Exercises

A. Provide examples of minimal pairs, one showing the contrast in initial position, and the other in final position, for the English contrasts given in the left column.

<table>
<thead>
<tr>
<th>Initial Position</th>
<th>Final Position</th>
</tr>
</thead>
<tbody>
<tr>
<td>/p, b/</td>
<td>pie - buy</td>
</tr>
<tr>
<td>/tr, d/</td>
<td></td>
</tr>
<tr>
<td>/kr, g/</td>
<td></td>
</tr>
<tr>
<td>/fr, v/</td>
<td></td>
</tr>
<tr>
<td>/dr, r/</td>
<td></td>
</tr>
<tr>
<td>/mr, n/</td>
<td></td>
</tr>
<tr>
<td>/ln, f/</td>
<td></td>
</tr>
<tr>
<td>/tʃ, dʒ/</td>
<td></td>
</tr>
<tr>
<td>/θ, k/</td>
<td></td>
</tr>
</tbody>
</table>

1. /t, d/  
2. /k, g/  
3. /f, v/  
4. /dr, r/  
5. /mr, n/  
6. /ln, f/  
7. /tʃ, dʒ/  
8. /θ, k/

B. Consider the following data from Southern Kongo, a Bantu language, and answer the questions below.

1. [tobola] “to bore a hole”  
2. [tʃina] “to cut”  
3. [kesoka] “to be cut”  
4. [kəʃə] “lion”  
5. [zenga] “to cut”  
6. [ʒima] “to stretch”  
7. [kasu] “emaciation”  
8. [tʃiba] “banana”  
9. [nselele] “termite”  
10. [loloŋsi] “to wash”  
11. [zevo] “then”  
12. [aŋimola] “alms”  
13. [nzwetu] “our house”  
14. [kunezulu] “to heaven”  
15. [tanu] “five”

a. Consider the distribution of [t] and [tʃ]. Are they in complementary or contrastive distribution?

b. Compare the distribution of [s] and [ʃ]. Complementary or contrastive?

c. Finally, compare [z] and [ʒ]. Are they in complementary or contrastive distribution?

d. Discuss your evidence for the answers to a-c. For cases of contrastive distribution, illustrate and describe, using common phonetic descriptions such as “round vowel”, “voiced consonant,” etc., the environments in which the sounds overlap. For cases of complementary distribution, illustrate and describe the different environments in which the sounds occur.