

## Today's objectives:

- **Analyzing alternating morphemes**
- **Comparing UR hypotheses**

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### *Background preparation:*

- PP: Dutch
- Handouts – Morphology and phonology;  
Morpheme alternations

# 0. Course information

## Today's plan

- Check-in: Morphology and phonology
- Alternating morphemes in Dutch
- How to decide between hypotheses about alternating morphemes
- A procedure for analyzing alternating morphemes

# 1. Check-in: Morphology and phonology

- Some key points to understand about working with **morphologically complex words**

Review the handout - "[Morphology and phonology](#)"

- What is a **morpheme**?
- How do we **identify** morphemes in a data set?
- What part of the grammar **adds** morphemes to form complex words? [[graphic](#), HS Thompson]

# 1. Check-in: Morphology and phonology

- A morpheme with **multiple surface forms** (determined by their environment) is known as a morpheme that \_\_\_\_\_

Review the handout - "[Morpheme alternations](#)"

- What are some examples that we have seen?

# 1. Check-in: Morphology and phonology

- A morpheme with **multiple surface forms** (determined by their environment) is known as a morpheme that **alternates**

Review the handout - "[Morpheme alternations](#)"

- Examples:
  - Turkish
  - Lamba
  - Dutch

## 2. Alternating morphemes in Dutch

### Group discussion

Data set – [Dutch](#) (PP)

- How can we divide these words into **morphemes**?

## 2. Alternating morphemes in Dutch

### Debriefing

Data set – [Dutch](#) (PP)

- How can we divide these words into **morphemes**?
  - What do we do with [ randən ] ‘edges’? Why?
    - [ rand-ən ] ?
    - [ ran-dən ] ?
    - [ ran-d-ən ] ?

## 2. Alternating morphemes in Dutch

### Group discussion

Data set – [Dutch](#) (PP)

- Which morphemes in Dutch **alternate**?
- What **hypotheses** can we formulate about the phonological **grammar** of Dutch in order to account for these alternation patterns?
  - What URs should we consider?
  - For each UR, what would the grammar have to make happen?
  - Which approach is the most insightful?



## 2. Alternating morphemes in Dutch

### Debriefing

- Which morphemes in Dutch **alternate**?
- What **hypotheses** can we formulate about the phonological **grammar** of Dutch in order to account for these alternation patterns?

Review from last time ([Lamba](#))

- *Hypothesis 1*: Lexicon contains /-e.../, and then...
- *Hypothesis 2*: Lexicon contains /-i.../, and then...

How did we decide between these hypotheses?

## 2. Alternating morphemes in Dutch

### Debriefing

- What **hypotheses** can we formulate about the phonological **grammar** of Dutch in order to account for these alternation patterns?
  - *Hypothesis 1*: Lexicon contains /.../, and then...
  - *Hypothesis 2*: Lexicon contains /.../, and then...
- For each hypothesis, consider what phonological process(es) we would need **under that hypothesis**
  - Compare: Is one of the options for the phonological process(es) **preferable**?

## 2. Alternating morphemes in Dutch

- Example: [ rant ] ~ [ randən ] 'edge -SG, -PL'
  - Hypothesis 1: UR is / rant /
  - Hypothesis 2: UR is / rand /
- What are the **pros and cons** of each hypothesis?
  - Isolation form is not same as UR (which hyp.?)
  - Phonological process is restricted to only certain morphemes (which hyp.?)
- What are some **predictions** of each hypothesis?

## 2. Alternating morphemes in Dutch

- Hypothesis 2  
(UR is / r and /; rule *devoices* word-final obstruents)
  - What does this hypothesis predict should happen when a Dutch speaker starts to learn a language that has final voiced obstruents?
  - Listen to [this Dutch speaker](#)  
(from Speech Accent Archive (GMU), speaker *dutch8*)
- **productivity**: when a process in the grammar is extended to novel words or contexts
  - Evidence that there *is* a process in the grammar!

### 3. Analyzing morpheme alternations

- **How many URs**

does an alternating morpheme have,  
if the alternation is **phonologically productive**?

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- **How many URs**

does an alternating morpheme have,  
if the alternation is **phonologically productive**?

- Example: Turkish plural has surface forms [-ler] and [-lar] — how many URs does this morpheme have? | **One UR**
- If the surface form is predictable and the process is productive, the pattern is produced by the grammar (not memorized)
- Start with the (single) UR and **apply phonological rules**

### 3. Analyzing morpheme alternations

- 1 Isolate the **morphemes** in the data set
- 2 Identify which morphemes are **alternating**
- 3 Determine the **phonological context** in which each surface form appears
- 4 Determine the best **analysis** (UR + rule(s) combination)
- 5 Make sure your analysis is **formalized** using the tools of our phonological model

## 3. Analyzing morpheme alternations

Data set - [Dutch](#)

- 4 Determine the best **analysis** (UR + rule(s) combination)
  - What did we decide, and why?



# 3. Analyzing morpheme alternations

Data set - [Dutch](#)

4 Determine the best **analysis** (UR + rule(s) combination)

- What did we decide, and why?

- *From last time, now updated:*

Things to consider when comparing two hypotheses

- MOST IMPORTANT: Can a consistent generalization be stated across the data set (no “exceptions”)?
- ALSO CONSIDER: Can the environment needed for a process be stated **insightfully** in our model?

# 3. Analyzing morpheme alternations

Data set - [Dutch](#)

5 Make sure your analysis is **formalized** using the tools of our phonological model

- What does this mean?

  - What “tools” should we use?

- We will follow this up next class (and in the preparation questions)