppositions of Somali definite determiners. In *Proc. of SuB 21.* **Lecarme 1996.** Tense in the nominal system: The Somali DP. In *Studies in Afroasiatic grammar.* **Lewis 2014.** The syntax and semantics of demonstratives: A DP-external approach. In *Proc. of the CLA 2014.* **Mucha 2017.** Past interpretation and graded tense in Medumba. *Nat. Lang. Sem.* **Nordlinger & Sadler 2004.** Nominal tense in crosslinguistic perspective. *Language.* **Thomas 2014.** Nominal tense and temporal implicatures: Evidence from Mbyá." *Nat. Lang. Sem.* **Tonhauser** 2007. Nominal tense? The meaning of Guaraní nominal temporal markers." *Language.*

## 6. Semantic generalizations

- Kipsigis NT morphemes **locate DP denotations in time in discourse**.

  (13) Context: "Remember when (kaan) we saw an elephant?"
  Ee. Kà-ôo      peelyaanda-ni-kaan.          [# -koonye, # -kiinye]
  yes PAST1-big elephant-DEM-PAST1
  'Yes. The elephant (from earlier today) was big (earlier today).'
  [Corresponding patterns obtain with recent/distant past in the context.]

  (14) Context: We saw a dog 1 month ago. We saw it again this morning.
  Ki-boot-e      ngoog-i-kaan.          [# -koonye, # -kiinye]
  PAST3-bark-IPFV dog-DEM-PAST1
  'That dog (from earlier today) was not barking (that time, long ago).'

- The meaning contribution of NT morphemes is **presuppositional**.

  - Obligatory speaker and hearer familiarity:
    (14) is infelicitous where only speaker sees the dog this morning.
  - Projection from under the scope of negation:
    Negating (14) still implies that the dog was seen this morning.

- **Obligatory context update**: The most recent salience time "wins." The distant past morpheme is unacceptable in (14), despite the fact that the dog was also seen a month ago.

- We fail to find instances where NT suffixes modify the NP predicate (like in Guaraní, and sometimes in Somali). But the recent past -koonye has a specialized meaning in the context of temporal nouns like 'week' or 'month.' For example, *wiik-i-koonye* (week-DEM-PAST2) means 'last week.'

## 7. Proposal

- The demonstrative *ni* is given the semantics of a definite determiner

  (15)  $[\![ni]\!]^t = \lambda f_{et} : \exists !x[f(x)] . \iota y[f(y)]$          [Heim & Kratzer 1998 a.o.]

- NT suffixes are partial (e,e) identity functions (cf. Lewis 2014, Cable 2013). They presuppose that their individual argument was salient at some past time interval.

  (16)  **Current past**
  $[\![kaan]\!]^t = \lambda x_e : \exists t'[t' \in PROXIMAL(t)$ and x is salient at t'] . x
  **Recent past**
  $[\![koonye]\!]^t = \lambda x_e : \exists t'[t' \in MEDIAL(t)$ and x is salient at t'] . x
  **Distant past**
  $[\![kiinye]\!]^t = \lambda x_e : \exists t'[t' < t$ and x is salient at t'] . x



- $[\![ng\hat{o}og\text{-}i\text{-}k\hat{a}an]\!]^t =$ the unique x s.t. x is a dog
  [defined iff there is a unique y s.t. y is a dog and there is a time t' s.t. t' $\in$ PROXIMAL(t) and x is salient at t']

## 8. Conclusion

- The first formal account of graded tense in the nominal domain.

- For now, no evidence that Kipsigis NT modifies NP predication time. Rather, it indicates when a particular DP denotation was relevant in discourse.

- This difference is potentially linked to a cross-linguistic difference in the syntactic height or the semantic scope of nominal tense morphology.