

Comparative study of Kannada and Telugu consonants, consonant sub forms, vowels, signs, Halant and their features resemblance and position placement of sub forms and vowels signs.

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Abstract: Languages in south of India in general are known as Dravidian languages. Kannada and Telugu are two prominent south Indian languages. Both the languages arose around the same time and they are believed to have originated from the common Telugu-Kannada script. However each script is further refined with almost similar shape of many consonants and vowels. Telugu consonants, vowels and signs are with semi-circular and circular shapes. Kannada consonants, vowels and signs are with semi-circular, circular and spiral forms. These shapes appear to be derived from Devanagari script. It may be that both languages roots are from Sanskrit acoustic sound (Dhwani) in pronunciation. In other words each consonant has typical sound of pronunciation. Same is the case with each vowel. When consonant clubbed with sub form is pronounced in different way. Conjunct consonant is combination of two consonants also pronounced differently than its main or clubbed consonant pronunciation. Consonant with vowels signs has different level of sound of pronunciation. Few vowels are short tone and few are with long tone. Vowels signs also fall in the same pronunciation groups and are something like "tie it up" or "tie it down."

Key Words: Compare Telugu Kannada, difference between Telugu and Kannada, Vowel signs, Telugu script, Kannada script.

1. INTRODUCTION:

Most of Indian languages have common 8 class/series of consonants. Each class has defined number of consonants mostly based on phonetic nearby resemblance and the arrangement is also in defined manner. Each language has defined number of vowels. Each vowel has its own sign/s. Only Vowel –A – has no sign. Each consonant and sub form is with built in –A – vowel. It can be included in consonant group because it is independent character without any sign. Most of the vowels are independent as character when they are clubbed in the formation of word. All these vary from language to language. Similarly Halant sign shape and size is also different in different languages. Vowels, consonant sub forms and vowel signs are also well defined for each language.

Both languages are with 36 consonants, 16 vowels and vowels signs. Most of the consonants are with their sub forms. Sub forms can be grouped as BBL –below the base level of the consonant and ABL– above and below the base level of the consonant. Out of 36 consonants 27 are with Head-✓ stroke (75%) in both the language. Out of 16 vowels, 13 vowels have their signs and two have symbolic signs. Out of 13 vowels signs – 6 are long tone and 5 are short tone signs Vowel –A – has no sign. There are two conjunct vowels namely UM and AHA. Halant is important sign in both the scripts. Halant is not a vowel sign. It is used to semi half tone effect with a consonant. Each consonant can only support one vowel sign at a time. In general every consonant has inherent vowel and pronunciation is usually transcribed as “a”. With position placement of vowels signs, consonants and their sub forms Consonants, consonants sub forms including symbolic sub forms with vowels signs change the levels in the script. Height of consonants and vowels also differ. Few consonants and vowels are with sideward extensions and few consonants have Base-,- comma extensions below the base line/level in both the scripts. Their height with Head-✓ stroke is more than other consonants.. However shape and form of Head-stroke is different. In Telugu Head-✓ stroke, V shape – tick – mark and size is uniform to all consonants. In Kannada consonant Head-→ stroke is a bar with spur at the end and the length of Head-→ stroke bar is not uniform. Only one consonant –TTA– has Head-,- comma in Telugu and Head-↺ Horns in Kannada

In general it is said both languages have 70 to 80% similarities and Kannada script bears resemblance to the Telugu script. Before agreeing to these views comparative study with details analysis may be appropriate. Here similarities of words in both the scripts are not considered.

In this paper analysis is based on basic forms and features of consonants, sub forms, vowels, vowels signs and Halant sign. Classification and position placement of sub forms is included. Similarly vowel signs forms and their position placement is also dealt separately. Similar matching features and nearby tone harmony of consonants and vowels pairing is also important.

Analysis is based on the following groups

- Consonants and their features

- Head-✓stroke/ Head-→stroke consonants
 - Head-✓stroke/ Head-→stroke and Base-→comma consonants
 - Head-✓stroke/ Head-→stroke, Base-→comma and → – U – consonants
 - Head-✓stroke/ Head-→stroke and → – U – consonants
 - Base-→comma consonants
 - Head-→comma/Head-→ Horns consonants
 - Extended leg and stem bar/curve consonant
 - “Perfect single consonant form” – consonants
 - Head-✓stroke conjunct consonant
 - Consonant pairs
- Sub forms
 - ABL– above and below base level of consonant
 - BBL– below base level of consonant
 - Placement position of sub forms
 - ABL– above and below base level of consonant
 - BBL– below base level of consonant
 - Vowels
 - Vowels signs
 - Placement of vowels signs
 - Halant

Telugu and Kannada consonants = 36 each

Con	Telugu	Kannada	Con	Telugu	Kannada	Con	Telugu	Kannada
KA	క	ಕ	TA	త	ತ	SHA	శ	ಶ
KHA	ఖ	ಖ	THA	థ	ಥ	SSA	ష	ಷ
GA	గ	ಗ	DA	ద	ದ	SA	ಸ	ಸ
GHA	ఘ	ಘ	DHA	ಧ	ಧ	HA	ಹ	ಹ
NGA	ఙ	ಙ	NA	ನ	ನ			
CH	చ	ಚ	PA	ప	ಪ	LLA	ల	ಲ
CHA	ఛ	ఛ	PHA	ఫ	ಫ	KSHA	క్ష	ಕ್ಷ
JA	జ	ಜ	BA	ಬ	ಬ	RRA	ర	ರ
JHA	ఝ	ఝ	BHA	భ	ಭ			
NYA	ఞ	ಞ	MA	మ	ಮ			
TTA	ట	ಟ						
TTHA	ఠ	ఠ	YA	య	ಯ			
DDA	డ	ಡ	RA	ర	ರ			
DDHA	ఢ	ఢ	LA	ల	ಲ			
NNA	ణ	ಣ	VA	వ	ವ			

Fig. 1

- Other consonants if any not considered here

- Head-✓stroke/ Head-→stroke consonants = 16

Con	Telugu	Kannada	Con	Telugu	Kannada	Con	Telugu	Kannada
KA	క	ಕ	TA	త	ತ	VA	వ	ವ
GA	గ	ಗ	DA	ద	ದ	SA	శ	ಶ
CH	చ	ಚ	NA	ನ	ನ	SSA	ష	ಷ
TTHA	ఠ	ಠ	PA	ప	ಪ	SA	ಸ	ಸ
DDA	డ	ಡ	RA	ర	ರ	HA	హ	ಹ
						LLA	ల	ಲ

Fig. 2

- Head-✓stroke/ Head-→stroke and Base-↘comma consonants = 6

Con	Telugu	Kannada	Con	Telugu	Kannada
CHA	ఛ	ಛ	DHA	ఢ	ಢ
DDHA	ఢ	ಢ	PHA	ఫ	ಫ
THA	ఠ	ಠ	BHA	భ	ಭ

Fig. 3

- Head-✓stroke/ Head-→stroke, Base-↘comma and -∩- U – consonants = 2

Con	Telugu	Kannada	Con	Telugu	Kannada
GHA	ఘ	ಘ	JHA	ఞ	ಞ

Fig. 4

- Head-✓stroke/ Head-→stroke and -∩- U – consonants = 2

Con	Telugu	Kannada	Con	Telugu	Kannada
MA	మ	ಮ	YA	య	ಯ

Fig. 5

- Base-↘comma consonants = 1 – only Telugu consonant

Con	Telugu
KHA	ఖ

Fig. 6

- Head-⌣-comma/Head-⌣ Horns consonants = 1

Con	Telugu	Kannada
TTA	ట	ಠ

Fig. 7

- Extended leg and stem bar/curve consonant = 1

Con	Telugu	Kannada
NYA	ఞ	ಞ

Fig. 8

- Telugu – NYA – consonant = vowel – ౠ – I –is with stem ⁺ bar = ౠ⁺ – NYA
- Kannada – NYA – consonant = vowel – ౠ – I –is with inverted + ⁿ – U = ౠⁿ – NYA
- “Perfect single consonant form” – consonants = Telugu = 6, Kannada = 7

Con	Telugu	Kannada	Con	Telugu	Kannada	Con	Telugu	Kannada
KHA		ಖ	NNA	ಢ	ಢ	RRA	ಱ	ಱ
NGA	ಙ	ಙ	BA	ಬ	ಬ			
JA	ಜ	ಜ	LA	ಲ	ಲ			

Fig. 9

- Head-[✓]stroke conjunct consonant KSHA = 1

Con	Telugu	Kannada
KSHA	క్ష	ಕ್ಷ

Fig. 10

Findings:

In both the languages

- In both the languages Head-[✓]stroke/ Head-[→]stroke consonants = 16
- Head-[✓]stroke/ Head-[→]stroke and Base-[⸗]comma consonants = 6
- Head-[✓]stroke/ Head-[→]stroke and -[∩] – U – consonants = 2

Head-[✓]stroke/ Head-[→]stroke, Base-[⸗]comma and -[∩] – U – consonants = 2

- In Telugu GHA consonant is well defined with -[∩] – U –
- In Kannada – ౠ –GHA consonant is with extra -[∩] – reverse spur at the terminal tip

Base-[⸗]comma consonants = 1 – only Telugu consonant

- KHA – consonant in Telugu is with Base-[⸗]comma
- In Kannada – KHA – consonant is without Base-[⸗]comma

Head-[⸗]comma/Head-[⸗] Horns consonants = 1

- TTA – consonant in Telugu is with one Head-[⸗]comma
- In Kannada – TTA – consonant is with two Head-[⸗] Horns

Extended leg and stem bar/curve consonant = 1

- NYA – consonant is with extended leg below the base level in both the languages
- In Kannada – NYA – consonant is with inverted -[∩] – spur instead of stem bar
- In Telugu – NYA – consonant is with stem -⁺ – bar

“Perfect single consonant form” – consonants = Telugu = 6, Kannada = 7

- In Kannada – KHA – consonant falls under this group
- In Kannada – NGA – consonant is with inverted -[∩] – spur instead of stem bar
- In Telugu – NGA – consonant is with stem -⁺ – bar

Head-[✓]stroke conjunct consonant = 1

- In both languages conjunct consonant – KSHA

Similar matching features consonants

- Eliminated Head-✓stroke/ Head-→stroke consonants = 8

Con	Telugu	Kannada	Con	Telugu	Kannada	Con	Telugu	Kannada
GA	ᳵ	ᳵ	DA	ᳶ	ᳶ	SA	᳷	᳷
TTHA	᳸	᳸	NA	᳹	᳹	LLA	ᳺ	ᳺ
DDA	᳻	᳻	RA	᳼	᳼	Eliminated H S		

Fig. 11

- In Kannada – SA – consonant has Dot
- 99% resemblance 8 consonants
- Eliminated Head-✓stroke/ Head-→stroke consonants - Base-↔comma retained

Con	Telugu	Kannada	Con	Telugu	Kannada
CHA	᳽	᳽	DHA	᳾	᳾
DDHA	᳿	᳿	PHA	᳼	᳼
THA	᳾	᳾	BHA	᳾	᳾

Fig. 12

- In Kannada – SA – consonant Base-↔comma length is slightly more
- In both languages consonants – DDHA, THA, DHA and BHA 99% resemblance
- Telugu – CHA – and – PHA – consonants look much simpler
- Eliminated Head-✓stroke/ Head-→stroke consonants and Base-↔comma

Con	Telugu	Kannada	Con	Telugu	Kannada
CHA	᳽	᳽	DHA	᳾	᳾
DDHA	᳿	᳿	PHA	᳼	᳼
THA	᳾	᳾	BHA	᳾	᳾

Fig. 13

- 80% resemblance – PA
- Kannada CHA consonant looks like Telugu – TTA
- Eliminated Head-✓stroke/ Head-→stroke consonants – Base-↔comma and – ᳾ – U – retained

Con	Telugu	Kannada	Con	Telugu	Kannada
GHA	᳾	᳾	JHA	᳾	᳾

Fig. 14

- 99% resemblance – JHA – consonant
- Kannada – GHA –consonant with terminal Spur and dot
- Telugu – GHA – looks very simple with – ᳾ – U
- Eliminated Head-✓stroke/ Head-→stroke consonants – Base-↔comma

Con	Telugu	Kannada	Con	Telugu	Kannada
GHA	᳾	᳾	JHA	᳾	᳾

Fig. 15

- Kannada – GHA – consonant different than Telugu – GHA
- Eliminated Head-✓stroke/ Head-→stroke and -∩ – U – retained

Con	Telugu	Kannada	Con	Telugu	Kannada
MA	ఎ	ಎ	YA	య	ಯ

Fig. 16

- 99% resemblance – YA – consonant
- MA consonant with -∩ – U – in both languages
- Telugu – MA – looks simple with more open space above Eye–Head
- Base-↔ comma consonants – KHA

Con	Telugu	Base-↔ comma	Con	Kannada
KHA	ఖ		KHA	ಖ

Fig. 17

- 90% resemblance – KHA – consonant
- In Kannada wisely eliminated Base-↔ comma of – KHA – consonant
- Telugu – KHA – consonant is with Base-↔ comma
- “Perfect single consonant form” – consonants

Con	Telugu	Kannada	Con	Telugu	Kannada	Con	Telugu	Kannada
NGA	ఙ	ಙ	NNA	ణ	ಣ	LA	ಲ	ಲ
JA	ಜ	ಜ	BA	ಬ	ಬ	RRA	ರ	ರ

Fig. 18

- 99% resemblance – JA, NNA, BA, LA and RRA – consonants
- 70% resemblance – NGA – consonant
- Telugu – NGA – consonant = vowel – ు – O – is with stem + bar = ఙ – NGA
- Kannada – NGA – consonant = vowel – ు – O – is with inverted ∩ spur with dot = ಙ – NGA
- Telugu – JA – consonant = vowel – ు – O – is + U – ∩ Pin = ಜ – JA
- Kannada – JA – consonant = vowel – ు – O – + U – ∩ – = ಜ – JA
- Eliminated Head-✓stroke conjunct consonant

Con	Telugu	Kannada
KSHA	క్ష	ಕ್ಷ

Fig. 19

- Conjunct consonants have no resemblance
- Sub – ssa – is more clear in Telugu – KSHA
- Eliminated Head-✓stroke – compare other consonants

Con	Telugu	Kannada	Con	Telugu	Kannada	Con	Telugu	Kannada
CH	ఛ	ಛ	TA	త	ತ			
SA	శ	ಶ	SSA	ష	ಷ	HA	హ	ಹ

Fig. 20

- No resemblance of consonants
- Telugu – HA – consonant with AA long tone bar
- Kannada – HA – more resemblance with – LLA – of Devanagari
- Telugu – SSA – consonant looks much simpler and easier to write

- Telugu – CHA, SHA and TA – are much simpler
- Head-✓stroke/ Head-→stroke and Base-↔comma consonants pairs

Telugu consonant pairs				Kannada consonant pairs			
CH	చ	CHA	ఛ				
DDA	డ	DDHA	ఢ	DDA	ಡ	DDHA	ಢ
DA	ద	DHA	ధ	DA	ದ	DHA	ಧ
PA	ప	PHA	ఫ	PA	ಪ	PHA	ಫ
BA	ಬ	BHA	ಭ	BA	ಬ	BHA	ಭ
5 pairs				4 pairs			

Fig. 21

- Telugu consonant pairs = 5
- Kannada consonant pairs = 4
- Kannada – CA – and – CHA – do not match
- Maximum number of similar matching features with nearby tone harmony pairs is important for any language for easier learning

Findings:

Consonants

- 99% resemblance 8 consonants – GA, TTHA, DDA, DA, NA, RA, SA and LLA – Fig. 11
- 99% resemblance consonants – DDHA, THA, DHA and BHA – Fig. 12
- 90% resemblance KHA consonant (No Base-↔comma Kannada KHA) – Fig. 13
- 99% resemblance – JA, NNA, BA, LA and RRA – consonants and – NGA – 70% – Fig. 14
- Conjunct consonants have no resemblance – Fig. 15
- 5 consonants – CHA, SHA, TA, SSA and Ha – no resemblance – Fig. 16
- Telugu 5 consonants pairs, 4 pairs in Kannada
- Kannada – CA – and – CHA – do not match
- Telugu – CH – (similar to Devanagari CH) and – CHA – consonants have similar matching features. Kannada – CHA – (similar to Devanagari CHA) consonant looks like – TTA– consonant and consonant – CH – features are totally different. It appears Kannada script developer could not find match to Telugu – CH – and – CHA – consonants

Sub forms

ABL– above and below base level of consonant

ABL sub forms		
ka ca cha na pa pha ba bha ma ya ra va sha sa lla		Kannada
ಕ ಚ ಛ ನ ಪ ಫ ಬ ಭ ಮ ಯ ರ ವ ಶ ಸ ಲ	SA	ಸ ಸ Height
		sa sa
ka ch cha na pa pha ba bha ma ya ra va sha sa lla		Telugu
క చ ఛ న ప ఫ బ భ మ య ర వ శ స ల	BA	బ బ Height
		ka

Fig. 22

- Base-↔comma sub forms – cha –, – pha– and – bha – in both languages
- Kannada sub form ra more appropriate

ABL sub forms resemblance = 7

Sub forms – position placement – Telugu

Sub forms position placement - Telugu

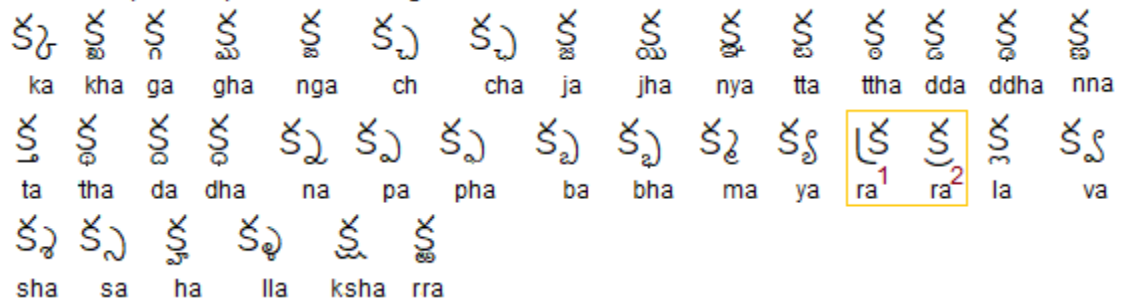


Fig. 31

- Position placement BBL sub forms below the base level of the consonants is appropriate
- ABL sub forms one side of the consonants
- Sub form – ra – 1 – position placement in Telugu need to be reconsidered
- Halant

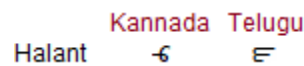


Fig. 32

- Halant sign – no resemblance

Recommended common script for Telugu and Kannada –

Consonants

Con	Telugu	Kannada	Con	Telugu	Kannada	Con	Telugu	Kannada
KA	క	ಕ	TA	త	ತ	SHA	శ	ಶ
KHA	ఖ	ಖ	THA	థ	ಥ	SSA	ష	ಷ
GA	గ	ಗ	DA	ద	ದ	SA	స	ಸ
GHA	ఘ	ఘ	DHA	ధ	ಧ	HA	హ	ಹ
NGA	ఙ	ఙ	NA	న	ನ			
CH	ఛ	ఛ	PA	ప	ಪ	LLA	ల	ల
CHA	ఞ	ఞ	PHA	ఫ	ಫ	KSHA	క్ష	ಕ್ಷ
JA	జ	జ	BA	బ	ಬ	RRA	ర	ర
JHA	ఝ	ఝ	BHA	భ	ಭ			
NYA	ఞ	ఞ	MA	మ	ಮ			
TTA	ట	ట						
TTHA	ఠ	ఠ	YA	య	ಯ			
DDA	డ	డ	RA	ర	ర			
DDHA	ఢ	ఢ	LA	ల	ల			
NNA	ణ	ణ	VA	వ	ವ			

Fig. 33

Sub forms

ABL sub forms – (Vocalic- R – and – RR – fall under this group)

ABL sub forms
 ka ch cha na pa pha ba bha ma ya ra ra va sha sa lla
 క చ చా నా పా ఫా బా బా మా యా రా రా వా శా సా ల్లా
 Vocalic R RR ల లా

Fig. 34

BBL sub forms

BBL sub forms
 kha ga gha nga ja jha nya tta ttha dda ddha nna ta tha da dha ra la ssa ha
 ఖ గ గా గా న్నా జా జా యా త్తా త్తా ద్దా ద్దా న్నా తా తా దా దా రా లా సా హా

Fig. 35

Position placement of sub forms

Position placement - ABL and BBL sub forms
 పా నా యా గా తా దా లా
 pa na ya ga ta da la
 Vocalic R RR ల లా

Fig. 36

- Position placement of both ABL and BBL sub forms in appropriate
- Vocalic R and Vocal RR signs included in ABL group for position placement

Vowels

Vowels
 A AA I II U UU R RR E EE AI O OO AU UM AHA
 త ఆ అ ఇ ఋ ఌ డ డ ఋ ఌ ఎ ఏ అ ఇ ఊ ఊ ఆం ఆః
 క ఆ అ ఇ ఋ ఌ డ డ ఋ ఌ ఎ ఏ అ ఇ ఊ ఊ ఆం ఆః

Fig. 37

- Vowels – A – and – AA – same width
- Height – O – of UM is reduced and is appropriate
- Kannada – E – and – EE – included in Telugu vowels
- Substitute – U, UU, Vocalic R and Vocalic RR included in both the languages

Vowels signs and Halant

Vowels and signs

Vowel	sign	Vowel	sign	Vowel	sign
ఆ	AA	౩	౩	ఌ	౩
ఇ	I	౪	౪	ఋ	AU
ఋ	II	౫	౫	౞	Vocalic - R ల
ఉ	U	౬	౬	౟	Vocalic - RR లా
ఊ	UU	౭	౭	ౠ	Halant ౠ sign

Fig. 38

- All signs are suitable for both the languages

Position placement of vowels signs – common to both the languages

Consonants - vowels - signs - position placement - Groups

	Collar-Head	Stem-Pin- Cups	Terminal Bar	Terminal tip	PA – PHA SA – HA		
KA	క	THA ం	NGA ఙ	TA త	TTA ట	CH చ	PA ఎ
KHA	క	DA డ	NYA ణ	VA వ	TTHA ఠ	CHA ఛ	PHA ఐ
GA	గ	DHA డ	JA జ	SHA శ	BA బ	NA న	SSA ఎ
GHA	గ	RA ర	JHA జ		BHA బ	MA మ	SA న
DDA	డ	RRA ర	NNA ణ		YA య		HA ఏ
DDHA	డ	KSHA క్ష			LA ల	LLA ల్	

Fig. 39

Terminal Bar group

Terminal bar group - consonants = 3

	AA	I	II	U	UU	E	EE	AI	O	OO	AU	UM	AHA	Halant
TA	త	తా	తీ	తే	తూ	తా	తే	తై	తొ	తొ	తౌ	తం	తః	త
VA	వ	వా	వీ	వే	వూ	వా	వే	వై	వొ	వొ	వౌ	వం	వః	వ
SHA	శ	శా	శీ	శే	శూ	శా	శే	శై	శొ	శొ	శౌ	శం	శః	శ

Fig. 40

Terminal Tip group

Terminal tip - Group - Consonants = 11

	AA	I	II	U	UU	E	EE	AI	O	OO	AU	UM	AHA	Halant
CH	చ	చా	చీ	చే	చూ	చా	చే	చై	చొ	చొ	చౌ	చం	చః	చ
CHA	ఛ	ఛా	ఛీ	ఛే	ఛూ	ఛా	ఛే	ఛై	ఛొ	ఛొ	ఛౌ	ఛం	ఛః	ఛ
TTA	ట	టా	టీ	టే	టూ	టా	టే	టై	టొ	టొ	టౌ	టం	టః	ట
TTHA	ఠ	ఠా	ఠీ	ఠే	ఠూ	ఠా	ఠే	ఠై	ఠొ	ఠొ	ఠౌ	ఠం	ఠః	ఠ
NA	న	నా	నీ	నే	నూ	నా	నే	నై	నొ	నొ	నౌ	నం	నః	న
BA	బ	బా	బీ	బే	బూ	బా	బే	బై	బొ	బొ	బౌ	బం	బః	బ
BHA	భ	భా	భీ	భే	భూ	భా	భే	భై	భొ	భొ	భౌ	భం	భః	భ
MA	మ	మా	మీ	మే	మూ	మా	మే	మై	మొ	మొ	మౌ	మం	మః	మ
YA	య	యా	యీ	యే	యూ	యా	యే	యై	యొ	యొ	యౌ	యం	యః	య
LA	ల	లా	లీ	లే	లూ	లా	లే	లై	లొ	లొ	లౌ	లం	లః	ల
LLA	ల్	ల్లా	ల్లీ	ల్లే	ల్లూ	ల్లా	ల్లే	ల్లై	ల్లొ	ల్లొ	ల్లౌ	ల్లం	ల్లః	ల్ల

Fig. 41

Collar bar group

Collar bar group = 12

	AA	I	II	U	UU	E	EE	AI	O	OO	AU	UM	AHA	Halant
KA	క	కా	కి	కీ	కు	కూ	కె	కే	కొ	కో	కౌ	కం	కః	కీ
KHA	క	కా	కి	కీ	కు	కూ	కె	కే	కొ	కో	కౌ	కం	కః	కీ
GA	గ	గా	గి	గీ	గు	గూ	గె	గే	గొ	గో	గౌ	గం	గః	గీ
GHA	గ	గా	గి	గీ	గు	గూ	గె	గే	గొ	గో	గౌ	గం	గః	గీ
DDA	డ	డా	డి	డీ	డు	డూ	డె	డే	డొ	డో	డౌ	డం	డః	డీ
DDHA	డ	డా	డి	డీ	డు	డూ	డె	డే	డొ	డో	డౌ	డం	డః	డీ
THA	త	తా	తి	తీ	తు	తూ	తె	తే	తొ	తో	తౌ	తం	తః	తీ
DA	ద	దా	ది	దీ	దు	దూ	దె	దే	దొ	దో	దౌ	దం	దః	దీ
DHA	ద	దా	ది	దీ	దు	దూ	దె	దే	దొ	దో	దౌ	దం	దః	దీ
RA	ర	రా	రి	రీ	రు	రూ	రె	రే	రొ	రో	రౌ	రం	రః	రీ
RRA	ర	రా	రి	రీ	రు	రూ	రె	రే	రొ	రో	రౌ	రం	రః	రీ
KSHA	క్ష	క్షా	క్షి	క్షీ	క్షు	క్షూ	క్షె	క్షే	క్షొ	క్షో	క్షౌ	క్షం	క్షః	క్షీ

Fig. 42

PA – HA – group

PA - HA group = 5

	AA	I	II	U	UU	E	EE	AI	O	OO	AU	UM	AHA	Halant
PA	ప	పా	పి	పీ	పు	పూ	పె	పే	పొ	పో	పౌ	పం	పః	పీ
PHA	ప	పా	పి	పీ	పు	పూ	పె	పే	పొ	పో	పౌ	పం	పః	పీ
SSA	ష	షా	షి	షీ	షు	షూ	షె	షే	షొ	షో	షౌ	షం	షః	షీ
SA	స	సా	సి	సీ	సు	సూ	సె	సే	సొ	సో	సౌ	సం	సః	సీ
HA	హ	హా	హి	హీ	హు	హూ	హె	హే	హొ	హో	హౌ	హం	హః	హీ

Fig. 43

Stem – Pin – cups group

Stem pin - cups - group = 5

	AA	I	II	U	UU	E	EE	AI	O	OO	AU	UM	AHA	Halant
NGA	జ	జా	జి	జీ	జు	జూ	జె	జే	జొ	జో	జౌ	జం	జః	జీ
NYA	ఞ	ఞా	ఞి	ఞీ	ఞు	ఞూ	ఞె	ఞే	ఞొ	ఞో	ఞౌ	ఞం	ఞః	ఞీ
JA	జ	జా	జి	జీ	జు	జూ	జె	జే	జొ	జో	జౌ	జం	జః	జీ
JHA	జ	జా	జి	జీ	జు	జూ	జె	జే	జొ	జో	జౌ	జం	జః	జీ
NNA	ణ	ణా	ణి	ణీ	ణు	ణూ	ణె	ణే	ణొ	ణో	ణౌ	ణం	ణః	ణీ

Fig. 44

- Signs are suitable to all other consonants of both languages

2. CONCLUSION AND RECOMMENDATIONS :

Consonants –

75% consonants are with Head-✓stroke/ Head-→stroke in both the languages. Telugu consonants with uniform size Head-✓stroke looks majestic than Head-→stroke of Kannada consonants. Elimination of Head-✓stroke/ Head-→stroke in both the languages in both languages is preferable to bring all consonants under “Perfect single consonant form⁴”. Telugu consonants – 5 pairs whereas 4 pairs in Kannada.

Telugu – KHA – consonant is with Base-↘ comma. In Kannada Base-↘ comma is wisely eliminated to – KHA – consonant. Probably in Telugu to match with consonants – GHA – Base-↘ comma might have been added to – KHA – consonant.

Telugu consonants CH and CHA have similar matching features and nearby tone harmony. Unfortunately no such pairing is Kannada script.

Consonants – HA – and – PA – have nearby features in Telugu whereas in Kannada – HA – consonant looks like Devanagari – LLA –consonant.

Consonants – sub forms

7 ABL sub forms with close resemblance

Telugu ABL sub forms height can be reduced

Out of 20 BBL sub forms 14 have close resemblance

Kannada BBL sub form – ssa – looks similar to Telugu BBL sub form – ssa – and Telugu consonant SSA

Position placement position sub forms

ABL sub forms position placement may be changed in both languages

BBL sub forms just below the consonant in Telugu is more appropriate

There is scope to create more symbolic BBL sub forms in Kannada

There is no Unicode for sub forms

Vowels –

Vowels A and AA in Kannada have same width and length of bar is good. In Telugu both vowels look better and can be adapted for both languages.

Substitute vowel – ీ – II – to match vowel – ు – I – and both become similar features matching and nearby tone harmony pair. Modified vowel – ూ – OO – is with Spur to denote long tone. These modified vowels are appropriate for both the languages. In all, 10 vowels have close resemblance. Kannada E and EE vowels have same height. Height of E and EE vowels in Telugu is more probably due to its pronunciation effect. Telugu vowel AU looks better³. Height – ృ – of UM is reduced and is appropriate to adapt.

Vowels – signs

Telugu vowels signs are clearer especially “Long tone pronunciation” signs and all top position signs are independent, no extended long tone mark sign to the side of the consonants like Kannada. Long tone UU sign and extended mark sign in Kannada. It is preferable to have all signs over the head of the consonants in Kannada. Spirals can be avoided for long tone signs in Kannada including AU sign. In both languages these signs may be modified including – AI – sign. Position placement of U and UU signs is good for the script and can be adapted.

Most of Telugu consonants including KSHA, sub forms, vowels and vowel signs have edge over Kannada consonants in terms of clear view of each consonant features and easier to write. It appears refined Telugu script was developed much earlier. Since there are more similarities of many consonants, sub forms and vowels both in Telugu and Kannada, remaining have been brought under the same resemblance category. In order to take advantage of close resemblance of consonants, sub forms and vowels, common script components may be appropriate for both languages. Common vowels signs with consonants look good and can be adapted. Uniform top level of signs is also great advantage for both the script. Head-stroke and other extensions have been eliminated for all consonants.

In short common script can be adapted with advantage for both the languages.

Suitable fonts can be developed. It may be possible to develop common keyboard suitable for both the languages. More efficient OCR (Optical Character Recognition) software can also be developed.

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