

A collection of military medals and a compass is displayed on a wooden board. The board has a blue border and a grid of circular holes. Several medals are pinned to the board, including a red ribbon medal with a circular emblem, a blue ribbon medal with a circular emblem, and two silver star-shaped medals with intricate designs. A pair of gold-rimmed glasses is also visible, along with a small compass in the bottom left corner.

PHONOTACTIC RULES

ANI SETYANINGSIH
anisetyaningsih@uny.ac.id



Syllable

→ a unit of linguistic structure that consists of a syllabic element and any segments that are associated with it

- * Syllables don't serve any meaning-signalling function in language; they exist only to make speech easier for the brain to process.
- * A word consists of at least one syllable.
- * A syllable consists of a central peak of sonority (usually a vowel) and the consonants cluster around the central peak.

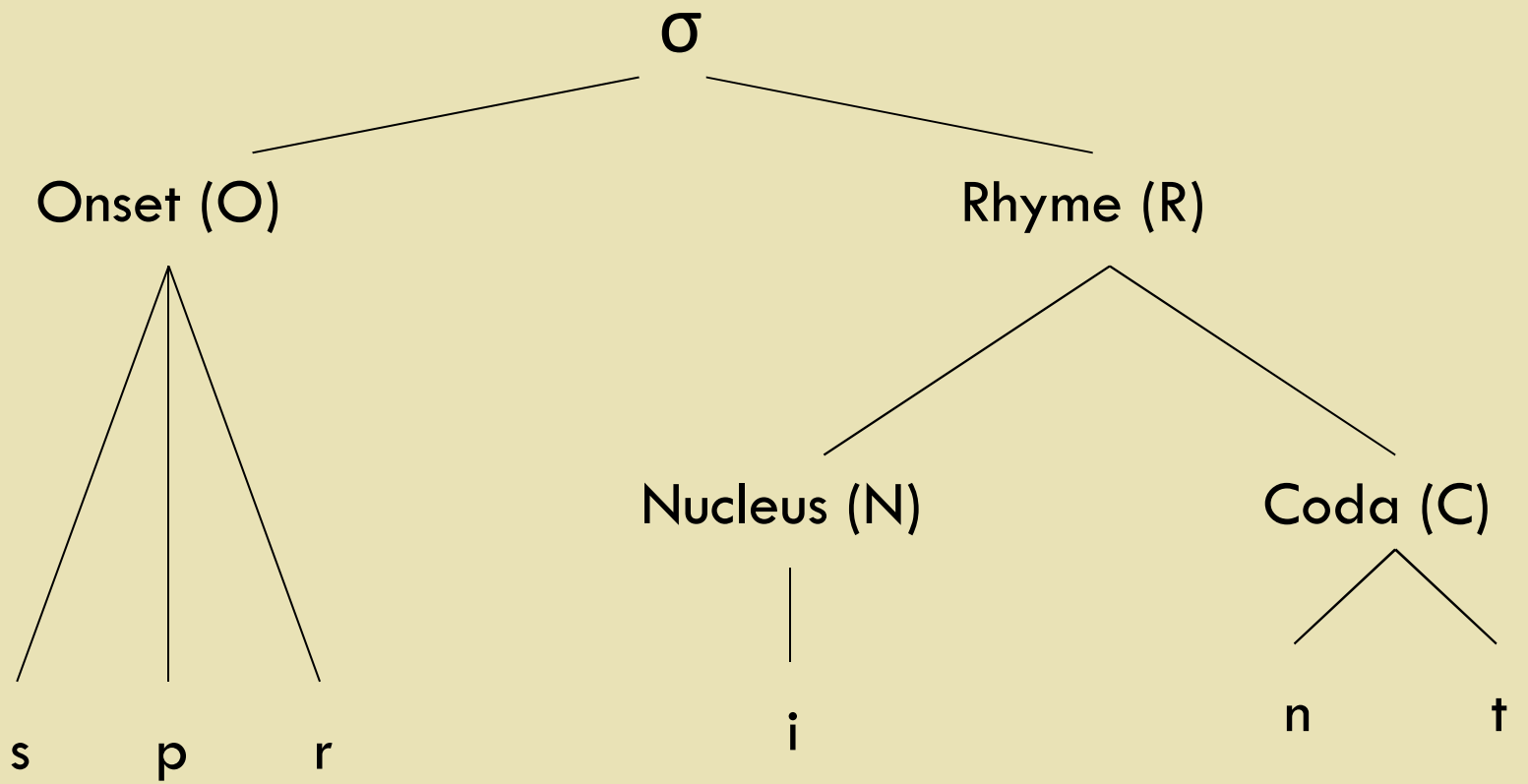


FOUR SUB-SYLLABIC UNITS

- ◆ **Nucleus:** a syllabic segment that forms the core of a syllable.
- ◆ **Coda:** segments that follow the nucleus in the same syllabic.
- ◆ **Rhyme:** the nucleus and the coda of a syllable in a word.
- ◆ **Onset:** the beginning segments of the syllable; the ones preceding the nucleus.



| Parts | Description | Optionality |
|----------------|--------------------------------------|--------------------|
| Onset | Initial segment of a syllable | Optional |
| Nucleus | Central segment of a syllable | Obligatory |
| Coda | Closing segment of a syllable | Optional |





***Phonotactics* is the set of constraints on how sequences of segment pattern. There are rules on the number and type of segments that can combine to form syllables and words which vary greatly from one language to language.**

- * Arabic, every syllable must have an onset;
- * Hawaiian, no codas are allowed
- * English, onsets and codas are allowed

Each language has some restrictions on the permissible contents of slots in a syllable structure (known as phonotactic constraints).

•

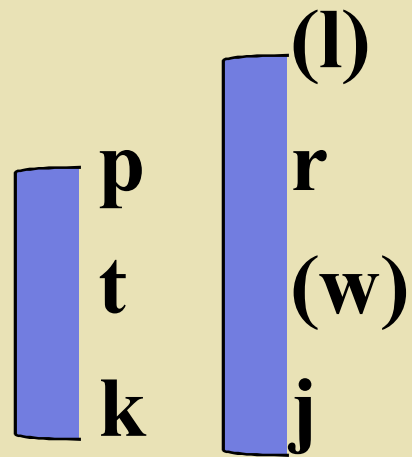


*Initial consonant clusters in English
containing a voiceless stop.*

| Labial + sonorant | | Coronal + sonorant | | Velar + sonorant | |
|-------------------|--------|--------------------|-------|------------------|-----------|
| [pl] | please | [tl] | _____ | [kl] | clean |
| [pr] | proud | [tr] | trade | [kr] | cream |
| [pw] | _____ | [tw] | twin | [kw] | queen |
| [pj] | pure | [tj] | tune | [kj] | cute |
| [spl] | split | [stl] | _____ | [skl] | sclerosis |
| [spr] | spring | [str] | strip | [skr] | scrap |
| [spw] | _____ | [stw] | _____ | [skw] | squeak |
| [spj] | spew | [stj] | stew | [skj] | skewer |



- ◆
- ◆
- ◆ σ [s]
- ◆
- ◆



Nucleus



- ◆ ***Accidental Gaps:*** gaps in a language's inventory of forms that correspond to non-occurring but possible forms.
 - ◆ Eg. kodak, zen, perestroika
- ◆ ***Systematic Gaps:*** gaps in the occurring syllable structures of a language that result from the exclusion of certain sequences.
 - ◆ Eg. psychology, pterodactyl

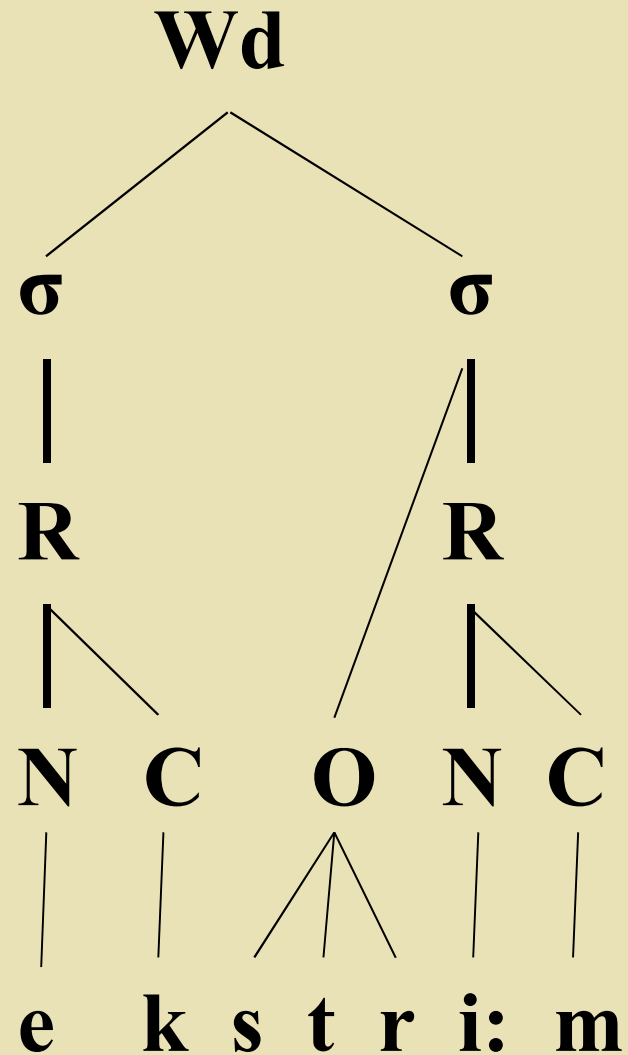
Setting Up Syllables

1. Link a vowel to an N above it by drawing an association line. Then place an R above each N. Above each R, place a σ ; link all association lines.

| | |
|----------|----------|
| σ | σ |
| | |
| R | R |
| | |
| N | N |
| | |
| ekstri:m | |



4. Link the syllables which make up a single form to a Wd.



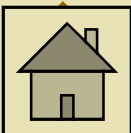


Liquids and nasals as syllable nuclei

- ◆ **The English liquids [l, r] and the nasals can be the nucleus of the syllables under certain conditions.**
 - [r] can be a nucleus as easily as a vowel
- ◆ **eg. bird, word, her, fur, perceive, surname, mother, actor**
 - [l] and nasals [m, n] become nucleus when they follow an alveolar consonant in the last syllable of a word.
- ◆ **eg. bottle, bottom, button**

Some Phonotactical Rules

- ◆ **all phonological words must consist of at least one syllable, and hence must contain at least one vowel**
- ◆ **sequences of repeated consonants are not possible**
- ◆ **the velar /ŋ/ never occurs in the onset of a syllable**
- ◆ **the glottal fricative /h/ never occurs in the coda of a syllable**
- ◆ **the affricates /t / and /d /, and the glottal fricative /h/ do not occur in complex onsets**
- ◆ **if the first consonant in a two-consonant onset is not an /s/, the second consonant must be a liquid or a glide- /l/, /r/, /w/, /j/**





Try these words *exclude*, *splendid*,
understanding