Phonology Review

Ling 201 Discussion Section
3/1/2024

Assignment 2 Points

- Awesome job on transcriptions!

- Easy to lose a lot of points on Question 2 charts; don’t worry, there will be lots of assignments (& they won’t rely so much on your ability to think up English words)

Assignment 2 Points

- I circled the table cells that we almost definitely know are allowed in English because they're a coda in a real English word (answer key has examples)
- Question 2 was 1pt for each of these

- The point of Question 2 is to get you to think about what the good codas have in common, different from the bad codas

Syllabification Review (assignment 3)

“seamstress”

Transcription?

Syllabification Review (assignment 3)

“seamstress”

Transcription?

[s i m s t ɹ ɪ s]

Syllabification Review

Every syllable has a nucleus

e.g. [aɪ]

A syllable CAN have an onset (doesn’t have to)

e.g. [maɪ], [smaɪ]

A syllable CAN have a coda (doesn’t have to)

e.g. [aɪn], [aɪnd]

Syllabification Review

Step 1: identify nuclei

- all vowels are nuclei

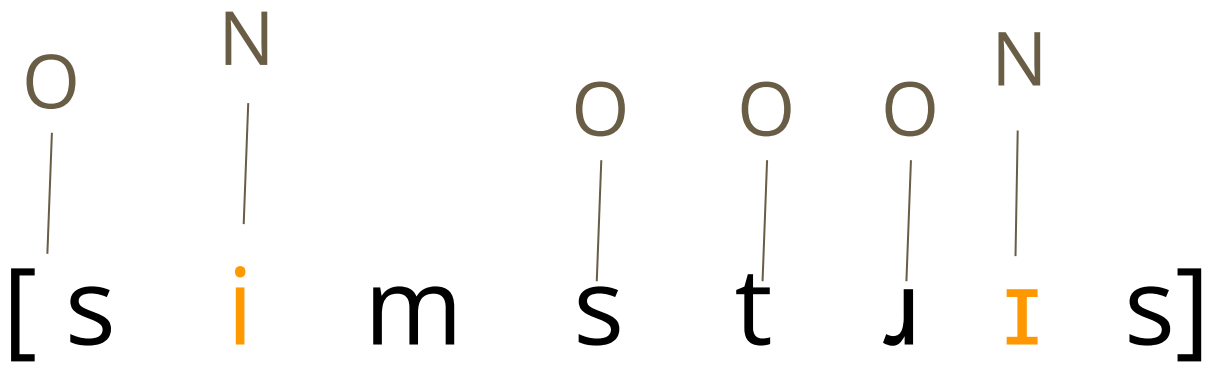
-every syllable has one nucleus


N
N
[s i m s t ɹ ɪ s]

Syllabification Review

Step 2: identify onsets

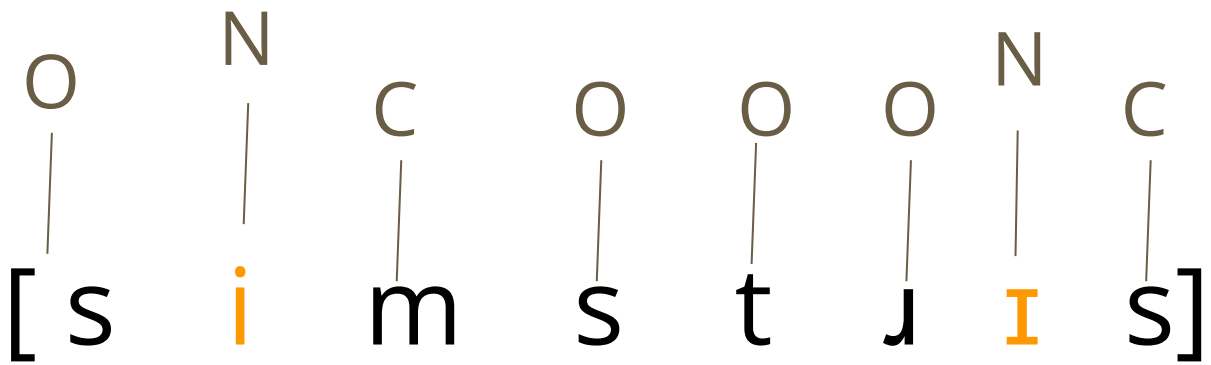
- Each language only has a limited set of possible onsets; not every sequence of consonants can be an onset in, e.g. English
    - ”phonotactic” e.g.
    - [st] vs [ts]: [stai] vs *[tsai]
- Make each onset as long as possible


O
N
O
O
O
N
[s i m s t ɹ ɪ s]

Syllabification Review

Step 3: identify codas

- Each language only has a limited set of possible codas; not every sequence of consonants can be a coda in, e.g. English
    - ”phonotactic” e.g.
    - [nt] vs [dt]: [tɛnt] vs *[tɛdt]


O N C O O O N C
[s i m s t ɹ ɪ s]

Syllabification Review

Step 4: group onsets, nuclei, codas into syllables (tree, on board)

Syllabification Review

If any sounds are left over that can’t go into onset or coda legally for English, CRASH – that’s not a possible English word(Question 2)

For syllabification on assignment 3

- Don’t just mark where the syllable boundaries are — make sure you show the onset, nucleus, and coda trees

Phonology review

- Lots of logically possible combinations of phones, e.g.
  - [ndet], [dnet], [dent^{h}], [dent], [tend], [t^{h}end], [t^{h}edn]…
- Each language, e.g. English, only allows some combinations
  - e.g. [t^{h}end], [dent] …
- Different languages allow different combinations

Distributions

- When we talk about the “distribution” of a phone in a language, we mean where in a syllable or word it can show up, or which phones it can have as neighbors

- E.g. in English, the distribution of t^h is only at the beginning of onsets:

stick	[stɪk]	skit	[skɪt]
*	[tɪk]	*	[kit]
pip	[pʰɪp]	span	[spæn]
*	[pɪp]	*	[pæn]
please	[pʰlijz]	clap	[kʰlæp]
*	[plijz]	*	[klæp]
zits	[zɪts]	nukes	[nuwks]
taps	[tʰæps]	fast	[fæst]
nutjob	[nʌtʤɑb]	rucksack	[ɹʌksæk]
riptide	[ɹɪptʰaɪd]	*	[ɹɪptaɪd]

Complementary Distribution

- Often, we observe one phone shows up **only** where the other can’t, and vice versa:
  - Distribution of t^h:
    - only the places that **are** the beginning of an onset
  - Distribution of t:
    - only the places that **are not** the beginning of an onset

Complementary distribution

Note: they can still appear within the same word! Just not the same *part* of the word, e.g.

[tʰɑɹt]

tʰ is still at start of onset

t is still not at the start of onset

Rules

WHY do phones end up in complementary distribution?

Because before you say a word from memory, your brain applies **rules** that change the sounds based on their neighbors

For example:

“Change t to t^h if and only if it’s at the beginning of an onset”

Rules

"Change t to t^h if and only if it's at the beginning of an onset"

Because we apply this rule, we don't see t's at the beginning of onsets; they've all been turned to t^h's!

Likewise, we only see t^h's at the beginning of an onset, because they only occur in English as the output of this rule

Rules

We call the phone in **memory**, the one that gets **input to** rules, a **phoneme**.

We call the phone we **say**, the one that gets **output from** rules, an **allophone** of the phoneme it came from.

Rules

We call the phone in our **memory**, the one that gets **input to** rules, a **phoneme**.

We write these in slanted brackets, e.g. /t/

We call the phone we **say**, the one that gets **output from** rules, an **allophone** of the phoneme it came from.

We write these in square brackets, e.g. [t^h]

Rule: /t/ → [t^h] at the beginning of onsets

Example: Korean fricatives

[ʃi] [miʃin] [ʃinmun]

[tʰakaŋʃige] [ʃilsu] [oʃip]

[paŋʃik] [kaʃi] [sal]

[kasu] [sanmun] [kasəl]

[miso] [susek] [tapsa] [so]

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What's the distribution of s?

What's the distribution of ʃ?

What's the rule that changes s to ʃ?

Example: Korean fricatives

[ʃi] [miʃin] [ʃinmun]

[tʰakaŋʃige] [ʃilsu] [oʃip]

[paŋʃik] [kaʃi] [sal]

[kasu] [sanmun] [kasəl]

[miso] [susek] [tapsa] [so]

s:
Neighbors before: l_, #_,, a_, i_, u_, p_
Neighbors after: _a, _u, _o, _ə

ʃ:
Neighbors before: #_, ŋ_, o_
Neighbors after: _i

Example: Korean fricatives

[ʃi] [miʃin] [ʃinmun]

[tʰakaŋʃige] [ʃilsu] [oʃip]

[paŋʃik] [kaʃi] [sal]

[kasu] [sanmun] [kasəl]

[miso] [susek] [tapsa] [so]

s:
Neighbors before: l_, #_,, a_, i_, u_, p_
Neighbors after: _a, _u, _o, _ə : **never before i!**

ʃ:
Neighbors before: #_, ŋ_, o_
Neighbors after: _i :
always before i!

Example: Korean fricatives

3 parts to a rule: what's the sound that changes, what's it changing into, and in what environment?

Example: Korean fricatives

3 parts to a rule: what's the sound that changes, what's it changing into, and in what environment?

-s becomes ʃ

-before i

Question 3 Tips

- We’re giving you what the change part of the rule is ([j] deletes)

- We’re asking you to tell us the environment it happens in (when does [j] delete?)
  - What neighbors cause [j] to delete?
  - What makes them different from the neighbors that don’t result in [j] deleting?

Question 3 Tips

- We’re giving you what the change part of the rule is ([j] deletes)

- We’re asking you to tell us the environment it happens in (when does [j] delete?)

Question 3 Tips

List out all of the environments (= neighboring sounds) where the rule takes place

(and it may also help to separately list out all the environments where it *doesn't* take place)

Question 3 Tips

Look for something in common between all these environments that lets you perfectly predict when the [j] deletion will or won't happen:

e.g. it's **not** "delete j after a voiced consonant" because [j] deletion happens in both /djuwz/ and /sjuwt/

it's not "delete j after a voiceless consonant" because [j] deletion doesn't happen in /kjut/