## On the Telugu nakaara-pollu

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In the Telugu script, the consonant NA has two vowelless forms. The "regular" form is the consonant NA (losing its talakattu or headstroke and) taking the virama sign:

The other form is called the nakāra-pollu. Glyphically it is similar to the archaic Telugu valapalagilaka (repha)  $\varepsilon$ , except it has four horizontal strokes instead of three, so:  $\varepsilon$ 

Brown in his well known Telugu grammar has this to say on the nakāra-pollu:

Sometimes a consonant is marked as "silent;" no vowel being attached to it. The silent mark called pollu is or added to the top of the letter instead of a vowel. Thus for pridhac (i. e. separately, a part.) Here the mark written above k shows that it is silent. Thus also is the letter La; but by adding this sign it becomes as in the word for hal; meaning a consonant. So for ach (i. e. a vowel). Thus for the letter sa becomes as in the word for a vowel. Thus for pa becomes as in the word for the letter. Thus for pa becomes as for ap i. e. water. These are Sanscrit words, and rarely occur in the free dialect.

The letter of Na assumes the form E as in the word once intan 'in the house;' of the lopalan 'within.'

This mark is called న కారపాల్లు nacāra-pollu.

(http://books.google.com/books?id=pnAIAAAAQAAJ&dq=Telugu%20Grammar%2C%20Charles%20Philip%20Brown%20-%20Book%20First%20-%20On%20Orthography%2C%201857&pg=PR9#v=onepage&q&f=false pp 36 and 37 of the PDF, pp 3 and 4 of the actual printed book.)

It would seem that this written form called nakāra-pollu has once been used consistently for vowelless NA in Telugu, as Brown speaks as if it is *the* vowelless form of NA. However, the fact is that it is not often seen in modern printings. Further, Brown's initial words suggest that even the modern form 5 would technically be also a nakāra-pollu as it

involves the pollu (which simply means the Telugu virama according to Brown) attached to the nakāra (consonant NA). Contemporary speakers of Telugu whom we consulted also emphasize that the term pollu is equally applicable to 5, and also to 8 etc. However, the fact remains that the name nakāra-pollu is *in practice* more attached to the written form 6.

Considering the glyphic similarity between 5 and  $\epsilon$  and noting that the base consonant  $\delta$  totally loses its glyphic identity in  $\epsilon$ , it is very attractive to analyse  $\epsilon$  as a much more fused form of the abstract sequence NA + VIRAMA.

However, there is certainly no semantic distinction between the two forms and the variation is merely that of style – old-style  $\varepsilon$  vs new-style  $\delta$ .

While occasionally both forms may be seen in the same printing:

(http://www.prapatti.com/slokas/telugu/dramidopanishattaatparyaratnaavali.pdf p 2)

... the fact that they are mutually equivalent is clear from the corresponding Devanagari:

प्रज्ञाख्ये मन्थशैले प्रथितगुणरुचिं नेत्रयन् सम्प्रदायं तत्तल्लिब्धिप्रसक्तैरनुपिधविबुधैरिर्थितो वेङ्कटेशः। तल्पं कल्पान्तयूनः शठजिदुपनिषदुग्धसिन्धुं विमञ्जन् ग्रथ्नाति स्वादुगाथालहरिदशशतीनिर्गतिं रत्नजातम्॥ २॥

(http://www.prapatti.com/slokas/sanskrit/dramidopanishattaatparyaratnaavali.pdf p 2)

While it might be useful to be able to distinguish between the two forms in plaintext encoded representation, there is no real urgent need for the same. Further, the only theoretical way to cause the NA and VIRAMA to fuse more than normal would be to introduce a ZWJ in between – as NA + ZWJ + VIRAMA – but since the sequence ZWJ + VIRAMA is prescribed

in Indic for requesting C2-conjoining forms, it is better to not redefine that sequence in any way to avoid further confusion in the already complicated joiner situation in Indic. Previous attempts to use joiners in connection with vowelless consonants in South Indic scripts have always created unnecessary confusion which is best avoided.

Thus the practically advisable and sufficient model to handle these two forms of vowelless-NA in Telugu would be to allow fonts to render the isolate sequence NA + VIRAMA as appropriate. An old-style font would render it as **\varepsilon**, and a new-style font as **5**.

Since ZWNJ prevents interaction between previous and following characters, NA + VIRAMA + ZWNJ would be rendered as either 

in old-style fonts or 5 in new-style ones.

If ZWNJ is not present, NA + VIRAMA would of course interact with following consonants to form ligatures or conjoining forms.

The following is thus the summary:

## Old Style Font:

Isolate:	NA + VIRAMA	E
With ZWNJ:	NA + VIRAMA + ZWNJ + DA	౯ద
New Style Font:		
Isolate:	NA + VIRAMA	5
With ZWNJ:	NA + VIRAMA + ZWNJ + DA	న్ద
All Fonts:		

NA + VIRAMA + DA

We therefore only request by this document that the existence of this old-style form of vowelless-NA be documented in the Telugu chapter of Unicode. OCR applications would need to know how this glyph should be recorded in encoding.

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