Today's topics:

- **Check-in on basic phonetics**
- **Contrast and predictability**
- **Segment distribution**

Background preparation:

- Phonetics review materials
- Zsiga (2013: Ch 10, §10.2)

0. Today's objectives

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

- Use phonetic symbols and properties comfortably (keep practicing!)
- Discusss contrast vs. predictability, and their general implications for linguistic analysis
- Explain how phonemes/allophones relate to contrastive vs. predictable distribution
- Determine whether the distribution of segments is contrastive or predictable

1. Phonetics check-in

- Are there any questions about the basic phonetics material to prepare for the quiz?
  - Review handouts
    - Consonants
    - Vowels [our reference vowel chart for this course]
  - Additional phonetics resources

- We will use this information in our discussion during the next few classes and review again before the quiz (on M Jan 26)

2. Warm-up

Evidence for **abstractness** in phonology

- What kinds of **phenomena** did we discuss last time as evidence that phonology is **abstract** (cognitive) and not just concrete/physical?

2. Warm-up

Evidence for abstractness in phonology

- Knowledge of an **abstract underlying form** of a morpheme (may not be identical to any pronounced form)
- Knowledge that certain combinations of segments are impossible (**phonotactic** knowledge)
- Application of a **phonological process** ("rule") to a new context (such as new morpheme combination, L2)
- Organization of phonetically distinct sounds as part of one single **mental category** (phoneme) | *today*

3. Contrast vs. predictability

- A fundamental distinction in linguistic theorizing is made between things that are
  - **systematic / predictable / productive**

  and things that are
  - **contrastive / unpredictable / not productive**

- Why is this such an important distinction?

3. Contrast vs. predictability

- What are the linguistic implications of information that is **systematic** / **predictable** and **productive**?

- What are the linguistic implications of information that is **contrastive** / **unpredictable**?

3. Contrast vs. predictability

- What are the linguistic implications of information that is **systematic** / **predictable** and **productive**?
  - The mental grammar must **enforce** it
  - Factors that matter must be **representable**
- What are the linguistic implications of information that is **contrastive** / **unpredictable**?
  - It must be memorized and **stored**
  - The contrasts must be **representable**

- (What to do about information that is **systematic** but **not productive**?)

3. Contrast vs. predictability

- In the domain of a language's **segment inventory**, consider contrastive vs. predictable **distribution**
  - Implications if the distribution is **predictable**?
  - Implications if the distribution is **contrastive**?

3. Contrast vs. predictability

- In the domain of a language's **segment inventory**, consider contrastive vs. predictable **distribution**
  - Implications if the distribution is **predictable**?
    - How does the grammar **enforce** it?
    - What relevant factors must be **represented**?
  - Implications if the distribution is **contrastive**?
    - What contrasts must be **represented**?

→ **These are big and interesting questions!**

- **Be able to find, describe distributions in data**

4. Contrastive or predictable distribution?

- Some **core concepts** (Zsiga 2013: §10.2)
  - Phonemes vs. allophones
  - Contrastive vs. predictable distribution
  - Minimal pairs
  - Phonological environments

- **Illustrate/explain** these concepts using the Russian and Tohono O'odham data sets
- How are these relevant for the mental grammar and mental representations?

4. Contrastive or predictable distribution?

- Summary of key issues in distribution:
  - How do we determine whether two speech sounds belong to two **different phonemes**, and when they are two **allophones of the same phoneme**?
  - Describing and characterizing phonological environments: How much detail is too much? What information matters, and **why**?

5. Describing allophone distribution

- How do we conceive, in a grammar model, of a phoneme that has **multiple allophones**?
  - Why is it attractive to have a “basic” allophone? What are the hidden implications?
- Try stating an analysis of allophone distribution for:
  - Tohono O’odham

5. Describing allophone distribution

- Some points to note:
  - Tohono O’odham — Which allophones should we pair together, and why?

6. For next time

- Read the rest of Zsiga (2013: Ch 10)
- Work out an analysis of the Farsi problem (ex 10)
  - Spot-check question
  - Prepare for class discussion