The *ruki*-rule in Vedic*

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1 Introduction

1.1. The *ruki*-rule is one of the most intriguing rules in Vedic Sanskrit. In its simplest formulation, *
*s develops to ś [s] after i (i), u (u), r, k, e.g. *h₁e₁s₁si > Ved. česi.

1.2. At least 54 different outcomes or rates of application of the *ruki*-rule.

1.3. *ruki*-rule operates almost without exception root-internally in native Vedic vocabulary (e.g. usás)

1.4. In almost all other positions, the application of the rule or its outcomes are not as straightforward

1.5. The last systematic treatment of the rule was given in AiG I. Since then, the rule has received primarily syntactic attention (Hale 1991, Fortson 2016).

1.6. The aim of this paper: A comprehensive survey of the *ruki*-rule in the Rigveda

1.7. All instances of the *ruki*-rule in the Rigveda were collected and coded for context and outcome

1.8. Decisive evidence for some disputed aspects of the rule

1.9. New explanations

2 Operation over *anunāsika.*

2.1. Does *ruki*-rule operates over *anunāsika?* (náṃṣate, piṃṣatī)

2.2. Disputed, AiG (I:231) concludes: The rule *does* operate over *anunāsika*

2.3. Our survey:

- Roots that have the nasal lexicalized (√hiṃs, puṃṣ-) and do not show alternation between forms with and without the nasal lack the *ruki*-rule: (náṃṣate, áhiṃsyamāna)

*I would like to thank Jay Jasanoff, Jeremy Rau, and Kevin Ryan for their useful comments on earlier versions of this paper. All mistakes are, of course, my responsibility.*
• Roots that do show forms without the nasal (e.g. √piṣ, pipeṣa) feature the ruki-outcome (piṁṣatī)

2.4. *ruki does not* operate after anunāsika

2.5. The ruki-outcome is analogically extended in roots in which the basis for analogy exists.¹

3 Blocking of the ruki-rule.

3.1. Word-internally and word-initially (after preverbs and in compounds), the ruki-rule is sometimes blocked by r (tisra-rule), but also sequences

- Tr-, -Tr-, -Tur- (where T = p(h) or t(h)), -är-, -var-, and -mar-

3.2. E.g. visargām

3.3. No clear distribution of blocking versus non-blocking (AiG I, 232).

<table>
<thead>
<tr>
<th></th>
<th>Word-internally</th>
<th>Preverb</th>
<th>Compound</th>
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<tbody>
<tr>
<td></td>
<td>× tistirāṇā, tistirē</td>
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<tr>
<td>sTī/ur</td>
<td></td>
<td>viṣṭirāḥ, viṣṭirāḥ, prāti</td>
<td>jāṭuṣṭhirasya, gāviṣṭhiro, sphura, visphurāntī, niṣṭūrē, niṣṭūrāḥ</td>
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<tr>
<td>sv/mar</td>
<td></td>
<td>abhisvārā, abhisvārā, ni-</td>
<td>susvāruḥ, rṣisvarām</td>
</tr>
<tr>
<td></td>
<td>×</td>
<td>svarān, nisvārām, prāti</td>
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<td>✓</td>
<td>abhisvarantu, abhisvārā, abhī svara, abhī svarantu, abhī svara,</td>
<td>'bhīsvarā, abhisvarē</td>
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<tr>
<td>sār</td>
<td></td>
<td>sisarti</td>
<td>visārē, visarmaṇa, susaraṇām, susārtvā</td>
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<tr>
<td></td>
<td>×</td>
<td>visārjane, visargām, visārjane, atisārpati, visargē, visārjanena</td>
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<tr>
<td></td>
<td>✓</td>
<td></td>
<td></td>
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<tr>
<td>sTr</td>
<td></td>
<td>visprāśa, visprāṣati</td>
<td>nī sprāśa, mandinispṛśo, puru-spṛḥ- (25×), divi-</td>
</tr>
<tr>
<td></td>
<td>×</td>
<td>vi strūṭām, nī sprāśa, nisprśe, nisphk, (4×)</td>
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<td>✓</td>
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3.4. A new proposal:

3.5. I argue that -Tr- and -Tūr- do not cause blocking (e.g. viṣṭirāḥ)

3.6. -var-, -mar-, and -ār- do block the rule (e.g. nisvarām)

¹. The cases of operation over anunāsika in nom./acc. pl. neut. and acc. pl.m./f. of i-, u-, p- stems is explained analogically: -as vs. -am vs. -ans = -iṣ vs. -im vs. -īṁṣ (as proposed in Bartholomae 1895-1901: 132).
The ruki-rule in Vedic

3.7. -Tr- ambiguous: ví stṛṇītāṁ vs. ániṣṭṛta (in all other cases without the ruki, s or h follows, which can cause dissimilation, e.g. nispiśe-). ániṣṭṛta suggests -Tr- probably does not block

3.8. ániṣṭṛta- ‘nicht zu Boden gestreckt’ analogical to niṣṭūr- ‘Niederstrecker’ in the preceding hymn

3.9. Exceptions:

- tistiré analogically from *ta-star-é (cf. ta-tār- vs. ti-tir- or tu-tur-)
- 3. sg. pres. form uṣar, uṣar-bādh- analogical to uṣ-
- In su-sā-rathī-, there is a morpheme boundary.

4 áriṣṭa- ‘unhurt’

4.1. Can formally go back to √riṣ ‘be hurt’ or √/riś ‘tear’ (*riṣ-ṭa- or *riś-ta-)

4.2. Grassmann (1996: 106) decides for √riṣ, but EWAia (II, 461) lists áriṣṭa- ‘unverletzt’ under √/riś

RV 6.54.7 mákir neśan mákīṁ riṣan  “Let none disappear; let none be harmed, mákīṁ sām śāri kēvate but let none get fractured in a hole.
áthāriṣṭābhir ā gahi But with unharmed (cows) come here.”

RV 1.41.2 yāṁ bāhūteva pīprati “The mortal whom they carry across pánti mártyaṁ riṣāḥ as if in their arms and protect from harm, áriṣṭaḥ sārvah edhate he thrives, unharmed and whole.”
(tr. Jamison and Brereton 2014)

4.3. áriṣṭābhhiḥ stands most clearly in opposition to the verb in the first vers (riṣan); therefore we must derive áriṣṭābhhiḥ from the root √/riṣ

4.4. áriṣṭa- is derived from √/riṣ ‘be hurt’ and not from √/riś ‘tear’

5 The ruki-rule word-finally

5.1. Word-final *-ṣṣ sequence subject of extensive debate: what is the regular outcome?

5.2. What is the outcome of *s before b(h) and d(h)?

5.3. Both word-final *-ṣṣ and *s before b(h)/d(h) are reported to yield ū (e.g. AV vi-prúṭ for *vi-pruṣ-ṣ and viprudbhhiḥ for vi-pruṣ-bhis)

5.4. Two explanations emerge in the discussion: either the nominative case is analogical on the basis of the bh-cases (as argued in AiG I, 176) or vice versa (Kuiper 1967, cf. Jamison 1991 for analogy with loc. pl.)

5.5. Crucial forms for this discussion that are often neglected are nominative and bh-case forms of neuter root nouns ending in -s

5.6. They minimally differ from masc./fem. in that they lack the nominative ending -s
5.7. Our survey: Vedic neuter root $s$-stem $d\dot{\text{o}}\dot{s}$- features the regular reflex in the nominative 
RV 5.61.5 $d\dot{\text{o}}r$ $v\dot{\text{i}}\dot{\text{r}}\dot{\text{a}}\dot{\text{g}}\dot{\text{o}}\dot{\text{p}}\dot{\text{a}}\dot{\text{b}}\dot{\text{r}}\dot{\text{h}}\dot{\text{a}}t$ 

5.8. In the $bh$-cases 
AVP $dor\dot{b}h\dot{y}\dot{a}m$ (cf. Kuiper 1967) 

5.9. If the regular reflex of $s$ before $b(h)$ and $d(h)$ were $t$, we would expect **$d\dot{\text{o}}\dot{\text{f}}\dot{\text{b}}h\dot{y}\dot{a}m$ ($vipru\dot{\text{d}}bh\dot{\text{h}}\dot{\text{i}}h$) 

5.10. This means that the analogy most likely operated in direction nominative $\rightarrow$ $bh$-cases, rather than vice versa (also likely not from locative) 

5.11. $\rightarrow$ Word-final *-$ss$ regularly develops to *$ts$ and -$t$, from where it is analogically transferred to the $bh$-cases. 

5.12. In line with: 
- Word-final -$ss$ ($ks$) regularly yields *$ts$ in all positions 
- Word-finally, -$t$, word-internally further to -$ks$ (Jamison 1991) 

5.13. I propose that the most prominent counterexample to this assumption, $\dot{\text{a}}\dot{\text{s}}\dot{\text{i}}\dot{\text{h}}$ ($\dot{\text{a}}\dot{\text{s}}\dot{\text{i}}\dot{\text{s}}-s < *\dot{\text{e}}-\dot{\text{k}}Hs$-$s$) ‘prayer, wish’ and not **$\dot{\text{a}}\dot{\text{s}}\dot{\text{i}}\dot{\text{f}}$, could be explained by analogy to $\dot{\text{a}}\dot{\text{s}}\dot{\text{r}}$- ‘mixture of milk and soma juice’ (accepted explanation) or by assumption that at the time of *-$ss$ > $ts$, *$a$ was not yet a $\text{ruki}$-causing vowel (*$\dot{\text{a}}\dot{\text{s}}\dot{\text{a}}-s$-$s$ < *$\dot{\text{e}}-\dot{\text{k}}Hs$-$s$). 

6 $\dot{p}i\dot{n}\dot{a}k$. 

6.1. A new explanation for $\dot{p}i\dot{n}\dot{a}k$ 

6.2. 2. and 3. sg. forms $\dot{p}i\dot{n}\dot{a}k$ from $\sqrt{pis}$ ‘crush’ 

6.3. **$pi-n\acute{a}$-$s$-$s$, **$pi-n\acute{a}$-$s$-$t$ 

6.4. **$pi-n\acute{a}$-$s$-$s$, **$pi-n\acute{a}$-$s$-$t$ 

6.5. Expected **$pin\acute{a}h$ (**$pin\acute{a}$-$s$-$s$) or analogically **$pin\acute{a}t$ 

6.6. Unclear aspects: why -$k$, why -$n$- 

6.7. Explanations so far: 

6.8. Kobayashi (2004: 159) assumes that $\dot{p}i\dot{n}\acute{a}k$ shows transfer of retroflexion from root-final consonant to nasal infix 

6.9. AiG (I, 137), final -$k$ in the 2. and 3. sg. forms of the root $\sqrt{pis}$ ‘crush’ $\dot{p}i\dot{n}\acute{a}k$ (< *$pin\acute{a}$-$s$, *$pin\acute{a}$-$s$-$t$) is explained to originate in the analogical *-$k$ from *-$ss$ 

6.10. Alternative approaches do not explain -$k$ and -$n$- 

6.11. Analogy: Of the nineteen roots in the nasal infix class, nine end in a velar. 

6.12. Additionally, four of these nine verbs and four other verbs include $\tau/r$ that causes retroflexion of the infix (e.g. $\dot{a}v\dot{r}\dot{n}\dot{a}k$) 

6.13. $\sqrt{pis}$ the only root ending in a retroflex sibilant in the nasal infix class
6.14. $\sqrt{ric} \rightarrow rिनाक \sim \sqrt{piṣ} \rightarrow pिनाक$

6.15. $\ast pi-ná-s-si >$ analogically $\ast pi-ná-s-si > \ast piṅáksi$ (rिनाक्षि)

6.16. $pिनाक$ explained as an analogical form to the most frequent pattern in the nasal infix class, probably via $\ast piṅáksi$. This explains both $\text{-k}$ and $\text{-n}$, unexplained under current proposals

7 Future work: operation in compounds

7.1. AiG (II/1, 128) claims that the ruki-rule is dispreferred in compounds before the low vowel ə followed by the dental nasal stop n (ान).

7.2. Approximately 90% of compounds undergo the ruki-rule

7.3. Of the remaining 10%, thirteen (28%) can be explained by dissimilation because of a neighboring r/r or ʃ/ʃ (e.g. carṣaṇi-sāh-, paśusādhani)

7.4. In 26 (57%) compounds the initial structure is sāN, including the sequences saṃ, sām, and sān (susānitar, adrisāno, pṭākusānur, susānitar, susānītā, rksāmāhyām)

7.5. Our survey: the ruki-rule is dispreferred before all nasal stops and vowels

7.6. $\rightarrow ruki$ operates regularly in compounds, with the only exceptions being cases with nasal stops and vowels and the classical blocking.

7.7. bahusūvāri, gósakhyām, sūsadṛṣaḥ, raγisthāno, paśusādhani, āprāmisatya, hārimanyakūyaka, bhūristhātram, susahāsati, abhīsatvā and viśadṛṣā

7.8. bahusūvāri, bhūristhātram contain r, sūsadṛṣaḥ, viśadṛṣā ɣ and ʃ. raγisthāno contains án- sequence

7.9. Why nasals?

8 Summary

8.1. Comprehensive surveys can bring new insights into old problems

8.2. New decisive evidence for disputed cases: operation over anunāsika; áriṣṭa, word-final -ṣṣ analogically from the nominative, where -t is regular

8.3. New proposals: blocking of ruki, pिनाक

8.4. Many further aspects of ruki (syntax) remain for future research (54 different outcomes/rates of application)

Selected References


