Episodes about the IPA Vowel Chart and a Suggestion for a New Diacritic

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I (first author) was a big fan of the website of IPA Charts with the sound files (http://www.yorku.ca/earmstro/ipa/) even before I came to University of Victoria in 2008. I was surprised when I finally found out that these sound files were recorded by Dr. Esling. I heard that one thing he is not happy with on the vowel chart is that, while the high front vowel [1] has its rounded counterpart [x], the high back vowel [σ] does not have its own unrounded counterpart. Therefore, he is adding a new symbol, barred [1], to fill in the gap along with his own pronunciation of it.

Incidentally, the vowel corresponding to the letter $\langle u \rangle$ in standard Japanese is generally transcribed with the high back unrounded vowel [uɪ]. However, Nogita, Yamane, and Bird's (2013) ultrasound study revealed that this vowel as pronounced by linguistically naïve native standard Japanese speakers is central or rather front with lip rounding, and can occur with unambiguous lip protrusion, so its actual realizations are [u - v]. In fact, according to Dr. Esling's recordings on the aforementioned website, both [u] and [v] sound like reasonably good exemplars for Japanese $\langle u \rangle$ to my ears. Therefore, we use [u] or [v] for this vowel. (Note that in some sound files not recorded by Dr. Esling, [v] sounds deviant from the Japanese $\langle u \rangle$ based on my impression.)

We hope sometime that we could ask Dr. Esling to make an official diacritic to indicate moraicity. While there is the syllabic diacritic, i.e. [C], there is no moraic (but not syllabic) diacritic in the IPA. We find it somewhat inconvenient when we discuss Japanese which has moraic but non-syllabic segments, such as 'n' in *Honda*. The second author has suggested a half-circle facing up, like the one for extra short [~] except that it is below the main symbol. Note that a non-moraic segment is most likely automatically non-syllabic. Therefore, if the existing non-syllabic diacritic [_] is changed to a symbol for non-moraicity, it also automatically indicates non-syllabicity. The mirror image of the half-circle facing down can be the counterpart of non-moraic, i.e., moraic. Therefore, we suggest the half-circle facing up for a moraic-non-syllabic symbol. The table below summarizes the possible combinations.

Table 1: Syllabic and non-syllabic diacritics. '?' indicates that non-moraic syllabic segments are not likely to exist.

	syllabic	non-syllabic
moraic	I	~
non-moraic	?	<u>^</u>

For instance, although the 'n' in *Honda* [honda] and that in *Hanyū* (a surname) [hanju:] in Japanese are usually transcribed with the same broad phonetic transcription, the different phonological statuses of each [n] can be clarified by indicating that the former [n] is moraic but the latter is non-moraic. An illustration of a moraic [n] with the proposed symbol is shown below:

Figure 1: Illustration of moraic [n] with the proposed diacritic.



References

Nogita, A., Yamane, N., & Bird, S. (2013). The Japanese unrounded back vowel /ui/ is in fact unrounded central/front [u - y]. *Ultrafest VI Program and Abstract Booklet*.