

Homework Assignment #4

Phonology — Phonological rules

Due **W Sept 27 at the beginning of class**. Please write or type your assignment on a separate paper, not on this assignment sheet. Write your recitation number on your paper.

Note: This data set includes some **non-English sounds**. Here are their descriptions:

- [ts] is a voiceless oral alveolar affricate.
- [dz] is a voiced oral alveolar affricate.
- [ʀ] is a voiced uvular oral trill liquid (uvular is a place of articulation a little further back than velar; a trill is a new type of liquid). Some Quebec speakers use an alveolar trill [r] (as in Spanish) instead of a uvular trill [ʀ], but this variation doesn't affect anything in the data set.
- [y] is a high front tense round vowel
- [ʏ] is a high front lax round vowel

[tsɪʀ]	'(he/she/it) pulls'	[tʊʀ]	'tour'
[tu]	'all'	[telegram]	'telegram'
[abutsɪ]	'ended'	[tʀɛ]	'very'
[patɛʀnɛl]	'paternal'	[kʏltsʏʀ]	'culture'
[tab]	'table'	[minyt]	'minute'
[tsimɪd]	'timid'	[tsy]	'you'
[tsɪt]	'title'	[tsyb]	'tube'
[dʊt]	'doubt'	[du]	'sweet'
[dʀɔʒ]	'drug'	[dzɪʀ]	'to say'
[kʀokodzil]	'crocodile'	[kredzi]	'credit'
[dzʏʀ]	'hard'	[dzine]	'dinner (midday)'
[ɔʀdɔne]	'to put in order'	[dam]	'woman'
[dzɪs]	'ten'	[bavarde]	'to chat'

Q1. Make “T-charts” demonstrating the environment of each of the following consonants in this data set: [t] [d] [ts] [dz]. (Make a separate chart for each consonant. Note that a few words contain two of these sounds and therefore will appear in two charts.)

Q2. (a) Do [t] and [d] belong to separate phonemes, or are they allophones of the same phoneme? Justify your answer with information from the data set, which may consist of Quebec French words from the data set or descriptions of sound environments.

Now answer the same question for these pairs:

(b) [ts] and [dz] (c) [t] and [ts] (d) [d] and [dz]

Q3. Do your answers in Q2 require that we write any phonological rules?

- If yes, write the rule or rules needed. Try to combine individual cases into more general rules whenever possible. (Review how we write rules in our model!)
- If no, explain why not.