

- **What to remember about language**
- **Linguistic research today**

0. Course information

- Our **final exam** is **Th Dec 14, 8-11am**
 - This is more than a week after our last class!
 - Tip: Review a little each day to keep the material fresh
- **Info & review guide** linked from Daily Syllabus page
 - The final exam is cumulative
- I will hold a **review session** shortly before the final exam (probably on W Dec 13)
 - I will take suggestions before the review session for topics to discuss or review

1. New perspectives on language

Some key points from this course:

- **Language** is deeply social and cultural

BUT

We can also examine language from the perspective of **natural science**

1. New perspectives on language

- We can examine language from the perspective of **natural science**
 - **Data** — Human language behavior
 - What is grammatical?
 - What are constituents?
 - Build a **model** of mental grammar to understand human language cognition
 - Use our model to make **predictions**
 - **Test** those predictions to refine our model, improve our understanding of human language

1. New perspectives on language

- We can examine language from the perspective of **natural science**
 - As with all science, we have to keep in mind ethical considerations
 - Whose language should we analyze?
 - Interact fairly and respectfully with native speakers and speech communities

1. New perspectives on language

- For many of you, this systematic, scientific way of looking at language was likely a **new perspective**
 - A different way of thinking about “correct language”
 - Now we can ask “when is which kind of language variety appropriate to use?”
 - *not* “what kind of language is ‘correct’?”
 - A new way to appreciate the intricacy and complexity of the language all around us
 - Implications for education ...

2. We all have a *mental grammar*

A key point from this course:

- Whether our native language is a 'standard' variety or another variety...

...we all have a **mental grammar** whose rules and principles account for the systematic patterns in our language behavior

2. We all have a *mental grammar*

- Systematic behavior of native speakers of English:
How is the plural of these words pronounced?

cat[s]

dog[z]

*iguana*__

*shark*__

2. We all have a *mental grammar*

- Systematic behavior of native speakers of English:
How is the plural of these words pronounced?

cat[s]

dog[z]

iguana[z] — Why?

shark[s] — Why? (What's the difference between [s] and [z]?)

2. We all have a *mental grammar*

- Systematic behavior of native speakers of English:
How is the plural of these words pronounced?

cat[s]

dog[z]

iguana[z] — **voiced** after **voiced** sounds

shark[s] — **voiceless** after **voiceless** sounds

- Now that we have studied linguistic analysis, what are some things can we say about this example?
What does it show us about the mental grammar?
(Morphology? Phonology?)

2. We all have a *mental grammar*

- What does this example show?
- Plurals of (regular) nouns in English are formed by adding a suffix
 - The mental grammar **builds words** out of smaller elements (morphology!)
- The pronunciation of the suffix depends on the sound properties of the last sound in the base
 - The mental grammar refers to **sound properties** and **natural classes** (phonology!)
 - Speech sounds are not indivisible atoms

2. We all have a *mental grammar*

- Systematic behavior of native speakers of English:
The interpretation of reflexive pronouns
Oscar admires himself.
*Oscar thinks that Grover admires himself/*himself*
Oscar told Susan stories about himself.
Oscar told Susan stories about herself.
- Now that we have studied linguistic analysis, what can we say about this example?
What does it show us about the mental grammar?
(Syntax?)

2. We all have a *mental grammar*

- What does this example show?
- The mental grammar produces sentences as **hierarchical tree structures** that contain words grouped together into **constituents** (syntax!)
 - Rules of the mental grammar (such as where a reflexive pronoun may find its antecedent) refer to constituents

2. We all have a *mental grammar*

A key point from this course:

- These appear to be some of the **universal** properties of human language
 - The mental grammar **builds words** out of smaller elements (morphology!)
 - The mental grammar refers to **sound properties** and **natural classes** (phonology!)
[Signed languages: sign shape/movement properties]
 - The mental grammar builds, and refers to, **constituents** (syntax! also morphology! and phonology (such as syllables!))

3. Types of linguistic research today

- This section of the slides is FYI only, and will not be on the final exam
- The goal is to give you a sense of the kinds of projects linguistics researchers work on

3. Types of linguistic research today

Typological research: What kinds of patterns are found in the world's languages?

- Example: [The World Atlas of Language Structures](#) (WALS) — You can generate maps that show the **frequency** and **geographical distribution** of various language characteristics
 - Languages that do and do not use **voicing** to distinguish stop ('plosive') or fricative phonemes [[map](#)]
 - Languages that do and do not apply the **Wh Movement** transformation [[map](#)]

3. Types of linguistic research today

Experimental research:

- Field work: Go out, record language data (naturalistic or elicited), analyze patterns
- Laboratory: Have experiment participants produce or perceive language data under experimental conditions
 - Perception experiment (phonetics/phonology research):
[[example](#)]

3. Types of linguistic research today

Computational research: Use computers to...

- Analyze very large data sets
 - Example of corpus/computational studies in historical syntax [[slides](#)]
- Build and test complex models of mental grammar
- Gather, as well as analyze, linguistic data
 - Try a mini-experiment: [Google Ngrams](#) for
so fun *very fun* *funnest*
(Is *fun* an A? Change in progress!)

3. Types of linguistic research today

Theoretical research:

- Take the results of any of the above methods and **build models of mental grammar** that attempt to account for those facts about language in an **explanatory** and **insightful** way

3. Types of linguistic research today

- Some of the [courses you can take](#) in the Linguistics department, depending on your interests
 - Almost all have LING 101 as the only prerequisite
- For **Spring 2024**
 - [List of courses](#) offered
 - [Course flyers](#) for selected courses
 - Consider recommending LING 101 to your friends!

4. Final words

- The most important things to remember:

Observable human language behavior is caused by the operation of a **mental grammar**

All language varieties have a mental grammar

- Keep these points in mind when thinking about...
 - Learning or teaching a foreign language
 - Children acquiring their language
 - The role of non-standard varieties in society
 - **etc., etc.**