



	initial	medial	final
/p/ vs. /b/			
/l/ vs. /ɹ/			

8. List three pairs of words that demonstrate that the tense/lax distinction is contrastive for English vowels. What problem do pairs of words such as these present to a native speaker of Spanish learning English?
9. Consider the distribution of [l] and [ɹ] in Russian. Do they represent two different phonemes, or are they allophones of a single phoneme? Argue for your answer, either by citing (near-)minimal pairs from the data, or by describing the distributions of the two sounds. (Data courtesy of Maria Gouskova.)

words with [l]		words with [ɹ]	
lat	agreement	mil <sup>l</sup>	of miles
gala	gala	nebil <sup>l</sup>	imaginary tale
polka	shelf	ɹat	demon
mel	chalk	ɹot	ice
pol	floor	moɹ <sup>l</sup>	moth
		pol <sup>l</sup> ka	polka

10. In Farsi, spoken in and around Iran, the trill [r], voiceless trill [ɹ̥], tap [ɾ], and retroflex approximant [ɻ] are all in complementary distribution and form one phoneme. Describe the distribution of each allophone. (Data courtesy of Narges Mahpeykar.)

[r]		[ɹ̥]	
ræɖ	trace	pæɹ̥	feather
ræhbæɹ̥	leader	diɹ̥	late
rumizi	tablecloth	pæniɹ̥	cheese
ræis	boss	aɣæɹ̥	final
rubah	fox	aɣiɹ̥	alarm
riz	tiny	mæɖɣbur̥	forced
ruzname	newspaper	æɣuɹ̥	grapes
rahzden	robber	maɹ̥	snake
		mæsiɹ̥	path
		diɖaɹ̥	meet
[ɾ]		[ɻ]	
piruz	victorious	ɣæɻɻ̥	mushroom
aram	quiet	soɻb	iron
birun	outside	sæɻv	cedar
særiɻ̥	fast	zæɻf	dish
kærim	generous	mæɻɖ	man
hæras	fear	geɻɖ	round
kære	butter	keɻm	warm
tire	dark	ɬæɻm	leather
torab	dust	æɻz	width
surax̣	hole	laɻv	insect eggs