

5. *Plains Cree* (Plains Cree is a Native Canadian language of the Algonquian family)

The following data from Plains Cree shows a number of different voiced and voiceless consonantal segments.

a) niska	'goose'	l) nisto	'three'
b) kodak	'another'	m) tʃi:gahigan	'axe'
c) asaba:p	'thread'	n) a:dim	'dog'
d) wasko:w	'cloud'	o) mi:bit	'tooth'
e) paskwa:w	'prairie'	p) pime:	'lard'
f) ni:gi	'my house'	q) mide	'heart'
g) ko:gos	'pig'	r) o:gik	'these'
h) tahki	'often'	s) tʃihtʃij	'finger'
i) namwa:tʃ	'not at all'	t) wa:bos	'rabbit'
j) ospwa:gan	'pipe'	u) na:be:w	'man'
k) midʒihtʃij	'hand'	v) mi:dʒiwin	'food'

- Do [p] and [b] belong to separate phonemes, or can they be allophones of one phoneme? If you think they belong to separate phonemes, list data to support your case. If you think they are allophones, first state the conditioning factors in words, and then, using features, formulate a rule that accounts for their distribution.
- Do the same for [t] and [d], [k] and [g], and [tʃ] and [dʒ].
- Can you make a general statement about the relationship among all the consonantal pairs whose distribution you have examined?
- Using Figure 3.16 as your model, provide complete derivations of the forms for k) *hand*, m) *axe*, and o) *tooth*.

2.5 German

Examine the voiceless velar fricative represented by [x] and the voiceless palatal fricative represented by [ç] in the German data below. Are the two sounds in complementary distribution or are they in contrast? If the sounds are allophones in complementary distribution, state the phonetic contexts for each allophone.

1. [axt]	<i>eight</i>	7. [ɪç]	<i>I</i>
2. [bux]	<i>book</i>	8. [eçt]	<i>real</i>
3. [lɔx]	<i>hole</i>	9. [spreç]	<i>he would speak</i>
4. [ho:x]	<i>high</i>	10. [leçəlɪn]	<i>to smile</i>
5. [fluxt]	<i>flight</i>	11. [riçən]	<i>to smell</i>
6. [laxən]	<i>to laugh</i>	12. [feçtən]	<i>to fence</i>

10. English

Some speakers of English have two types of [l]. One, called *clear l*, is transcribed as [l] in the following data. The other, called *dark l*, is transcribed as [ɫ]. Examine the data, and answer the questions that follow:

(1) [laɪf]	life	(7) [pɪɫ]	pill
(2) [liɪp]	leap	(8) [fiɪɫ]	feel
(3) [lu:wz]	lose	(9) [heɪp]	help
(4) [iɪlowp]	elope	(10) [bʌɪk]	bulk
(5) [diɪləɪt]	delight	(11) [sɔɪd]	sold
(6) [sliɪp]	sleep	(12) [fʊɪ]	full

- Are [l] and [ɫ] separate phonemes or allophones of the same phoneme? If you believe they are separate phonemes, answer question (a). If you believe they are allophones of the same phoneme, answer question (b).
- List the evidence that makes your case for considering [l] and [ɫ] as separate phonemes.
 - State the distribution of [l] and [ɫ] in words.
 - Which variant makes the best underlying form? Why?
 - Can you make reference to syllable structure in your distribution statement? If you can, do so in rule form.