

## THE DEVELOPMENT OF OLD INDO ARYAN VOCALIC /r̥/ IN OLD SINHALA

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0. Old Indo Aryan (=OIA.) vocalic /r̥/ goes back historically to a positional variant of Proto-Indo-European (PIE) \*/r̥/ and \*/l̥/ which were vocalized in the environments //c; c-c, and c-//, yielding [r̥] and [l̥] respectively. During the Indo-Iranian period, with the coalescence of PIE \*/r̥/ and \*/l̥/ as /r̥/ the allophones \*[r̥] and \*[l̥] also merged as (r̥). In OIA., due to certain new morphological formations like *nirṛṇin* 'one who is free from debt', *nirṛti* 'calamity', vocalic [r̥] has been brought to a position of contrast with its non vocalic counterpart [r̥] and thus raised to phonemic status /r̥/.
- 0.1 OIA. vocables with /r̥/ have come down to Sinhala as a result of regular phonological change as well as due to loan words either directly from OIA., or via Pāli or Prākṛit.

The purpose of this article is to trace the development of OIA. /r̥/ into Sinhala as a result of a regular historical phonological process, and then to briefly outline how the OIA. /r̥/ has been adopted into the Sinhala phonological system due to linguistic-borrowing.

1. Regular Historical Development of OIA. /r̥/ in Old Sinhala (=OS.) dates as far back as the 3rd century B.C., and as such it occupies a position almost parallel to the earliest stage of Middle Indo Aryan (=MIA.) as represented by Pali and Aśokan Prākṛits. Sinhala was written down only after the advent of Buddhism into Sri Lanka, which was circa 3rd century B.C. The Aryan colonization of the island<sup>1</sup> should have taken place at least a couple of centuries prior to this for the language to have undergone the major changes that brought it to its OS. stage. It is therefore useful to compare the development of OIA. /r̥/ in Pāli and Aśokan Prākṛits with that of OS.
- 1.1. In all the MIA. dialects, OIA. /r̥/ has merged with one of the vowels /a/, /i/ or /u/, and is thus lost.

1.1.1. For instance in Pāli we find all these reflexes as seen in the following examples:

OIA.		Pāli	
<i>r</i> kṣa	'bear'	accha-	} <i>r</i> > a
vṛṣabha	'bull'	vasabha-	
anusmṛti	'reflection'	anussati	
<i>kṛ</i> śa-	'emaciated'	kisa	} <i>r</i> > i
dṛś	'see'	dis-a-	
tṛpti-	'satisfaction'	titti-	
pr̥cchati	'asks'	pucchati	} <i>r</i> > u
ṛtu-	'season'	utu	
mṛta	'dead'	muta-	

It is difficult to condition these changes in any systematic way.

1.1.2 A parallel situation is obtained in the Aśokan Prākritis. Consider the following examples:<sup>2</sup>

OIA		West	North-West	East-Central
<i>kṛ</i> ta-	'done'	kata	kita-/kitra	kaṭa/kata-
mṛga-	'deer'	maga	mruga/mriga-	miga-
vyāpṛta-	'engaged'	vyāpata-	vapata/ viyaputa	viyāpata
etādṛśa	'like this'	etāri sa	—	—
idṛśa-	'thus like'		ediśa	hedisa/edisā
bhrāṭṛ-	'brother'		bhratu-/bhatā-	bhāti-
vṛkṣa-	'tree'	vṛacha-	rucha-	lukha-
vṛddhi-	'increase'	vadhi/vudha	vadhi-/vadhri-	vaḍhi-/vaḍha-
ānṛṇya-		ānaṛṇna-	ananiya-	ananiya-/ānaṛṇna-
	'freedom from debt'			
nivṛtti-	'stopping'		nivuti	nivuti-

Although some elusively general tendencies as to the development of OIA. /r/ into Aśokan Prākritis are noticeable in the above examples, they are not amenable to any precise formulation along the lines of historical phonology.

Turner's remark on the development of OIA. /r/ into MIA. is worth quoting in this context. He remarks: "The development of the Primitive Indian vowel r̥ is confused from the time of our earliest documents [v. also Bloch, LIM., 77 13, 31]. In Middle Indian it appears as a, i, or u. According to Bloch, the repartition was probably this: in the south-west r̥ > a; in the north and north-east r̥ > i, or u in the presence of a labial [v. also BLLM., 77 31]. Since the earliest times, however, there has been constant mutual borrowing, and all the modern languages present examples of all three developments in their vocabulary."<sup>3</sup>

- 1.2 Regarding the development of OIA. /r/ into Sinhala Geiger takes a similar attitude. He remarks: "The Sk. vowel r̥ was already lost in Middle Indian and was represented by a or i or u. The same is the case in Sinhalese, but the vowels are not always in accordance with those of the Mnd. and the modern dialects. Sinhalese agrees with P., Pk. and the MIA. Vs. r̥ > a; vāda good result, profit = Pk., P. vaddhi (however alternating with vuddhi) < Sk. vṛddhi; MIA Vs. . . r̥ > i; gidu 'greedy' = Pk., P. giddha, Sk. gr̥ddha; . . hival 'jackal' = siāla, P. sigāla, Sk. 'sṛgāla; . . r̥ > u; udu straight = Pk. ujjua, P. uju, ujuu < Sk. r̥ju;

When Pk. and P. do not agree, Sinh. is beside Pali: kavaṇa poor = P. kapaṇa, but Pk. kiviṇa, kivaṇa < Sk. kṛpaṇa. . . —Sinh. is in accordance with Pk., M., AMg. in taṇa 'grass' = Pk., M., AMg. taṇa < Sk. tṛṇa. . . Sinhalese differs from P., Pk. and the MIA, Vs. in kiṇu MInd. kiṇha < Sk. kṛṣṇa, but Pk., P. kaṇha."<sup>4</sup> It is quite evident from the above observations that Geiger's approach had been an atomistic one. Besides, his etymologies are multi-based and no distinction is made therein between the reflexes of OIA. /r/ in Sinhala as results of regular phonological change and those due to borrowing.

- 1.3 P. B. F. Wijeratne was the first scholar who took a near systematic approach to this problem as far as Sinhala is concerned. He makes the following observation :

"Sinhalese has predominantly a, and in this respect Bloch groups Sinhalese with Marathi and assigns it to the south-west group [v. BLLM., 77 31]. A mere coincidence however in the representation of r̥ as a both in Marathi and Sinhalese would not necessarily justify Bloch's view. It may equally confirm its connection with Ardha-Māgadhi Prakrit, where r̥ > a, predominantly. However forms with i and u are sometimes found. There are either loans from an i/u dialect before the migration to Ceylon or later loans from Pali: e.g. singa "horn"—loan word Pali; siṅga- < śṛṅga-, and the inherited Sinhalese form is haṅga, aṅga.

The inscriptional evidence shows this predominant representation of *r̥* as *a* from the earliest times, and the forms with *i* and *u* are almost all loan words from Pali or at least influenced by the Pali forms, except *gi-* 'ghee', cf. Modern Sinhalese *gī*, *giyaa*; Pali has *ghata-* < Sk. *ghṛta*, but Pk. *ghia-* besides *ghaa-*, and it is Pk. *ghia-* that has given Sinhalese *gī*. The *i* form is universal in Modern Indic in this word."<sup>5</sup>

1.4 OIA. vocalic /r̥/ is written as [a] or [i] in OS. inscriptions thus pointing to a merger of OIA. /r̥/ with /a/ or /i/ in OS. This change took place only after retroflexing a following dental stop (as will be evident from the examples to be given). OS. shows the following correspondences to OIA. /r̥/; /r̥/ > a in OS.:

2 century B.C.

/tṛṇa/ [ taṇa ] 'grass' (VgRBC. 10) OIA.

tṛṇa—, P. tiṇa-

/pitaha/ < pitaha > 'of father' (VgRBC), OIA, pitr;

pitus; P. pitussa

/r̥/ > /i/ in OS.:

2/1 century B.C.

/bāṭi/ [ bati ] 'brother' (CJSc II, 502), OIA. bhrāṭṛ.; P. bhātu-  
/bhāṭi-

The evidence we have for OS. is too scanty to draw any definite conclusion as to the predominant representation of OIA. /r̥/ in OS.

The later language shows forms with /u/ as well corresponding to an OIA. /r̥/. In most such cases however /u/ can be interpreted as the result of some of the subsequent (i.e. post OS.) phonological changes that took place in the language. These sound changes yielded different developments of an original OIA. /a/ depending on whether it occurred in a light syllable or a heavy syllable. The specific changes are :

1. The qualitative change of the vowel /a/, i.e. OIA.

/r̥/ > /a/, in OS., and subsequently—

/a/ > /u/, when following a heavy syllable:

Literary Sinhala (=LS)

/atula/ [ atuḷa ] 'spread', OIA. āstrta-; P. atthata-;

/dukula/ [ dukuḷa ] 'badly done' OIA.

duṣkṛta-; P. dukkaṭa-;

/avulu/ [ avuḷu ] 'covered' OIA.

āvṛta-; P. āvuta-;

/dudulu/ [ dudulu ] 'impasse' cf. OIA.

durdhṛta'

2. Conditioned assimilation of the vowel /a/ when initial, to a following /u/, i.e.

OIA. /r̥/ > /a/, in OS., and later the  
sequence, / /ṛa-u/ > / ±u- / u/:  
LS /pulul/ [puḷul] 'wide', OIA. pṛthula-; P. puthula-;

3. There are also some instances where the vowel /a/ from an original OIA. r̥ > o, in LS, as a result of conditioned vowel assimilation, the 'o' being a secondary development in Sinhala:

LS./molok/ < moḷok > 'soft', cf. OIA.  
mṛdu-, \*mṛdukya-;  
/polo:/ < poḷo: > 'earth' (\* < pa ḷo <  
\*paḷava; cf. OIA, pṛthvī-; P. paṭhavi-).

4. Examples for the conditioned assimilation of /a/ going back to an original OIA. /r̥/ to /i/ are rare. The following instances, however are worth noting:

LS. /tili/ < t̥iḷi > / < t̥iḷi > 'mattress, bed-spread', cf. OIA. str̥ti-;  
/kili/ < kiḷi > 'one (f) who has done, < /kala+i/; cf. OIA.  
kṛta-; P. kata-;  
/mili:/ < miḷi: > 'one (f) who is dead < /mala+i:/, cf. OIA.  
mṛta-; P. mata;  
/kimi/ 'insect', cf. OIA. kṛmi-; P. kimi-;

5. OIA. /r̥/ occurring in a heavy syllable shows the change > /æ), when followed by /i/ in the next syllable. This would indisputably point to a coalescence of /r̥/ with /a/ prior to the umlauting. Some examples from LS. are:

/væ ti/ 'condition', cf. OIA. vṛttika-; P. vuttika-;  
/mæ ti/ 'mud', cf. OIA. mṛttikā-; P. mattikā-;  
/kæ ti/ 'spun', cf. OIA. kṛntita-;  
/væ ta/ 'fan', cf. OIA, vṛntam; P. vaṇṭam (as in tālavāṇṭam)

**Sigiri Graffiti (8 century A.D.):**

/dæt/ 'when seen', cf. OIA. dṛṣṭe; P. ditthe.

- 1.5 All these complex phonological changes that have taken place in the later stages of the language would clearly indicate that OIA. /r̥/ > /a/ was the regular change in Sinhala. The reflexes of OIA. /r̥/ as /i/, and /u/ (when they are not due to the changes stated above 1.4.1 through 1.4.4) must be considered as due to loan—words from Pali and other MIA. dialects.

The phonemic change involved is the loss of /r̥/ in OS. effecting a reduction of vowel phonemes and giving rise to a wider distribution of /a/, /i/ and /u/.

## 2. Loan-Words

In the pronunciation of the loan-words from Sanskrit, two types of adoption are noticeable in current Spoken Sinhala. One we may call here 'educated careful' (=e.c.) and the other 'rural' (r.). These can be charted as follows:

	//—	C-/-//	
e.c.	ri	—	ru-/-ru
/r̥/	r.	ir	— ur (u)

e.g.	<i>Sanskrit</i>		e.c.	r.
	ṛtu-	'season'	ritu	irtu
	ṛṣi	'sage'	riṣi	irṣi
	amṛta	'nectar'	amrutə	amur(u)tə
	samskr̥ta	'Sanskrit'	saṅskrutə	saṅgiskurutə
	vivṛta	'open'	vivrutə	vivurtə
	kartṛ	'author'	kartṛu	karturu

/r̥/ following /b/ in bṛhaspati 'jupiter' is pronounced as /rə ~ ra/ in e.c., as in br̥haspatinda / brahaspatinda 'Thursday', whereas in r. we get the usual reflex /ur/ as in bur̥aspatinda. However in educated-non-careful speech, one may notice a shift to the rural type of pronunciation at times.

## Foot Notes

1. The tradition recorded in the Sri Lankan Pali Chronicles assigns the date 6th century B.C. to the first Aryan settlements in Sri Lanka, and this seems to be well corroborated by the linguistic evidence we get in the oldest Sinhala inscriptions.
2. Asokan Prākṛits are divided here into three broad divisions as western-represented by Girnar Rock edict, North-western-represented by Shābāzgarhī and Mānsehrā rock-edicts, and Eastern, Central-represented by Dhauli, Jaugada and Kalsi Rock Edicts, Examples are taken from Mehendale's *Comparative Study of Asokan Inscriptions*, pp. 2-3.
3. R. L. Turner, "Gujerati Phonology", *JRAS*, 1921.
4. W. Geiger, *Sinhalese Grammar*, pp. 38-39; 8 34.
5. P. B. F. Wijeratne, *Phonology of the Sinhalese Inscriptions up to the end of the Tenth Century A.D.*, *B.S.O.A.S.*, XI, 4, 1946; p. 836.

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7. Turner, R. L., Gujarati Phonology, *JRAS*, 1921.
8. Wijeratne, P. B. F., *Phonology of the Sinhalese Inscriptions up to the end of the Tenth Century, A.D.*, Published in *B.S.O.A.S.*, 1945-1957.

#### Abbreviations

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|---------------|---|
| 1. A.M.       | Ardha Magadhi.  |
| 2. B.S.O.A.S. | Bulletin of the Society for Oriental and African Studies, London.             |
| 3. CJSc.      | Cave Inscriptions published in Ceylon Journal of Science, Section G, Vol. II. |
| 4. M.         | Marathi.  |
| 5. MIAVs.     | Middle Indo-Aryan Vernaculars.  |
| 6. MInd.      | Middle Indic.   |
| 7. P.         | Pali.   |
| 8. Pk.        | Prakrit.  |
| 9. Sk.        | Sanskrit.   |
| 10. VgRBC.    | Vessagirs Rock 'B'—inscriptions.  |