

# West of today: imagining time in absolute space

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## 1. Introduction

What is time?

- fundamental quantity; dimension of the universe
- structure imposed by humans to sequence events and their internal duration
- how does this relate to how normal people talk and think about time?
- *time* is the most frequent English noun (Concise OED 11<sup>th</sup> ed.; Soanes & Stevenson 2004)

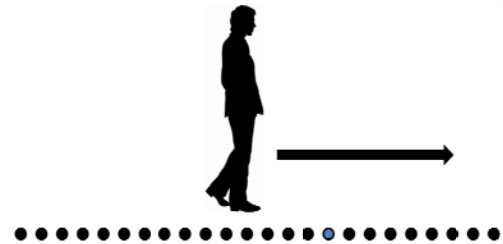
## 2. Previous research on space/time mapping

“all languages so far examined take their vocabulary of time primarily from that of space”  
(Núñez and Sweetser 2006: 401)

### 2.1 TIME PASSING IS MOTION OVER A LANDSCAPE

Lakoff (1993)

- *We're coming up to Thanksgiving*
- *Thanksgiving is four days away*



### 2.2 TIME PASSING IS MOTION OF AN OBJECT

- *Thanksgiving is fast approaching*
- *Thanksgiving is four days away*



## 2.3 (Just a taste of) Aymara (Núñez and Sweetser 2006)

### 2.3.1 *Space and language*

	<b>spatial sense</b>	<b>temporal sense</b>
<i>nayra</i>	‘front, (eye, sight)’	‘past (realis)’
<i>qhipa</i>	‘back’	‘future (irrealis)’

### 2.3.2 *Space and gesture*

(Núñez and Sweetser 2006)

## 3. Space and time in Kuuk Thaayorre

### 3.1 The language of space

#### 3.1.1 *Deictic adverbs*

- (1) *i* ‘here’  
*i’irra* ‘to here’  
*ii* ‘there’  
*iirra* ‘to there’  
*yuuw* ‘far away’  
*yuurra* ‘to far away’  
*yarra* ‘away’  
*pal* ‘towards’  
*nhaka* ‘in this place’  
*angunp* ‘at that place’  
*nheman* ‘from that place’

#### 3.1.2 *Directional adverbs*

- (2) *nhul*      *ii-rr-iparr-uw-op*      *yat*  
3sg(NOM) there-towards-south-west-river go:P.PFV  
‘he went off southwestwards towards the river’

Slot 1	Slot 2	Slot 3	Slot 4	Slot 5
distance / motion	orientation	directional root	(secondary direction)	(river reference)
<i>ii-</i> ‘there’ <i>yuu-</i> ‘far’ <i>pal-</i> ‘near’ <i>ya-</i> ‘going’, ‘away’	<i>th-</i> / <i>k-</i> ‘to’ <i>-rr</i> ‘towards’ <i>-l</i> ‘from’ <i>-ø</i> ‘at’	<i>-(u)ngkarr</i> ‘N’ <i>-(i)parr</i> ‘S’ <i>-kaw</i> ‘E’ <i>-kuw</i> ‘W’ <i>-ipan</i> ‘Sbank’ <i>-kan<sub>1</sub></i> ‘Nbank’ <i>-kop</i> ‘below’ <i>-kan<sub>2</sub></i> ‘above’ <i>-korr<sub>1</sub></i> ‘behind/ beyond’ <i>-kan<sub>3</sub></i> ‘inside’ <i>-koorr<sub>2</sub></i> ‘outside’	<i>-uw</i> ‘W’ <i>-aw</i> ‘E’	<i>-op</i> ‘river’

Table 2. Morphological template for the Thaayorre directionals.

### 3.1.3 Topological relation markers (TRMs)

An intentionally vague label (Levinson and Meira 2003) for a semantically and functionally united set of Thaayorre lexemes that range from the more adverbial to the more postpositional.

- (3) *koorr* ‘behind, outside’  
*kanpa* ‘in front’  
*thorkorr* ‘far away’  
*thaapirri* ‘nearby’  
*palpal* ‘close’  
*(put)pil* ‘beside’  
*kop* ‘below’  
*putpun* ‘on top’  
*mangka* ‘low down by’  
*wernka* ‘in the middle of, between’

## 3.2 The language of time

### 3.2.1 Deictic temporal adverbs

(4)	<i>yoorr</i>	‘today, now, nowadays’
	<i>thil</i>	‘recently’
	<b><i>kanpa</i></b>	‘before, previously’
	<i>kanangkarr</i>	‘long ago’
	<i>melnkelnkarr</i>	‘tomorrow’
	<i>ngernkan</i>	‘yesterday’
	<i>yup</i>	‘soon, in the impending period’
	<i>punguk</i>	‘last time’
	<i>yukurra</i>	‘later on, next time’

### 3.2.2 Non-deictic temporal adverbs

(5)	<i>(raak) miing</i>	‘daytime’
	<i>(raak) ngurnturnurr</i>	‘nighttime’
	<i>raak meerngernk</i>	‘pre-dawn morning’ (lit. ‘TIME eye-morn’)
	<i>raak patpirr</i>	‘sunrise’ (lit. ‘TIME camp-P.PFV’)
	<i>ngernkernkernkan</i>	‘dawn/really early morning’ (lit. ‘morn:RDP:RDP-DAT’)
	<i>ngernkernkan</i>	‘dawn-9.30ish’ (lit. ‘morn:RDP-DAT’)
	<i>raak pung putpun</i>	‘9.30am - 1pm’ (lit. ‘TIME sun on.top’)
	<i>mincgul</i>	‘afternoon’ (lit. ‘true-later’)
	<i>meerngernka reeknhan</i>	‘sunrise/sunset’ (lit. ‘eye-morn give-GO&:NPST’)
	<i>raak wutan</i>	‘midnight’ (lit. ‘TIME sleep-DAT’)
	<i>raak karrtam</i>	‘wet time [broadly defined]’
	<i>raak warreekaman</i>	‘wet season [~December-February]’
	<i>raak wurripan</i>	‘dry-wet [~March-May]’
	<i>raak kaalkurrc</i>	‘cold time’ [~June-August]’ (lit. ‘time ear-cold’)
	<i>raak paapath</i>	‘hot time [~September-November]’ (lit. ‘TIME fire:RDP’)

### 3.2.3 Alternatives to temporal metaphor

- (6) *nhunt ngan yump-nhan Tuesday yukurra?*  
2sg(ERG) what do-GO&:NPST Tuesday next.time  
'what are you doing the following Tuesday?' [MF20/08/02 Conversation]
- (7) *peln kanpa yan, ngay yup yan*  
3pl(NOM) before go:NPST 1sg(NOM) soon go:NPST  
'they'll go first, I'll go after them' [LN13/08/02 Conversation/Elicitation]

### 3.3 Frames of reference

- **Intrinsic:** from the perspective of the ground object ['at the foot of the bed', 'starboard']
- **Absolute:** directions fixed and independent of perspective [NESW]
- **Relative:** from the perspective of an observer [left/right]

(A 3,538-word sample of Kuuk Thaayorre narrative and conversational texts, for example, contained 80 Absolute directional adverbs but only a single term in the Relative frame of reference. Moreover, this single Relative word was in fact used Intrinsically to refer to the speaker's left hand: *punth thakpeey ngay* 'I'm left-handed'.)

## 4. Non-linguistic space/time mapping in Kuuk Thaayorre

Research conducted in collaboration with Lera Boroditsky

- Task 1:
  - arrange 6 sets of cards from earliest to latest
  - rotate 90° (or 180°)
  - arrange another 6 sets of cards
- Task 2:
  - as Task 1, but instead of arranging cards, represent a sequence of 3 times (e.g. noon, morning, evening) as dots in the sand

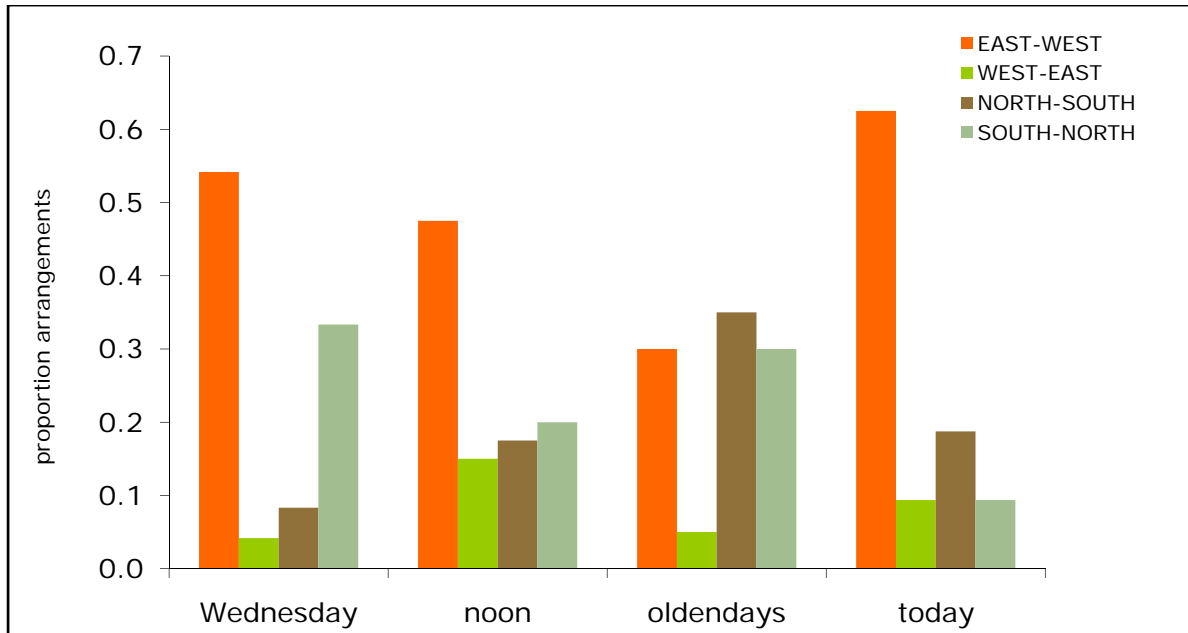


Table 3. Proportion of dot point arrangements; absolute frame of reference

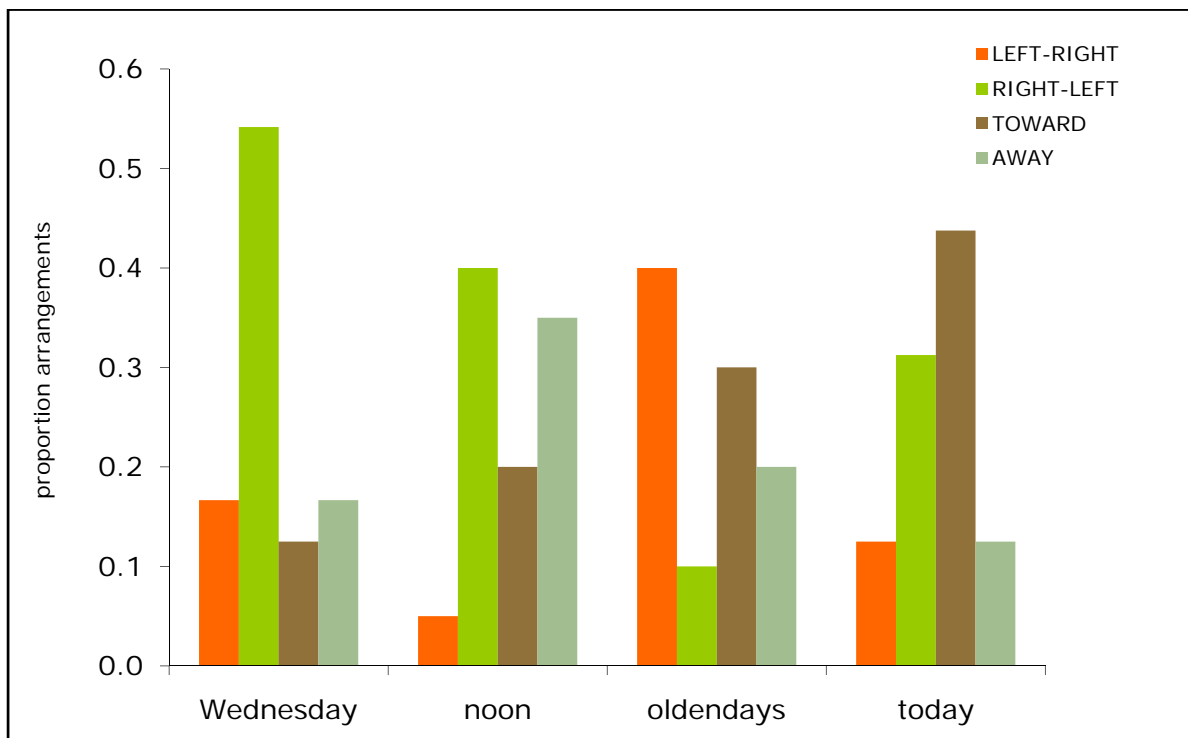
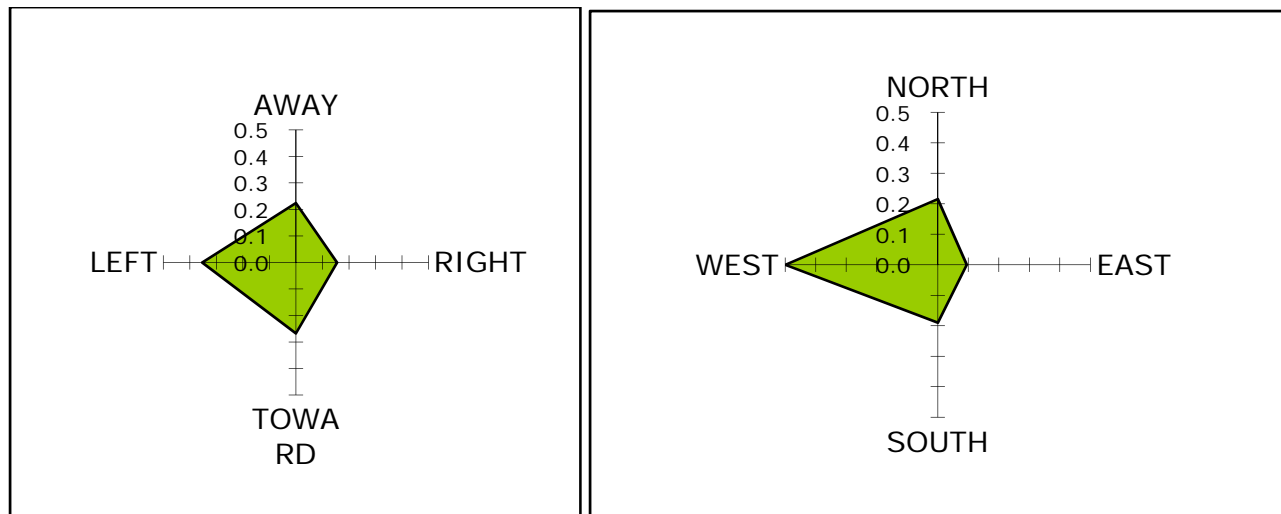


Table 4. Proportion of dot point arrangements; relative frame of reference



Figures 1&2

## References

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