Today's objectives:

- **Determining syllable "options"**
- **Epenthesis and deletion rules**

Background preparation:

- Handout: "…Describing syllabification options"
- PP: English loanwords in Korean

0. Today's objectives

After today's class, you should be able to:

- Explain how our model represents syllable structure
- Find examples from a data set to determine how a given language sets the syllable structure "options"
- Apply the model to draw syllable trees that capture generalizations in a data set
- Use the tools of our model to write syllable-structure-based epenthesis and deletion rules

1. Warm-up and review

Discussion

- How does our model of the phonological grammar **represent** syllable structure?
  - What **entities** have we added to our model?
  - What are some principles for how these entities **behave** or **interact** in our model?

1. Warm-up and review

- Our model can now **represent** the syllable structure of words in a given language
  - First, we need to make a **proposal** for how segments are **associated** to syllables in the language, based on phonological evidence
  - Then, we can use our model to **describe** this structure using **syllable tree** notation

- We still need to add to our model how the grammar **builds** syllables (and enforces the "options") → we'll add this later!

1. Warm-up and review

- Many aspects of syllable structure are either:
  - the same in all languages
  - chosen from a very small range of possibilities
- This is unlike segmental rules, which seem to differ widely from language to language
- Therefore, our approach to modeling how languages form syllables will incorporate a limited set of **options** that languages choose from

1. Warm-up and review

- Our model of the phonological mental grammar currently includes...
  - A set of **features**
  - The concept of a **segment**, made up of features
  - Word boundary (#)
  - Phonological rules that manipulate features (called "**segmental rules**"): A → B / C __ D
  - The concept of a **syllable (σ)**, made up of segments
  - Association lines to represent which segments are included in which syllables
  - The syllable positions **nucleus**, **onset**, **coda**
  - A set of universal, limited **syllable-structure options**

2. Syllable-structure options

- Our first step in analyzing syllable structure:

  Observe and **describe** what syllable-structure patterns are possible out there in the world

  - Handout - "…Describing syllabification options"

- **In practical terms**, when working with a data set:

  a) Use the available phonological **evidence** to determine how segments are assigned to syllables in the language

  b) Make **generalizations** about **legal** **nuclei**, **onsets**, or **codas** in the language

2. Syllable-structure options

- What are the **syllable-structure options** in our model related to…
  - **Nuclei**?
  - **Onsets**?
  - **Codas**?

- What is the **default answer** to the questions on the options checklist, in the absence of evidence?

- If you're not sure, review the handout!

2. Syllable-structure options

Discussion

- Consider these English words. Which phonological structures does each one provide evidence for?

	Onsetless syllable?	Onset cluster?	Coda?	Coda cluster?
herb				
string				
match				

2. Syllable-structure options

Debriefing

- Consider these English words. Which phonological structures does each one provide evidence for?

	Onsetless syllable?	Onset cluster?	Coda?	Coda cluster?
herb	***Y***	***N***	***Y***	***N***
string	***N***	***Y***	***Y***	***(depends on variety)***
match	***N***	***N***	***Y***	***N***

- What's a good way to **avoid** being fooled by spelling?

3. Determining options settings

Data set – English loanwords in Korean

- How can we **set** these syllable-structure options, based on parts A/B?
  - Onsetless syllables?
  - Onset clusters?
  - Codas?
  - Coda clusters?
- What examples provide **evidence**?

3. Determining options settings

Data set – English loanwords in Korean

- What is going on in part C?
  - Are we currently predicting the right pattern of epenthesis?
  - Do we need to add any settings to our list of “options”?
- What examples provide **evidence**?

4. Syllable-based epenthesis and deletion

- Similar patterns in the last few data sets!
  - Cairene Arabic: **Epenthesis** happens when…
  - Tibetan: **Deletion** happens when…
  - Korean loanwords: **Epenthesis** happens when…

- What **single generalization** can we make about the environment for all these epenthesis and deletion rules?
- How can our model of the mental grammar formalize this type of rule?

4. Syllable-based epenthesis and deletion

- What **single generalization** can we make about the environment for all these epenthesis and deletion rules?
  - Cairene Arabic: **Epenthesis** happens when…
  - Tibetan: **Deletion** happens when…
  - Korean loanwords: **Epenthesis** happens when…

  …there is a consonant that **cannot be included in any syllable**

4. Syllable-based epenthesis and deletion

- Proposal: The mental grammar can **refer** to an unsyllabified segment
  - **Deletion** rule (no environment needed!)
    C' → Ø
  - **Epenthesis** rule (what vowel is inserted here?)
    Ø → [–bk, +hi] / C' __

5. Looking ahead — Next week

- *Monday:* Practice with syllable-structure restrictions
  - Prep questions will ask you to **upload syllable tree images**
  - You can upload a scan or photo of a hand drawing if you want, but **not HEIC/HEIF** (make a PDF of your image if you need to!)
- *Wednesday:* Discussion on scientific ethics
  - What is a "native speaker", and what role should this concept play in linguistic research?
- *Friday:* **SC HW #3** is due by class time on Canvas