

Finding one's way
(on the grammar of space of
Gawwada,
a language of Southwest Ethiopia)

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Leipzig Spring School on
Linguistic Diversity
March 26 - April 4, 2008

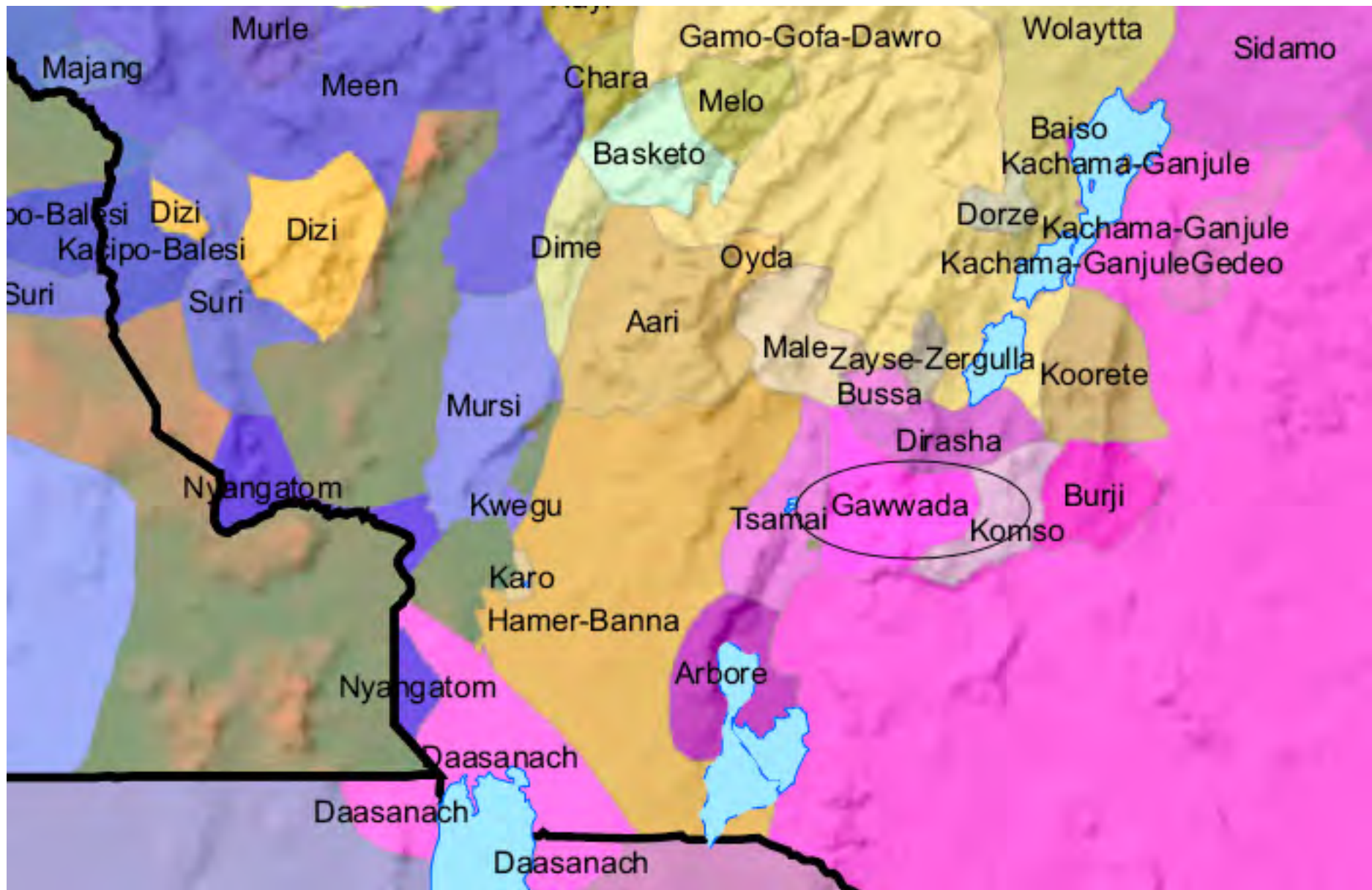
about the language

- An East Cushitic language (Afroasiatic)
- verb-final (SOV), head-initial (Hmod)
- nominative-accusative alignment

about the speakers and their land

- possibly 30,000 speakers
- farming (sorghum, corn) and cattle-keeping
- approx. latitude $5^{\circ} 25'$ N, longitude $37^{\circ} 14'$ E
- approximately 1,600-1,700 meters upon sea level
- ruggy mountainous area

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The problem

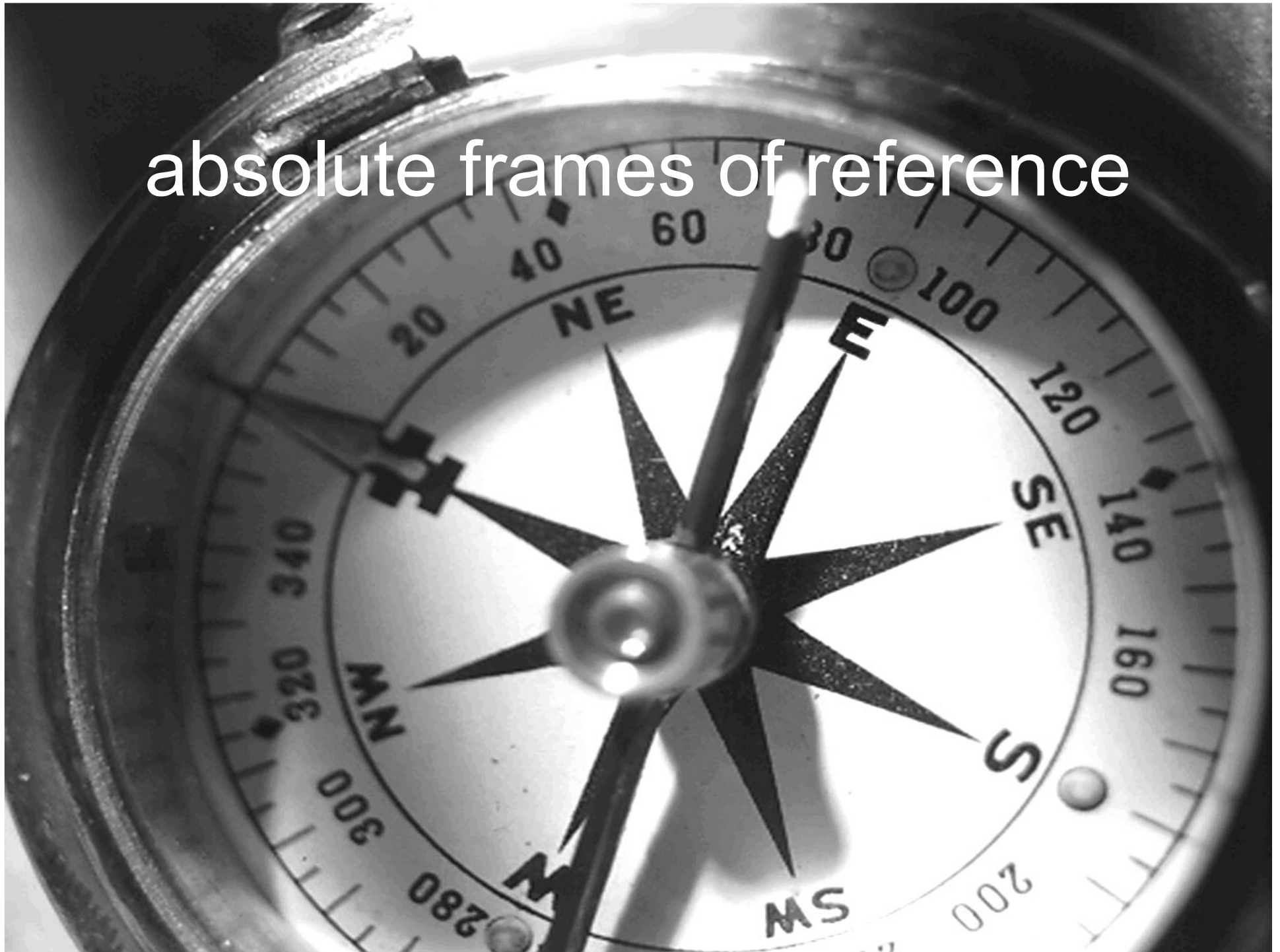
- how do you express positions? How do you say 'he is in front of me', 'the house is to the left of the road', 'go down there!', etc.?

On grammars of space (Levinson 2003)

Three frames of reference:

- *relative*, or viewer-centred (based on the viewer's perspective); e.g., 'he is to the left of the house';
- *intrinsic*, or object-centred (based on the object's intrinsic axes); e.g., 'he is in front of the house';
- *absolute*, or environment-centred (in which objects are represented with respect to some salient feature of the environment); e.g., 'he is to the North of the house' (Levinson 2003: 40).

absolute frames of reference



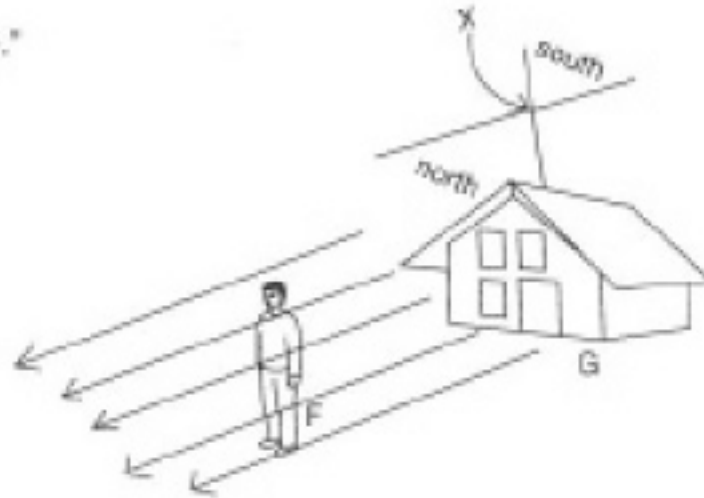
- Environment-centred, rather than viewer-centred: objects are represented with respect to some salient feature of the environment); e.g., ‘he is north of the house’.

The absolute frame of reference applies universally on the vertical plane (where gravity or the usual horizon provide orientation). On the horizontal plane orientation may be provided by the cardinal points (as in many Australian languages) or some salient local features.

Absolute frame of reference on the basis of the landscape

ABSOLUTE

"He's north of the house."



(Levinson 2003: 40)

Relative frames of reference

- Viewer-centred (based on the viewer's perspective); e.g., 'he's to the left of the house'.
- Relative frames of reference are based on a triangulation of three points: a viewpoint V , and a figure and ground distinct from V . It is based on the planes through the human body, yielding "up/down", "back/front", "left/right" oppositions (Levinson 2003: 43).

Relative frames of reference

RELATIVE

"He's to the left of the house."

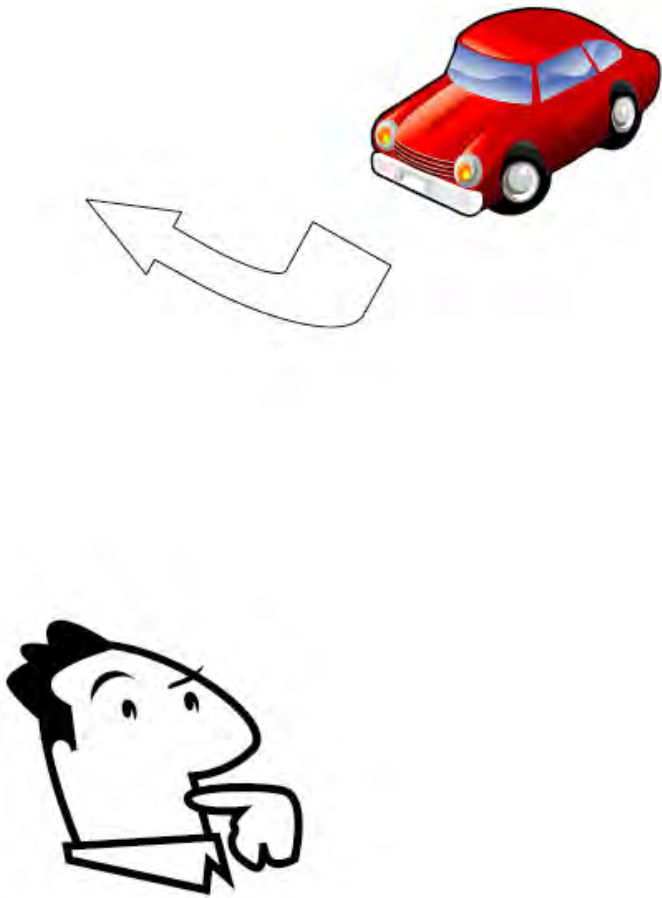


(Levinson 2003: 40)

Intrinsic frames of reference

- Object-centred (based on the object's intrinsic axes); e.g., 'he's in front of the house'.
- The “intrinsic” features of the object are often functionally-determined (e.g., the front of a TV set is the side one watches, while the front of a car is determined by the direction of motion).
- It is often the case that human or animal anatomy provide the prototype.
- No language uses an intrinsic frame alone.

From relative to intrinsic



‘It’s turning right’
(not from my
viewpoint, but
according to
the car’s
“intrinsic” front)

The Gawwada frame of reference/1

- Interesting for the absence of any relative

front

right/left

back

system for describing spatial relations.

The Gawwada frame of reference/2

A sentence such as

**ano hola miskitt-atte*

idp.1sg loc.2sg.m right-loc.f

‘I am to your right’

is utterly ungrammatical, even
incomprehensible.

The Gawwada frame of reference/3

Presence of an absolute

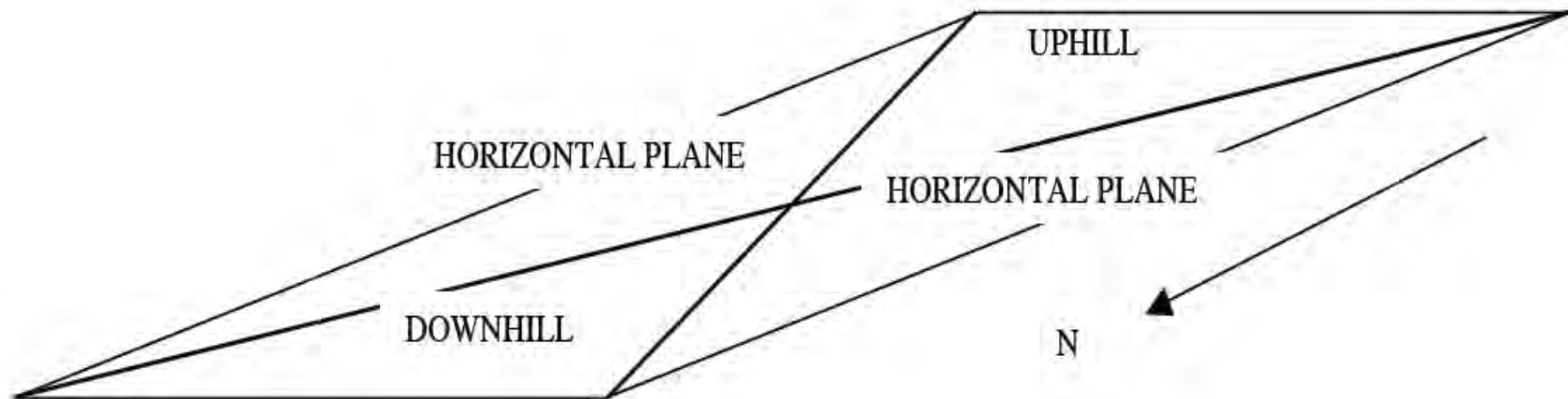
uphill (↑)

horizontal level (↔)

downhill (↓)

system based on the overall general
slope of the land.

The Gawwada frame of reference/4



The Gawwada natural frame of reference for space
(from Brown 2006: 265, with modifications)

the three basic terms...

- ***kut-e*** 'uphill' (↑)
- ***kor-e*** 'on the horizontal level' (↔)
- ***kal-e*** 'downhill' (↓)

... and their derivatives

<i>basic (f)</i>	<i>-loc</i>	<i>-loc-spec</i>	<i>int-loc</i>	<i>int-spec</i>	
kut-e	kut- á	kut- á -y	kut~t- á	kut~t- ú	(↑)
kor-e	kor- á	kor- á -y	kor~r- á	kor~r- ú	(↔)
kal-e	kal- á	kal- á -y	kal~l- á	kal~l- ú	(↓)

The Gawwada frame of reference

In Levinson's (2003: 26) terms, the Gawwada frame of reference is:

- allocentric (environment- or object-centred, rather than viewer-centred)
- (speaker's) orientation-free, or "intrinsic", rather than orientation-bound and "deictic"

Yes, but...

how do you use the system?

- to describe location of things, either with respect to each other or to speakers and protagonists;
- the system is abstracted into a cardinal direction axis;
- “right” (*miskitte*) and “left” (*pihatte*) mean “right arm/hand” and “left arm/hand” only.

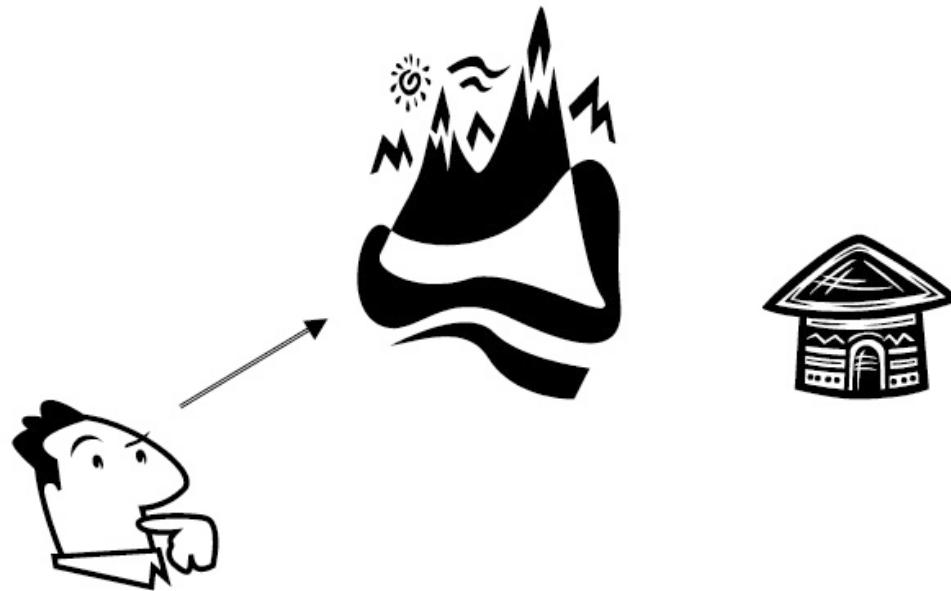
They ‘are not used in a relative frame of reference to project egocentric axes for establishing spatial relations’ ([Brown 2008](#): 156, fn. 4).

Getting to know an absolute system/1: position

minn-e **kup-ito** **kal-á-y**

house-*pl* mountain-*loc.m* downhill-*loc-spec*

‘the house is downhill, behind the mountain’

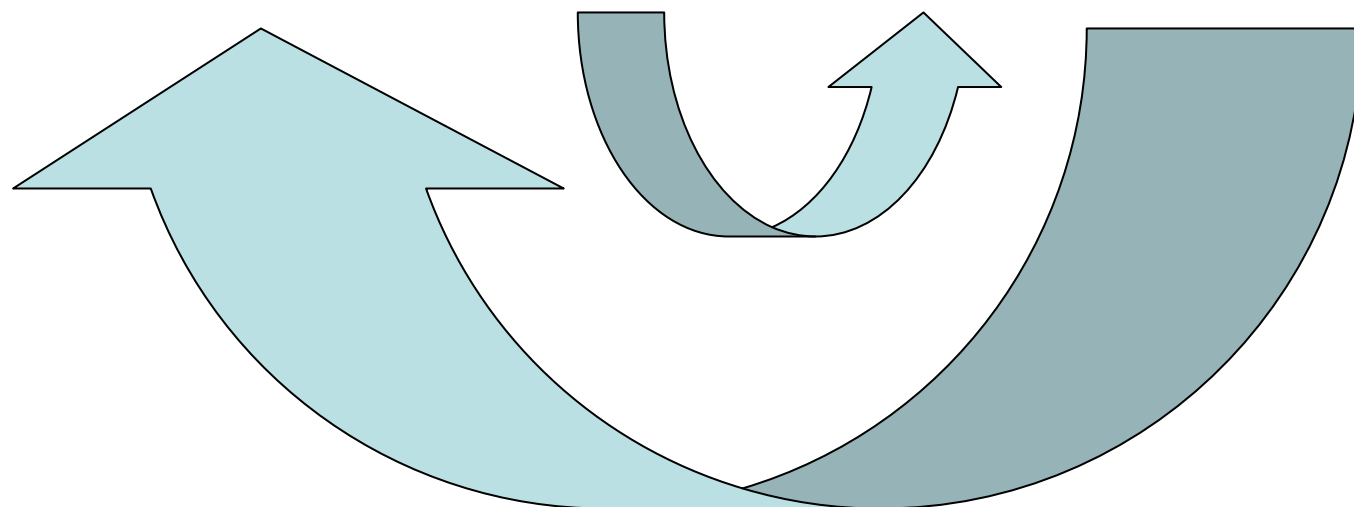


(the Locative/Genitive case)

minn-e [kup-ito kal-á-y]

house-*pl* mountain-*loc.m* downhill-*loc-spec*

‘the house is downhill, behind the mountain’



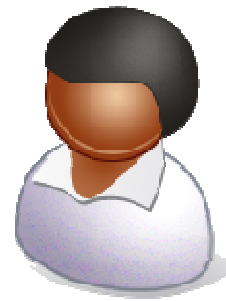
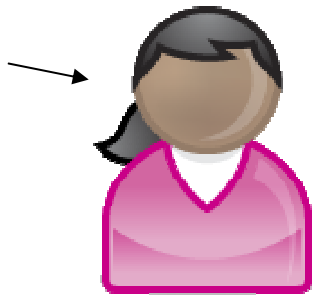
Getting to know an absolute system/1: position

ano ħela kut-á-y

idp.1sg obl.2sg.f uphill-loc-spec

‘I am in the direction of the mountain in respect of you’ / I am in front of you’

YOU



EGO



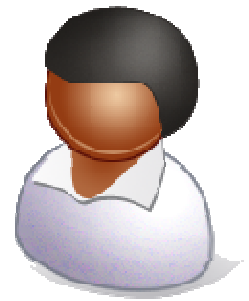
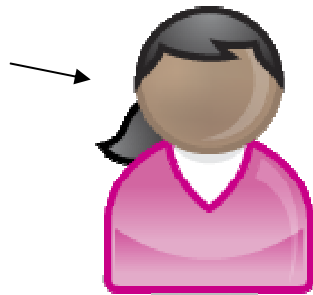
Getting to know an absolute system/1: position

ato yela kal-á-y

idp.2sg obl.1sg downhill-loc-spec

‘you are downhill from the mountain in respect of me’/ you are in front of me’

YOU



EGO



Getting to know an absolute system/1: position

tullay-^ho minn-ete kor-á-y

D.-m house-loc.pl horiz.-loc-spec

‘The Dullay (river) is there behind/past the house’



Getting to know an absolute system/2: movement

kut-á ášš-a

uphill-*loc* go-*imp.2sg*

‘walk up there!’



Getting to know an absolute system/2: movement

minn-ad^d-í=sa

kor~r-ú=sa

house-plur-spec=det *horiz~int-spec=det*

ášš-a

go-imp:2sg

‘go to those houses far away there!’



Adapting the system to describe the relative position of entities

kal-á **piy-atte** **karm-ito**
downhill-*loc* ground-*loc.f* lion-*loc.m*
pak-o=ma **puɿ~ɿ-i**
mouth-*m=sit* fall~*sem-pfv.3m*

‘(the monkey) fell to the ground into the lion’s mouth’



A note on adpositions vs. case

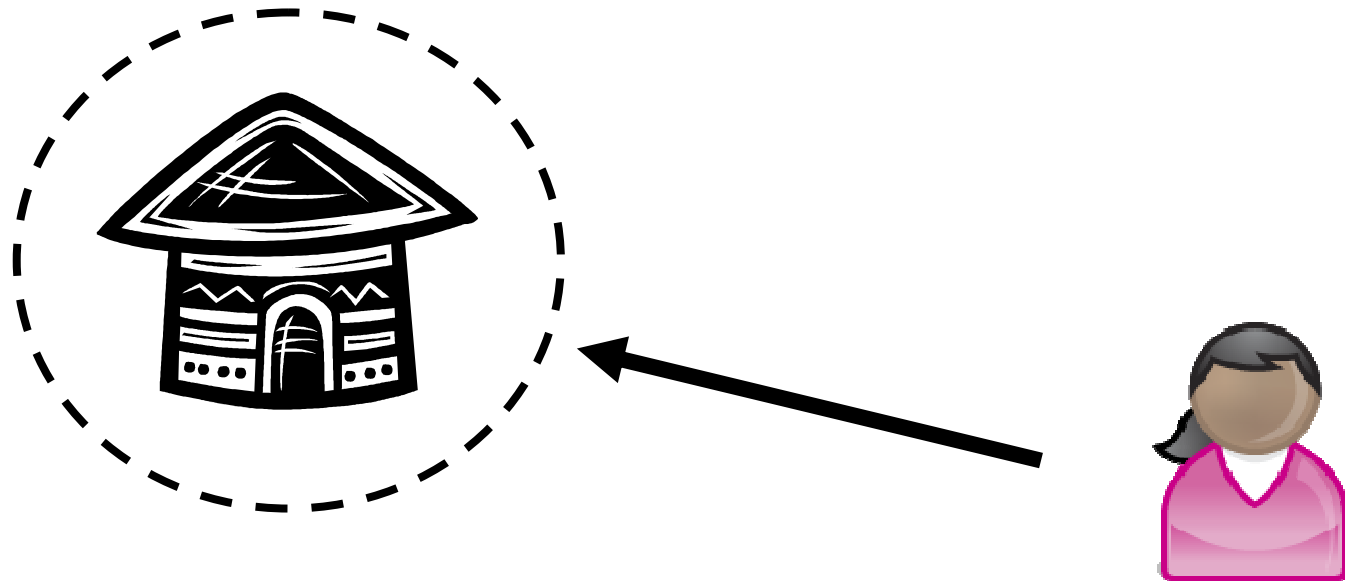
- **=ma** (*S/T*): state or movement; multidimensional, diffuse
- **-ito/-atte/-ete/...** (*LOC* case): state or movement; unidimensional, punctual

A note on adpositions vs. case

minn-e=ma i=sór-ti

house-*pl*=sit 3=run-*pfv.3f*

‘she ran home’

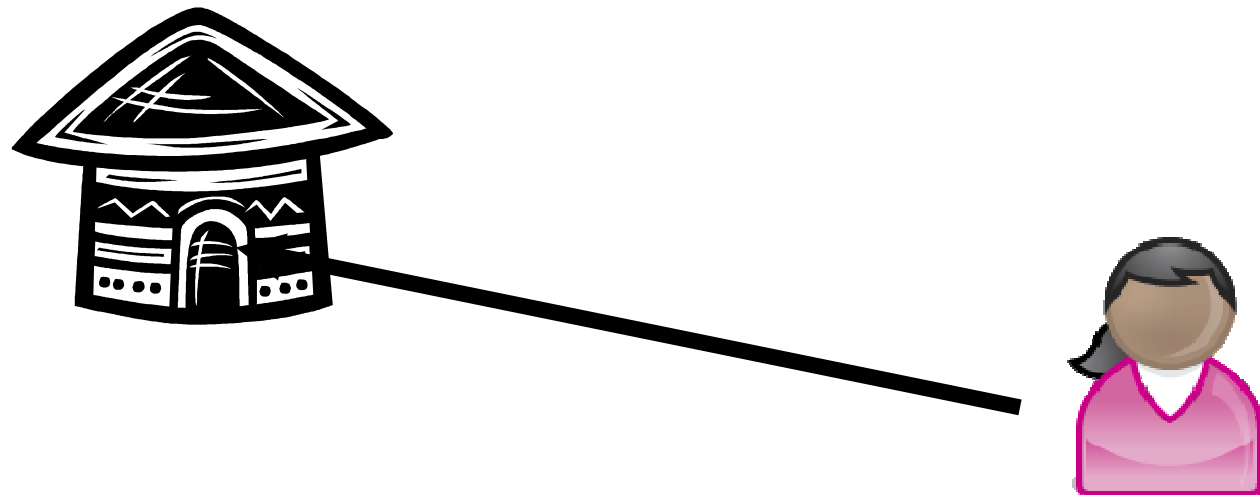


A note on adpositions vs. case

minn-ete i=sór-ti

house-*loc.pl* 3=run-*pfv.3f*

‘she ran home’



Relational nouns

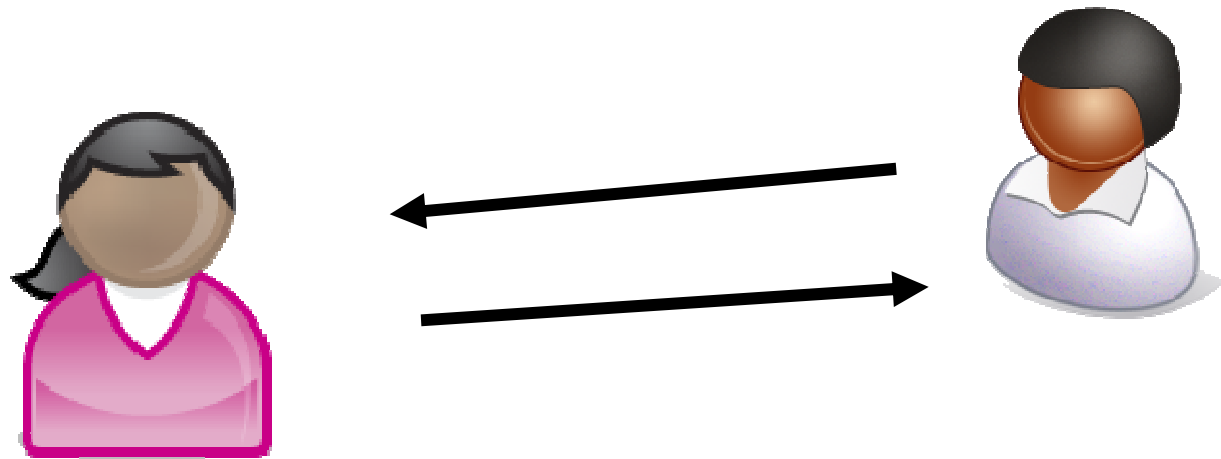
- **kitt-e** (*f*) 'interior'
 - **(miint-e** (*f*) 'forehead', *plur* **miin-n-e**)
 - > **miin-e** (*f*) 'front'
 - **saapp-e** (*plur*) 'aboveness'
- (body part terms play a limited role)

To be in front of

ato yela miin-atte

idp.2sg obl.1sg front-loc.f

‘you are in front of me’



Relational nouns and state

muku₁-**itt-e** ₁**and-ete** **kitt-att-e**
frog-sing-f *water-loc.pl* *interior-loc.f*

i=₁**ák-ti**

3=*be_there- pfv.3f*

'the frog was in the water'



Relational nouns and state

kels-akk-o

monkey-*sing-m*

kaark-ito saapp-ete

tree-loc.m aboveness-*loc.pl*

i=ʕakkad-i

3=sit-*pfv.3m*

‘the monkey was sitting upon a tree’

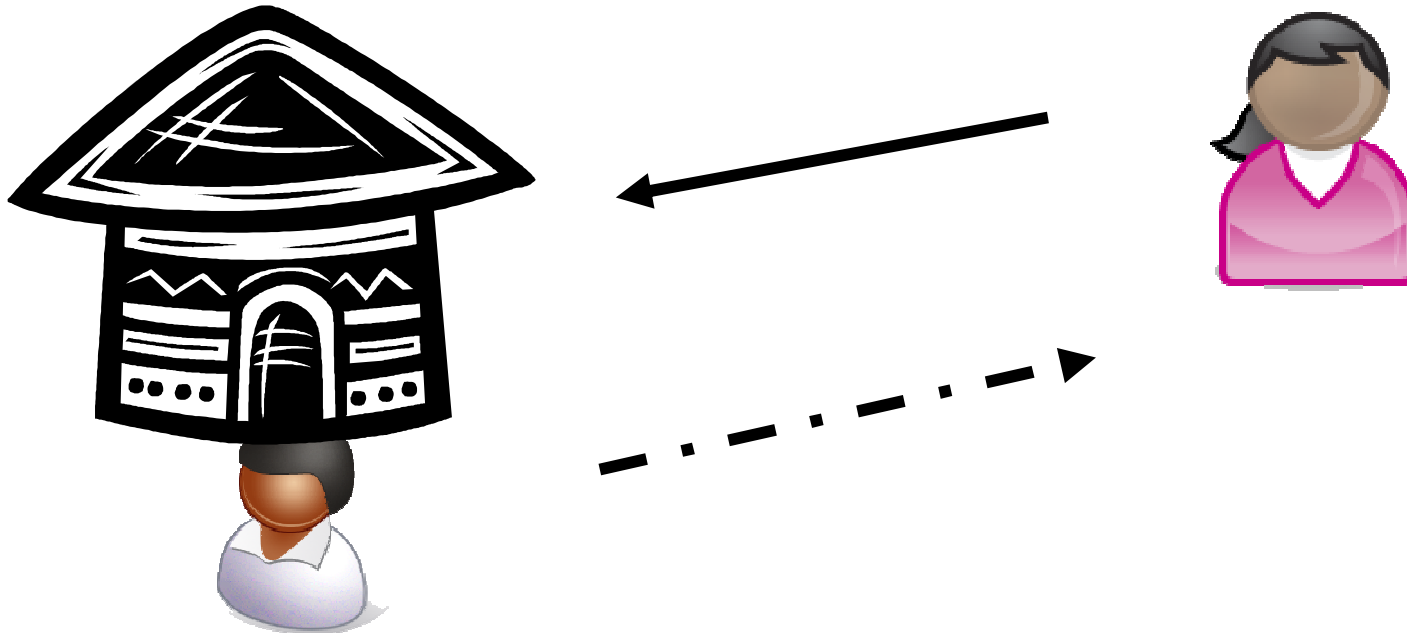


Relational nouns and movement

minn-e kitt-e=ma húlli

house-*pl* interior-*f=sit* enter\imp.2sg

‘enter the house!’ (speaker is inside; =ma designates here the area *within* the house)

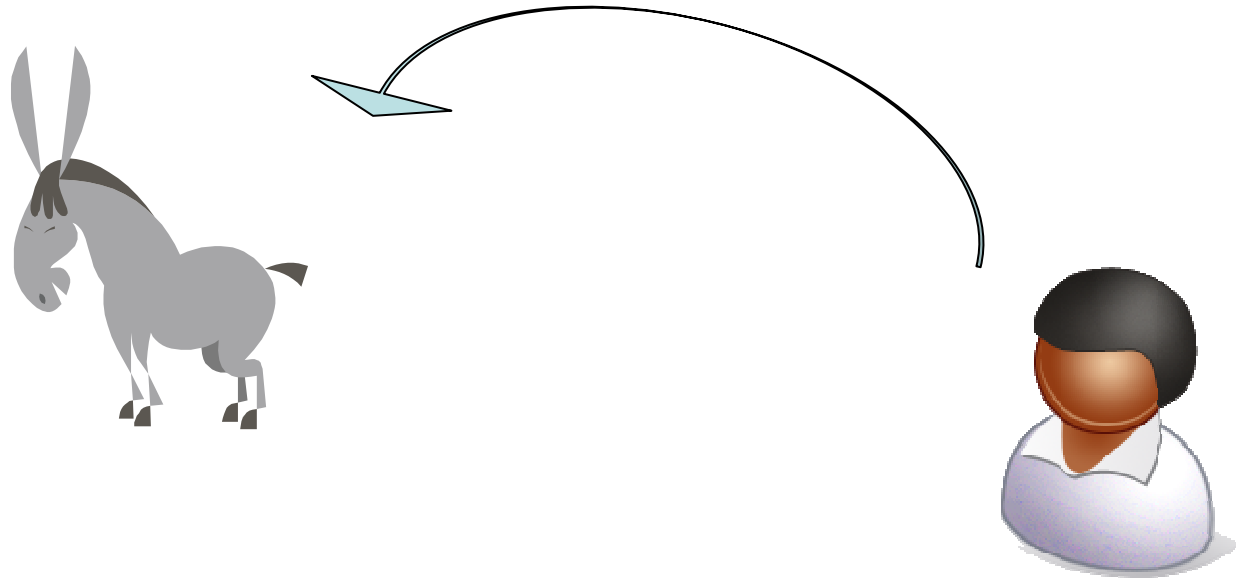


Relational nouns and movement

haarr-e saapp-e=ma i=háďď-i=pa

donkey-*f* aboveness-*plur=sit* 3=climb-*pfv.3m=link*

‘he climbed upon the monkey and...’



Other thingies...

ʕil-a 'up'

kat-a 'down'

it'-a 'beside/near'

What happened to the frog...

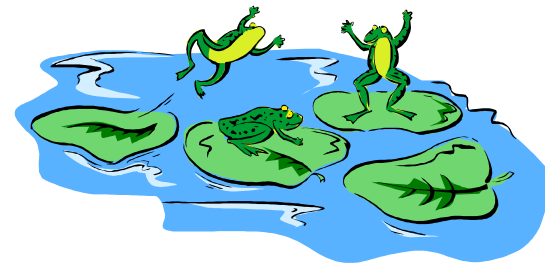
muku_ɨ-itt-e lokko ɨand-e it'-a

frog-sing-f slowly water-pl near

na=táah-ti=pa

part=swim-pfv.3f=link

‘the frog slowly swam close in the water, and...’



... and the elephant

sind-e **il-a** **na=****hul-í=****ppa**

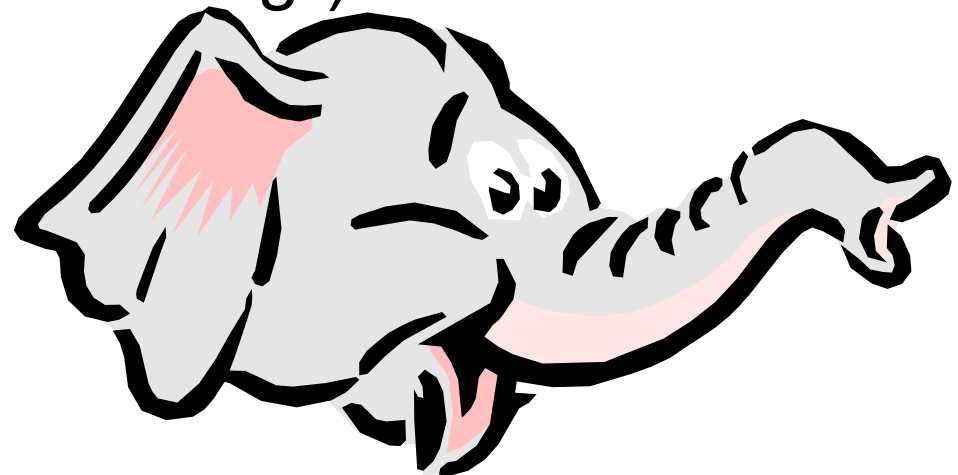
nose-*f* up *part=enter-cons.3f=link*

ašš-u **kut-á** **noon-ito**

go-*cons.3f* uphill-*loc* brain-*loc.m*

‘(she) entered up the elephant’s proboscis; she
went up into the brain’

(from: “The Elephant and the Frog”)



...other space entities: verbs

Dedicated spatial verbs:

- **páħ** — ‘to go up(hill)’
- **óod** — ‘to go down(hill)’
- **táxxi** — ‘to cross, move (on the horizontal level)’

Verbs/2

They are different from motion/position

a-spatial

verbs such as:

- ħáďđi — ‘to climb, mount (e.g., a tree or an animal)’
- yák-am — ‘to descend, come down’
- ášš-a — ‘to walk, go (generic)’
- ʕákk-ad — ‘to sit’
- ħáʕ — ‘to rise; stand up’; also: ‘to fly’ (!!)

Verbs/2

and also from such venitive/andative pairs as:

- **ókaay** — ‘to come’
- **xáf** — ‘to arrive’

Deep thoughts, open issues

Semantic diversity across languages is great
but constrained

What's the relation between language
and thought?



Neo-Whorfianism? (language determinism
on thought)

A vintage-style compass rose with a central needle and a semi-transparent text box overlaid. The compass rose is circular, with a central needle pointing towards the top-left. The needle has a gold-colored base and a dark tip. The compass face is light-colored with dark markings for degrees and cardinal directions (N, S, E, W). The compass is set against a background of a textured, light-colored fabric.

*World is complicated;
languages too.*

References

- [Brown, Penelope \(2006\)](#). A sketch of the grammar of space in Tzeltal. In: Stephen C. Levinson and David P. Wilkins (eds.), *Grammars of Space*. Cambridge: Cambridge University Press: 230-272.
- [Brown, Penelope \(2008\)](#). Up, down, and across the land: landscape terms, place names, and spatial language in Tzeltal. *Language Sciences* 30: 151-181.

- Levinson, Stephen C. (2003). *Space in Language and Cognition. Explorations in Cognitive Diversity*. Cambridge: Cambridge University Press.
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- Amborn, Hermann, Gunter Minker and Hans-Jürgen Sasse (1980). *Das Dullay. Materialien zu einer ostkuschitischen Sprachgruppe*. Berlin: Dietrich Reimer.
- Savà, Graziano (2005). *A Grammar of Ts'amakko*. Köln: Rüdiger Köppe.