

**A comparison of vowel harmony patterns in Telugu**  
(Handout for the poster “Metrical structure and vowel harmony in Telugu”)

Vowel phonemes of Telugu: {i, i:, e, e:, æ:, a, a:, o, o:, u, u:, ai, au}.

Compare the regressive vowel harmony pattern from the poster (2a below) with another pattern in (1). In dative and accusative cases in (1), while stems ending in vowels /e/, /a/ and /u/ accept both the suffixes *-ki* and *-ku* (dative case) or *-ni* and *-nu* (accusative case), stems ending in the vowel /i/ (or /i:/) only accept *-ki* and *-ni*. In other words, there is free variation between *-ki* and *-ku* or *-ni* and *-nu* when they follow stems ending in any vowel other than /i/ or /i:/, including /u/ (Kolachina 2016).

(1)

	<u>Stem</u>		<u>Dative case</u>		<u>Accusative case</u>
a.	maniṣi po:t̪i:	‘man’ ‘competition’	maniṣi-ki, *maniṣi-ku po:t̪i:-ki, *po:t̪i:-ku		maniṣi-ni, *maniṣi-nu po:t̪i:-ni, *po:t̪i:-nu
b.	te:ne pet̪te	‘honey’ ‘box’	te:ne-ki, te:ne-ku pet̪te-ki, pet̪te-ku		te:ne-ni, te:ne-nu pet̪te-ni, pet̪te-nu
c.	komma bomma	‘branch’ ‘doll’	komma-ki, komma-ku bomma-ki, bomma-ku		komma-ni, komma-nu bomma-ni, bomma-nu
d.	pe:nu ce:nu	‘louse’ ‘field’	pe:nu-ki, pe:nu-ku ce:nu-ki, ce:nu-ku		pe:nu-ni, pe:nu-nu ce:nu-ni, ce:nu-nu

(2)

	<u>Stem</u>		<u>Plural</u>		<u>Stem</u>		<u>Plural</u>
a.	maniṣi po:t̪i:	‘man’ ‘competition’	manuṣu-lu po:t̪i:-lu	b.	te:ne pet̪te	‘honey’ ‘box’	te:ne-lu pet̪te-lu
c.	komma bomma	‘branch’ ‘doll’	komma-lu bomma-lu	d.	ma:nu a:vu	‘tree’ ‘cow’	ma:nu-lu a:vu-lu

I tentatively propose that the phonological basis for vowel harmony in Telugu involving the vowels /i/ (or /i:/) and /u/ seems to be a general preference in the language that these vowels should not occur in that order: \*{i,i:}...u. That is, the sequence “i...u” or “i:...u” seems to be *marked* in Telugu and can be found in output forms only when it is licensed by other overriding factors. The metrical prominence of /i(:)/ can be such an overriding factor: in (2a), *po:t̪i:lu* is licensed but in (1a), between *po:t̪i:ki* and *\*po:t̪i:ku*, the former is the only allowed output form. Why is the latter totally ungrammatical?

There are arguments in the literature that vowel harmony in general is a perceptually driven phenomenon (Rose and Walker (2011) following Suomi (1983)). Some vowel harmonies are identified as triggered by perceptually weak cues. Harmony triggered by such a perceptually weak feature helps in extending the domain of that feature and thereby increasing the perceptuality of that feature. That is, if a higher number of segments possess that feature as opposed to just the triggering segment, the output will show a substantially increased probability of perception. In Telugu, the epenthetic vowel is the high back vowel /u/. This vowel is often subjected to reduction, especially in unstressed word-medial positions, and pronounced more or less like a schwa. It is possible that in order to increase the probability of clear perception of the fully specified vowel /u/ in the plural suffix, which *happens* to be the same as the epenthetic vowel of the language, the plural suffix triggers regressive vowel harmony. An interesting fact in this regard is that there is free variation in dative and accusative suffixes (*ki* and *ku*; *ni* and *nu*) between

the form with /i/ and the form with /u/, which is equivalent to the general epenthetic vowel. I tentatively assume that the free variation can be analysed as allomorphy in the morphological component of the language's grammar and no phonological rules need be posited to account for actual output forms. On the other hand, the plural suffix does not have another form such as *\*-li*. Hence, the need for preservation of that fully specified vowel /u/ in the output.

Following Kolachina (2016), it is assumed that the spreading of backness triggered by a suffixal vowel cannot skip segments. That is, gapped configurations are not allowed. In conclusion, the OT constraints proposed here derive the right output forms for plurals (3a and 4a) and for dative and accusative cases (3b and 4b), which was flagged as an open issue in Kolachina (2016).

(3)

a.

/kiri:ʈi-lu/	HEADIDENT-IO	IDENTV[SFX]	*i...u	SPREAD-L[+BK]	IDENT-IO[STEM]
a. ki.(rí:).ʈi.lu			*	**!*	
b. <sup>ɛʌ</sup> ki.(rí:).ʈu.lu			*	**	*
c. ku.(rú:).ʈu.lu	*!				***
d. ki.(rí:).ʈi.li		*!			
e. ki.(rú:).ʈu.lu	*!		*	*	**

b.

/kiri:ʈi-ki/ /kiri:ʈi-ku/	HEADIDENT-IO	IDENTV[SFX]	*i...u	SPREAD-L[+BK]	IDENT-IO[STEM]
a. <sup>ɛʌ</sup> ki.(rí:).ʈi.ki					
b. ki.(rí:).ʈu.ku			*!	**	*
c. ki.(rú:).ʈu.ku	*!		*	*	**
d. ki.(rí:).ʈi.ku			*!	***	
e. ki.(rí:).ʈu.ki			*!		*

(4)

a.

/énimidi-lu/	HEADIDENT-IO	IDENTV[SFX]	*i...u	SPREAD-L[+BK]	IDENT-IO[STEM]
a. <sup>ɛʌ</sup> (é.ni).(mì.du).lu			*	***	*
b. (é.ni).(mì.di).lu			*	***!*	
c. (é.ni).(mì.di).li		*!			
d. (é.nu).(mù.du).lu	*!			*	***
e. (é.ni).(mù.du).lu	*!			**	**
f. (ú.nu).(mù.du).lu	**!				****

b.

/énimidi-ki/ /énimidi-ku/	HEADIDENT-IO	IDENTV[SFX]	*i...u	SPREAD-L[+BK]	IDENT-IO[STEM]
a. (é.ni).(mì.di).ku			*!	****	
b. <sup>ɛʌ</sup> (é.ni).(mì.di).ki					
c. (é.ni).(mì.du).ku			*!	***	*
d. (é.nu).(mù.du).ku	*!			*	***
e. (é.ni).(mì.du).ki			*!		*

#### Additional references

Suomi, Kari. (1983). Palatal Vowel Harmony: A Perceptually Motivated Phenomenon? *Nordic Journal of Linguistics* 6, 1-35.