Phonology homework
Study of Language
Due Tuesday, Oct. 25

Language 1

Consider the distribution of [x] (voiceless velar fricative) and [ç] (voiceless palatal fricative) in the following data. (The ':' denotes a long vowel– it means that the preceding sound is long.)

1.	[ɑxt]	'eight'	7.	[ɪç]	'I'
2.	[buːx]	'book'	8.	[ɛçt]	'real'
3.	[lɔx]	'hole'	9.	[ʃpreːçə]	'(he/she/it) would speak'
4.	[hoːx]	'high'	10.	[lɛçəln]	'to smile'
5.	[flʊxt]	'flight'	11.	[riːçən]	'to smell'
6.	[lɑxən]	'to laugh'	12.	[fɛçtən]	'to fence'

(1)   Are there any minimal pairs for [x] and [ç]? What does this lead you to conclude/expect?

(2)   State the environment of [ç] (with reference to natural classes as pertinent).

(3)   State the environment of [x] (with reference to natural classes as pertinent).

(4)   Is it clear what the phoneme(s) should be labeled? Write a short well-phrased paragraph explaining why or why not.

Language 2

Examine the sounds [k], [x], [c], and [ç] in the data below. [x] is the voiceless velar fricative, [c] is the voiceless palatal stop, [ç] is the voiceless palatal fricative. **Some of these sounds are in contrastive distribution, some are in complementary distribution**.

1.	[kɑmo]	'do'	7.	[çepi]	'eel'	13.	[krina]	'shame'
2.	[xɑmo]	'fake'	8.	[ceni]	'bee'	14.	[xufpa]	'handful'
3.	[çimo]	'pour'	9.	[çeni]	'hand'	15.	[kufepa]	'candy'
4.	[cimo]	'sit'	10.	[koni]	'son'	16.	[çima]	'pig'
5.	[kɑpi]	'charms'	11.	[xoni]	'dances'	17.	[cima]	'china'
6.	[xɑpi]	'problem'	12.	[xrina]	'paper'			

(5)   Is there a minimal pair for [k] and [x]? If so, give it.

(7)   Is there a minimal pair for [k] and [c]? If so, give it.

(6)   Is there a minimal pair for [c] and [ç]? If so, give it.

(8)   Is there a minimal pair for [k] and [ç]? If so, give it.

(9)   State which sounds are in contrastive distribution with which other sounds, using natural class groupings rather than listing sounds.

(10)   Which sounds (using natural class groupings rather than listing sounds) are in complementary distribution?

(11)   Give **one** phonological rule that covers the alternations.

(12)   Can the alternation(s) be seen as a type of assimilation? Write a well-phrased paragraph explaining why or why not.

Langage 3

a.	pahki	'partly'	l.	tahki	'all the time'
b.	niːsosaːp	'twelve'	m.	mihtʃeːt	'many'
c.	taːnispiː	'when'	n.	nisto	'three'
d.	paskuaːu	'prairie'	o.	tagosin	'he arrives'
e.	asabaːp	'thread'	p.	miːbit	'tooth'
f.	siːsiːp	'duck'	q.	nisida	'my feet'
g.	waːbameːu	'he sees him'	r.	meːdaueːu	'he plays'
h.	naːbeːu	'man'	s.	kodak	'another'
i.	aːbihtaːu	'half'	t.	nisit	'my foot'
j.	nibimohtaːn	'I walk'	u.	nisiːsiːbim	'my duck'
k.	siːsiːbak	'ducks'	v.	iskodeːu	'fire'

(13)   Which of the sounds [p], [b], [t], [d] are in contrastive distribution? Which are in complementary distribution? Briefly give evidence for your conclusion.

(14)   Given what you've concluded for [p], [b], [t], and [d], what might we expect to be true of [k] and [g]? Explain. Is there any evidence in the above data for your suspicions about [k] and [g]?

(15)   State the two natural classes that are in complementary distribution in Language 3.

(16)   State the environments where each the above natural classes occurs (the more generally-occurring one should be stated to occur "elsewhere").

(17)   Give the phonological rule that corresponds to the above distributional statement.

(18)   Draw the allophone-to-phoneme match-up for the process described in (17).

(19)   For each of the words of Language 3 below, decide if you can chose between the two alternatives or not (having determined what's predictable and what's not).

a. waː__amon   (p/b)   'mirror'   d. __iːkway   (k/p)   'what'
b. nis__a   (t/k)   'goose'   e. osi__i   (k/g)   'young'
c. __aːni   (t/d)   'which'   f. oː__a   (d/b)   'here'

(20)   Is there assimilation occurring in Language 3, given the data you've seen? Write a well-phrased paragraph briefly explaining why or why not.