

What can Bantu teach us about tense and aspect?

Some lessons from Totela and other languages

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1 Introduction

1.1 Tense and aspect

What are tense and aspect? (Are they universal?)

- Subject of study for millennia
- Still not fully understood
- Most works from which definitions are taken are based on a small number of western languages.

1.2 Goals

Goals of talk

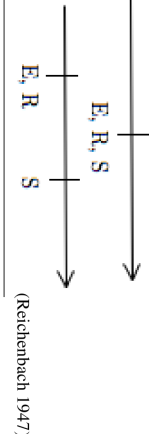
- Give a brief overview of tense and aspect (T/A) and problems in their description
- Show two T/A categories in Totela¹
- Argue that further descriptive tools are needed

2 Background

2.1 Tense

Reichenbach (1947)

E: EVENT POINT R: REFERENCE POINT S: SPEECH POINT



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Comrie (1985)

TENSE= the grammatical encoding of location in time (Comrie 1985)

Klein (1994) - a neo-Reichenbachian theory

Reichenbach Klein
E: EVENT POINT ~ TSit: TIME OF SITUATION
R: REFERENCE POINT ~ TT: TOPIC TIME
S: SPEECH POINT ~ TU: TIME OF UTTERANCE

Ex 1. *They found Xavier in the bathtub. He was dead.*

TENSE= the relationship between **topic time** and **time of utterance** (?)

2.2 Aspect

Comrie (1976)

ASPECT= the encoding of "different ways of viewing the internal temporal constituency of a situation" (Comrie 1976)

Smith (1997 [1992])

ASPECT= the "viewpoint" of a situation, e.g. PERFECTIVE viewpoint "presents a situation as a whole", while IMPERFECTIVE viewpoint presents "part of a situation, with no information about its endpoints". (Smith 1997)

Klein (1994)

Reichenbach Klein
E: EVENT POINT ~ TSit: TIME OF SITUATION
R: REFERENCE POINT ~ TT: TOPIC TIME
S: SPEECH POINT ~ TU: TIME OF UTTERANCE

ASPECT= the relationship between **topic time** and **situation time**

Ex 2. *'sleep'*

----- TSit: sleeping -----

Ex 3. *'write a story'*

----- Source State=TSit: Target State: story being written story written -----

Ex 4. *'Michael wrote a story'*

----- Source State=TSit: Target State: story being written story written -----

Ex 5. *'Michael was writing a story'*

----- Source State=TSit: Target State: story being written story written -----

TT is included in TSit IMPERFECTIVE
TT is partly included in TSit PERFECTIVE
TT is after TSit PERFECT
TT is before TSit PROSPECTIVE

2.3 Situation Type

Vendler (1957)

Verbs may be divided into classes, based on their inherent internal temporal structure and grammatical behavior (Vendler 1957):

- STATES have, like, know ...
- ACTIVITIES run, talk, eat apples, ...
- ACCOMPLISHMENTS build a house, eat an apple ...
- ACHIEVEMENTS win a race, reach the summit ...

These are referred to as **Aktionsart, lexical aspect, situation type**...

Smith (1997) [1992]

- Added **SEMELFACTIVES** clap, jump ...
- Major contribution:
 - Grammatical “viewpoint” aspect interacts with Aktionsart (situation type) to produce meaning.
 - e.g. I am jumping vs. I am sleeping

2.4 Some Problems

Tense

We leave for Antigua next Sunday.

A man walks into a bar ...

What was your name again?

John will be buying chocolate right now, if I know him.

Bantu (especially): Multiple degrees of past and future reference

Ex 6. Pimbwe:

F_1	<i>tu-ku-gol-a</i>	‘we will buy (today)’
F_2	<i>tu-lo-gol-á</i>	‘we will buy (tomorrow to next month)’ (Nurse 2008: 91)
F_3	<i>tu-lo-gol-ánga</i>	‘we will buy (next month to infinity)’

Ex 7. Ngonunde:

P_1	<i>tɔ-ma-sɔ lɔp-ɔk-ɔ</i>	‘we just called’
P_2	<i>tɔ-ɔp-me dɔp-dk-a</i>	‘I talked (earlier today)’
P_3	<i>nɔ-ɔp-ɔɔ nɔmb-ɔk-a</i>	‘you hid (yesterday, last few days)’ (Nurse 2008: 91)
P_4	<i>tɔ-ɔp-sɔ sɔmb-dk-a</i>	‘we cut (long ago)’

Aspect

Perfective vs. imperfective?

#I’m knowing your name

Your kazoo is lying on the bed vs.

#Likemwa village is lying along the Kweemba river

John was playing his trombone →

John played his trombone

John was composing a trombone symphony →

John composed a trombone symphony

And so forth ...

Take-away lesson

Tense and aspect cannot always be explained with straightforward temporal semantic analyses.

3 Tense and Aspect in Bantu

3.1 Bantu languages

Bantu languages

- About 500 languages
- Elaborate noun class / agreement system
- Elaborate verbal morphology and TAM systems

Ex 8. ndi-sak-a chi-lyá echí-yuní cheniú echí-lou
 1SG-want-FV CL7-DEM CL7-bird CL7.2PL.POSS CL7-good
‘I want that good bird of yours’ (Totela)

Ex 9. *i-ká-tu-a-ka-ci-ya-sónek-ilí-le-ho*
 CL9-NEG-1PL-P2-ITIVE-MODAL-3PL-write-APPL-FV-POSTFINAL
‘[the letters] which we had not just gone to write to them then’ (Lucati)
 (Nurse 2008: 32)

Ex 10. *tu-né-mu-ndi-syá-tá-sya-ya-ba=king-ul-íe-an-is-i-d=kyó*
‘we will make it possible one more time for them to open it for each other’ (Kinande)
 (Nurse & Philippson 2003: 9)

3.1.1 Totela

Totela

- Bantu (K.41)
- Spoken in Zambia and parts of Namibia
- Highly endangered (<7000 speakers in Zambia?)

Tense and aspect in Totela Some common markers

Marker	Approx. Meaning	Example	Gloss
-a-	hodiernal past	ndáyenda	‘I walked’
-le-	present/hod. fut.	ndílayenda	‘I walk’
-ka-	prehod. past	ndakáyenda	‘I walked’
-na-	posthod. future	mandílayenda	‘I will walk’
ka-	prehod. ipfv.	kandíyenda	‘I was walking’
-na-	hod. ipfv.	ndímayenda	‘I was walking’
-chi-	persisive (still)	ndíchíyenda	‘I still walk’

and many more ...

Claims

- None of these markers is as it seems
- Other tools are needed to describe Bantu tense and aspect
- These tools might be more generally useful

Some tools:

- Nuclear completion
- (Cognitive) dissociation
- Re-evaluation of situation type categories

See also

Boine & Kershner (2008)

3.2 Nuclear Completion**Completive -a-**

Basically, used for hodiernal pasts:

Ex 11. ndàngèngà

nda-neng-a

1SG.CMPL-dance-FV

'I danced'

... but not always ...

Ex 12. ndàkomokwà

nda-komok-w-a

1SG.CMPL-surprise-PASS-FV

a. 'I am surprised!' b. 'I got surprised!'

Non-Completive -la-

Basically, used for hodiernal non-pasts:

Ex 13. ndlāsàmbà

ndi-la-samb-a

1SG-NONCMPL-bathe-FV

a. 'I am bathing' b. 'I will bathe'

... but also habitual ...

Ex 14. munsikunsiku ndlayenda

munsikunsiku ndi-la-yend-a

every.day 1SG-NONCMPL-walk-FV

'I walk every day'

... and some restrictions ...

Ex 15. omwanja u-la-bomb-a

CL.3.cassava CL.3-NONCMPL-get.wet-FV

'the cassava is soaking' (NOT 'the cassava is soaked')

Question

How to analyze these markers?

Sidestep: Change-of-state vs. Durative

- Crucial distinction in Totela (and, it seems, in many Bantu languages):

- CHANGE-OF-STATE vs.
- DURATIVE verbs.

- **Change-of-state** (inchoative) verbs express "a change of condition or state of the experiencer or patient, including a "change of transition from one state to another" (Boine & Kershner 2000: 165).
- **Durative**, non-inchoative verbs do not necessarily have a result state.

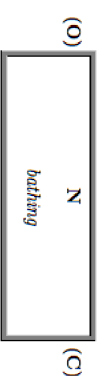
Some change-of-state verbs in Totela

- *-taba* 'become happy'
- *-izba* 'come to know'
- *-ikua* 'become full'

Verbal "event structure"

Verbs have the following phases:

- (optional) ONSET
- NUCLEUS, and
- (optional) CODA (see e.g. Boiné & Kershner 2000)



Event structure for *-samba* 'bathe'

- Durative verbs:
 - Nucleus = action/state
 - Nucleus ends with: termination of situation
- Change-of-state verbs:
 - Nucleus = point of change into result state
 - (Punctual) nucleus ends with: start of result state



Event structure for *-komokwa* 'be surprised'

Analysis of -a-:

-a- marks completion of a situation nucleus.

-a- with durative verbs:**Ex 16.** twǎlyà òchisýù

twǎ-ly-a echisýu

1 PL.CMPL-eat-FV CL7.greens

'we ate greens'

Ex 17. ndǎwà

ndǎ-w-a

1 SG.CMPL-fall-FV

'I fell' (and may or may not have gotten up again)

-a- with change-of-state verbs:

- Result state implicature (usually)

Ex 18. ndǎnyèhwà

ndǎ-nyèl-w-a

1 SG.CMPL-annoy-PASS-FV

'I'm annoyed' (ZIT2006Elic57)

- But not always:

Ex 19. ndǎkòmkwà sùnù!

ndǎ-komk-w-a

1 SG.CMPL-surprise-PASS-FV today

'I got surprised today!' (ZIT2007Nar27.VK)

Summary of possible interpretations with -a-:

- With durative verbs:
 - perfective (situation completed in past)
 - perfect
 - With change-of-state verbs:
 - perfective (change-of-state in past)
 - present stative
 - -a- marks completion of a situation *nucleus*.
 - Specific temporal interpretations are pragmatically determined.
- Ex 20.**
- a.* ndǎ-yènd-ǎ 1 SG.CMPL-walk-FV
- b.* ndǎ-komk-w-ǎ 1 SG.CMPL-surprise-PASS-FV
- Possibility 1: 'I am surprised'
- Possibility 2: 'I got surprised' (earlier today)

-a- is not:

- A "tense": doesn't relate situation time or topic time to time of utterance
- (Canonically-defined) perfective or imperfective aspect, e.g. presenting a situation "as a whole" or "from within"

-a- as "perfect"?

- Recall Klein's definitions of aspect

TT is included in TSit IMPERFECTIVE

TT is partly included in TSit PERFECTIVE

TT is after TSit PERFECT

TT is before TSit PROSPECTIVE

Maybe tense is unspecified?

Ex 21. ndǎwà 'I fell' (and may or may not have gotten up again)

-----↓X-----↓✓-----↓✓-----

Source State=TSit: Target State: up again

falling on ground

Ex 22. ndǎnyèhwà 'I'm annoyed' / 'I got annoyed'

-----↓X-----↓✓-----↓✓-----

Source State: Target State/Coda: no longer

annoying circumstances being annoyed annoyed

-a- as "perfect"?

For an action verb, for example, anterior represents a situation that is completed but relevant, whereas for a stative verb anterior represents the continuing state resulting from an action initiated in the past... (Nurse 2008: 73)

Either the present or later state results from that earlier situation (mostly for stative verbs) or the past situation is relevant to the later situation (mostly for dynamic verbs). (Nurse 2008: 32)

-a- as "perfect"?

- Sounds reasonable, but...
- Utterance time is not necessarily in the result state (COS).
- -a- doesn't fulfill "perfect" functions:
 - Experiential perfect
 - Perfect of persistent situation
 - Etc. (see Comrie 1976)
- In most languages, perfects
 - Are not used as default forms to refer to past situations
 - Appear rarely in narrative clauses

Ex 23. I ate breakfast, then I walked the dog.**Ex 24.** @ I have eaten breakfast, then I (have) walked the dog.

-a- as marker of nuclear completion

- Claim: *-a-* marks *nuclear completion* at perspective time (usually utterance time)
- Durative verbs → past-tense (nuclear completion = situation completion)
- Change-of-state verbs → past change or present state (perspective time can be in post-nuclear coda state, or after the cessation of the coda state)
- Primary function of *-a-*: locate perspective time after nuclear completion

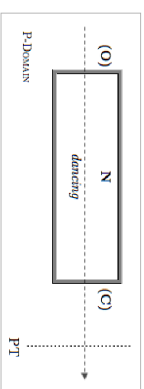
Atelic durative:

Ex 25. ndàhèngà

ndà-neeng-a

1SG.CMPL-dance-FV

'I danced'



Telic durative:

Ex 26. ndáyàkà ìhàndà

ndà-yaak-a

1SG.CMPL-build-FV house

'I built a house'



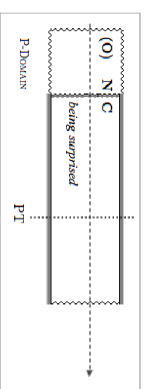
Change-of-state – present reading:

Ex 27. ndàkomòkwà

nda-komok-w-a

1SG.CMPL-surprise-PASS-FV

'I am surprised!'



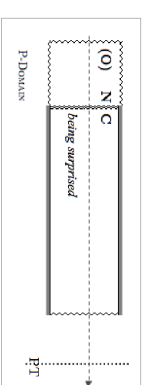
Change-of-state – past change-of-state reading:

Ex 28. ndàkomòkwà

nda-komok-w-a

1SG.CMPL-surprise-PASS-FV

'I got surprised!'

**Reference to the nucleus in other Bantu languages: Luwanga (Botne 2010)**Change-of-state:²**Ex 29.** omuxóno kufimbi a. láano b. ísuliomuxóno ku-í:mb-fre a. láano b. ísuli
CL3.hand 3-become.swollen-PFV now morning

- a. 'the hand is swollen now'
b. 'the hand became swollen this morning'

Durative:

Ex 30. endúúsi amaxúwa amafny'u

en-dúúsi amaxúwa amafny'u

1SG-sec:PFV CL6.affair CL6.extreme

'I have seen something unbelievable'

Ex 31. axutëshire isfny'éeni

a-xu-tësh-ire isfny'éeni

3SG-1PL-cook-AP:PFV CL10-fish

'she cooked fish for us' [today]

-la- and nuclear non-completion

- NB: *-la-* is used as shorthand for both verb forms marked with *-la-* and verbs unmarked for tense and aspect (null-marked).
- Temporal interpretations are largely, though not entirely,³ complementary to readings with *-a-*.

²The details of Botne's analysis, in which the *-ire* marker is argued to be a perfective (as it is labeled in the glosses), differ from the analysis here, but many essential interpretive patterns are the same.

³With perception verbs such as *-bona* 'see', readings with *-a-* and *-la-* can overlap. These verbs are not treated in this paper for the sake of time, but the temporal interpretations fall out from the proposal.

Ex 32. ndi₁àbònà

ndi-là-boon-a
1SG-NONCMPL-see-FV

'I see'

Ex 33. obwawu bulàshupa

obwawu bu-là-shup-a
CL1.4.relish CL1.4.NONCMPL-cause.trouble-FV

'relish is a problem' (i.e. we don't have any)

Ex 34. (ndilikweesi) ndilàsamba

(ndi-li-kweesi) ndi-là-samb-a
(1SG-PRES.STAT-grab.ITE) 1SG-NONCMPL-bathe-FV

'I am bathing'

Near future

Ex 35. Íwè mwínà òkùlmá-ínná áwò ndpèni mwáàenù nfi₁kàlèlè. Ángù ndi₁àbòòhà:

inwe mu-ínnà oku-ínn-a-ínn-a áwò ndi-peni mwanenu
2PL.PRON 2PL-have INF-cultivate-FV-CULTIVATE-FV CL1.6.DEM 1SG-GIVE.PL.IMP child.2PL.(POSS)
ndi-ka-lèl-e. ángù ndi-là-bool-a
1SG-DIST-amuse-FV.sbjv soon 1SG-NONCMPL-return-FV

'Hey you here cultivating away, give me your child that I may go amuse it. I'll come back soon.'

Habitual and generic

Ex 36. munisikunsiku ndilayenda

munisikunsiku ndi-là-yend-a
every.day 1SG-NONCMPL-walk-FV

'I walk every day'

Ex 37. otuyuni tulatusa abantu

otuyuni tu-là-tus-a abantu
CL1.3.bird CL1.3-NONCMPL-help-FV CL2-person

'birds help people'

With change-of-state: only future

Ex 38. àbá bàyimbà bàtábà

aba ba-yimb-a ba-tab-a
CL2.DEM CL2-sing-FV.RC CL2.CMPL-become.happy-FV

'those who are singing are happy'

Ex 39. àbá bàlàyà bàlèkàtìà

aba ba-là-ikut-a ba-là-ikut-a
CL2.DEM CL2-eat-FV.RC CL2-NONCMPL-become.full-FV

'those who are eating will be full'

Temporal interpretations for -a- and -la-: Summary

SIT. TYPE	-a-	-la-
Durative	Past	Present Future
Change-of-State	Past Present State	Future State

Proposal:

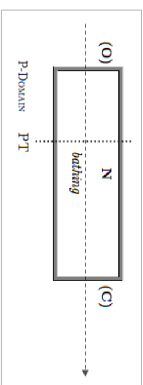
- -a- marks nuclear completion
- -la- (or lack of marking) indicates nuclear non-completion:
 - Perspective time is *before* the completion of the situation nucleus.
 - Habitual readings: perspective time is before the *final* nuclear completion

Durative

Ex 40. ndilàsambà

ndi-là-samb-a
1SG-NONCMPL-bathe-FV

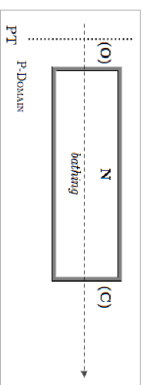
'I am bathing'



Ex 41. ndilàsambà

ndi-là-samb-a
1SG-NONCMPL-bathe-FV

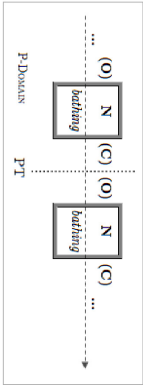
'I will bathe'



Ex 42. ndilàsambà

ndi-là-samb-a
1SG-NONCMPL-bathe-FV

‘I bathe’ (habitu)

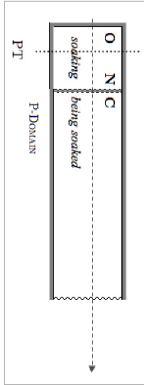


Change-of-state

Ex 43. omwanja u-lā-bomb-a

omwanja u-lā-bomb-a
CL.3.CASSAVA CL.3-NONCMPL-get-wet-FV

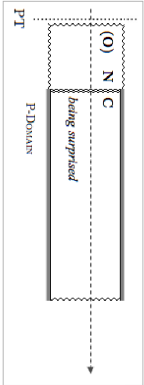
‘the cassava is soaking’ (NOT ‘the cassava is soaked’)



Ex 44. ndīlākōmkwā

ndī-lā-komok-w-a
1SG-NONCMPL-surprise-PASS-FV

‘I’ll be surprised’



Summary: Nuclear (Non-)Completion

- Aktionsart and aspect in Totela refer crucially to situation nuclei.
- *-a-* marks nuclear completion.
- *-la-/Ø-* marking indicates nuclear non-completion.
- Beyond these constraints, location of a situation’s nucleus with respect to perspective/utterance time is pragmatically determined.

Lesson from Bantu

- *The nature of a situation-type system can determine the nature of a tense-aspect system*

3.3 Tense and Domains

Tense in Totela

Totela morphologically marks references to situations as...

- On
 - Before, or
 - After
- ...the day of perspective time.
- **Claim:** These contrasts are best analyzed in terms of *discourse domains*.
 - **Sub-claim:** Totela’s temporal domains are based on the day of perspective time.

Boine and Kershner (2008)

- Boine and Kershner (2008) place tense within a framework of two domains (discourse worlds), defined in terms of time, space, and reality status:⁴

	P-Domain: Association =inclusion	D-Domain: Dissociation =exclusion
REALITY	real	not real
TIME	now	not now (i.e. the cognitive domain is prior to or later than the speech focus)
SPACE	here	not here

TENSE = temporal exclusion from the domain of perspective time.

Past and future dissociation in Totela

Situations prior to the day of perspective time: *-ka-*

Ex 45. ndākāyēndā

nda-ka-yēnd-a
1SG.CMPL-PREHOD-walk-FV

‘I walked’ (yesterday or before)

Situations in the future of the day of perspective time: *na-*

Ex 46. nāndīlāwā

nē-ndī-lā-tū-ā
POSTHOD-1SG-NONCMPL-pound-FV

‘I’ll pound’ (tomorrow or later)

Semantic evidence for dissociative domains

Both *-ka-* and *na-*: sometimes optional

⁴Boine & Kershner (2008) define the P-domain as “contemporary”, “denoting a primary, prevailing experiential past and future perspective” (Boine & Kershner 2008: 155, 153). Boine (2010) refers to it as the “primary” domain. The P-domain may also be thought of as the domain including the present. The D-domain of tense is temporally excluded, or dissociated, from the P-domain.

Ex 47. Chwale njeyyi inchechi **mwawaana** inywe ba... ba-Thera. **Mwatuwaana** munapologalama amangi.

chwale njey-yyi inchechi **mw-a-waan-a** inywe ba-Thera. **mw-a-tu-waan-a**
INTERI COP-CL9, DIM CL9, church 2PL CMPL-find-FV RC 2PL PRON 3PL-Thera 2SG CMPL-1PL-find-FV
mu-mapologalama a-mangi
CL18(LOC)-CL6, program CL6-many

'And so that's the church you find [here today]. Miss Thera. You've found us in the midst of a lot of programs.'

Ex 48. twāyendā anāzūbā obñe, ndēusikā

tw-a-yend-a anazuba o-bile, nde-tu-sik-a
1PL CMPL-walk-FV c16,day c16-two at.this.time-1PL-arrive-FV

'we(ve) walked two days, now we're just arriving'

Ex 49. jīlō ndīlāyá kumpil

jīlō ndi-la-y-a ku-npil
tomorrow 1SG-NONCMPL-go-FV CL17(LOC)-fields

'tomorrow I'm going to the fields'

Ex 50. jīlō nāndīlāyá kumpil

jīlō nā-ndi-la-y-a ku-npil
tomorrow POSTHOD-1SG-NONCMPL-go-FV CL17(LOC)-fields

'tomorrow I'm going to the fields'

- *na-* in the future: less certainly than *-la-* on its own

- No *-ka-* in the past: location of relevant nuclear completion/coda state

Morphological evidence for dissociative domains

Prehodiernal *-ka-* and distal *-ka-* (indicating distance in space)

Ex 51. ndākāsambā

nda-ka-samb-a
1SG.CMPL-PREHOD-bathe-FV

'I bathed' (yesterday or before) (ZT2007Elic38)

Ex 52. ndākāsambā

nda-ka-samb-a
1SG.CMPL-DIST-bathe-FV

'I bathed' (elsewhere than here) (ZT2007Elic38)

Ex 53. Prehodiernal *-ka-* and distal *-ka-*: ndākākāsambā

nda-ka-ka-samb-a
1SG.CMPL-PREHOD-DIST-bathe-FV

'I bathed' (elsewhere from here, yesterday or before) (ZT2007Elic38)

- Connections between temporal distance and spatial distance are attested cross-linguistically (e.g. Bybee *et al.* 1994: 103, Dahl 1985: 125).

Posthodiernal *na-* and counterfactual past *na-* (?)

Ex 54. kāmbe bākēzā, nāwābā šinī

kambe ba-ka-iz-a na-twa-tab-a sunu
COUNTER 3PL-DIST-come-FV COUNTER-1PL-become.happy-FV today

'if they had come, we would have been happy today' (ZT2009Elic13,AM)

Summary: *-ka-* and *na-* are morphologically similar to other markers of dissociation

Recall Botne and Kershner (2008)

	P-Domain: Association =inclusion	D-Domain: Dissociation =exclusion
REALITY	real	not real
TIME	now	not now <small>(i.e. the cognitive domain is prior to or later than the speech locus)</small>
SPACE	here	not here

Lack of aspectual contribution of *-ka-* and *na-*

- When following completive *-a-*, *-ka-* is interpreted as a prehodiernal perfective.
- A similar marker *ka-* prefixed to the subject marker is used with prehodiernal imperfectives.

Ex 55. kandy'endā

ka-ndi-yend-a
PREHOD.1PFV-1SG-walk-FV

'I was walking / I used to walk'

- *na-* forms can also be used with imperfective meanings.

Ex 56. ési nāndīlāwukē, nāndīlāwānā ōmūmū nāyā

esi na-ndi-lawuk-e, nā-ndi-la-waan-a omuntu nā-l-a
COND POSTHOD-1SG-nu-FV.SBJV POSTHOD-1SG-NONCMPL-find-FV CL1, person SIT.3SG-eat-FV
'when I am running, I will find a person eating' (tomorrow or after) (ZT2009Elic29)

- Use of dissociative markers can set up new worlds as the conversational temporal frame of reference.

Ex 57. [Context: the person described died on the morning of the speaker's arrival] ... ndākāmūwānā ālīwā

nda-ka-mu-waan-a a-fw-a
1SG.CMPL-PREHOD-3SG-find-FV 3SG.CMPL-die-FV

'I found him [having] died' (= 'I found him dead') (ZT2009Elic84)

Ex 58. [Context: the person described died on Tuesday; the speaker arrived on Wednesday] ndākāsikā lwāñū;
ndākāwānā ākafwā kālē lwatuu; nda-ka-waan-a a-ka-fw-a kālē
1SG.CMPL-PREHOD-arrive-FV CL11, Wednesday 1SG.CMPL-PREHOD-find-FV 3SG.CMPL-PREHOD-die-FV already

'I arrived on Wednesday; I found that he already died [on Tuesday]' (ZT2009Elic84)

Lesson from Bantu

- The nature of a situation-type system can determine the nature of a tense-aspect system
- Tense may be part of a larger system of cognitive association and dissociation

Dissociative -ED in English

Ex 59. Yesterday, Timin jumped out of the boat without his weighted boots.

Ex 60. If Timin jumped out of the boat without his weighted boots (tomorrow), he would have a hard time reaching the treasure.

Tense as dissociation in other Bantu languages

Ex 61. azúki (a-)ja-cek-tyé fortaléza
Portuguese (3PL)-P2-build-P2 fortress
'the Portuguese built [P2] the fortress'

Ex 62. fortaléza y-a-cek-fw-a n'azúku
fortress 3SG-P1-build-PASS-FV by Portuguese
'the fortress was built [P1] by the Portuguese' (Schadeberg and Mucchiella 2000:116, quoted in Bonne & Kershner 2008: 185, ex.23)

3.3.1 The nature and importance of hodiernality

- The distinction between hodiernal and non-hodiernal reference is common cross-linguistically.
 - Languages like Totela with two morphologically marked "past tenses" typically distinguish hodiernal and prehodiernal tenses (Nurse 2008: 90).
 - In his sample of about 400 languages making distinctions, Dahl notes that approximately 85-90% have a hodiernal/prehodiernal distinction (Dahl 2009).
- Dahl posits that the time regarded as "today" typically begins as sleeping time, and notes that this may relate to memory consolidation during sleep (Dahl 2008).
- Totela's system shows strong evidence of the boundaries of "today" being sleeping time, as well.

Ex 63. ku-ku-ñonzi kumo nda-fw-a buti kanti
CL17(LOC).COP-CL17(LOC)-c9 sleep CL17(LOC).DEM 1SG-CMPL-die-FV how INTERJ
'oh, it was actually in my sleep that I died!'

Ex 64. echilooto nda-loot-a sunu
CL7 dream 1SG.CMPL-dream-FV today
'the dream I dreamed today [=last night]'

Lesson from Bantu

- The nature of a situation-type system can determine the nature of a tense aspect system
- Tense may be part of a larger system of cognitive association and dissociation
- *The day of utterance has cognitive importance*

4 Summary

Summary Some "aspects" of tense and aspect in Totela

- At least some of Totela's privileged distinctions are related to
 - Discourse domain, and
 - Completion of the situation's nucleus
- Labels from traditional tense/aspect models do not fully capture these distinctions.
- Neither do traditional situation-type categories adequately explain the distribution of temporal interpretations
- Deeper exploration and explication are therefore needed.
- These distinctions also seem to be important in other Bantu languages

Lessons from Bantu

- The nature of a situation-type system can determine the nature of a tense-aspect system
- Tense may be part of a larger system of cognitive association and dissociation
- The day of utterance has cognitive importance
- *If we want a universal characterization of tense and aspect, we need to continue to widen our typological net*

Thank you!

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Glosses used: 1SG=first person singular; 2PL=second person plural; CL6=noun class 6; CMPL=complete, COND=conditional; COUNTER=counterfactual; DEM=demonstrative; DIST=distal marker; DM=discourse marker; FV=final vowel; INF=infinitive; INTER=interjection; LOC=locative NONCMPL=noncomplete; PASS=passive; POSTHOD=posthodiernal future; PREHOD=prehodiernal past; PRON=pronoun; RC=relative clause; SIT=situative aspect.