

Homework 4

LIN101 Fall, 2024, University of Toronto

Name:

Student number:

Collaborator(s):

Instructions

To submit your homework, you can either download this file to fill it out online, or you can create an online copy and work on it online.

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Please type your answers, do not submit handwritten assignments.

Reminder: You can work together with others, but you must always write up your answers on your own. If you worked together with someone, indicate their name(s) and student numbers on the submitted document.

1. Canadian French

Examine the data, list all the environments for sounds [i], [ɪ], [y], [ʏ], [u], and [ʊ] indicating syllable boundaries as well. In your syllabification, rely both on the maximize onset principle and the sonority sequencing principle. Do the same for [t], [ts], [d], [dz].

a) pɪlɪ	'pill'
b) grɪfɛ	'to crunch'
c) grɪʃ	'it crunches'
d) pət̃si	'little (masc.)'
e) pət̃sit	'little (fem.)'
f) vitamin	'vitamin'
g) salɥtɛ	'say hi'
h) ʒɥp	'skirt'
i) fɥmɛ	'smoke'
j) lynɛt	'glasses'
k) tɔrd̃zy	'twisted'
l) lɥn	'moon'
m) pip	'pipe'
n) grɪmas	'grimace'
o) fini	'finished'
p) fiʒ	'girl'
q) d̃zyR	'hard'
r) tɣɥkɛ	'to fake'
s) fɥl	'a crowd'
t) plɥs	'more'
u) ru	'wheel'
v) rɥt	'road'
w) suvã	'often'
x) tɣupɔ	'herd'
y) sup	'flexible'
z) tɥʃ	'touch'
aa) fu	'crazy'
bb) tɣɥk	'a trick'
cc) dominɪk	'Dominique' (name)
dd) d̃zi	'tell (me)'
ee) d̃zis	'ten'
ff) du	'from where'
gg) abɪtsɥd	'habit'
hh) t̃sy	'you'

[i]	[ɪ]	[y]	[ʏ]	[u]	[ʊ]
p_ɪ	R_ɪ	l_t	l_ɪ	R_#	f_ɪ
R_ɪ	t̃s_t	f_m	ʒ_p	s_v	R_t
.t̃s_#	m_n	l_n	l_n	R_p	s_p
v_t	p_p	.d̃z_#	d̃z_R	f_#	t_ɪ
R_m	f_ɪ	R_k	l_s	d_#	
f_n	n_k	t̃s_#	R_k		
.n_#	d̃z_s		t̃s_d		
m_n					
.d̃z_#					
b_.t̃s					

[t]	[ts]	[d]	[dz]
ɪ_#	ə_ɪ	#_o	R_y
ɪ_a	ə_ɪ	#_u	#_y
ɛ_#	ɪ_y	y_#	#_ɪ
#_o	#_y		#_ɪ
#_R			
ʊ_#			
#_ʊ			
y_e			

- a. List the vowel phonemes you could identify (that underlie [i], [ɪ], [y], [ʏ], [u], and [ʊ]), together with their allophones.

/i/ with allophones [ɪ] and [i]

/y/ with allophones [ʏ] and [y]

/u/ with allophones [ʊ] and [u]

- b. Write a single rule in the form $A \rightarrow B / C __ D$ that derives the allophones of each vowel phoneme from the underlying form.

high vowel \rightarrow lax / $__$ coda

high vowel \rightarrow lax / $__$ C.

- c. Give your rule a name and provide derivations for the following underlying forms:

UR	/dominik/ 'Dominique'	/pilyl/ 'pill'
laxing	do.mi.nɪk	pi.lɪl
SR	[dominɪk]	[pɪlɪl]

- d. List the consonant phonemes you could identify (that underlie [t], [t̪], [d], and [d̪]), together with their allophones.

/t/ with allophones [t̪] and [t]

/d/ with allophones [d̪] and [d]

- e. Write a single rule of the form $A \rightarrow B / C __ D$ that derives the allophones of each vowel phoneme from the underlying form.

alveolar oral stop \rightarrow affricate / $__$ high front vowel

- f. Give your rule a name and provide derivations for the following underlying forms:

UR	/ty/ 'you'	/tryke/ 'to fake'
affrication	t̪sy	—
SR	[t̪sy]	[tryke]

2. Language G

Consider the following dataset from language G.

Examine the data, list all the environments for the sounds [b], [β], [d], [ð], [g], and [ɣ], and then list all the environments for [e], [u], [a] and [ẽ], [ũ], and [ã].

- | | |
|-------------|------------------|
| a) brēn | ‘endanger’ |
| b) bako | ‘cow’ |
| c) ũmbro | ‘shadow’ |
| d) krāmbo | ‘room’ |
| e) dilys | ‘Monday’ |
| f) dũŋko | ‘until’ |
| g) duso | ‘sweet’ |
| h) taldepān | ‘leftover bread’ |
| i) pūnde | ‘to lay eggs’ |
| j) dudze | ‘twelve’ |
| k) guteza | ‘flow’ |
| l) ẽŋgwān | ‘this year’ |
| m) puðe | ‘to be able’ |
| n) gat | ‘cat’ |
| o) lūŋg | ‘long’ |
| p) saliβo | ‘saliva’ |
| q) noβi | ‘husband’ |
| r) aβe | ‘to have’ |
| s) jīβaw | ‘horse’ |
| t) byðet | ‘but’ |
| u) ejaðo | ‘hoe’ |
| v) biyar | ‘mosquito’ |
| w) riɣut | ‘he laughed’ |
| x) agro | ‘sour’ |
| y) ɜuɣet | ‘he played’ |

[b]	[β]	[d]	[ð]	[g]	[ɣ]
#_r	i_o	#_i	u_e	#_u	i_a
#_a	o_i	#_ũ	y_ε	ŋ_w	i_u
m_r	a_e	#_u	a_o	#_a	u_ε
m_o	i_a	l_e		ŋ_#	
#_y		n_e		a_r	
#_i		#_u			

[u]	[ũ]	[e]	[ẽ]	[a]	[ã]
d_s	#_m	d_p	r_n	b_k	r_m
d_dz	d_ŋ	d_#	#_ŋ	t_l	p_n
g_t	p_n	dz_#		ɜ_#	w_n
p_ð	l_ŋ	t_ɜ		g_t	
ɣ_t		ð_#		s_l	
ɜ_ɣ		β_#		#_β	
		#_ɟ		β_w	
				ɟ_ð	
				ɣ_r	
				#_g	

- a. List the phonemes you could identify (that underlie [b], [β], [d], [ð], [g], and [ɣ]), together with their allophones.

/b/ with allophones [β] and [b]
 /d/ with allophones [ð] and [d]
 /g/ with allophones [ɣ] and [g]

- b. Write a single rule of the form A → B / C __ D that derives the allophones of each phoneme from the underlying form.

voiced plosive → fricative / V __ V

- c. Give your rule a name and provide derivations for the following underlying forms:

UR	/agro/ 'sour'	/rigut/ "he laughed"
lenition	—	riyut
SR	[agro]	[riyut]

- d. List the phonemes you could identify (that underlie [u], [ũ], [e], [ẽ], [a], and [ã]), together with their allophones.

/u/ with [u] and [ũ] as allophones,
 /e/ with [e] and [ẽ] as allophones,
 /a/ with [a] and [ã] as allophones

- e. Write a single rule of the form A → B / C ___ D that derives the allophones of each phoneme from the underlying form.

vowel → nasalized / ___nasal stop

- f. Give your rule a name and provide derivations for the following underlying forms:

UR	/engwan/ 'this year'	/duso/ 'sweet'
nasalization	ẽngwãn	—
SR	[ẽngwãn]	[duso]

3. Bonus mark: Western Duzorbian

Consider the following dataset from Western Duzorbian and decide whether the sounds [ʃ], [z] and [ʒ] are allophones of the same phoneme or allophones of different phonemes.

a:gaʃ	'twigged'	duruʒol	'combine'
a:gaʒbogaʃ	'extremely twigged'	para:ʒ	'wheat'
ve:zna	'pointy'	ke:ʃ	'hair'
ʒa:koʃ	'ball'	ke:ʒgømb	'hair care'
gara:ʒ	'garage'	ke:z	'nail'
gara:ʒban	'in the garage'	ke:ʒgømb	'nail care'
po:ra:z	'handcuffs'	piliʃ	'East'
zɛne:ʃi:t	'write music'	piliʒi	'Eastern'
ʃa:r	'skunk'	ta:rʃ	'turf'
za:r	'gold'	ta:rʃto:l	'from the turf'
gaz	'mud'	ta:rʒban	'in the turf'
gazba	'into the mud'	ta:rʃnak	'to the turf'
gaznak	'to the mud'	ta:rʒgømb	'turf care'

gaze:rt	'for the mud'	ta:rɜde:r	'turf sale'
riɜ	'rice'	koɟaraɟ	'card'
ge:za	'blended'	koɟaraɜbo:l	'from the card'
dɛniz	'Denise'		

- a. List all the phonemes underlying [ɟ], [z], and [ɜ] with their allophones.

/ʃ/, two allophones: [ɟ] and [ɜ] <- 4pts if both allophones were given

/z/, single allophone [z]

/ɜ/, single allophone [ɜ]

[ɟ]	[z]	[ɜ]
ɑ_#	e:_n	ɑ_b
o_#	a:_#	#_a:
e:_i:	#_a:	a:_#
#_a:	ɑ_#	a:_b
e:_#	ɑ_b	i_#
i_#	ɑ_n	u_o
i_i	ɑ_e:	a:_#
r_#	e:_#	e:_g
r_t	e:_g	r_b
r_n	e:_a	r_g
o_a	i_#	r_d