

**To: Unicode Technical Committee**  
**From: Debbie Anderson, SEI, UC Berkeley**  
**Date: 4 June 2019**  
**Subject: Feedback on Gurmukhi BINDI and TIPPI**

**Summary:**

- The use of Bindi *before* Bihari vs. *after* Bihari is stylistic, but because it appears in a religious text, many people feel it needs to be reproduced exactly as written, according to Kulpreet Chilana. Manvir Singh says regarding difference in meaning, it isn't so clear, but "there are some places where the meaning is affected." (He also states some people pronounce the Bindi differently, depending upon its position.) He agrees on the importance of the SGGs and holy texts to be printed exactly as written.
- The Bindi appears before and after GURMUKHI LETTER II and GURMUKHI VOWEL SIGN II in archaic and religious texts. Kulpreet Chilana has never seen the Bindi appear before LETTER II and VOWEL SIGN II in modern, everyday Punjabi, though Manvir Singh says Bindi before Bihari is very rare in modern usage.
- Both Manvir Singh and Kulpreet Chilana remarked that the problem for ਈ GURMUKHI LETTER II is that LETTER II is an atomic character, so it is difficult to get the BINDI to appear between the vowel base (ੳੳੳ ਈ) and the vowel sign II: ਈੳ.
- Tippi only occurs before Bihari, not after it, according to Kulpreet Chilana. However, Manvir Singh recalls seeing Tippi after Bihari, but can't recall the exact place, and it may have been in handwritten manuscripts which used Tippi and Bindi more freely in their placement. He recommends allowing Tippi before Bihari, should it be needed.
- Given the above information about Bindi, the text in the Core Spec may need to be updated (see current text #3, below).
- Kulpreet Chilana (#2) reports the community is confused why VOWEL LETTERS in Gurmukhi are not equivalent to their perceived analytical parts (i.e., vowel base and vowel signs).
- Summary of three suggested approaches to Bindi before vowel letter/sign II is in #4.

**1. Feedback from Kulpreet Chilana**

The following is feedback from Kulpreet Chilana in response to questions from Debbie Anderson and Karan Miśra.

**Do you know if there is any semantic difference between when Bindi appears *before* Bihari versus Bindi *after* Bihari, or do you see it as stylistic (as did the author of [L2/05-088](#) Proposed Changes to Gurmukhi)?**

This is primarily a stylistic difference, but given that it's a religious text—many people have the opinion that it needs to be reproduced exactly as it's written.

**Is there any evidence of Bindi on dependent vowel I (cf. the examples in [L2/05-088](#), below)? Are the examples below from SGGs?**

ਗਣੀ ਗਨੀ ਗਲੀ

The examples in L2/05-088 are all from SGGs. The bindi is also sometimes seen before VOWEL SIGN II in religious / archaic texts.

It's less problematic for VOWEL SIGN II since the bindi codepoint can simply occur before the vowel sign. However, for GURMUKHI LETTER II there's no way to insert the bindi codepoint between ਏ and ੀ, since ਏੀ is a single codepoint.

**Does Tippi behave the same as Bindi? That is, does it occur both before and after Bihari? (The document <https://www.unicode.org/L2/L2018/18319-bindi-gurmukhi.pdf> only showed examples of TIPPI before the vowel, not after.)**

Phonetically, the Tippe and Bindi are equivalent—they produce the same sound. In the old ISCII encoding, they were even encoded as a single code point and the font / rendering engine would decide whether to render it as a Tippe or Bindi. This means that their graphical usage is disjoint. Current Unicode Standard does a pretty good job of describing when you use one vs. the other:

Present practice is to use bindi only with the dependent and independent forms of the vowels aa, ii, ee, ai, oo, and au, and with the independent vowels u and uu; tippi is used in the other contexts. Older texts may depart from this requirement. ISCII-1991 uses only one encoding point for both marks.

To answer your question, the Tippe will only ever occur before the Bihari and not after it—which seems to be consistent with the above description. The Bindi only seems to occur before Vowel/Letter II in religious / archaic texts. I've never seen this in modern, everyday Punjabi.

## **2. Additional comment from Kulpreet Chilana**

Gurmukhi is unique from other Indic scripts in that it has vowel-bearing characters—namely, ਓ U+0A73, ਅੰ U+0A05 and ਏ U+0A72. ਓ U+0A73 and ਏ U+0A72 have no inherent sound and require attaching to a dependent vowel (ex: ੜ U+0A41).

This causes great confusion for Punjabi / Gurmukhi users who would expect ੜ U+0A09 and the combinations of ਓ U+0A73 with ੜ U+0A41 to be equivalent—but they are not.

ੜ U+0A09 = ਓ U+0A73 + ੜ U+0A41

ੜ U+0A0A = ਓ U+0A73 + ੜ U+0A42

ੜ U+0A13 = ਓ U+0A73 + ੜ U+0A4B

ਅੰ U+0A06 = ਅ U+0A05 + ੱ U+0A3E

ਅੰ U+0A10 = ਅ U+0A05 + ੱ U+0A48

ਅੰ U+0A14 = ਅ U+0A05 + ੱ U+0A4C

ਇ U+0A07 = ਏ U+0A72 + ਿ U+0A3F

ਈ U+0A08 = ਏ U+0A72 + ੀ U+0A40

ਏ U+0A0F = ਏ U+0A72 + ੇ U+0A47

### 3. Current wording in TUS does not mention placement of the bindi:

Two different marks can be associated with U+0902 DEVANAGARI SIGN ANUSVARA: U+0A02 GURMUKHI SIGN BINDI and U+0A70 GURMUKHI TIPPI. Present practice is to use *bindi* only with the dependent and independent forms of the vowels *aa*, *ii*, *ee*, *ai*, *oo*, and *au*, and with the independent vowels *u* and *uu*; *tippi* is used in the other contexts. Older texts may depart from this requirement. ISCII-1991 uses only one encoding point for both marks.

### 4. Suggested approaches for BINDI placement before vs. after Bihari:

a. Script Ad Hoc: Use the font, if this is a stylistic distinction.

b. [L2/16-030](#) : Use VS, but this was rejected by the UTC (Action Item [[106-A27](#)] )

c. [L2/18-319](#): Use the following sequences:

<KA, BINDI, VOWEL SIGN II> should render as: ਕੀ

< GURMUKHI LETTER KA, GURMUKHI TIPPI, GURMUKHI VOWEL SIGN II> should render as: ਕੀ

< GURMUKHI LETTER KA, GURMUKHI VOWEL SIGN II, GURMUKHI SIGN BINDI> should render as it does currently: ਕੀ

### 5. Responses from Manvir Singh (4 June 2019)

[Debbie]

1. As far you can tell, is the meaning changed if the Bindi were to come before Bihari or after it? (You had mentioned earlier that it was considered a stylistic difference, with possible difference in pronunciation, but I was curious whether the sense changes – as much as you can tell.)

[Manvir]

There definitely are some folks that pronounce it differently (and Sikh scholars are sticklers for proper pronunciation of their holy texts). But when it comes to meaning, it isn't so clear. There are some words that don't seem to have an obvious difference in meaning (I will explain more on why those need to stay as they are in my answer to #2). But there are some places where the meaning is affected.

For example, the line:

ਗਲੀ ਅਸੀ ਚੰਗੀਆ ਆਚਾਰੀ ਬੁਰੀਆਹ ॥

The first word could be translated as "with our speech", the whole line meaning: "Our speech may show us as good, but internally we are bad".

In another line:

ਇਕਨਾ ਗਲੀਂ ਜੰਜੀਰੀਆ ਇਕਿ ਤੁਰੀ ਚੜਹਿ ਬਿਸੀਆਰ ॥

The second word means "from (their) necks". The ੀਂ giving the meaning "from" in this context. The whole line meaning "some have chains coming from their necks ("around their necks" would be a better way to put this in English) , while others ride on horses (free to do whatever they want).

So, clearly there can be some differences in meaning from the Bindi as well. Of course there is room for discussion among scholars on whether the BINDI makes a difference here or not, but the possibility of that discussion is the reason why these texts aren't changed (hence why the SGPC's PDF uses special characters to display these properly).

Another thing I came across while researching this was another opinion on the pronunciation of the Bindi before Bihari. What I found was that some would use the Bindi before Bihari as an indicator that the consonant that the Bihari/Bindi is acting on needs to be nasalized. I'm not too sure of this myself, but I can definitely see it being a possibility.

2. Is it important that the placement of the Bindi be positioned exactly as shown in Sri Guru Granth Sahib? In other words, in holy texts is the placement critical (so that incorrect placement would be considered incorrect)?

It is very important that a Bindi (or any character) is positioned properly in Sri Guru Granth Sahib and other holy texts. That's why you see that those who print these texts do not conform to modern changes in languages (which is also what was brought up in [L2/16-380](#) when it came to how YAKASH was displayed). The main reason for this is that new research on the old texts can yield new discoveries. It is possible that someone could come up with a coherent theory as to what the difference between placing Bindi before/after has on the meaning. If the authorities were to make these changes, it could hinder the possibility of such discoveries.

3. In modern usage, can the Bindi also occur before Bihari? Or does it typically or always occur after Bihari? (An earlier document stated that this does not occur in modern Gurmukhi.)

Bindi before Bihari is much more rare in modern usage.

4. Most discussion has been on Bindi before/after Bihari. In modern usage, does TIPPI occur after Bihari?

I do recall seeing this somewhere, but I cannot recall where exactly. It may have been a handwritten manuscript that used TIPPI and BINDI more liberally in place of each other. The word that comes to mind was ੈੀ + ੰ + ਧਨ which was actually the word ਟਿੰਧਨ, but the ਟਿ in the word was expanded to ੈੀ to fit the rhythmic pattern.

I would recommend keeping the option of TIPPI after BIHARI open, since having the option there would be better than it not being there if the need arises (so that someone doesn't have to make another proposal in the future).

An additional question: I was looking through the Unicode document registry and see that in [L2/05-088](#), the author gives examples with the Bindi before Bihari (vowel sign II), but I don't know if these came from SGGGS. Can you confirm whether there are examples of Bindi before VOWEL SIGN II in SGGGS or other holy text, such as the following? (The examples you sent showed the bindi before GURMUKHI LETTER II, as on the right.)

# ਗਣੀ ਗਨੀ ਗਲੀ

VOWEL SIGN II:

LETTER

II: ਜਾਈ vs. ਈਂਟ (p. 1249)

Some of the words mentioned by the author of that document are from SGGS. As show earlier in this

## ਗਲੀ

email, the word shows up in SGGS. There are many other examples of Bindi before Bihari on other letters besides ਏ. I didn't want to keep on taking many screenshots, so here's a clip of me scrolling through our searching software for uses of Bindi before Bihari:

I touch the feet of my sister soul-brides who have known their Husband Lord.  
SGGS: By Guru Amar Das Ji in Sri Raag (ਮਹਲਾ ੩) on Panna 37

ਕਹਤੇ ਪਵਿਤ੍ਰ ਸੁਣਤੇ ਸਭਿ ਧੰਨੁ ਲਿਖਤੀ ਕੁਲੁ ਤਾਰਿਆ ਜੀਉ ॥  
Kehathae Pavithr Sunathae Sabh Dhann Likhathanaee Kul Thaarjaa Jeeo ||  
Those who chant are sanctified. All those who listen are blessed, and those who write save their ancestors.  
SGGS: By Guru Arjan Dev Ji in Sri Raag (ਮਹਲਾ ੫ ਛੰਤ) on Panna 81

ਗਲੀ ਅਸੀ ਚੰਗੀਆ ਆਚਾਰੀ ਬੁਰੀਆਹ ॥  
Galanaee Asee Changeeaa Aachaaree Bureeah ||  
We are good at talking, but our actions are bad.  
SGGS: By Guru Nanak Dev Ji in Sri Raag (ਸਿਰੀਰਾਗ ਕੀ ਵਾਰ ਮਹਲਾ ੪ ) on Panna 85

ਕਰਿ ਕਿਰਪਾ ਭਗਤੀ ਪ੍ਰਗਟਾਇਆ ॥  
Kar Kirapaa Bhagathanaee Pragattaaeiaa ||  
By His Grace, His devotees become famous and acclaimed.  
SGGS: By Guru Arjan Dev Ji in Raag Majh (ਮਹਲਾ ੫ ) on Panna 108

ਪੁਤੀ ਗੰਢੁ ਪਵੈ ਸੰਸਾਰਿ ॥  
Puthanaee Gandt Pavai Sansaar ||  
Their children may bring them back together in the world, and the bond is established.  
SGGS: By Guru Nanak Dev Ji in Raag Majh (ਵਾਰ ਮਾਤ ਕੀ ਸਲੋਕ ਮਹਲਾ ੧) on Panna 143

ਅਗੈ ਸੰਗਤੀ ਕੁੜਮੀ ਵੇਮੁਖੁ ਰਲਣਾ ਨ ਮਿਲੈ ਤਾ ਵਹੁਟੀ ਭਤੀਜੀ ਫਿਰਿ ਆਣਿ ਘਰਿ ਪਾਇਆ ॥  
Agai Sangathee Kurramee Vaemukh Ralanaa N Milai Thaa Vahuttee Bhatheejanaee Fir Aan Ghar Paaeiaa ||  
The faithless baymukh was not allowed to mingle with others; his wife and niece then brought him home to lie down.  
SGGS: By Guru Ram Das Ji in Raag Gauri (ਗਉੜੀ ਕੀ ਵਾਰ ਮਹਲਾ ੪) on Panna 306

ਸਗਲੀ ਸਉਦੀ ਤੋਟਾ ਆਵੈ ॥  
Sagalanaee Soudhanaee Thottaa Aavai ||  
In all other transactions, one suffers loss.  
SGGS: By Guru Nanak Dev Ji in Raag Asa (ਮਹਲਾ ੧) on Panna 356

As you see, there are many many places where Bindi before Bihari appear with letters other than ਏ.

Hope I answered your questions sufficiently. Let me know if there's anything else you need.

Manvir Singh