Introduction to Linguistic Theory: Assignment 5

This assignment is based upon the material presented in class during the sixth and seventh weeks. It will be due on Monday, March 25th.

(1) Exercise 1 (30 Points)

The Japanese language contains the phone [h], but also the phone [ɸ], which is a voiceless, bilabial fricative. That is, [ɸ] is just like [p], except that [ɸ] is a fricative.

<table>
<thead>
<tr>
<th>[tōfū]</th>
<th>tofu</th>
<th>[ɸuton]</th>
<th>futon</th>
</tr>
</thead>
<tbody>
<tr>
<td>[ɸudʒi]</td>
<td>Fuji</td>
<td>[heru]</td>
<td>to decrease</td>
</tr>
<tr>
<td>[haha]</td>
<td>mother</td>
<td>[hito]</td>
<td>person</td>
</tr>
</tbody>
</table>

From looking at the data above, please say whether [h] and [ɸ] are allophones of the same or different phonemes.

- If you think they are allophones of different phonemes, provide the minimal pairs that shows this.

- If you think they are allophones of the same phoneme, please do the following:
  - State what phoneme they are allophones of.
  - Provide the rule that determines whether the phoneme is pronounced as [h] or [ɸ].
    - State the rule both informally and using the formal notation.

(2) Exercise 2 (30 Points)

Russian has two ‘ah’-vowels, the back vowel [ɑ] (which we have in English), and also a central ‘ah’-vowel, written in IPA as [a]. The words below illustrate the distribution of these vowels. The phoneme written as [ɫ] is an ‘l’-sound that is pronounced a bit further back in the mouth.

Illustrative Vocabulary of Russian

<table>
<thead>
<tr>
<th>[atɑm]</th>
<th>‘atom’</th>
<th>[upɑt]</th>
<th>‘he fell’</th>
<th>[braɭ]</th>
<th>‘he took’</th>
</tr>
</thead>
<tbody>
<tr>
<td>[dva]</td>
<td>‘two’</td>
<td>[dar]</td>
<td>‘gift’</td>
<td>[mata]</td>
<td>‘mint’</td>
</tr>
<tr>
<td>[dɑɭ]</td>
<td>‘he gave’</td>
<td>[pɑɾkə]</td>
<td>‘stick’</td>
<td>[ukraɭə]</td>
<td>‘she stole’</td>
</tr>
<tr>
<td></td>
<td></td>
<td>[mas]</td>
<td>‘ointment’</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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1. This is essentially the vowel that appears in the Bostonian pronunciation of words like ‘car’, ‘bar’ or ‘Harvard’.
2. This is essentially the ‘l’-sound that appears in the American English pronunciation of words like ‘walk’.
From looking at the data above, please say whether the vowels [ɑ] and [a] are allophones of the same or different phonemes.

- If you think they are allophones of different phonemes, provide the minimal pairs that shows this.

- If you think they are allophones of the same phoneme, please do the following:
  - State what phoneme they are allophones of.
  - Provide the rule that determines whether the phoneme is pronounced as [ɑ] or [a].
    - State the rule both informally and using the formal notation.

(3) Exercise 3  (40 Points)

Show how the following words are composed from smaller morphemes by using our ‘tree notation’. For example, if the word were ‘undo’, then the answer would be:

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| V |
|--|--|
   | un V do
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a. unplayable  ('not able to be played')
b. reformableness  ('state of being able to be formed again')
c. uninteresting  ('not tending to interest people')
d. unresellable  ('not able to be sold again')
e. unsealer  ('one who unseals')