Psychology of Language

24 Big picture discussion

Fall 2023
Tues/Thur 5:00-6:15pm

Emma Wing
Drop-in hours:
Wednesdays 3-4pm
& by appointment
Webex link

Road map

- Unit 3: Language, Brain, & Diversity
    - 23 Language & thought (review + finish)
    - 24 Big picture discussion

...also:
- This week's quiz is the last quiz! Due tonight, Dec. 5
- HW3 Due tonight, Dec. 5
- Thursday: optional full-semester review
- Midterm 3 + Final cumulative exam
    - Opens Dec. 11 at 9am; Closes Dec. 16 at midnight

Review

- Language & thought
  - Sapir-Whorf Hypothesis
    - Weak: language affects concepts
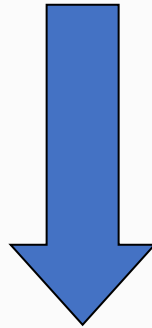   - Strong: no language means you have no concepts

Language & thought

- Does language affect thought?

Language & thought

The way we conceptualize the world
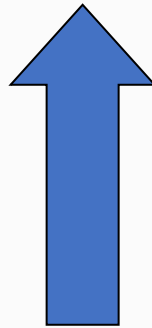
Finer color discriminations

$\downarrow$

Things that get encoded in language

More color words

Language & thought

The way we conceptualize the world

Finer color discriminations

↑

Things that get encoded in language
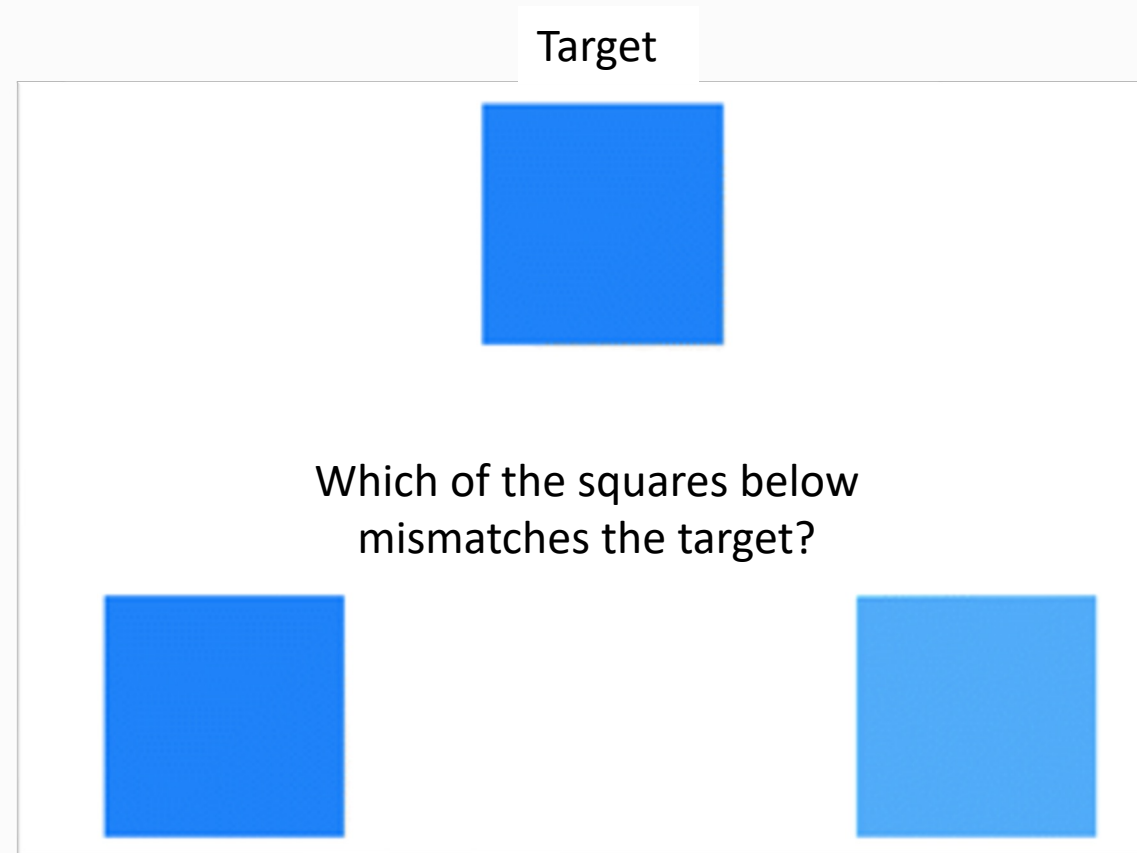
More color words

Language & thought

Sapir-Whorf hypothesis

- Strong: no language means you have no concepts

- Weak: language affects concepts

Language & thought

Example 1

Target

Which of the squares below
mismatches the target?

Language & thought

Example 1

- Studies with color show that if you speak a language with different lexical items for light and dark blue (e.g., Russian) and are asked to perform a task that requires detecting the difference between two color patches that cross that color boundary, you'll be better at it than people who speak a language that doesn't have different words.

- But this kind of effect goes away if they are rehearsing a string of numbers

Language & thought

Example 2

BRIDGE

KEY

masc →   _fem_ →

fem →   _masc_ →

SPANISH	**GERMAN**	**SPANISH**	**GERMAN**
big	beautiful	golden	hard
dangerous	elegant	intricate	heavy
long	fragile	little	jagged
strong	peaceful	lovely	metal
sturdy	pretty	shiny	serrated

Language & thought

Example 2

How do speakers of different languages describe objects of different grammatical genders?

- Experiment conducted in English (everyone highly proficient), but subjects were native speakers of Spanish or German
  - List first 3 adjectives that come to mind

Language & thought

Example 2

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Language & thought

"Give-a-Number" Children are asked to put a specific number of fish into a "pond" and count them

Example 3

404 children from four groups, ages 3-9.

GROUP	CHILDREN	CRITERIA
EARLY ASL	91	**DEAF/HARD OF HEARING** DEAF PARENTS IMMEDIATE AND FULL ACCESS TO AMERICAN SIGN LANGUAGE (ASL)
LATER ASL	90	**DEAF/HARD OF HEARING** HEARING PARENTS LATER AND/OR REDUCED ACCESS TO ASL
EARLY ENGLISH	124	**HEARING** HEARING PARENTS IMMEDIATE AND FULL ACCESS TO ENGLISH
LATER ENGLISH	99	**DEAF/HARD OF HEARING** HEARING PARENTS LATER AND/OR REDUCED ACCESS TO ENGLISH USING COCHLEAR IMPLANT OR HEARING AIDS

What have we learned?

- **Knowing how to count is critical:** The better the child's number knowledge (the number words used by the child when counting), the better he/she performed on the Give-a-Number task.
- **Either Spoken English and/or ASL can effectively support number development:** Overall, children, regardless of the language they are using, perform similarly when asked to put fish in a bowl.
- **Timing matters:** Children who are exposed to language from birth, whether ASL or spoken English, perform better when asked to put a specific number of fish in a bowl.
- **Later exposure to language impacts overall performance on the Give-a-Number task:** Some children with later exposure to language develop typically, however, overall performance for Give-a-Number is lower and more variable in these children.

Therefore, EARLY and full access to ANY LANGUAGE is the key to optimal number knowledge.

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Big picture discussion

Something you learned from this class that really struck you as interesting or strange

Big picture discussion

Something you are still unsure about

Big picture discussion: misconceptions

- How would you respond to the following language misconceptions?
  - Caregivers teach language to children; kids don't start learning until then
  - Correct grammar rules are the rules we are supposed to follow (prescriptivism)
  - Sign language is just gesture
  - Spaces between words help us learn where word boundaries are
  - First language learning is effortful
  - Languages differ in their complexity
  - Language ability correlates with cultural sophistication
  - Bilinguals are at a disadvantage during language acquisition
  - We wait until the end of a sentence to interpret what it means
- Can you think of any other misconceptions you've heard? How would you respond?

Big picture discussion

- Competence vs. performance

- Production vs. comprehension

- Can computational models tell us something about human linguistic behavior?

- Nativism vs. empiricism

- Linguistic relativity (language and thought relationship)

- Critical period of language acquisition

- Domain-general vs. domain-specific abilities underlie language

- Others?