JUI SYLLABICS*  

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Fang-Kuei Li has given us1 an illuminating and characteristically elegant study of the phonology of the Northern Tai (or Thai) dialect which he calls Jui (i.e., [ʔjui] in certain dialect renditions), as spoken in the city of Poai (Funing, Yunnan). This note is nothing more than a footnote to that article.

Li sets up the following phonemes: Consonants /p m f w t n ŋ l k ŋ j h c š j/, vowels /i i u e o o a o/, six tones (plus intonation-pitch and intonation-stress)2. For the consonants, an alternative analysis seems possible, whereby there would be separate phonemes /w/ and /v/ and where [ʔ] would be an allophone of a juncture-phoneme /+/.  

Li suggests two alternative solutions for the phonetically long and diphthongal syllabics. The second solution (562–3) would state the longs and diphthongs as /VV/ sequences; thus [jia:ŋ] ‘rotten and soft’ becomes /iuai:j/. In this solution the consonants /w j j/, it will be seen, are also dispensed with, at a cost (as Li points out) in syllabic sequence rules.

The first solution (555–62) states diphthongs as /Vw Vj Vj/ and longs as /Vh/. As Li well argues, the general features of distribution within syllabics support an analysis of this general shape. Thus we have /ih ih uh eh øh oh eh ah øh/ and /aj aj aj aw ahw uhj ohj øhj ihw ehw øhw/ as occurring complex nuclei.

Li points out (556) two important distributional limitations: “1. In open syllables, there are no short vowels, and therefore length is not distinctive; 2. e, a, and o are always long, and therefore length is not distinctive.” Because

* It is an honor to offer this little paper to Yuen-Ren Chao, whose uniquely enduring Non-Uniqueness article could well be cited as a footnote to almost every statement of consequence made herein.


2. Two “syllabics” are also noted (557): The syllabic /ŋ/ occurs in interjections such as hŋ and ŋ; the syllabic /l/ occurs only after the initial l in Chinese loan words. Could it be that the “ŋ” here is an allophone of /h/ before /l/? Then we would have /hlŋ/, etc., and the subset /ŋ l/ might be called “seconsonants”.

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the clear presence of sequences of the form /aj/ establish the pattern, and because of the first mentioned limitation, a /VC/ analysis for the longs seems clearly indicated. We might, in fact, rephrase limitation (1) to say that no open syllables occur. In Li's analysis, however, limitation (2) has been transformed but not overcome, in phonemic terms: /e a o/ occur always before /h/. By slightly modifying Li's formulation, I think we can both remove this limitation and reduce the stock of phonemes.

Let us start by observing a further limitation: Before /j j w/ only the vowel /a/ occurs; vowels occur freely before only /h/ and the other consonants. It would be analytically of advantage to broaden distributions in this respect. Let us also observe an inherent symmetry: the subset /j j w/ matches neatly the orders of Li's vowels

\[
\begin{array}{c}
\hat{\iota} \\
\epsilon \\
\hat{\varepsilon} \\
\hat{\iota} \\
\hat{\iota} \\
\epsilon \\
\hat{\varepsilon} \\
\end{array}
\]

Making a harmless change in symbols, the occurring shorts [i I u ε a ω] may be written /i i u e a o/. Now, following Li, we write [ə: a: ω:] as /eh ah oh/.

It is immediately clear that [ε: o:], which occur only long, may be analyzed as /ej ow/. A choice is now suggested for the top row: We may follow Li, and write /ih ih uh/; or we may exploit the symmetries of the semivowels, and analyze /ij i j uw/. Is there a way of deciding this question? We soon find there is. [ə:] cannot be written /aj/, because [aj] is occupied; clearly [I:] and [ω:] must be discriminated as /ij/ and /ih/. Patterning then dictates the choice of /ij i j uw/.

Thus our simple vowels are:

\[
\begin{array}{c}
\hat{\iota} \\
\epsilon \\
\hat{\varepsilon} \\
\hat{\iota} \\
\hat{\iota} \\
\epsilon \\
\hat{\varepsilon} \\
\end{array}
\]

the matching semivowels are:

3. The full set comprising the subclass "semivowel" is /j w h j/ and is defined by the ability to form syllable-final clusters, as follows: /j/ occurs after any of the others; /w/ occurs after any except /j/; /h/ occurs only initially in such clusters, and then precedes /j/ and /w/; /j/ occurs only initially, and then precedes /j/. Such clusters (W₁ W₂) may be expressed:

<table>
<thead>
<tr>
<th>W₁</th>
<th>W₂</th>
</tr>
</thead>
<tbody>
<tr>
<td>w/j</td>
<td>w</td>
</tr>
<tr>
<td>h</td>
<td>j</td>
</tr>
</tbody>
</table>
the longs become the clusters:

\[
\begin{array}{ccc}
\{/ij \quad \ii \quad uw\} \\
\{ej \quad ih \quad ow\} \\
\{eh \quad ah \quad oh/\}
\end{array}
\]

and the diphthongs mentioned above become, respectively: /aj ahj aj aw ahw uwj owj ohj ii jw ejw ehw/. These last may be more meaningfully displayed:

<table>
<thead>
<tr>
<th></th>
<th>-j</th>
<th>-w</th>
</tr>
</thead>
<tbody>
<tr>
<td>a-</td>
<td>aj</td>
<td>aw</td>
</tr>
<tr>
<td></td>
<td>ahj</td>
<td>ahw</td>
</tr>
<tr>
<td>o/e-</td>
<td>ohj</td>
<td>ehw</td>
</tr>
<tr>
<td>u/i-</td>
<td>owj</td>
<td>ejw</td>
</tr>
<tr>
<td>a/i-</td>
<td>aj</td>
<td>ijw</td>
</tr>
<tr>
<td></td>
<td>ii j</td>
<td></td>
</tr>
</tbody>
</table>

And on the basis of the above tabulation we may revise our table of simple vowels on distributional, rather than articulatory, lines:

```
+ final -w
  + j
    i
  + w
    u
      o
          + h
    a   i
  + final -j
```

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Each vowel is now uniquely defined. Distributions have been broadened. And we have fewer phonemes.

If we choose to follow Li’s /VV/ solution, we then have (where T stands for tone):

/\ T  T  T /
/ ii  ia  uu /

T  T  T
ei  ia  ou

T  T  T
ea  aa  oo/

and, respectively: /\ T  T  T  T  T  T  T  T  T  T /
/ ai  aai  ai  au  aau  uui  oui  oai  iii  iiu  eiu  eau/ . In either case there seems to be just six vowels\(^4\).

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4. G.L. Trager, on reading this article, suggests a possible further simplification. He proposes that /j/ be eliminated and treated as a further allophone of /h/. My cluster /ij/ would then be considered as /ihh/; /aj/ would become /aah/, and /iij/ becomes /iih/. This suggestion has the merit of eliminating a fourth semivowel /j/, but in terms of Li’s data, and for the overall patterning, I am not sure it is justified; for one thing, it would mean that a trinary nucleus (/Vhh/) need not be phonetically long.