

Today's topics:

- **Phonology:**
Mental grammar of sounds
- **Segmental phonology:**
Phonemes and allophones

Background:

- *Prep questions on pronunciation of <ん>*
- *Phonetics terms and concepts from last week*

0. Today's objectives

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

- Use concepts from consonant phonetics to make generalizations about how the consonant spelled <ん> is pronounced
- Explain and use the key **segmental phonology** concepts of **phoneme** and **allophone**
- Discuss some implications of phonemes and allophones for learning Japanese or English

0. Course information

- Are there course topics you have questions about?
 - You are welcome to contribute anonymous comments/questions on the **course Padlet**
(See link on “Daily information” page)

1. Warm-up/check-in

- How did it go, filling in the (phonetic) consonant chart for Japanese?
 - Are you comfortable with the row and column categories in the chart?
 - Any other questions or points to discuss?
- Handout - "[Phonetics: Reference charts for Japanese consonants and vowels](#)"

1. Warm-up/check-in

Our focus in the first week:

- **Phonetics**

- How to use **IPA symbols** to “write down” speech sounds, without relying on an individual language’s spelling system
- Terms to **describe vowels and consonants** — Where and how is the sound made?
 - Lots of new terms to know
 - But often you can “check”, physically

1. Warm-up/check-in

Our focus for the next two weeks:

- **Phonology** → Sounds in the mental grammar
Those phonetics terms actually explain a lot about **how sounds form patterns, cognitively**
 - First we will look at **segmental phonology** (vowels and consonants)
 - Then we will look at **prosodic phonology** (syllables, pitch accent)

2. The pronunciation of <h> in context

- What **generalizations** were you able to make about the pronunciation of the sound spelled <h>?
→ Prep questions for today's class

2. The pronunciation of <ん> in context

- Note: The description of <ん> in the Genki textbook is actually a little too simplistic

For more accurate information, see:

- Data set - "[Syllable-final nasals](#)"
- Sound files on Canvas

3. Phonology: Sounds in mental grammar

- What **generalizations** were you able to make about the pronunciation of the sound spelled <h>?
- Big idea here: Some of the phonetic properties of sounds are also used by the **mental grammar**
 - to classify sounds into groups
 - to change one sound into another in some context
- Handout - "Phonemes and allophones"

3. Phonology: Sounds in mental grammar

- **Different languages** have different inventories and patterns of speech sounds!
 - Present in one language, absent in another
 - Separate phonemes in one language, allophones of one phoneme in the other
- Both of these scenarios can cause difficulty in **mastering a second language** (“foreign accent”)
 - The phonological grammar of your first language often transfers to new languages that you learn

3. Phonology: Sounds in mental grammar

- Consider the following words of English
 - How are the “t” and “d” sounds pronounced?

(a)	<i>let</i>	<i>letting</i>	(b)	<i>need</i>	<i>needing</i>
	<i>hot</i>	<i>hotter</i>		<i>wide</i>	<i>wider</i>

3. Phonology: Sounds in mental grammar

- Consider the following words of English
 - How are the “t” and “d” sounds pronounced?
 - (a) *let* *letting* (b) *need* *needing*
 hot *hotter* *wide* *wider*
- What we have here is a case of **phonemes** with **multiple allophones**:
 - /t/ has [t] and [r] (among others!)
 - /d/ has [d] and [r]

3. Phonology: Sounds in mental grammar

- English phonemes with multiple allophones:
 - /t/ has [t] and [ɾ] (among others!)
 - /d/ has [d] and [ɾ]
 - For both the /t/ and /d/ phonemes, their [ɾ] allophone occurs *when between vowels* as long as the second vowel is *not stressed* (this is a slight simplification)
- What happens when an English-speaking beginning learner of Japanese tries to produce the word [kɯdasai] 'please give me...'? **Why?**
 - See also handout - "[Phonemes and allophones](#)"

4. Example: Voiced and voiceless vowels

- Data set - “Voiceless vowels”

Applying these phonology concepts:

- Examine the environments for patterns
- Determine whether two sounds are...
 - **Predictable** from their environments → **Allophones** of same phoneme
 - **Unpredictable** from their environments → **Distinct phonemes**

4. Example: Voiced and voiceless vowels

- Data set - “[Voiceless vowels](#)”

Applying these phonology concepts:

- Examine the environments for patterns
- Determine whether two sounds are...
 - **Predictable** from their environments → **Allophones** of same phoneme
 - **Unpredictable** from their environments → **Distinct phonemes**
- See [environment charts](#) for this data set

5. For next time

- Try out the new data sets on your own
 - Part I only of the “Bilabial, palatal, and glottal fricatives” data set
 - Set (2) only in the “Alveolar/alveopalatal obstruents, part (I)” data set
- What to do (prepare for class discussion/PQs)
 - Examine the environments for predictability
 - Allophones of same phoneme or not?