TEMPORAL REMOTENESS MARKERS IN A TENSELESS LANGUAGE

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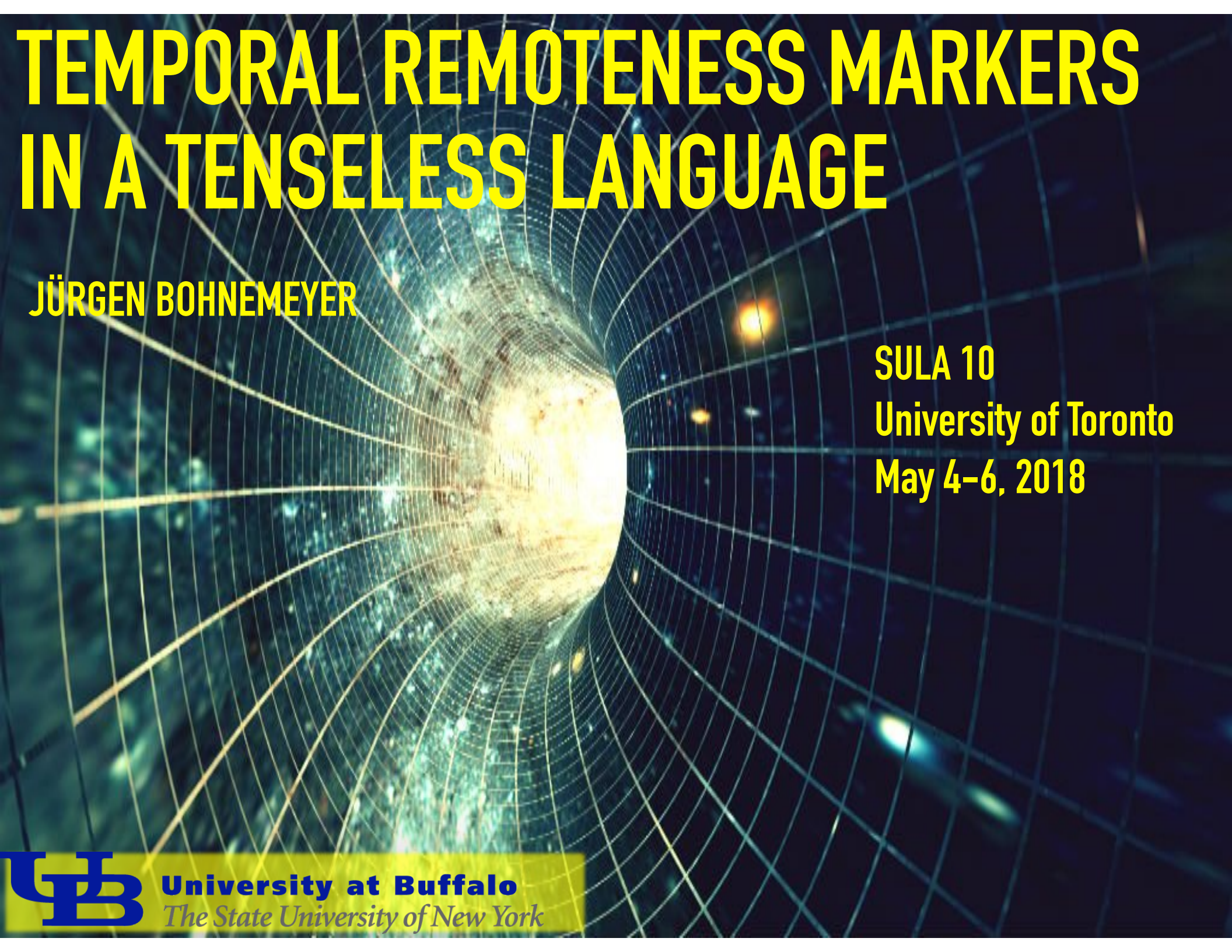

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OUTLINE

- The changing face of temporal remoteness markers
- Yucatec as a tenseless language
- Yucatec temporal remoteness markers
- Analysis
- Summary

THE CHANGING FACE OF TEMPORAL REMOTENESS MARKERS (TRMS)

- the early take on TRMs

"'Temporal distance' involves, by definition, a measurement of the distance between two points or intervals in time; this implies that for this dimension to be relevant, at least two such time points should be involved in the interpretation of a sentence. Given the Reichenbachian points S, R and E, there are the following possibilities: **In the unmarked case, R coincides with either S or E. In those cases, which constitute the overwhelming majority in any text, the only possible distance to measure will be between S and E, that is, 'distant' will mean 'distant from the time of speech'**" (Dahl 1985: 120, emphasis *JB*)

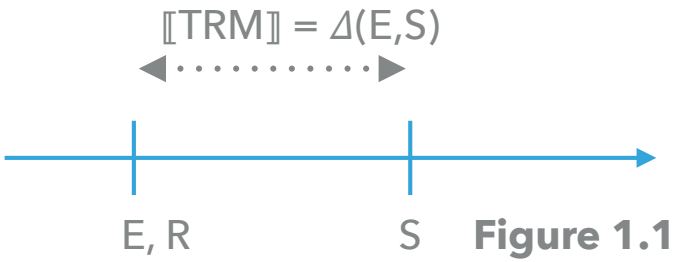

Figure 1.1. *The traditional picture of TRM semantics*

- the early take on TRMs (cont.)

(1.1) *Temporal remoteness distinctions in ChiBemba (Givón 1972)*

a. ba**àlééé**bomba
'They were working (before yesterday).'

b. ba**áléé**bomba
'They were working (yesterday).'

c. ba**àcíláá**bomba
'They were working (earlier today).'

d. ba**á**bomba
'They've just worked (a little while ago).' (Cable 2013: 220)

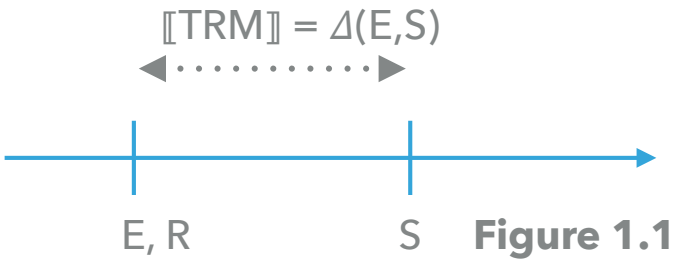

Figure 1.1. *The traditional picture of TRM semantics*

- the early take on TRMs (cont.)

"If R is separate, however, we will have two intervals to measure: on one hand, the distance S-R, on the other, the distance R-E. In principle, both these might be relevant in a TMA system. The tendency, however, seems rather to be for remoteness distinctions to be neutralized in such contexts; many languages do not even have a separate category which like the English Pluperfect is used for events that take place before an R which in turn precedes S. I also have relatively little information concerning these cases - being conceptually more complex, they are rather hard to elicit reliable information about - and shall just note one fairly clear example of a minimal pair differing in the distance between a past R and a preceding E." (Dahl 1985: 120-121, emphasis *JB*)

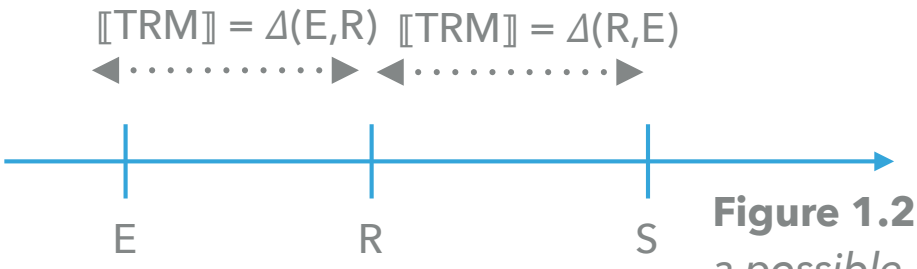

Figure 1.2. *The traditional picture of TRM semantics: a possible ambiguity*

- the one example of an anaphoric TRM distinction Dahl (1985: 121) and Comrie (1985: 86) cite
  - Sesotho (Southern Bantu, Lesotho and South Africa)

(1.2) Ha letsatsi le-likela re-ne re-**tsoa** tloha Maseru
when sun PRV-disappear we-PAST we-**IMMP** leave Maseru
'At sunset, we **had just left** Maseru.'

(1.3) Ha letsatsi le-likela re-ne re-tloh-**ile** Maseru
when sun PRV-disappear we-PAST we-leave-**RECP** Maseru
'At sunset, we **had left** Maseru.' Morolong (1978: 77; glosses *JB*)

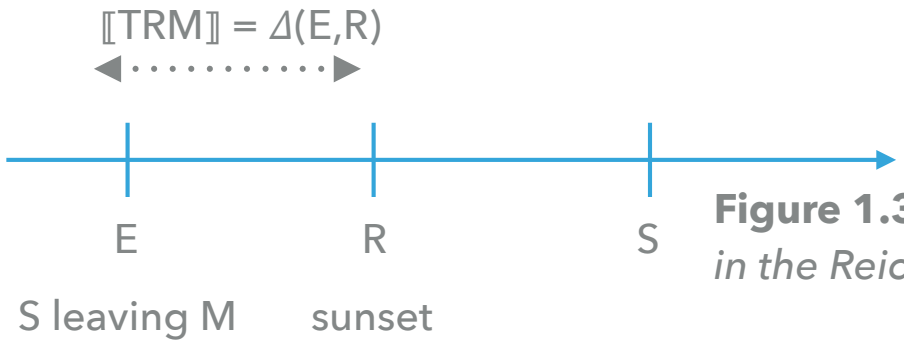

Figure 1.3. *Morolong's analysis of* -tsoa *and* -ile *in the Reichenbachian system*

- new perspectives: the break with Reichenbach – toward an integrated theory of tense and viewpoint aspect
  - following Kamp & Reyle (1993), Klein (1994), Kratzer (1998), *inter alia*, much contemporary theorizing assumes that
    - tense constrains the **topic time** t_{TOP} of an utterance vis-a-vis an **evaluation time**
      - which may be **utterance time** t_U or some r**eference time** t_R (cf. Bohnemeyer 2014)
    - the relation between t_{TOP} and the event time $\tau(e)$ is constrained, not by tense, but by viewpoint aspect
  - how do TRMs fit into this model?

- new perspectives: Klecha & Bochnak (2016)
  - purely anaphoric TRMs in Luganda (NE Bantu, Uganda) in 'iterated' constructions

(1.4) Context: A and B are talking about a party they went to a few days ago.

A: Nalabye Kato kabaga.
1SG.see.**INT** K at.party
'I saw Kato at the party.'

B: Wabadde wayogera naye?
2SG.COP.**INT** 2SG.talk.**DIST** him
'Had you talked to him (before that time)?'

B′: #Wali wayogedde naye?
2SG.COP.**DIST** 2SG.talk.**INT** him
Intended: 'Had you talked to him (before that time)?'

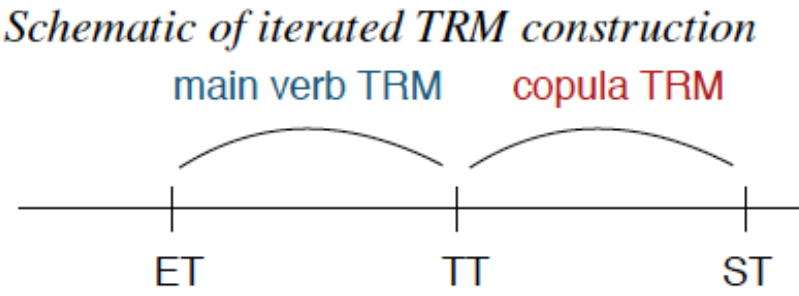

Figure 1.4. *Klecha & Bochnak's schematic representation of the semantics of iterated TRM*

- new perspectives: Klecha & Bochnak (2016) (cont.)
  - analysis: Luganda TRMs simply encode an anteriority relation between two time intervals plus their distance

(1.5) *Luganda Inventory of Temporal Remoteness Morphemes*

a. $[\![\textbf{REC.P}]\!] = \lambda t \lambda u \lambda w[t < u \ \& \ \textbf{close}(t,u) \succ \textbf{s}(\textbf{close})]$
b. $[\![\textbf{INT.P}]\!] = \lambda t \lambda u \lambda w[t < u \ \& \ \textbf{far}(t,u) \prec \textbf{s}(\textbf{far})]$
c. $[\![\textbf{DIST.P}]\!] = \lambda t \lambda u \lambda w[t < u]$

  - REC.P, INT.P, DIST.P – 'recent', 'intermediate', 'distant past'
  - t – t_{TOP}
    - apparently, K&B assume that in the iterated construction, the AUX's t_{TOP} is the main verb's t_R
  - u – evaluation time = t_U or t_R
  - **close**, **far** - measure functions
  - **s** – positive standard function (Kennedy 2007)

- new perspectives: Cable (2013)
  - Gĩkũyũ (NE Bantu, Kenya) TRMs constrain $\Delta(\tau(e), t_U)$, not $\Delta(t_{TOP}, t_U)$ - they are not tenses in the Kleinian (etc.) sense

(1.6) *The graded tenses of Gĩkũyũ (Mugane 1997)*

a. 'Current Past':
   Mwangi nĩe**kũ**inaga.
   'Mwangi was dancing (within the day).'
b. 'Near Past':
   Mwangi nĩa**ra**inaga.
   'Mwangi was dancing (within last few days).'
c. 'Remote Past':
   Mwangi nī**ā**inaga.
   'Mwangi was dancing (prior to 'Near Past').'
d. 'Current Future':
   Mwangi nĩe**kũ**ina.
   'Mwangi will dance (within the day).'
e. 'Remote Future':
   Mwangi nĩa**ka**ina.
   'Mwangi will dance (tomorrow or later).' (Cable 2013: 221)

- new perspectives: Cable (2013) (cont.)
  - the evidence for this analysis comes from the structure of distance categorization in this system

Generalization regarding the 'Remote Past'
REMP is used when a speaker does not know whether an event occurred on the day of the utterance, 'recently', or some time prior to that.

Generalization regarding the 'Near Past'
NRP is used when a speaker does not know whether an event occurred on the day of the utterance or at an earlier 'recent' time, *but does know that it occurred 'recently'*.

Generalization regarding the 'Remote Future'
REMF is used (in interrogatives) when a speaker does not know whether an event will occur on the day of the utterance or some time after that.

The TRM Specificity Principle
Speakers must use the most specific TRM consistent with their knowledge. If the use of a particular TRM α is 'licit' in some context, then the speaker *cannot* use any TRM weaker than α. (Cable 2013: 245-247)

- new perspectives: Cable (2013) (cont.)
  - rejecting a Gricean analysis, Cable instead proposes that Gĩkũyũ TRMs denote partial identity functions on events

(1.7)

a. $[\![\text{CUR}]\!]^{g,t} = [\ \lambda e : T(e) \infty \text{ day surrounding t} . e\ ]$

b. *IMPST(t):*

A function from temporal intervals to temporal intervals. Maps interval t to an interval $[t'...t'']$, where t', $t'' < t$, and both lie within the day surrounding t.

Illustration:
IMPST('12 PM; 5/31/12') = ['11 AM; 5/31/12' … '11:30 AM; 5/31/12']

c. *REC(t):*

A function from temporal intervals to temporal intervals. Maps interval t to an interval $[t'...t'']$, where $t' < t$ and lies before the day surrounding t, and t'' is the endpoint of the day surrounding t.

Illustration:
REC('12 PM; 5/31/12') = ['3 PM; 5/27/12' … '11:59 PM; 5/31/12']

d. $[\![\text{IMM}]\!]^{g,t} = [\ \lambda e : T(e) \infty \text{IMPST(t)} . e\ ]$

e. $[\![\text{NRP}]\!]^{g,t} = [\ \lambda e : T(e) \infty \text{REC(t)} . e\ ]$

f. $[\![\text{REM}]\!]^{g,t} = [\ \lambda e : e\ ]$

(Cable 2013: 253-254)

- new perspectives: Cable (2013) (cont.)
  - as such, they introduce presuppositions the content of which is defined by the partial identity functions
    - e.g., the feature *CUR* encoded by both the 'current future' and 'current past' TRMs has the meaning

(1.8) $[\![\text{CUR}]\!]^{g,t} = [\ \lambda e : \tau(e) \propto \text{day surrounding } t_U\ .\ e\ ]$

  - this presupposes the existence of a suitable event since the meaning of the TRM is undefined otherwise
  - however, Cable argues that these presuppositions do not project and thus cannot be tested

- new perspectives: Cable (2013) (cont.)
  - Cable uses this presuppositional semantics to generate the observed usage extensions of the TRMs
    - by invoking the **Maximize Presupposition** maxim of Heim (1991)

"**Maximize Presupposition:** Among a set of alternatives, use the felicitous sentence with the strongest presupposition." (Chemla 2008)

(1.9) a. #A weight of our tent is under 4lb (Heim 1991)

b. #I talked to a father of the victim (Hawkins 1991)

c. #Every candidate should send his book (# if some candidates wrote multiple books) (Sauerland 2008)

- and now: Yucatec
  - formalizing an analysis
    informally sketched in Bohnemeyer (1998: 328-342)
  - Yucatec TRMs constrain $\Delta(\tau(e), t_{TOP})$
    - so their behavior combines features
      of the TRMs of Gĩkũyũ and Luganda
      - they are purely anaphoric, like the TRMs of Luganda
      - they directly access $\tau(e)$, like the TRMs of Gĩkũyũ
        on Cable's analysis
      - however, unlike the Gĩkũyũ TRMs, they relate $\tau(e)$ to t_{TOP}, not to t_U or some other evaluation time t_R

- and now: Yucatec (cont.)
  - Yucatec has been argued to be a profoundly tenseless language (Bohnemeyer 1998, 2009)
  - the occurrence of TRMs in such a language further emphasizes their non-tense-like character
  - however, Yucatec does distinguish future-oriented TRMs and past-oriented TRMs
    - which still raises questions for a profoundly tenseless analysis

OUTLINE

- The changing face of temporal remoteness markers
- Yucatec as a tenseless language
- Yucatec temporal remoteness markers
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- Summary

YUCATEC AS A TENSELESS LANGUAGE

- two functional categories expressing temporality in Yucatec clauses
  - preverbal **aspect-mood (AM) markers** and **status suffixes**
    - every finite verbal projection has exactly one of each
    - the AM marker selects for a particular status category in its lexicon entry

(2.1) **Morphologically bound AM markers**

a.	**K-**in=xok**-ik**	le=periyòodiko=o'
Imperfective	**IMPF-**A1SG=read**-INC**(B3SG)	DEF=newspaper=D2
	'I (used to) read the paper'	
b.	**T-**in=xok**-ah**	le=periyòodiko=o'
Perfective	**PRV-**A1SG=read-CMP(B3SG)	DEF=newspaper=D2
	'I read the paper'	

- the remaining 13 or so AM markers are stative predicates (not auxiliaries or light verbs)

- synopsis of the system: the aspectual AM markers

Table 2.1. *The aspectual AM markers*

Subset	Marker	Category label in Bohnemeyer 2009	Meaning	Status category selected
Aspectual	*t-/h-*	Perfective	Perfective aspect	CMP
	k-	Imperfective	Imperfective aspect; habitual/generic reference	INC
	táan	Progressive	Imperfective aspect	
	ts'o'k	Terminative	Perfect aspect	
	mukah/mikah /bikah	Prospective	Prospective aspect	INC /SUBJ

- synopsis of the system: the modal AM markers

Table 2.2. *The modal AM markers*

Subset	Marker	Category label in Bohnemeyer 2009	Meaning	Status category governed
Modal	*yan*	Obligative	Social obligations; plans; scheduled events; future time reference to naturally occurring events	INC
	k'a'náan /k'abéet	Necessitive	Deontic necessity	
	táak	Desiderative	Desires and bodily needs	
	he' ... =e'	Assurative	Commitments, promises, agreement, assurances	
	óolak	Penative	Proximity of realization in counterfactual worlds	SUBJ

YUCATEC AS A TENSELESS LANGUAGE (CONT.)

- … and today's protagonists: the TRMs

Subset	Marker	Category label in Bohnemeyer 2009	Meaning	Status category governed
Degree of remoteness	*bíin*	Remote future	Presupposition: $t_{top} < \tau(e)$; at-issue content: $\Delta(t_{top}, \tau(e))$ is great by contextual standards	SUBJ
	ta'itak	Proximate future	Presupposition: $t_{top} < \tau(e)$; at-issue content: $\Delta(t_{top}, \tau(e))$ is small by contextual standards	INC
	táantik …=e'	Immediate past	Presupposition: $\tau(e) < t_{top}$; at-issue content: $\Delta(t_{top}, \tau(e))$ is very small by contextual standards	
	sáam	Recent past	Presupposition: $\tau(e) < t_{top}$; at-issue content: $\Delta(t_{top}, \tau(e))$ is small by contextual standards	SUBJ
	úuch	Remote past	Presupposition: $\tau(e) < t_{top}$; at-issue content: $\Delta(t_{top}, \tau(e))$ is large by contextual standards	

Table 2.3. *The TRMs*

- testing for deictic tense: is a clause formed with a given marker compatible with present, past, and future topic times?
  - e.g., the perfect-like 'terminative' aspect marker *ts'o'k*
    - with a past topic time, like a pluperfect:

(2.2) *K-u=k'uch-ul-o'b=e',*
IMPF-A.3=arrive-INC=TOP

ts'o'k	*u=kim-il*	*le=chàampal=e'.*
TERM	A.3=die-INC	DEF=small:child=D3

'(By the time) they arrived, the baby **had** already died.'

- with a future topic time, like a future perfect:

(2.3) *Sáamal* *óok-a'n+k'ìin=e'*
tomorrow enter-RES+sun=TOP

ts'o'k *u=bèet-ik* *le=túus+bèel=o'*
TERM A.3=do-INC(B.3.S) DEF=send+way:REL=D2

'By tomorrow at dusk (the boy) **will have done** the errand.'
(Andrade 1955: 135-136)

- all Yucatec clauses are freely compatible with topic times in the past, present, and future of utterance time
  - with one exception: the perfective aspect marker *t-/h-*

- perfective aspect excludes FTR in matrix clauses

(2.4) #**T-**in=ts'on-ah le=kèeh sáamal=o',
PRV-A1SG=shoot-CMP(B3SG) DEF=deer tomorrow=D2
intended: 'I will shoot the deer tomorrow'

- it does, however, occur w/ FTR in conditional protases

(2.5) Wáah **t-**in=ts'on-ah le=kèeh sáamal=o',
ALT **PRV-**A1SG=shoot-CMP(B3SG) DEF=deer tomorrow=D2

he' in=tàas-ik=e'!
ASS A1SG=come:CAUS-INC(B3SG)=D3

'If I shoot the deer tomorrow, I agree to bring it!'

- the use of the perfective in conditional protases does not convey counterfactuality
  - for this meaning, subjunctive mood is used

(2.6) [I'm not allowed to vote in the upcoming local election, since I'm not a Mexican Citizen.]

Pero	wáah	káa	bèey-**lak**	in=bóotare',
but	ALT	SR	like.this-INCH.**SUBJ**(B3SG)	A1SG=vote

hi'n=bóotar-t-ik	Pablo=e'.
ASS:A1SG=vote-APP-INC(B3SG)	Pablo=D3

'But if I were able to vote, I'd definitely vote (for) Pablo.'

- the (complex) basic facts of future time reference in Yucatec

Table 2.4. *Finite clauses and future topic times in Yucatec*

Syntactic environment / Aspectual reference	Matrix clauses	Conditional protases	Other finite subordinate clauses
Stative (lexical state predicates; non-perfective aspect)	A: Unconstrained		
Eventive = perfective	B: Future t_{top} excluded	C: Unconstrained	D: Future t_{top} requires irrealis marking

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YUCATEC TEMPORAL REMOTENESS MARKERS

- like Luganda TRMs, Yucatec TRMs are anaphoric, not deictic
- like Gĩkũyũ TRMs on Cable's analysis, they directly access $\tau(e)$
- however, unlike the Gĩkũyũ TRMs, they relate $\tau(e)$ to t_{TOP}, not to t_U or some other evaluation time t_R
  - in the following examples, t_{TOP} is introduced by topicalized subordinate clauses marked in blue

YUCATEC TEMPORAL REMOTENESS MARKERS (CONT.)

- Example 1: remote past marker *úuch* with a future t_{TOP}

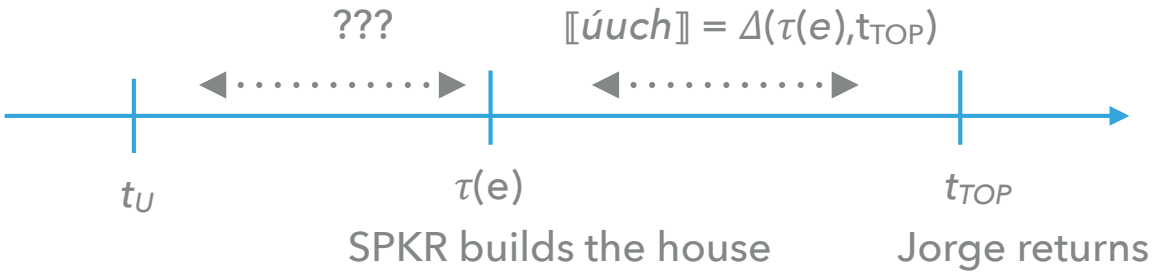
(3.1) [Context: Jorge, visiting the speaker's village, is about to return to the United States. It is known that he plans to visit again the following year. Jorge knows that the speaker plans to build a house and has asked when it will be completed. Response:]

Chéen ka'=sùunak-ech t-u=láak' ha'b=e',
SR:IRR REP=turn\ATP:SUBJ-B2SG PREP-A3=other year=TOP

úuch in=mèet-∅ le=nah=o'
REMP A1SG=do:APP-**SUBJ**(B3SG) DEF=house=D2

'When you return next year, **it will be long ago** that I built the house.'

Figure 3.1. *Diagramming the analysis of (3.1)*



YUCATEC TEMPORAL REMOTENESS MARKERS (CONT.)

- Example 2: remote future marker *bíin* with a past t_{TOP}

(3.2) [Context: Jorge has just returned to Pedro's village. It has been two years since his last visit. He learns that Pedro has built a house and asks whether it's new. Response:]

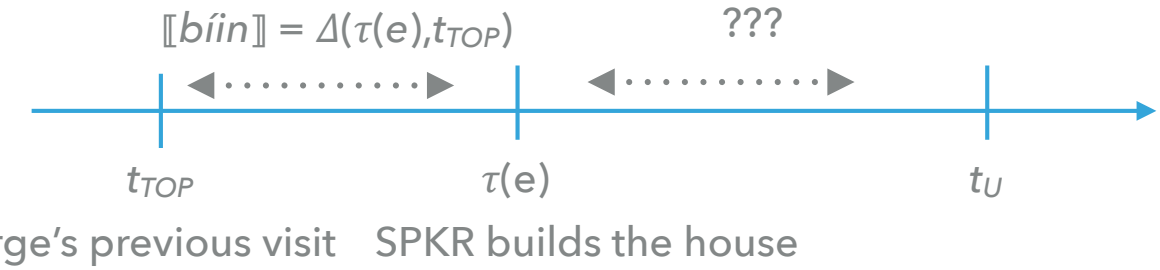
Káa=h-tàal-ech way h-ts'o'k ka'=p'éel ha'b=e',
CON=PRV-come-B2SG here PRV-end(B3SG) two=CL.IN year=D3

bíin in=mèet-∅ le=nah=o'
REMF A1SG=do:APP-**SUBJ**(B3SG) DEF=house=D2

'When you came here two years ago, **it was going to be a long time** before I would build the house.'

(4/4 speakers consulted: it was only a vague idea at the time)

Figure 3.2. *Diagramming the analysis of (3.2)*



YUCATEC TEMPORAL REMOTENESS MARKERS (CONT.)

- Example 3: immediate past marker *táantik …=e'* with a future t_{TOP}

(3.3) [Context: Jorge, visiting the speaker's village, is about to return to the United States. It is known that he plans to visit again the following year. Jorge knows that the speaker plans to build a house and has asked when it will be completed. Response:]

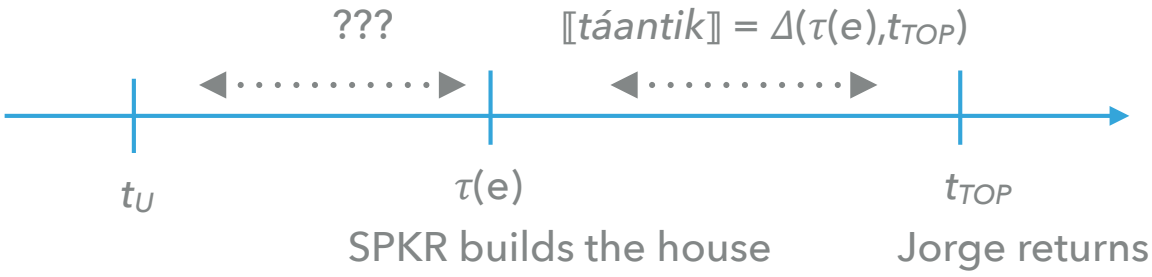
Chéen ka'=sùunak-ech t-u=láak' ha'b=e',
SR:IRR REP=turn\ATP:SUBJ-B2SG PREP-A3=other year=TOP

táantik in=mèet**-ik** le=nah=o'
IMMP A1SG=do:APP**-INC**(B3SG) DEF=house=D2

'When you return next year, **I will have just build** the house.'

(4/4 speakers consulted: SPKR plans to finish the house b4 July, the month Jorge usually visits)

Figure 3.3. *Diagramming the analysis of (3.3)*



YUCATEC TEMPORAL REMOTENESS MARKERS (CONT.)

- constraining $\tau(e)$ vis-à-vis t_{TOP}, Yucatec TRMs behave like viewpoint aspect markers, not like tenses
  - more specifically, since they involve $\tau(e) < t_{TOP}$ or $t_{TOP} < \tau(e)$, they behave like non-perfective aspects
- support for this analysis
  - Yucatec TRMs are extremely rare in narratives and when they do occur, it is (exclusively?) in backgrounded clauses
  - Yucatec TRMs can be paraphrases using a deontic modal for future-oriented TRMs and perfect ('terminative') for past-oriented TRMs
  - Yucatec TRMs are incompatible with $\tau(e)$ adverbials and cannot be used in questions about $\tau(e)$, just like the English (present) perfect
    - and the Yucatec 'terminative', i.e., perfect (Bohnemeyer 2009)

YUCATEC TEMPORAL REMOTENESS MARKERS (CONT.)

- Table 3.1 shows AMs used by four speakers in paraphrases of TRM sentences
  - the main point here is what the speakers did *not* use to paraphrase sentences with past-oriented TRMs
    - they did *not* use the perfective AM marker

Table 3.1. *AM markers used by four speakers in paraphrases of sentences with TRMs*

TRM	Other AM markers used in elicited paraphrases
Remote past *úuch*	Terminative *ts'o'k* (result-state aspect)
Recent past *sáam*	Terminative *ts'o'k* (result-state aspect)
Immediate past *táantik ...=e'*	Lexical stative predicates
Proximate future *ta'itak*	Obligative *yan* (social obligations, plans, scheduled events)
Remote future *bíin*	Obligative *yan* (social obligations, plans, scheduled events)

YUCATEC TEMPORAL REMOTENESS MARKERS (CONT.)

- infrequent use in narratives,
  usually (exclusively?) in backgrounded clause

(3.4) [Context: The Prodigal Son has returned. His father is throwing him a party.]

Hach **ma'** **sáam** hóok'-ok u=mèet-a'l le=fiyèesta bèey=a'
really **NEG RECP** exit-SUBJ A3=do-PASS:INC DEF=party thus-D1

káa=h-k'uch le=suku'n-tsíil=e'
CON=PRV-arrive(B3SG) DEF=elder.brother-ABSOL=D3

u=nohoch suku'n
A3=big older.brother

'It hadn't been long since since the party got underway,
[when/and then] the elder brother arrived, his oldest brother.'

- incompatibility with event time specifications

(3.5) [Context: It has been established that B mailed a certain letter a while ago. A wishes to know when exactly this happened:]

A: #Ba'x k'íin **sáam/úuch** a=tùucht-eh?
what sun(B3SG) **RECP/REMP** A2=send-SUBJ(B3SG)
[Intended: 'When (lit. what day) did you send it?']
lit. 'At what day was it recent/long ago that you sent it?'

B: #Lúunes-ak **sáam/úuch** in=tùucht-eh
Monday-CAL **RECP/REMP** A1SG=send-SUBJ(B3SG)
[Intended: 'Last Monday (was when) I sent it.']
lit. 'It was last Monday that it was recent/long ago that I sent it'

YUCATEC TEMPORAL REMOTENESS MARKERS (CONT.)

- the Yucatec TRMs are stative predicates that characterize the distance between two times as great or small
  - relative to contextual standards
  - as predicates, they can be negated (cf. (3.4), (3.10)-(3.12))
- they do not actually encode an ordering relation $R(\tau(e), t_{TOP})$
  - i.e., they do not distinguish among $\tau(e) < t_{TOP}$, $t_{TOP} < \tau(e)$, and $\tau(e) \propto t_{TOP}$
    - this distinction is instead contributed by the construction that combines the TRM with the verbal core
      - including the status suffix
- the use of the TRMs is entirely optional
  - speakers use TRMs exclusively when distance is at issue and the temporal relation vis-à-vis topic time is presupposed

YUCATEC TEMPORAL REMOTENESS MARKERS (CONT.)

- symmetrical lexical use of recent past morpheme *sáam*
  - temporal orientation is contributed by status marking on the complement

(3.6) Ts'-u=**sáantal** in=kan-**eh**.
TERM-A3=**earlier.today**:INCH.INC A1SG=learn-**SUBJ**(B3SG)
'It's been a while since I learned it',
'I learned it some time ago.' ($\tau(e) < t_{TOP}$)

(3.7) Yan u=**sáantal**
OBL A3=**earlier.today**:INCH.INC

kéen **xi'k**-en Mérida.
SR.IRR go.**SUBJ**-B.1.SG Mérida.

'It will be some time before I go to Mérida.' ($t_{TOP} < \tau(e)$)

- symmetrical lexical use of remote past morpheme *úuch*
  - temporal orientation is contributed by status marking on the complement

(3.8) Ts'-uy=**úuch**-tal in=kan**-eh**.
TERM-A3=**long.ago**-PROC.INC A1SG=learn**-SUBJ**(B3SG)
'It's been quite a while since I learned it',
'I learned it a long time ago.' ($\tau(e) < t_{TOP}$)

(3.9) Yan uy=**úuch**-tal
OBL A3=**long.ago**-PROC.INC

chéen **xi'k**-en Mérida.
SR.IRR **go**.SUBJ-B1SG Mérida.

'It will take a long time until I go to Mérida.' ($t_{TOP} < \tau(e)$)

YUCATEC TEMPORAL REMOTENESS MARKERS (CONT.)

- Yucatec TRMs treat only $\Delta(\tau(e),t_{TOP})$ as at-issue content
  - the ordering relation $\tau(e) < t_{TOP}$ or $t_{TOP} < \tau(e)$ is projective
  - Example 1: recent past *sáam*

(3.10) Ma' **sáam** sùunak le=kòombio=o', ...
NEG **RECP** turn\ATP:SUBJ(B3SG) DEF=van=D2
'It was not **a while ago** that the bus returned, ...'

a. ... inw=a'l-ik-e' h-ts'o'k mèedya òora.
A1SG=say-INC(B.3.SG)=TOP PRV-end(B3SG) half hour
'... I think it was half an hour ago.'

b. #... tuméen ma' sùunak=i' .
CAUSE NEG turn\ATP:SUBJ(B3SG)=D4
'... because (in fact) it has not returned (yet).'

YUCATEC TEMPORAL REMOTENESS MARKERS (CONT.)

- Yucatec TRMs treat only $\Delta(\tau(e),t_{TOP})$ as at-issue content
  - the ordering relation $\tau(e) < t_{TOP}$ or $t_{TOP} < \tau(e)$ is projective
  - Example 2: remote past *úuch*

(3.11) Ma' **úuch** inw=il hun-túul chak+mo'l te=k'áax-o', ...
NEG **REMP** A1SG=see(B3SG) one-CL.AN red+claw PREP:DEF=jungle=D2
'Not long ago I saw a jaguar in the jungle, ...'

a. ... inw=a'l-ik=e' h-ts'o'k chéen hun-p'éel semàana
A1SG=say-INC(B3SG)=TOP PRV-end(B3SG) only one-CL.IN week
'... I think it was only a week ago.'

b. #... hach t-u háah-il-e' tak be'òora-a'
really PRV-A.3 truth-REL-TOP even now-D1

mix hun-téen inw=il=i' .
NEG.EMPH one-times A1SG=see(B3SG)-=D4

'... as a matter of fact, until now, I have not seen one once.'

YUCATEC TEMPORAL REMOTENESS MARKERS (CONT.)

- Yucatec TRMs treat only $\Delta(\tau(e),t_{TOP})$ as at-issue content
  - the ordering relation $\tau(e) < t_{TOP}$ or $t_{TOP} < \tau(e)$ is projective
  - Example 3: proximate future *ta'itak*

(3.12) Ma' **ta'itak** in=bin Mérida=i', ...
NEG **PROX** A1SG=go Mérida=D4
'It won't be **soon** that I go to Mérida, ...'

a. ... inw=a'l-ik=e' yan u=xáan-tal .
A1SG=say-INC(B3SG)=TOP OBL A3=last-INCH.INC
'... I think it will take some time (before I go) .'

b. #... mix+bik'in in=bin.
NEG.EMPH+? A1SG=go
'... I'll never go (there).'

- hypothesis regarding the trigger of the projective ordering relation $\tau(e) < t_{TOP}$ or $t_{TOP} < \tau(e)$
  - REMP, RECP: triggered by subjunctive status
    - indicating event realization outside the topic situation
  - IMMP, PROX: triggered lexically by the TRM
    - these trigger projective contents
      similar to those of aspectual verbs

(3.13) *Has Sally stopped eating sushi for breakfast?*

  - REMF: triggered by the combination of lexical semantics and subjunctive status

OUTLINE

- The changing face of temporal remoteness markers
- Yucatec as a tenseless language
- Yucatec temporal remoteness markers
- Analysis
- Summary

ANALYSIS

- combine Klecha & Bochnak-style scalar distance semantics
  - with Cable-style partial identity functions over events that generate the observed ordering presuppositions

Table 4.1. *The semantics of the Yucatec TRMs: a first stab*

TRM category	Morpheme	Ordering/realization presupposition	Scalar distance semantics
Remote past	$[\![\textit{úuch}]\!]^c =$	$[\lambda e : \tau(e) <_t t_{TOP}(c) \,.\, e]$;	$\lambda e[\text{far}(\tau(e), t_{TOP}(c)) > \mathbf{s}(\text{far})]$
Recent past	$[\![\textit{sáam}]\!]^c =$	$[\lambda e : \tau(e) <_t t_{TOP}(c) \,.\, e]$;	$\lambda e[\text{close}(\tau(e), t_{TOP}(c)) < \mathbf{s}(\text{close})]$
Immediate past	$[\![\textit{táantik ...=e'}]\!]^c =$	$[\lambda e : \tau(e) <_t t_{TOP}(c) \,.\, e]$;	$\lambda e[\text{close}(\tau(e), t_{TOP}(c)) > \mathbf{s}(\text{close})]$
Proximate future	$[\![\textit{ta'itak}]\!]^c =$	$[\lambda e : t_{TOP}(c) <_t \tau(e) \,.\, e]$;	$\lambda e[\text{close}(\tau(e), t_{TOP}(c)) > \mathbf{s}(\text{close})]$
Remote future	$[\![\textit{bíin}]\!]^c =$	$[\lambda e : t_{TOP}(c) <_t \tau(e) \,.\, e]$;	$\lambda e[\text{far}(\tau(e), t_{TOP}(c)) > \mathbf{s}(\text{far})]$

ANALYSIS (CONT.)

TRM category	Morpheme	Ordering/realization presupposition	Scalar distance semantics
Remote past	$[\![\textit{úuch}]\!]^c =$	$[\lambda e : \tau(e) <_t t_{TOP}(c) \,.\, e]$;	$\lambda e[\text{far}(\tau(e), t_{TOP}(c)) > \mathbf{s}(\text{far})]$
Recent past	$[\![\textit{sáam}]\!]^c =$	$[\lambda e : \tau(e) <_t t_{TOP}(c) \,.\, e]$;	$\lambda e[\text{close}(\tau(e), t_{TOP}(c)) < \mathbf{s}(\text{close})]$
Immediate past	$[\![\textit{táantik ...=e'}]\!]^c =$	$[\lambda e : \tau(e) <_t t_{TOP}(c) \,.\, e]$;	$\lambda e[\text{close}(\tau(e), t_{TOP}(c)) > \mathbf{s}(\text{close})]$
Proximate future	$[\![\textit{ta'itak}]\!]^c =$	$[\lambda e : t_{TOP}(c) <_t \tau(e) \,.\, e]$;	$\lambda e[\text{close}(\tau(e), t_{TOP}(c)) > \mathbf{s}(\text{close})]$
Remote future	$[\![\textit{bíin}]\!]^c =$	$[\lambda e : t_{TOP}(c) <_t \tau(e) \,.\, e]$;	$\lambda e[\text{far}(\tau(e), t_{TOP}(c)) > \mathbf{s}(\text{far})]$

- **close**, **far** - measure functions
- **s** – maps measure functions to the threshold degree for the relevant comparison class (Kennedy 2007)
- the analysis of the recent past marker *sáam* is motivated by its behavior under negation
  - cf. (3.4), (3.10)

ANALYSIS (CONT.)

- the difference to Cable's analysis
  - Gĩkũyũ TRMs combine compositionally with future and perfect aspect markers
    - hence, Cable argues that the topic time of Gĩkũyũ clauses is constrained by a separate tense system
      - and the TRMs relate $\tau(e)$ to some t_R rather than to t_{TOP}
  - in contrast, Yucatec TRMs are in strict complementary distribution with respect to all other AM markers
    - there is thus no obvious need for postulating intervening evaluation times

ANALYSIS (CONT.)

- the aspect-like behavior of Yucatec TRMs is in line with a profoundly tenseless analysis of the language
- but what about the distinction between future-oriented and past-oriented TRMs?
  - shouldn't one predict symmetrical systems in truly tenseless languages?
- however, viewpoint aspect systems likewise distinguish between future and past orientation
  - perfect: $\tau(e) < t_{TOP}$
  - prospective: $t_{TOP} < \tau(e)$

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SUMMARY

- yet another kind of non-tense-like TRMs
  - Yucatec TRMs behave aspect-like
    - constraining event times vis-à-vis topic times
- the at-issue content of Yucatec TRMs
  is a scalar distance semantics
  - while the ordering relation $\tau(e) < t_{TOP}$ or $t_{TOP} < \tau(e)$
    is a projective content
- due to their non-tense-like semantics, Yucatec-style TRMs
  are compatible with profound tenselessness

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