- **Review and discussion for midterm exam**

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*Background preparation:*

- Midterm exam information and review guide

# 0. Basic information about the midterm exam

- Exam will be given on Sakai, in “Tests & Quizzes”
- **Open** Tu Oct 6, noon – Th Oct 8, 11:55pm (EDT)
  - Once you start, you have **3 hours** to finish
  - Clock keeps running even if you save and exit
  - The exam is designed to take about 1 hour
- Instructors will be available to **answer email questions** according to the posted schedule
  (available soon from the Daily syllabus page, linked through Sakai)
- Questions about **exam format** or **using Sakai**?
  Ask on Padlet here

# 0. Basic information about the midterm exam

- The exam is open-book, open-notes, open-Sakai
  - You **may** access all course content and web links that are included on course pages
  - You **may not** access other web sites
  - You **may not** get or share information from/with anyone (except for asking questions of course instructors)

- Questions about what information or resources you **are permitted to access** during the exam?
  Ask on Padlet here

# 1. Tips for preparing to take the exam

- Know where to **find information quickly**
  - Use the Schedule of topics web site to locate lecture outlines and self-paced learning slides

- Know how to **solve** the various kinds of **linguistics problems** that we have worked with
  - Look for **examples** and **guidelines** on **slides**
  - Look for examples in the assigned **readings**
  - Look for examples in the assigned (and optional!) **videos**

# 1. Tips for preparing to take the exam

- Know what **topics** are especially important for you yourself to **review**
  - Look over the **scores** and **feedback** on past Learning Assignments and Homework Assignments
  - Look over the exam review guide and make sure you remember, or know where to find, **key information** about all the topics listed there
- Questions about **making the best use of course material** to prepare for the exam?
  Ask on Padlet here

# 2. Review: Writing a phonological rule

- Here is how we will state phonological rules in our model of mental grammar: (from slides 0902.3)

**A → B / X _ Y**

**A** The sound(s) affected by the rule

**B** The property(ies) that the rule **changes**

**/** 'In the environment of'

**_** Where the affected sound(s) are located with respect to the context

**X** Preceding context, if any

**Y** Following context, if any

*** **Always** state A, B, X, Y in terms of **properties** ***

# 2. Review: Writing a phonological rule

- Example: Suppose we have a language where:

  [i] becomes [e] and [u] becomes [o] when they occur in front of [m], [n], or [ŋ]

- How do we write this as a phonological rule?

# 2. Review: Writing a phonological rule

- Example: Suppose we have a language where:

  [i] becomes [e] and [u] becomes [o] when they occur in front of [m], [n], or [ŋ]

- **Sounds affected** by the rule: [i u]
  - How can we state these in terms of **properties**?
    - Be specific enough to differentiate them from other relevant sounds (in the data set)
    - Try to be as general as you can, otherwise

# 2. Review: Writing a phonological rule

- Example: Suppose we have a language where:

  [i] becomes [e] and [u] becomes [o] when they occur in front of [m], [n], or [ŋ]

- **Sounds affected** by the rule: [i u]
  - How can we state these in terms of **properties**?
    - *high vowels* (*high tense vowels* also okay)
  - So sounds affected are: *high vowels*

# 2. Review: Writing a phonological rule

- Example: Suppose we have a language where:

  [i] becomes [e] and [u] becomes [o] when they occur in front of [m], [n], or [ŋ]

- **Environment** where rule applies: if [m n ŋ] follow
  - Informally: " / __ [m n ŋ] "
  - How can we state these in terms of **properties**?
    - Be specific enough to differentiate them from other relevant sounds (in the data set)
    - Try to be as general as you can, otherwise

# 2. Review: Writing a phonological rule

- Example: Suppose we have a language where:

  [i] becomes [e] and [u] becomes [o] when they occur in front of [m], [n], or [ŋ]

- **Environment** where rule applies: if [m n ŋ] follow
  - Informally: " / __ [m n ŋ] "
  - How can we state these in terms of **properties**?
    - *nasals* (*voiced nasal stops* also okay)
  - So environment of rule is: */ __ nasals*

# 2. Review: Writing a phonological rule

- Example: Suppose we have a language where:

  [i] becomes [e] and [u] becomes [o] when they occur in front of [m], [n], or [ŋ]

- **Change** imposed by the rule: [i] → [e] and [u] → [o]
  - Characterizing the change imposed by the rule is the most interesting part!
  - The key idea:
    - A rule does not **replace** one sound with another
    - A rule **adjusts the properties** of a sound

# 2. Review: Writing a phonological rule

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- **Change** imposed by the rule: [i] → [e] and [u] → [o]
  - The key idea:
    - A rule does not **replace** one sound with another
    - A rule **adjusts the properties** of a sound
  - "[s] → [z]" is not "[s] is *removed* and *replaced* with [z]", but rather, "[s] *becomes* _____"

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  - How can we state these in terms of **properties**?
  - As a first step, we can see that [i u] are high vowels and [e o] are mid vowels
  - So what property literally changes if [i u] → [e o]?

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  - So what property literally changes if [i u] → [e o]?
  - The high vowels *become mid*

# 2. Review: Writing a phonological rule

- Example: Suppose we have a language where:

  [i] becomes [e] and [u] becomes [o] when they occur in front of [m], [n], or [ŋ]

  - **Sounds affected**: [i u] | *high vowels*
  - **Environment**: if [m n ŋ] follow | */ __ nasals*
  - **Change** imposed: [i u] → [e o] | *→ mid*

  - So the final version of the rule would be:

    *high vowels → mid / __ nasals*

# 3. Review: Syntax trees and syntax rules

- Practice example #3 from last week

  **Which cousin did George get a letter from?**

  (a) What is the deep structure of this sentence?

  (b) Which syntactic rules have applied?

  (c) Draw trees for…

  - the deep structure
  - the outcome after *each* of the applicable rules has applied (in other words, show what happens step-by-step)

# 3. Review: Syntax trees and syntax rules

- Practice example #3 from last week

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  (a) What is the deep structure of this sentence?

  (b) Which syntactic rules have applied?

  - What are some things that have changed?

# 3. Review: Syntax trees and syntax rules

- Practice example #3 from last week

  **Which cousin did George get a letter from?**

  (a) What is the deep structure of this sentence?

  (b) Which syntactic rules have applied?

  - What are some things that have changed?

    - The auxiliary in T has moved to the front
    - A WH phrase has moved to the front
    - A form of *do* is in the T position

# 3. Review: Syntax trees and syntax rules

- Practice example #3 from last week

  **Which cousin did George get a letter from?**

  (a) What is the deep structure of this sentence?

  (b) Which syntactic rules have applied?

  - What rules have applied?

    - Inversion (T → C)
    - WH Movement (WH phrase → spec of CP)
    - *Do* insertion

# 3. Review: Syntax trees and syntax rules

- Practice example #3 from last week

  **Which cousin did George get a letter from?**

- An attempt to draw this tree in real time on Zoom