
CAC 11

Perceptions of space

OBJECTIVES

- Begin to understand varying approaches to understanding and describing space
 - Differentiate between *egocentric* and *allocentric* world-views
 - Introduction to cultural implications of spatial arrangements
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OUTLINE

- Kant's space
 - 'Our' understandings of space (?)
 - Alternative understandings
 - *Guugu Yimithirr*
 - Bali
 - Tikopia / Anuta
 - Left and right, symbolism
-



space (n.)

c.1300, "an area, extent, expanse, lapse of time," a shortening of Old French *espace*, from Latin *spatium* "room, area, distance, stretch of time".

Astronomical sense of "stellar depths" is first recorded 1667 in "Paradise Lost."

Kant on 'space'

"Space is not something objective and real, nor a substance, nor an accident, nor a relation; instead, it is subjective and ideal, and originates from the mind's nature in accord with a stable law as a scheme, as it were, for coordinating everything sensed externally."

Immanuel Kant (1724-1804)

Kant's questions...

- Is space a *substance* or a *property* of some substance?
 - Relationship of space to physical objects?
 - Where does our perception of space come from?
 - The *content* of our perception of space?
 - **Relationship of space-time to our minds?**
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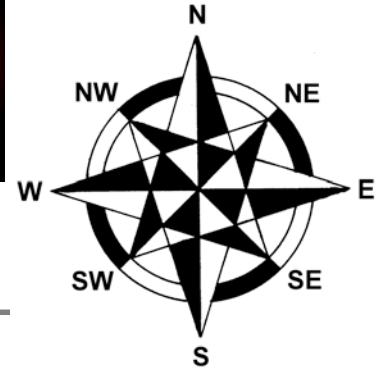
Stanford Encyc. of Philosophy: plato.stanford.edu/entries/kant-spacetime/

Terms of reference

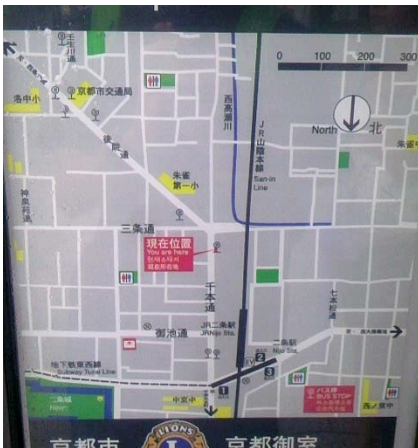
- **Egocentric**
 - Left, right, forwards, behind etc.
- **Allocentric**
 - North, South, up(?) etc.



Personal vs. abstract



Situational information



Map of local area at bus-stop outside Ritsumeikan Suzaku Campus building

In the UK too...

- Map of local area in Tooting, S. London
- Oriented for viewer



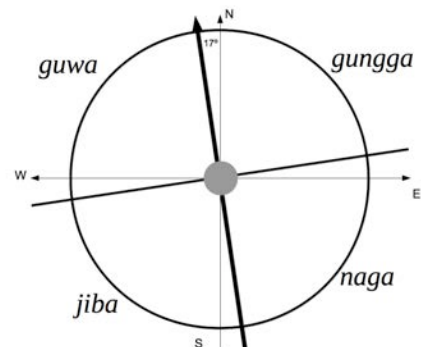
Guugu-Yimithirr

- Undermined assumed universality of predominance of ego-centric systems

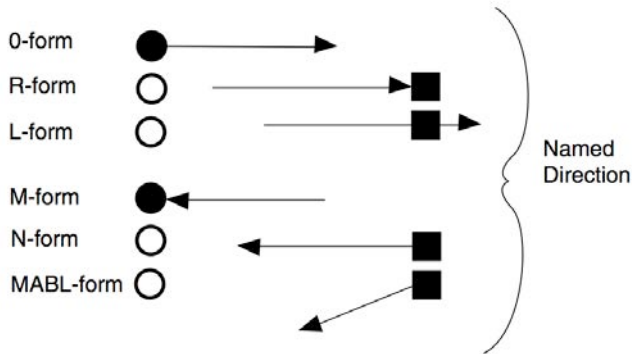
Less than 300 native speakers, living around Hopevale and Cooktown in Queensland.



Strongly allocentric...



Complicated spatial grammar...



Haviland, J. B. (1998). *Guugu Yimithirr cardinal directions*. *Ethos*, 26(1), 25-47.

Absolute position matters...

- Characters on TV or in illustrations in a book change position when the medium is moved.



Thinking for speaking

“Perhaps a **third of the world’s languages use absolute systems**, in which [...] one would say, ‘There’s a rabbit north of the tree’, or ‘seaward from the tree’, rather than ‘behind the tree’. **In order to use an absolute system, you always have to know where you are in relation to the fixed external referent points.** That is, online production and interpretation of utterances **requires attention** to those points, and users of such languages must constantly update their locations accordingly.”

Language and Thought Online: Cognitive Consequences of Linguistic Relativity, Slobin 2003

Tzeltal: Uphill - Downhill



Bali, Indonesia



The Balinese believe that **Mount Agung** is a replica of Mount Meru, the central axis of the universe. One legend holds that the mountain is a fragment of Meru brought to Bali by the first Hindus. The most important temple on Bali, Pura Besakih, is located high on the slopes of Gunung Agung.

Local directions...



Local directions...



Kaja & kelod

“Orientation is geared to the island's central mountains, to the uphill direction, prototypically to the central volcano, Gunung Agung, the dwelling place of the Hindu gods of Bali: 'Towards the mountain', is the sacred and pure direction, and is called *kaja* (from *ke*, towards and, *aja*, hill, mountain) while 'towards the sea' is the direction called *kelod* (from *ke*, towards and *laut*, sea)”

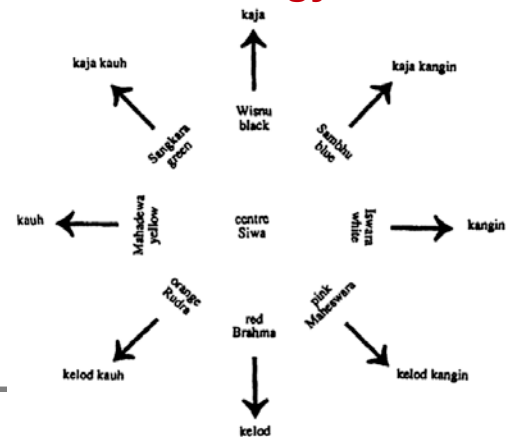
Wassmann, J. and Dasen, P. R. (1998). Balinese spatial orientation: Some empirical evidence of moderate linguistic relativity. *The Journal of the Royal Anthropological Institute*, 4(4):689–711.

Kangin & kauh

- *Kangin*: the direction where the sun rises
- *Kauh*: the opposite of *kangin*



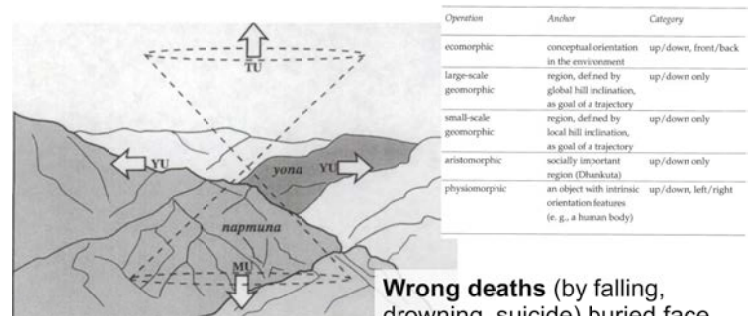
Balinese cosmology



Social importance

- “Doesn't know where *kaja* is!” = crazy!
- Boy unable to learn to dance when away from home village.
- Tension / stress / anxiety associated with disorientation

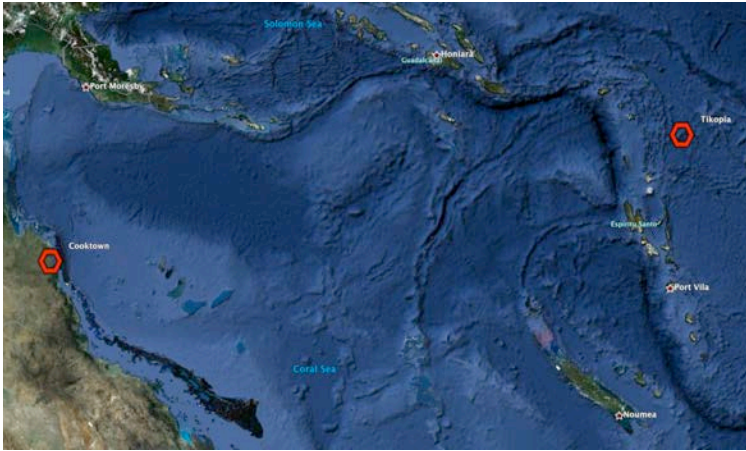
The Belhāre Rai of Nepal



Wrong deaths (by falling, drowning, suicide) buried face down.

Bickel, B. (1997). Spatial operations in deixis, cognition, and culture: Where to orient oneself in Belhare. *Language and conceptualization*, 46-83.

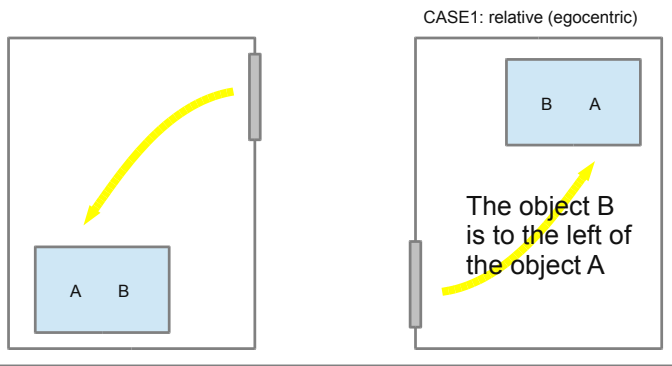
Tikopia



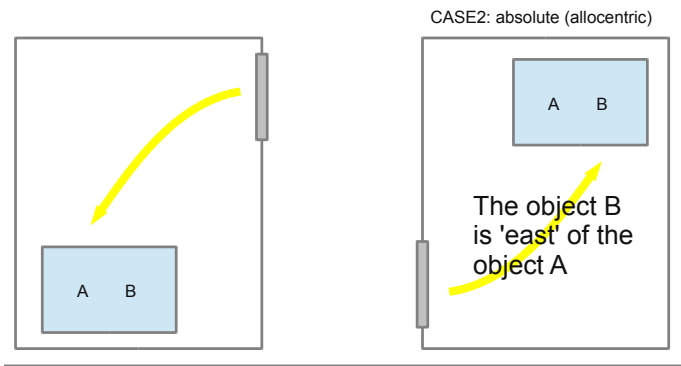
Tikopia



Experimental evidence...



Experimental evidence...

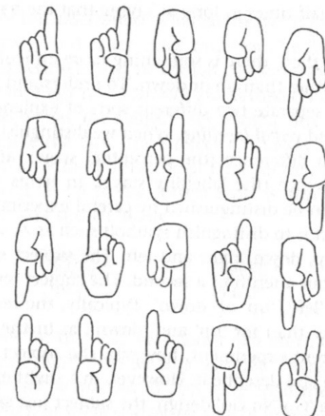


Measuring LR recognition



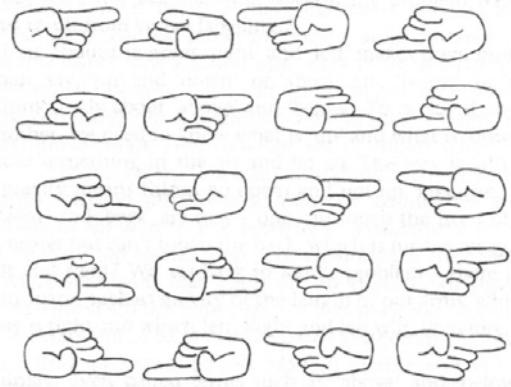
Volunteers please!

1. Subject
2. Timer
3. Markers (everyone!)



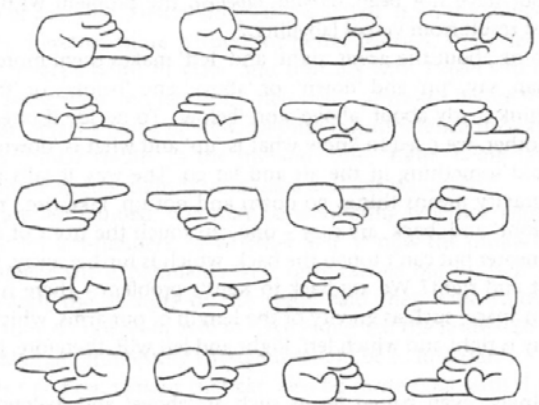
That was the “control condition”.

Now, for the “main condition” ...



And, finally...

Are these hands left hands or
right hands?



Typical Results

- UP – DOWN : N seconds
 - LEFT – RIGHT : 1.5 x N seconds
 - LEFT-HAND – RIGHT-HAND : 3.5 x N seconds
-

'Left' and 'right' are difficult...

- Survey of 364 profs at Mich. State U.
“I have noted difficulty when I quickly have to identify left versus right..”
 - All the time: 2%
 - Frequently: 6%
 - Occasionally: 11%
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Left / right symbolism

- **Dexterous:** showing or having skill, especially with the hands
- **Sinister:** the impression that something harmful or evil is happening or will happen; evil or criminal
- **Latin:** *dexter* (right) ↔ *sinister* (left)

Sheep and Goats...

- And he will place the sheep on his **right**, but the goats on the **left**. Then the **King will say to those on his right**, 'Come, you who are blessed by my Father, inherit the kingdom prepared for you from the foundation of the world...
- Then he will say to **those on his left**, 'Depart from me, you cursed, into the eternal fire prepared for the devil and his angels...



Bible, "The Final Judgement", Matthew 25

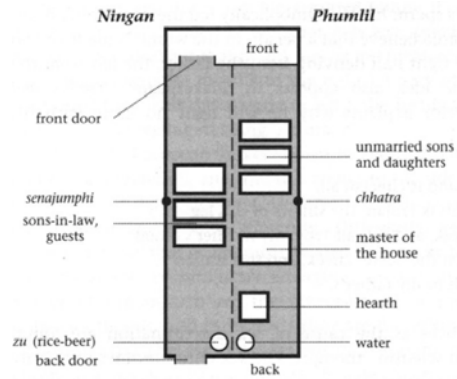
Spatial symbolism



Figure 2.5
Schematic, symbolic organisation of the ground plan of a Christian church.

McManus, p30

L/R symbolic systems



RIGHT: male, moon, sky, east, life, good death, odd(#s), family, gods, back, private, superiors, south, village

LEFT: female, sun, earth, west, death, bad death, even, strangers, mortals, front, public, inferior, north, forest

Purum house etc. from McManus (2002) *Left hand, right hand*

Next Week

- "Culture Shock"
- **To read:** *Transition Shock*, BENNETT 1998