**OPTIONAL Homework 11 – Syllable structure**

Due by 5:00 P.M. Friday, May 18

You can turn this in either by e-mail or put it in my mailbox in South College 226. If you choose to do this homework, its grade will replace your lowest homework grade. This is a third extra credit option; you can do this and also two experiments or papers.

1. **Thai**

   [υ] is a high back unrounded vowel
   [γ] is a mid-height back unrounded vowel
   [ʔ] is a voiceless glottal stop
   [c] is a voiceless palatal stop

   [maa] ‘to come’
   [prap] ‘to fine, adjust’
   [yuk] ‘age, era’

   [pleɛ] ‘to translate’
   [klet] ‘fish scale’
   [ʔuak] ‘to vomit’

   [stuu] ‘to take messages’
   [plutum] ‘to be glad’
   [fɔy] ‘shreds, fibers’

   [tree] ‘to wander’
   [wua] ‘bovine’
   [kreeŋ] ‘to be in awe of’

   [caa] ‘to be bright, strong’
   [kin] ‘to eat’
   [kryŋ] ‘to forewarn’

1.1. Based on the data above, describe these parts of Thai syllables. Are they optional, required, or banned? How many vowels or consonants can be in each? It might help to list all of the onsets, nuclei, and codas (on scratch paper) first.

   Onset:  
   Nucleus:  
   Coda:  

1.2. a. List all of the Thai words from above in which one part of the syllable (onset, nucleus, or coda) contains two consonants. Circle these two consonants in each word.

   b. List the phonemes that appear in the first position of each of cluster that you circled.

   Do these first-position consonants share any features? If so, which ones?
c. List the phonemes that appear in the second position of each cluster that you circled.

Do these second-position consonants share any features? If so, which ones?

1.3. a. How many phonemes appear in the rime of the smallest Thai syllables? _________

b. Give four examples of these smallest Thai syllables from the data above.

_________________________  _______________________
_________________________  _______________________

C. Various kinds of syllables even smaller than the smallest syllables allowed in Thai exist in other languages, including English. Describe two kinds of syllables that are smaller than those found in Thai.

For clarity, write out your syllable shapes schematically with Cs and Vs. For example, a syllable like [plu:t] could be written schematically as CCVVC.

2. Sanskrit

There is a process of reduplication in Sanskrit that copies part of the first syllable of a verb root and puts the copied portion before the root. Crucially, only part of a complex onset is copied.

Unfortunately, I have no idea what these verbs mean, because William D. Whitney’s 1889 grammar doesn’t give translations.

[c] is a voiceless palatal stop

2.1. [prach] ⇒ [pa-prach] [svas] ⇒ [sa-svas] [slis] ⇒ [si-slis]

[sri] ⇒ [si-sri] [vli] ⇒ [ve-vli] [sru] ⇒ [su-sru]

[sna] ⇒ [sa-sna] [prut] ⇒ [po-prut]

a. In the following table, list all of the different onsets that occur in roots, along with the corresponding onsets that occur in the reduplicated portion of each root. Also list each root that each onset occurs in.
b. In general, which consonants are deleted in reduplicated onsets in these words? That is, what do all the deleted consonants have in common?

2.2. \[\text{[sta]} \rightarrow \text{[ta-sta]}\] \[\text{[scut]} \rightarrow \text{[cu-scut]}\] \[\text{[sput]} \rightarrow \text{[pu-sput]}\]

a. Fill in the following table with information about reduplication in these new words.

<table>
<thead>
<tr>
<th>Root onset</th>
<th>Reduplicant onset</th>
<th>Roots</th>
</tr>
</thead>
<tbody>
<tr>
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<tr>
<td>Example:</td>
<td>[sn]</td>
<td>[sna]</td>
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<td></td>
<td>[s]</td>
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</tr>
<tr>
<td>[sta]</td>
<td>[ta-sta]</td>
<td></td>
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<tr>
<td>[scut]</td>
<td>[cu-scut]</td>
<td></td>
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<tr>
<td>[sput]</td>
<td>[pu-sput]</td>
<td></td>
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</tbody>
</table>

b. Consider the description of deleted consonants from 2.1 that you gave in 2.1(b). Are the same consonants deleted in these words? Why or why not?

c. How are all the onsets of all of the roots in 2.2 different from the onsets of all of the roots in 2.1? Hint: Think about features, and whether either the first or second consonants in either 2.1 or 2.2 share any features that make the two groups different.

d. Use the difference you found in 2.2(c) to describe how a Sanskrit speaker decides which consonant gets deleted in all of the words in 2.1 and 2.2. (answer on the back if you need more room)