Today's topics:

- **Course overview**
- **Phonology as mental grammar**
- **Contrast and predictability**

Background preparation:

- Zsiga (2013: Ch 10, §10.3–4)
- Farsi (ex (10))

0. Today's objectives

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

- State the **environments** for segments or classes in a data set and determine their **distribution**, and understand the **implications** of different choices
- Identify the **"basic"** allophone of a phoneme, if any
- Discuss and compare **possible URs** for a phoneme
- Explain some **consequences** for
  - "Free" variation in phonology
  - The shift to generative linguistics

1. Warm-up

- What is a **phoneme**?

- What is an **allophone**?

1. Warm-up

- What is a **phoneme**?
  - sound category in the mental grammar
- What is an **allophone**?
  - surface (output) realization of a phoneme

1. Warm-up

- How do we determine whether two speech sounds belong to two **different phonemes**, and when they are two **allophones of the same phoneme**?

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- How do we determine whether two speech sounds belong to two **different phonemes**, and when they are two **allophones of the same phoneme**?
- How does this relate to the concepts **predictable** and **unpredictable**?
- What did we decide for...? (Zsiga 2013: 218)
  - Russian (ex (9))
  - Farsi (ex (10))

2. Determining, characterizing environments

Group discussion

Data set - Farsi (ex (10))

- What is the **best way** to describe the **environment** for each of the segments under discussion?

2. Determining, characterizing environments

Debriefing

Data set - Farsi (ex (10))

- Describing and characterizing phonological environments: How much detail is too much? What information matters, and why?

2. Determining, characterizing environments

- Farsi
  - **Options** for stating **environments**?

[r]	#__V	or	#__	
[r̥]	V__#	or	__#	
[ɾ]	V__V			...or?
[ɻ]	V__C#	or	V__C	...or?

  - What case can be made for these different options? Are any **more insightful**? Why?
  - What other **assumptions** go along with these

different approaches?

2. Determining, characterizing environments

- How to **characterize** a phonological environment:
  - Enough detail to **uniquely identify** or **distinguish** the relevant environments
  - No more detail than is **necessary** — focus on what the grammar really **has to be sensitive to**
  - May depend on what environmental factors are most **insightful** — can have implications for UR

- **Trade-off** between simplicity of **environments** and assumptions about how our descriptions **interact** or are **ordered**

3. Analysis of allophone distribution

- How do we conceive, in a grammar model, of a phoneme that has **multiple allophones**?
  - What two options does Zsiga discuss? (Others?)
  - Why is it attractive to have a “basic” allophone? What are the hidden implications?

3. Analysis of allophone distribution

- How do we conceive, in a grammar model, of a phoneme that has **multiple allophones**?
  - What two options does Zsiga discuss? (Others?)
  - 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 (follow-up from last class)
  - Farsi (follow-up from today's SQs)
    - What are the URs?
    - What processes apply (what does the grammar have to "do")?

3. Analysis of allophone distribution

- Tohono O'odham [ʤ], [ʧ], [ʈ̪], [ɖ̪]
  - What are the *facts* about **distribution**?
    - Are there options for *stating* environments?
  - Which allophones belong to the **same** phoneme?
    - How do we “pair them up” and why?
  - What are the options for **URs**?
    - Is there a clear **basic allophone**?
      What other UR could we consider?
    - Implications for **phonological processes**?

3. Analysis of allophone distribution

- If we propose that [d͡ʒ] and [d̪] are allophones of the same phoneme, which is a *better* "basic allophone"? **Why**?
- How are these as potential arguments?
  - "It matters which one appears more often in the data set"
  - "It matters which one appears in a longer list of environments"

3. Analysis of allophone distribution

- If we propose that [d͡ʒ] and [d̪] are allophones of the same phoneme, which is a *better* "basic allophone"? **Why**?
- A more insightful approach…
  - It matters which appears in an **environment** that is easy to **characterize** | **Why**?
  - Note that "easy to characterize" depends on the **entities** that exist in the phonological model
- Does choosing a UR for [d͡ʒ]~[d̪] **influence** our choice for [ʧ]~[t̪]?

3. Analysis of allophone distribution

- Farsi (from SQs)
  - Review: What are the **options** for stating the **environments** for the allophones?
  - What are the **implications** for our **analysis** (=UR choice + phonological process(es))?

4. Discussion topics

- What is “**free variation**”?
  - Why is Zsiga suspicious about the “free” aspect?
  - What are some implications of variation for a phonological model?

- What is the difference between **structuralist** and **generative** approaches to linguistic analysis?

5. For upcoming classes

- **Phonetics and distribution quiz** on **M Jan 26**
  - Next class we can review as needed
  - Practice problem? TBD after class today

- Next topic: Morphological analysis
  - We will start this discussion next class as time permits