

A slice of modality and temporality in Javanese

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ICAL 13 ~ July 18-20, 2015

Introduction

Condoravdi (2002) observes the following ambiguity in modal-temporal interaction in English *He might have won the game*.

(1) Q: Why is Pospisil so happy?

A: He might have won the game.

- Contradiction to assert that he didn't win.
 - 'He might have already won the game...#but he didn't.'

(2) Q: Why is Pospisil so sad?

A: He might have won the game.

- Possible to assert that he didn't win.
 - 'At one point he might have still won the game ...but he didn't.'

Introduction

Condoravdi (2002): an ambiguity with the type of modality

(1) Q: Why is Pospisil so happy?

A: He might have won the game.

→ **Epistemic modality**: compatible with the speaker's knowledge

(2) Q: Why is Pospisil so sad?

A: He might have won the game.

→ **Circumstantial modality**: compatible with the facts of the world

Introduction

Condoravdi (2002): difference in temporality

Temporal Perspective (TP): time at which the modal base is calculated

Temporal Orientation (TO): relation between TP and the time of the event

(1) Q: Why is Pospisil so happy?

A: He might have won the game.

Epistemic
Present TP
Past TO



Introduction

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Temporal Orientation (TO): relation between TP and the time of the event

(1) Q: Why is Pospisil so happy?

A: He might have won the game.

Epistemic
Present TP
Past TO



(2) Q: Why is Pospisil so sad?

A: He might have won the game.

Circumstantial
Past TP
Future TO



Introduction

- In *He might have won the game*, the **epistemic** modal claim has a **present** temporal perspective; the **circumstantial** modal claim has a **past** temporal perspective.
 - Does the modality type restrict the temporal perspective?
 - We will investigate this question wrt epistemic modality.

Introduction

- Many have claimed that **epistemic modals** do not allow **past temporal perspectives** in English
(e.g., Groenendijk and Stokhof 1975; Cinque 1999; Drubig 2001; Condoravdi 2002; Stowell 2004; Hacquard 2006; Borgonovo and Cummins 2007; Demirdache and Uribe-Etxebarria 2008; Laca 2008).
- For instance, Cinque (1999:79) argues that since epistemic modals are syntactically above T(past) and T(future), they are outside the scope of absolute tense.

Introduction

- However, others argue that **past temporal perspectives exist** with **epistemic** modals in various languages, including English (Eide 2003; Boogaart 2007; Condoravdi & Kaufmann 2007; Homer 2010; Martin 2011; von Fintel and Gillies 2008; Matthewson & Rullmann 2012; Rullmann & Matthewson 2012)

Context: *Sophie is looking for some ice cream and checks the freezer. There is none in there. Asked why she opened the freezer, she replies:*

There might have been ice cream in the freezer.

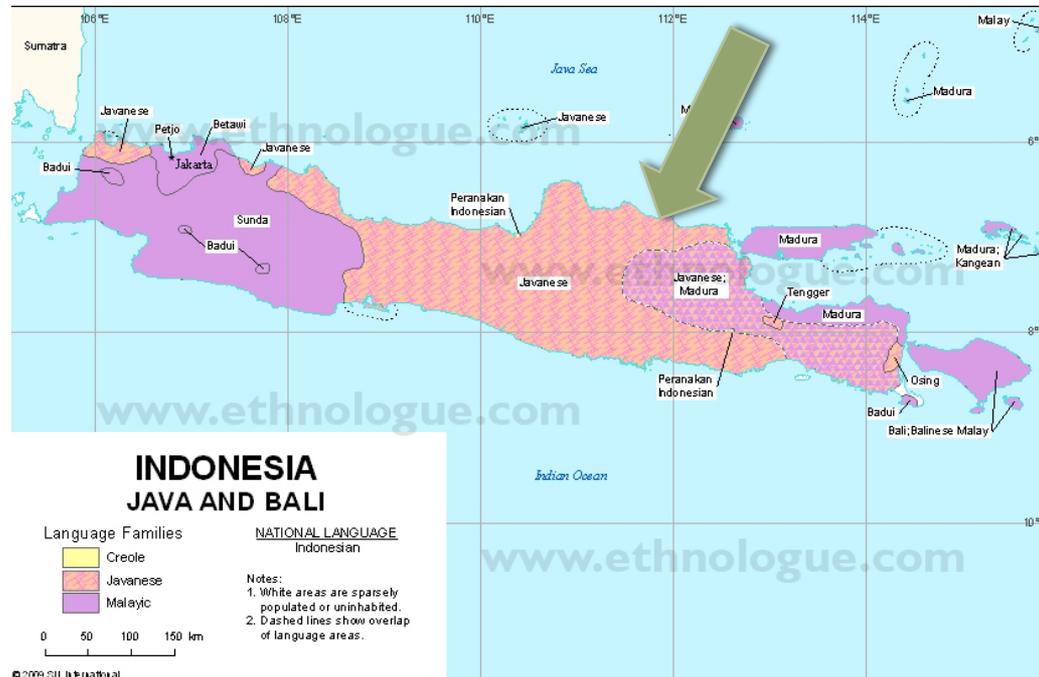
(von Fintel and Gillies 2008:87)

Goals of this talk

- Show that a past temporal perspective exists with the epistemic possibility modal (*paleng*) in Javanese
 - providing additional, new data to previous research from an unrelated language
- Establish the basic tense properties of Javanese
 - Javanese is a tenseless language

Javanese (Western Malayo-Polynesian)

- Spoken by over 90 million people in Indonesia;
 - mainly in Central and East Java
- Well known for speech levels: *ngoko*, *madya*, *krama* (low, mid, high)
- The data presented here are based on fieldwork on a dialect of East Javanese spoken in **Paciran, East Java**; mainly in *ngoko*.



Lewis, M. Paul (ed.), 2009. *Ethnologue: Languages of the World*, Sixteenth edition. Dallas, Tex.: SIL International. (http://www.ethnologue.org/show_map.asp?name=IDJ&seq=20) (Accessed July 30, 2011)

Fieldwork Methodology

Semantic fieldwork:

- **felicity judgment tasks:** speakers judge the felicity of a sentence given a context
- **Storyboards:** Speakers tell a story based on a set of pictorial slides in their own language after the fieldworker has told the story in the contact language (www.totemfieldstoryboards.org)

Proposal

- Proposal (Chen et al. to appear)
 - **temporal perspective** is provided by tense (or its functional equivalent)
 - **temporal orientation** is provided by aspect (viewpoint or lexical)
- Depending on how tense is encoded in Javanese, we may or may not see an overt distinction between past and present temporal perspective with the epistemic modal *paleng* ‘EPIS.POS’.
- In order to properly address this interaction between modality and temporality, I first establish how tense is encoded in Javanese.

Tense in Javanese?

- While it is known that verbs are not marked for tense or aspect (Horne 1961; Robson 2002), whether Javanese has a grammaticalized tense system is not addressed.
- I argue that **Javanese clauses are tenseless**
 - only context and temporal expressions serve to restrict the temporal reference (in matrix clauses)

Evidence that Javanese clauses are tenseless

Argument 1:

- Both stative and eventive predicates are compatible with past, present, or future reference times

Evidence that Javanese clauses are tenseless

- For instance, the **eventive predicate** *marut* ‘to grate’ is compatible with past, present, and future contexts.

(3)

A:	Wingi	/ saiki / sesok	ewoh opo?	
	yesterday / now / tomorrow	busy	what	
	‘Yesterday what [were you] doing?’			PAST
	‘Now what [are you] doing?’			PRESENT
	‘Tomorrow what [will you be] doing?’			FUTURE
B:	Aku	marut	kelopo	
	1SG	AV.grate	coconut	
	‘I shaved coconut.’ or ‘I was shaving coconut.’			PAST
	‘I am shaving coconut.’			PRESENT
	‘I will be shaving coconut.’			FUTURE

Evidence that Javanese clauses are tenseless

- For instance, the **stative predicate** *loro* ‘sick’ is compatible with past, present, and future contexts.

(4) A: Kenek opo anak-e sampean gak sekolah wingi / sa'iki / sesok?
why Q child-POSS 2SG NEG school yesterday / now / tomorrow
‘Why wasn’t your child at school yesterday?’ PAST
‘Why isn’t your child at school now?’ PRESENT
‘Why won’t your child be at school tomorrow?’ FUTURE

B: Anak-ku loro.
child-my sick
‘My child was sick’ PAST
‘My child is sick’ PRESENT
‘My child will be sick’ FUTURE

Out-of-the-blue contexts

- In out-of-the-blue contexts or in translations to English, only present tense is felicitous.
- This data suggests that when the context does not provide a temporal reference time, the default is to fix the reference time to the utterance time.

Out-of-the-blue sentences:

- (5)a. aku marut kelopo
 1SG AV.grate coconut
 ‘I am shaving coconut (now)’ / #‘I shaved coconut’/ #‘I will shave coconut’
- b. Pak Bambang loro
 Mr. Bambang sick
 ‘Mr. Bambang is sick.’ / # ‘Mr. Bambang was sick’ / # ‘Mr. Bambang will be sick’

Evidence that Javanese clauses are tenseless

Argument 2:

- There is no grammaticalized past or future tense in Javanese

Evidence that Javanese clauses are tenseless

- **Past tense marker?**
- Javanese *wis* ruled out contra Favre (1866); Robson & Wibisono (2002)
 - Evidence against a past tense analysis:
wis does not have a past reference time with stative predicates

(6)

Bu Siti **wes** lemu

Mrs. Siti already fat

‘Mrs. Siti is (already) fat.’

‘Mrs. Siti was fat.’

- ***wis* can only be analyzed as ‘already’**
(for additional arguments see Vander Klok & Matthewson 2015)

Evidence that Javanese clauses are tenseless

- **Future tense marker?**
- Paciran Javanese *ape* ruled out
 - Evidence against a future tense analysis:
 - *ape* has ‘past future’ interpretation when reference time is past
 - this reading is not available with a future tense marker

(7) **Context:** *Dino iki april 20. Today is April 20.*

Sak wulan kepungkor kepala sekolah ngomong *ape* ono prei tanggal 1 april.
one month ago head school say *PROSP EXIS* holiday date 1 April

Tapi gak sido

but NEG go.ahead

‘One month ago, the school headmaster said that there would be a holiday on April 1st.

But it never happened.’

- ***ape* is best analyzed as a prospective aspect marker**

Javanese clauses are tenseless

Instead of tense, Javanese has a number of alternative ways to indicate temporal reference:

- **aspectual markers:**

- past reference time: *tau* ‘experiential perfective’
- present reference time: *la(gek)* ‘progressive aspect’
- future reference time: *ape* ‘prospective aspect’

- **temporal expressions:**

- *wingi* ‘yesterday, in the past’; *taun kepungkor* ‘last year’; *(m)biyen* ‘ago’
- *sa’iki* ‘now’
- *sesok* ‘tomorrow, in the future’; *taun ngarep* ‘next year’
- etc.

Interim summary

→ Javanese clauses are tenseless

→ tense is anaphorically interpreted (cf. Tonhauser 2011)

- **Argument 1:** Both stative and eventive predicates are compatible with past, present, or future reference times
- **Argument 2:** There are no grammaticalized tense markers

Prediction

- Since Javanese does not distinguish past from present tense, we expect *paleng* to show systematic ambiguity with respect to its temporal perspective.
- In other words, we expect that *paleng* will be compatible in contexts with a past or present temporal perspective (without overt temporal expressions).
 - This is borne out in Javanese

Paleng is compatible with...

- present temporal perspective
- past temporal orientation

(8) **Context:** *You were watching the football game with Surabaya Muda but you fell asleep when the game was tied 2:2. They might have won (but you're not sure).*

Surabaya Muda *paleng* sing menang (tapi aku durung weroh)

Surabaya Muda *EPIS.POS* REL win (but 1SG not.yet know)

‘Surabaya Muda might have won (but I don’t know yet).’



Paleng is compatible with...

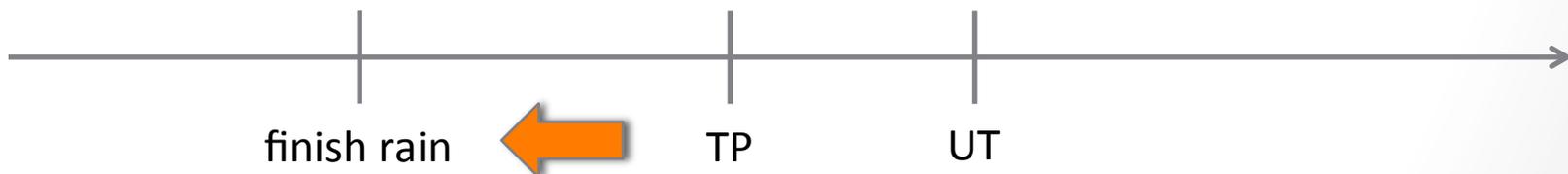
- past temporal perspective
- past temporal orientation

(9) **Context:** *When you looked outside earlier this morning, the ground was wet. But later, you found out that Bunga was playing with water. You thought before that:*

Paleng mari udan

EPIS.POS finish rain

‘It might have rained.’



Paleng is compatible with...

- past temporal perspective
- present temporal orientation

(10) **Context:** *Ayu bought food to feed Joni's pet, but she didn't know what kind of pet he had, so she bought all the wrong kinds of food. Later she finds out Joni's pet is a snake. Joni asks 'Why did you buy some fish?'*

Ayu replies:

Paleng Fluffy iku kucing

EPIS.POS Fluffy DEM cat

'Fluffy might have been a cat.' (TFS 2012, 'Feeding Fluffy')



Paleng is compatible with...

- past temporal perspective
- future temporal orientation

(11) **Context:** *This morning when you looked outside, it was cloudy, so you took an umbrella with you when you went to work. Later, you explain to your father why you took an umbrella (when you get home after ‘Ashar’, the third call to prayer).*

Paleng *(ape) udan
EPIS.POS *(PROSP) rain
‘It might have rained.’



Summary

- The epistemic possibility modal *paleng* is compatible with present and past temporal perspective,
 - which follows from the fact that Javanese is tenseless (bare clauses are compatible with present and past reference time)
- I have established that Javanese is tenseless
 - tense is anaphorically interpreted (cf. Tonhauser 2011 for Paraguayan Guaraní)
- Past temporal perspectives are available in Javanese,
 - adding an additional, unrelated language to current research

Matur suwun ingkang kathah!
Thank you very much!

Acknowledgements

Thank you...

- to my consultants in Paciran for sharing their language and culture with me: Dhifa Ariffudin, Fina Aksanah, Titis Subekti, Bahrul Ulum, Nashrulloh Khoyrun Nashr
- for funding: SSHRC (Social Sciences and Humanities Research Council of Canada) #756-2012-0648
- to colleagues at UBC (Sihwei Chen, Vera Hohaus, Rebecca Laturus, Meagan Louie, Lisa Matthewson, Hotze Rullmann, Ori Simchen, Claire K. Turner). This presentation has developed from Chen et al. *to appear*.
- to Sihweh Chen for presenting on behalf of Jozina Vander Klok; and to Dong-yi Lin and Michael Tanangkingsing for organizing the modality panel

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