

Public Review Issue 9 : Bengali Reph and Ya-Phalaa

"Basically, the Reph is formed when a Ra which has the inherent vowel killed by the virama/halant begins a syllable." [Paul Nelson]

Actually, it is exactly the other way around. A Ra followed by a viraama/halant becomes a Reph in all contexts other than the one described. When a Ra followed by a viraama begins a syllable, Reph formation is blocked, as in **রালা** /rE*la/ ("*" indicates syllable boundary). In **কর্ম** /kOr*mo/ the dead Ra does NOT begin a syllable. Hence, Reph formation is NOT blocked.

"The Yaphala is a post-base form of Y and is formed when the Y is the final consonant of a syllable cluster." [Paul Nelson]

Again this is not quite correct. Consider **ব্যক্তি** /bEp*ti/. The Ya is in the orthographic representation of the onset of the first syllable. It is NOT the "final consonant of a syllable cluster." Yet Yaphala formation takes place.

Finally, the Reph+Ya sequence (half form of Ra) in the penultimate line of Mr. Nelson's writeup is never encountered in Bangla orthography. Hence one would never need to use the encoding Ra+viraama+ZWJ+Ya.

Let us now turn to the substantive issue. There is indeed an ambiguity to be resolved here, and what Mr. Nelson has suggested will do the job. But there are other workable alternatives. For instance one could assign an independent code point to Yaphala (the post-base combining form of Ya) in the same way as code points are assigned to the combining forms of vowels. In that case **য** would be encoded as Ra+viraama+Ya and **রা** would be encoded as Ra+Yaphalaa+Aa.

This solution has the additional advantage of making it possible for us to avoid encodings such as A+viraama+Ya+Aa(comb) and E+viraama+Ya+Aa(comb). These encodings need to be avoided since a viraama after a vowel makes no sense whatsoever.

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