

LING-UA 1 *Language*
Logistics, Ch. 1, & Segmentation

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Week 1 3:30PM, 8 September 2025

Logistics

- ▶ Hi! Welcome to Recitation for *Language*
- ▶ **Times**
 - ▶ Recitation: Mon, 3:30PM @ 10 WP #104
 - ▶ My Office Hours: Fri, 2-4:00PM @ 10 WP #507
 - ▶ Gideon's OH: Thu, 4-6:00PM @ 10 WP #409
 - ▶ 1:1s with me: Email petty@nyu.edu
- ▶ **Assignments:** Due Mondays (tn!!) @ 10PM
 - ▶ Extra-credit points are nice to have!
- ▶ **Recitations:** Mix of slides and Q&A

About Me

- ▶ I'm Jackson
- ▶ 4th year Ph.D. student in Linguistics
- ▶ I work on AI/Language Models (e.g., ChatGPT)
 - ▶ “People are good at learning language; how can we make LLMs learn as well as people?”
 - ▶ “How can we use formal methods from TCS/Linguistics to measure LLM performance?”

Any Questions?



FRH, Ch. 1: *What is Language?*

- ▶ **Implicit Knowledge of Sounds**

- ▶ <https://youtu.be/yU2wkD-gbzI?si=PRbUse5hSVTlWfxz&t=64>

- ▶ **Implicit Knowledge of Form-Meaning Pairs**

- ▶ Arbitrary: *house, beit, casa*
 - ▶ Compositional: 'I went to a *housewarming* party'

- ▶ **Productivity**

- ▶ "Infinite use of finite means."
 - ▶ 'Colorless green ideas sleep furiously.'

FRH, Ch. 1: *What is Language?*

- ▶ **Division of grammatical from ungrammatical speech**
 - ▶ Exists at the level of an individual speaker
 - ▶ Separate from ability to *perform* speech acts well
- ▶ **“Grammar”**
 - ▶ *Prescriptive* grammar: Rules from English class
 - ▶ *Descriptive* grammar: (linguistics) How do people speak?
- ▶ **Universal Grammar**
 - ▶ Theorized rules which govern *what languages are possible*
 - ▶ Facilitates the acquisition of a particular language by conferring *inductive biases*

FRH, Ch. 1: *What is Language?*

► What would make a language ‘impossible’?

► Lack of recursion

(1) [_S I think that [_S you believe that [_S ...]]]

► Linear ordering

(2) a. Julia's₁ brother helped her_{1,2}

b. Julia₁ helped her_{2,*1}

FRH, Ch. 1: *What is Language?*

▶ **Language and Thought**

- ▶ Strong Sapir-Whorf: Language *bounds* thought
 - ▶ What's a wug? <https://en.wiktionary.org/wiki/wug>
- ▶ Weak Sapir-Whorf: Language *influences* thought
 - ▶ Colors: <https://ismy.blue/>

FRH, Ch. 1: *What is Language?*

- ▶ **What counts as 'language'?**
 - ▶ Signed languages
 - ▶ Whistle languages?
 - ▶ Animal communication??
 - ▶ ChatGPT???

Segmentation: Ancient Greek

A	hotōnhyiōnhippos	1	the donkey of the master
B	hoitōnhippōnkyrioi	2	the brothers of the merchant
C	hoituemporuadelphoi	3	the merchants of the donkeys
D	hoitōnonōnemporoi	4	the sons of the masters
E	hotukyriuonos	5	the horse of the sons
F	hotuoikukyrios	6	the masters of the horses
G	hotōnadelphōnoikos	7	the house of the brothers
H	hoitōnkyriōnhyioi	8	the master of the house

Adapted from International Linguistics Olympiad practice problems

Segmentation: Ancient Greek

A	ho tōn hyiōn hippos	1	the donkey of the master
B	hoi tōn hippōn kyrioi	2	the brothers of the merchant
C	hoi tu emporu adelphoi	3	the merchants of the donkeys
D	hoi tōn onōn emporoi	4	the sons of the masters
E	ho tu kyriu onos	5	the horse of the sons
F	ho tu oiku kyrios	6	the masters of the horses
G	ho tōn adelphōn oikos	7	the house of the brothers
H	hoi tōn kyriōn hyioi	8	the master of the house

ho, hoi? tu, tōn? -oi, -ōn, -u, -os?

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