Two main functions of language: Refer to our environment via concepts and Share concepts with each other

The generalisation commitment: Humans have a similar brain, so they should share quite a few things in common in language

The cognitive commitment?: Reject the claim that there is a distinct language module in the brain

Human interaction with others (social experience) and the world around us (physical experience) is stored as concepts that are connected to each other, like entries in Wikipedia. We access these concepts via a semantic structure (the meaning associated with linguistic units like words).

The dictionary view:

Word meaning is stored with features (semantic primitives):

- Example: bachelor [+MALE, +ADULT, +MARRIED]
- It is possible for a word to have meaning (sense) without referring to a real object (e.g. dragon, unicorn)

The encyclopaedic view:

Word meaning is extracted from our cognitive network (not only linguistic knowledge)

- The meaning of a word is constructed live as a result of contextual information. Fully-specified pre-assembled word meanings do not exist (Example with feature game)

word meaning, sentence meaning, utterance meaning ("speaker meaning")

CH3 Universals and variation: shared within SPACE

Figure and ground

- While one entity is typically privileged and represents the figure, the second entity is given less prominence and is referred to as the ground or reference object.
- But how do we know which entity is privileged?

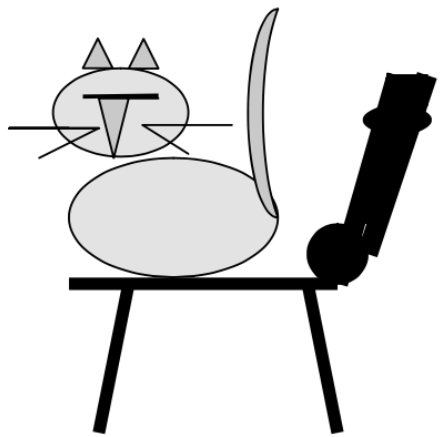


Figure 5: Figure and ground, cat and chair

CH3 Universals and variation: shared within SPACE

Humans perceive things in a similar way

The Gestalt principles

- How our physical body makes us perceives things
- Proximity: elements in a scene that are closer together will be seen as a group

Figure 6: Columns and rows of dots

CH3 Universals and variation: shared within SPACE

Humans perceive things in a similar way

The Gestalt principles

- How our physical body makes us perceives things
- Proximity: elements in a scene that are closer together will be seen as a group
- Smallness: the smaller entity (the bike) will be perceived as the figure.

The bike is near house vs. The house is near the bike

CH3 Universals and variation: shared within SPACE

Humans perceive things in a similar way

The Gestalt principles

- How our physical body makes us perceives things
- Proximity: elements in a scene that are closer together will be seen as a group
- Smallness: the smaller entity (the bike) will be perceived as the figure.
- Closure: incomplete figures are often completed by the perceptual system

CH3 Universals and variation: shared within SPACE (ACT)

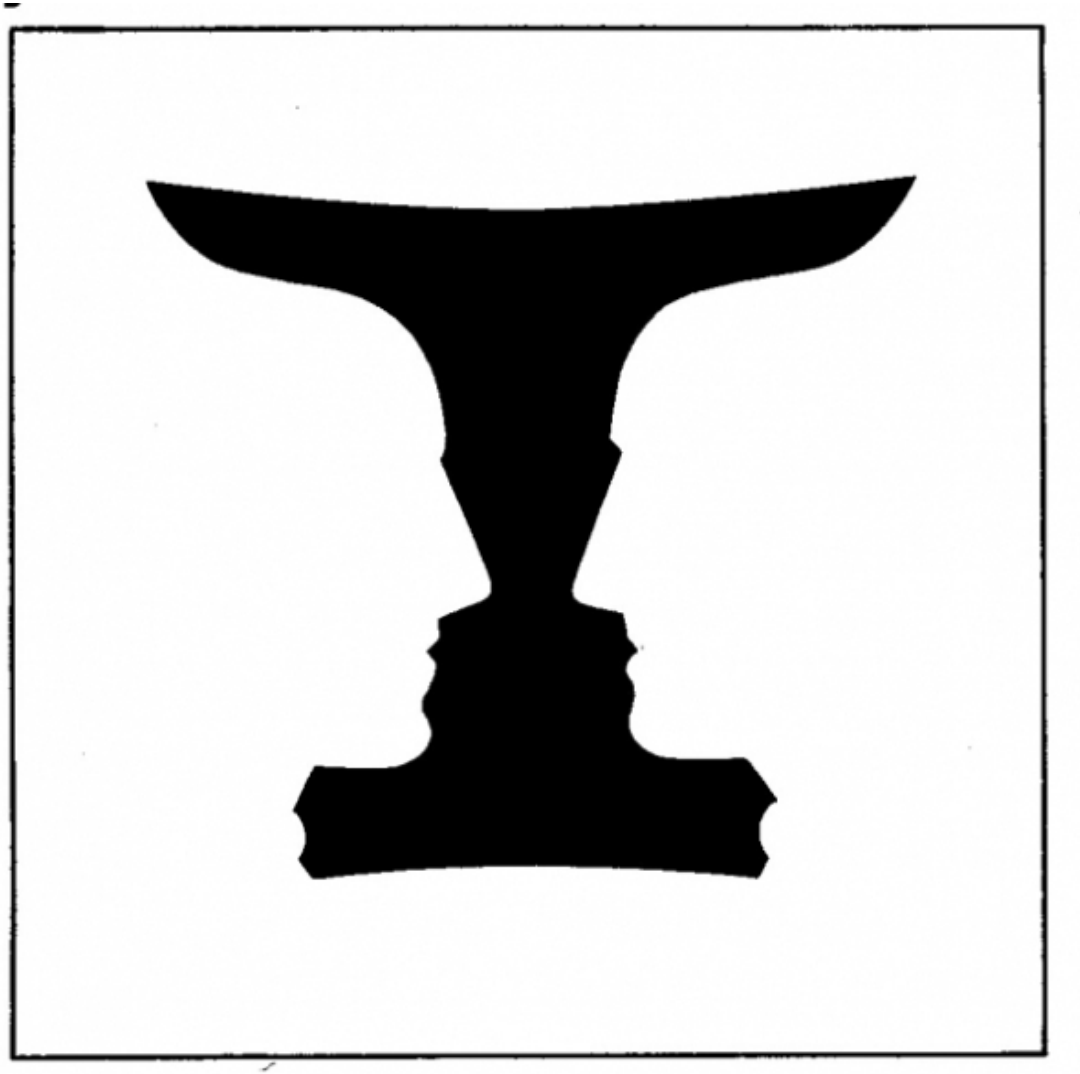
Playing with our mind by using the

The Gestalt principles

CH3 Universals and variation: shared within SPACE (ACT)

Playing with our mind by using the

The Gestalt principles



CH3 Universals and variation: shared within SPACE (ACT)

Playing with our mind by using the

The Gestalt principles

CH3 Universals and variation: shared within SPACE (ACT)

Playing with our mind by using the

The Gestalt principles

CH3 Universals and variation: shared within SPACE (ACT)

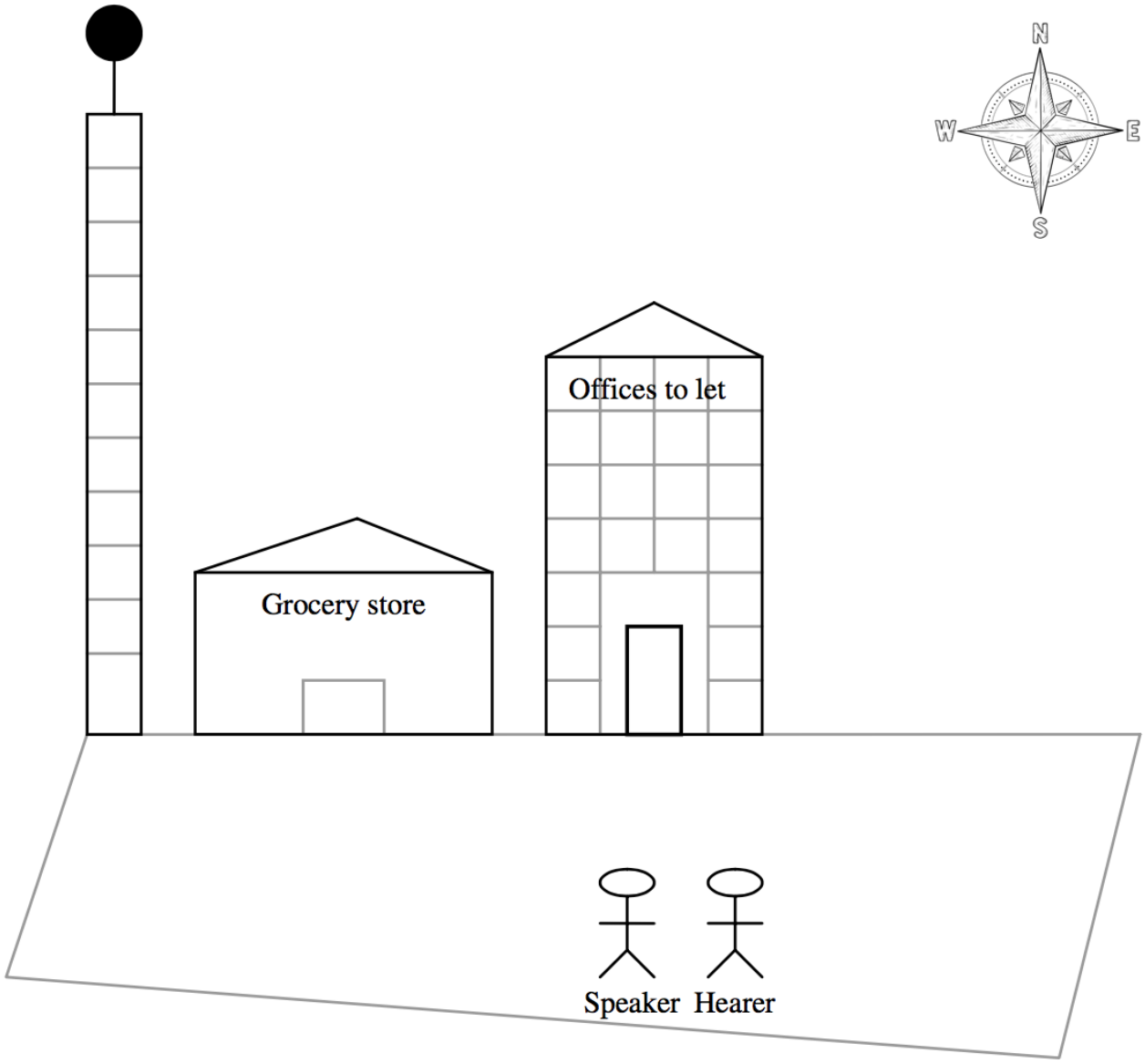


Figure 12: Description of space

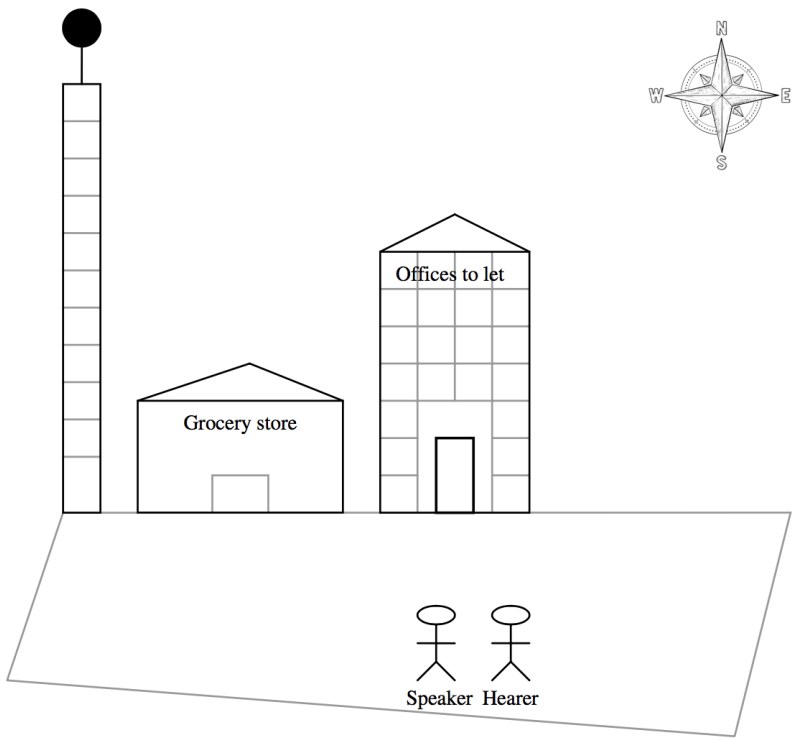
CH3 Universals and variation: shared within SPACE

Ground-based The grocery store is next to the office building.

Field-based The grocery store is to the west of the office building.

Guidepost-based The grocery store is on the tower side of the office building.

Projector-based The grocery store is to the left of the office building.



CH3 Universals and variation: shared within TIME

- Unlike SPACE, TIME is not a concrete or physical sensory experience.
- Still, our brain does perceive time, e.g., time of focus
- TIME is compared to SPACE, e.g., we move in time or time moves around us

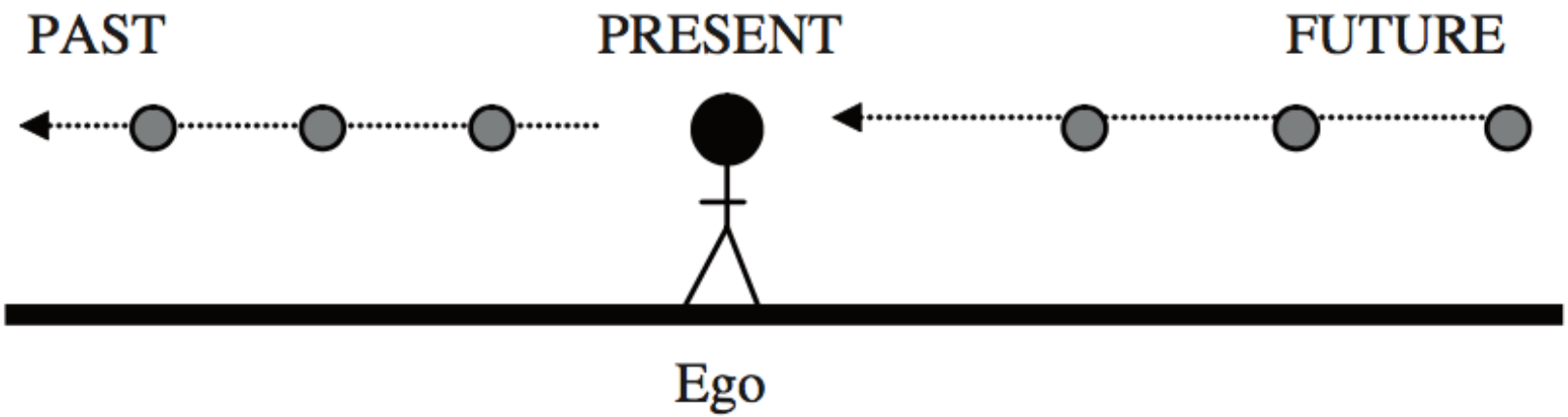
CH3 Universals and variation: shared within TIME

Time is moving

- The experiencer is called the ego, whose location represents the experience of 'now'. The ego is static.

Temporal moments and events are conceptualised as objects in motion. They move towards the ego from the future and then beyond the ego into the past.

- Christmas is getting closer.
- My favourite part of the piece is coming up.
- The deadline has passed.



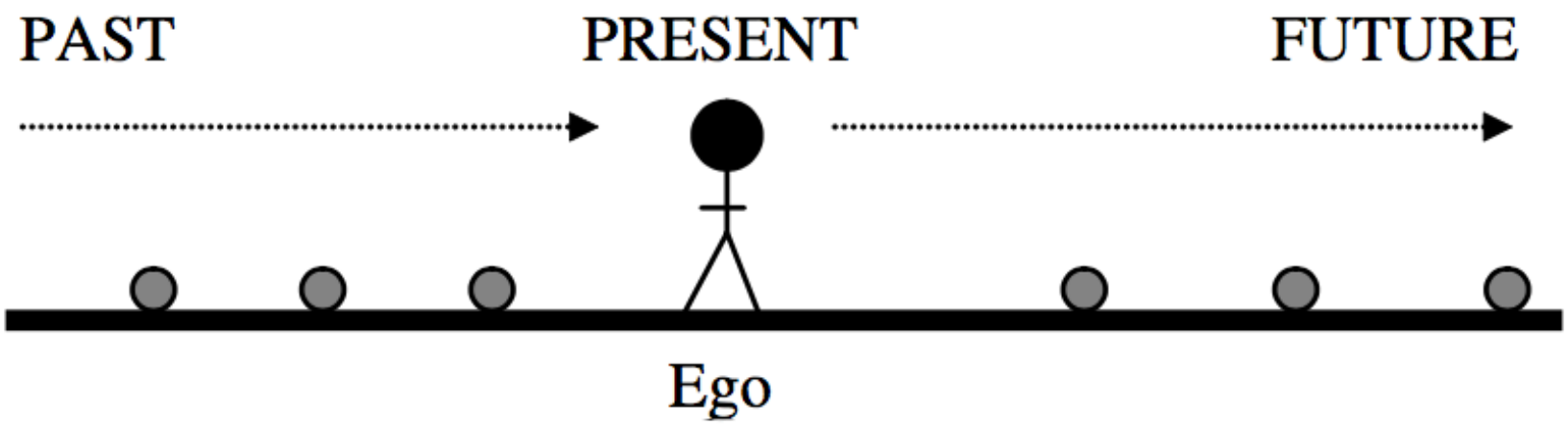
CH3 Universals and variation: shared within TIME

The ego is moving

- TIME is a landscape over which the ego moves

The ego moves towards specific temporal moments and events that are conceptualised as locations.

- We're approaching my favourite part of the piece.
- She's passed the deadline.
- We'll have an answer within two weeks.
- The meetings were spread out over a month.



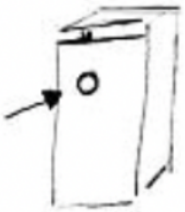
CH3 Universals and variation

- This was some examples of what is usually shared
- Now let us see how different it can get across languages

CH3 Universals and variation: Different within SPACE

A particular language forces its speakers to pay attention to certain aspects of a scene in order to be able to encode it in language.

- English: the figure is being placed on a surface or in a container
- Korean: different aspects of figure and ground

	Description	English	Korean
	cup on table	*put*	*nohta* (horizontal surface)
	Hat on head	*put*	*ssuta* (clothing on head)
	magnet on fridge	*put*	*pwuchita* (juxtapose)
	ring on finger	*put*	*kkita* (fit tightly)

CH3 Universals and variation: Different within SPACE

- left and right vs. East and West
- Guguu Yimithirr (Australia)
- field-based reference frame
- example for final project

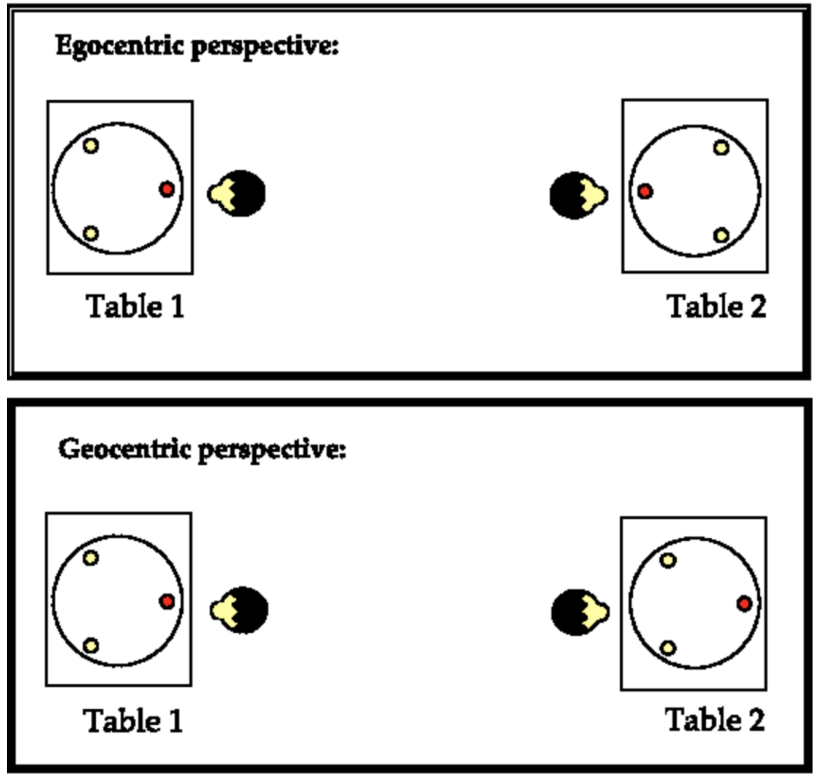


Figure 17: Another example

CH3 Universals and variation: Different within TIME

English: FUTURE is front, PAST is back

- *The future lies in front of us.*
- *She has a bright future ahead/in front of her.*
- *My childhood is behind me.*

CH3 Universals and variation: Different within TIME

English: FUTURE is front, PAST is back

- *The future lies in front of us.*
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- *My childhood is behind me.*

Aymara (South-America): FUTURE is back, PAST is front

- *mayra pacha* (front/eye/sight time) 'past time'
- *q'ipa pacha* (back/behind time) 'future time'

CH3 Universals and variation: Different within TIME

English: FUTURE is front, PAST is back

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Aymara (South-America): FUTURE is back, PAST is front

- *mayra pacha* (front/eye/sight time) 'past time'
- *q'ipa pacha* (back/behind time) 'future time'

Mandarin: FUTURE is down, PAST is up

- *shang xingqi* (up week) 'last week'
- *xia xinqi* (down week) 'next week'

CH3 Universals and variation: Linguistic relativity

Now that we have the patterns, how do we explain them?

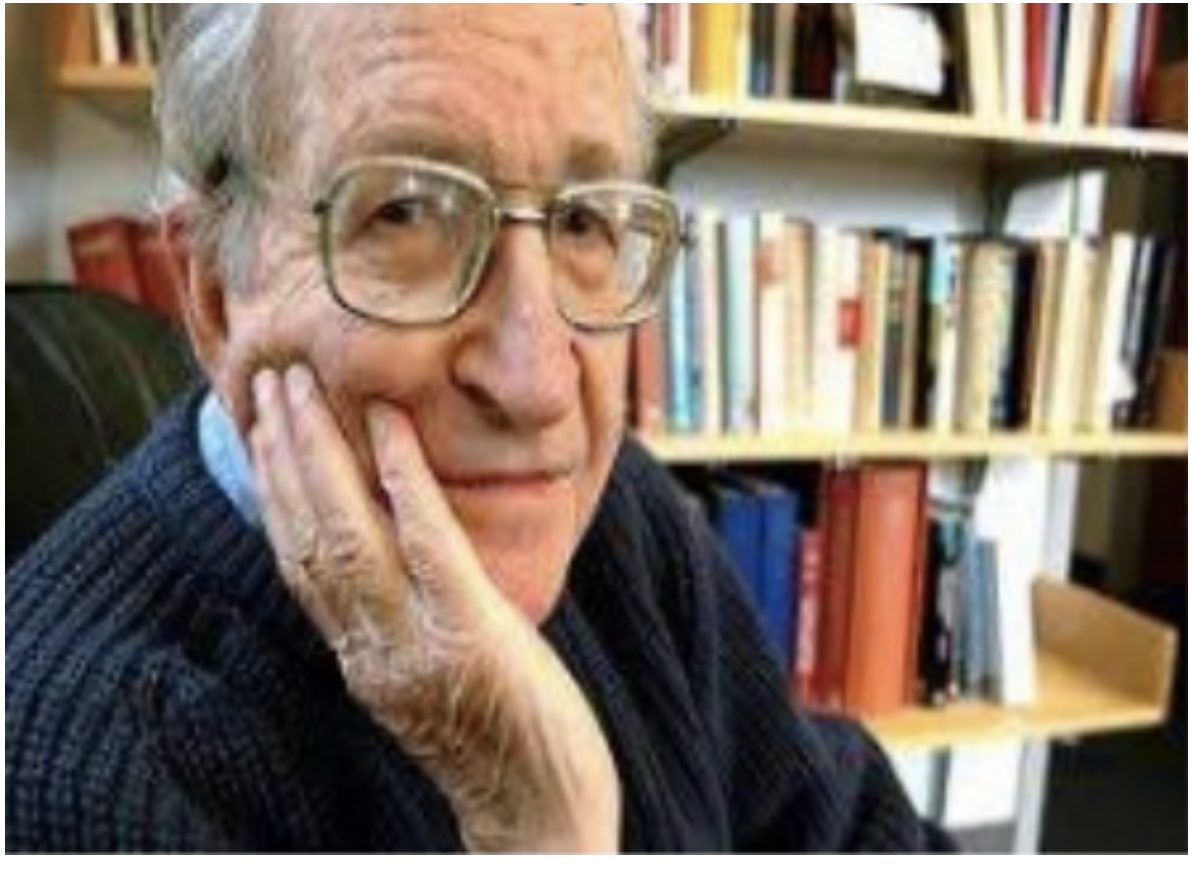
Two main approaches to universals:

- Formal linguistics
- Cognitive linguistics

CH3 Universals and variation: Formal linguistics

Universal grammar

- Proposed by Chomsky (1965)
- explain why linguistic universals exist
- explain how children come to acquire the language(s) they are exposed to so rapidly (**poverty of stimulus**)



CH3 Universals and variation: Formal linguistics

Universal grammar

- Nativist hypothesis: language is *mostly* innate
- Children acquire the parameters of the language(s) they are exposed to.

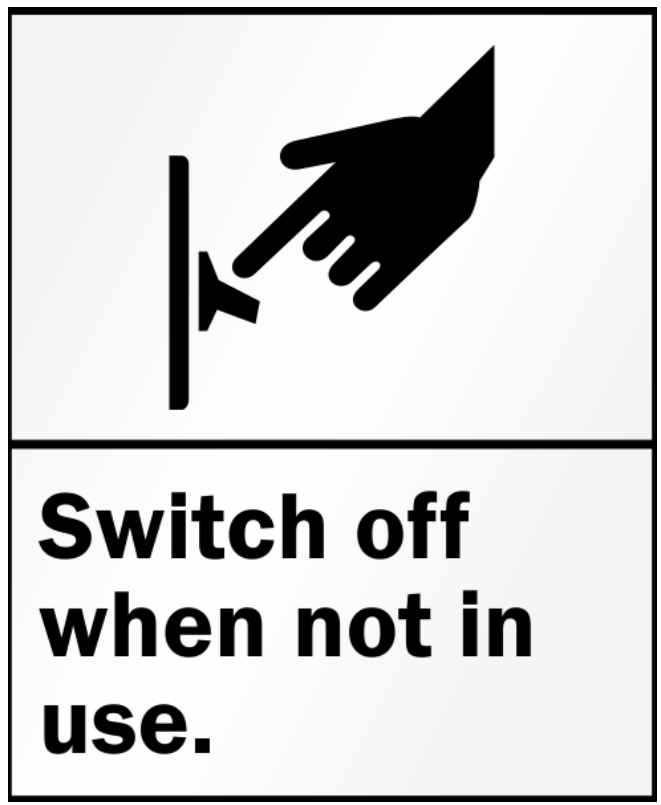


Figure 19: Another example

CH3 Universals and variation: Cognitive linguistics

- Cognitive linguists (and typologists) argue that the fundamental problem with Chomsky's hypothesis is that cross-linguistic comparison reveals there to be little evidence for substantive universals of the kind he assumes.
- Not that many universals. . .

CH3 Universals and variation: Cognitive linguistics

The Sapir-Whorf hypothesis

- linguistic determinism

language determines non-linguistic thought

- linguistic relativity

speakers of different languages think differently

Two versions

- Strong: language entirely determines thought: a speaker of language X will understand the world in a fundamentally different way from a speaker of language Y
- Weak: the structure of a language may influence (rather than determine) how the speaker performs certain cognitive processes, because the structure of different languages influences how information is 'packaged'.

CH3 Universals and variation: Cognitive linguistics

An example of the strong version of **The Sapir-Whorf hypothesis**

- Aliens do not have the notion of time in their language
- Therefore, they are not affected by time and can travel freely in time
- Is it actually possible?

CH3 Universals and variation: Cognitive linguistics

Arguments against the strong version

- Colour categorization
- Dani people (New Guinea) only have two basic colour terms: light/warm and dark/cool
- Experiment with remembering different colors
- If language entirely determines thought, then the Dani should not be able to do it

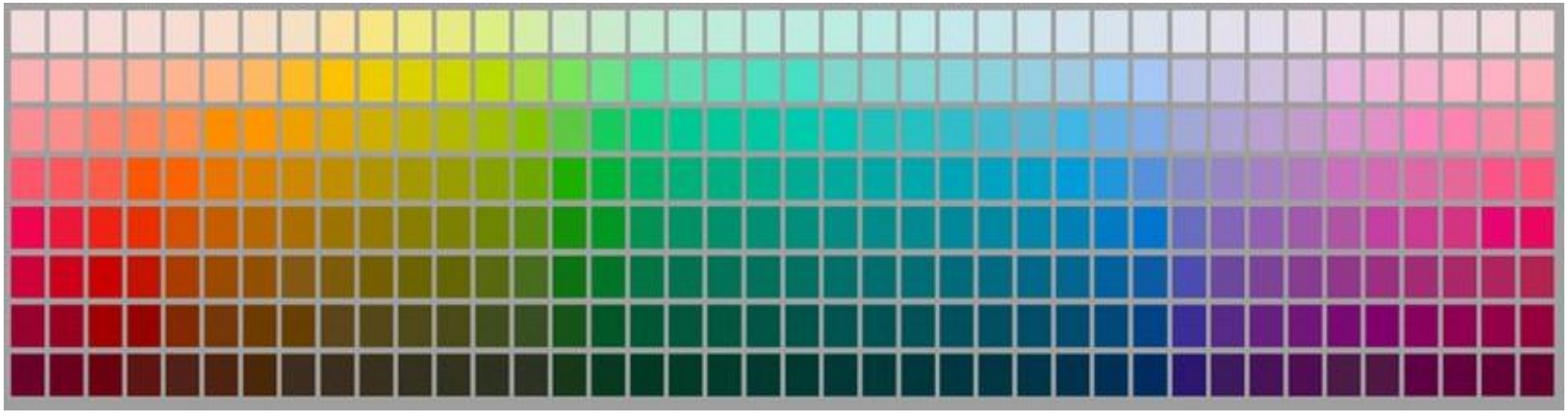
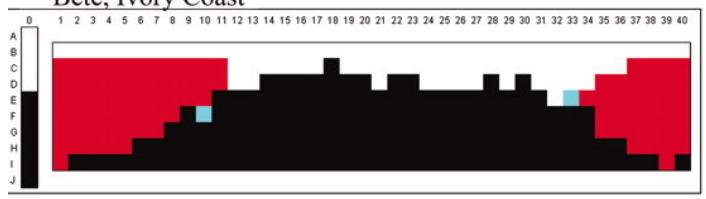


Figure 21: Colour categorization

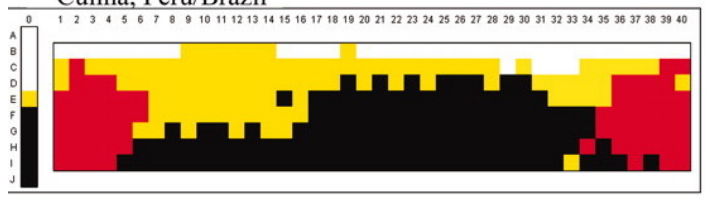
CH3 Universals and variation: Cognitive linguistics

Bonus: Colour categorization in languages of the world

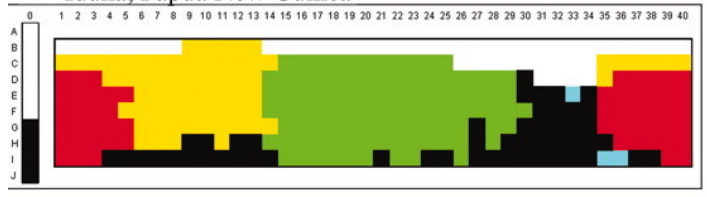
Bété, Ivory Coast



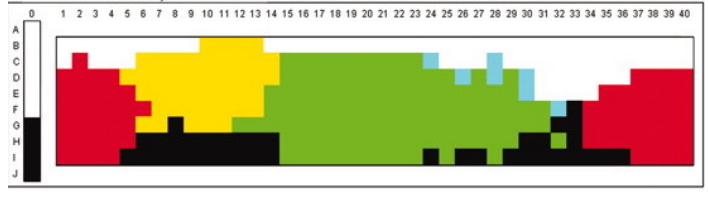
Culina, Peru/Brazil



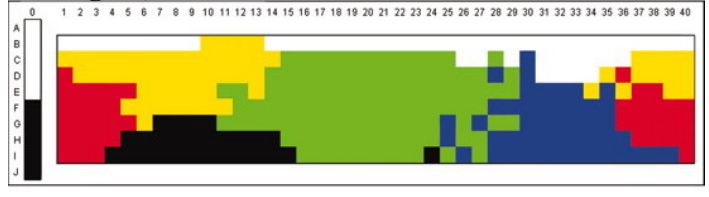
Iduna, Papua New Guinea



Colorado, Ecuador



Buglere, Panama



CH3 Universals and variation: Cognitive linguistics

An example of the weak version of **The Sapir-Whorf hypothesis**

- language reflects patterns of thought, and can be seen as a means of encoding and externalising thought for purposes of communication
- how cross-linguistic differences influence non-linguistic thought and action.

CH3 Universals and variation: Cognitive linguistics

An example of the weak version of **The Sapir-Whorf hypothesis**

- how different languages influence thought and action.
- saving habits in English and Mandarin

Figure 24: UCLA - TED talk

CH3 Universals and variation: Cognitive linguistics

An example of the weak version of **The Sapir-Whorf hypothesis**

- how different languages influence thought and action.
- saving habits in English and Mandarin

	English	Chinese
FUTURE	*I will be*	*wo shi*
PRESENT	*I am*	*wo shi*
PAST	*I was*	*wo shi*

Figure 25: UCLA - TED talk