

**A PHONOLOGICAL JUSTIFICATION OF
NEWĀR CHILD VOCABULARY**

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Kathmandu

INTRODUCTION

Newār is a Tibeto-Burman language spoken by about 500,000 people¹, mainly in the Kathmandu valley of Nepal. A few Newārs have migrated outside the valley and some of them have maintained their language. There are dialect varieties of Newār within the Kathmandu valley. The language has a number of lexical borrowings from Nepālī, Hindī, Sanskrit and Bengālī, which are Indo-European languages, but its morphology and syntax has been barely influenced by those. Unlike most of the other Tibeto-Burman languages of Nepal it is not a tone language.

There is a fairly large number of lexical items in Newār which are peculiar in being used by or to children only. These are what is here called 'child vocabulary'. Some are modifications of the usual adult lexical item, or of some semantically related item, some are totally different and unrelated to any adult item. The collection here is not necessarily exhaustive and it is not exclusive to any one area of the Newār speaking community. It appears these items are used in most Newār speaking communities.

Some of the items, about half, are spoken to children for the children themselves to learn to say; these are marked in the text by *C* (Child). The rest are used by adults to children but the children themselves are not expected to use them; these are marked in the text by *AC* (adult to child). There is a difference in the phonology of the two sets, and a difference between the phonology of the 'Child Vocabulary' and that of adult Newār.

Items of adult, Newār are marked *A* (adult). This child vocabulary, however, is institutionalised, that is to say, it is taught by adults to children and is not the natural language produced by children. Its history is unknown but clearly certain sounds and contrasts of adult Newār have emerged as too 'difficult' at the early stages of learning to speak, as can be seen in the *C* items, and others are found 'descriptive' and 'fun' as can be seen in the *AC* items, and these have been institutionalised over time.

No attempt has been made to examine the other linguistic features of Newār child language, e.g. the grammar, but, relevant to the examination of lexical items is the use with *C* items of 'yā-ye' as a transitive verb marker, and 'ju-ye' as an intransitive verb marker, e.g. item 14, henceforth shown as (14), *C* pwalāā pwalāā yā-ye, from *A* pwal-e, 'to peel'. It should be noted also that the diminutive 'cā', which occurs frequently in *C* items, is also used in adult Newār.

1. In *The National Census Report*, H.M.G./Central Bureau of Statistics, 1971, the number given is 457,949, but this has probably increased since then.

A feature of the child vocabulary is onomatopoeia. Many items are said by the native speaker to relate sound-wise to the semantic component of the item. These are what are called onomatopoeic items.

There have been no frequency counts done of Newār phonology and so the comments in this text on frequency are unavoidably impressionistic.

II BRIEF OUTLINE OF THE PHONOLOGY OF NEWĀR

II *Segments*

II.1 *Consonants and glides:*

There are three sets of consonants;

Set 1 characterised in containing pairs of non-aspirated and aspirated consonants and in all members being able to be followed by 'y' and 'w' glides.

Bilabial	Denti-alveolar	Palatal	Velar
p b	t d	c j	k g
m	n		
	l r		

and their 'aspirated parallels', i.e. phonological 'h'

ph bh	th dh	ch jh	kh gh
mh	nh		
	lh rh		

All the above operate as consonant units (C) in the structure of the syllable, so that /cɛ/ is CV and /chɛ/ is CV

Set 2 characterised in containing no 'h' consonants and in being able to be followed by 'y' and 'w' glides.

s h

Set 3 characterised in containing no 'h' consonants and in never being followed by 'y' or 'w' glides.

y w

The total number of consonants is then 28.

There are two glides (g): y w

These are distinct from the consonants /y/ and /w/ in occurring only after consonants. Phonetically y glide palatalises the preceding consonant and there is a (j) quality before the vowel; and w glide labio-velarises the preceding consonant and there is usually a (w) quality before the vowel.

III.2 Vowels

There are five short vowels:

i, e, a, \bar{a} , u

Seven long vowels:

ii, ee, \mathfrak{L} , $\mathfrak{æ}$, $\bar{a}\bar{a}$, aa, uu

and six diphthongs:

$\bar{a}i$, ai, $\bar{a}u$, au, i u, ui

All vowels may be nasalised, which is shown by hooks under the vowels, e.g. $m\bar{a}\bar{a}\bar{h}$.

II.2 Syllable structure

The syllable structure can be generalised as:

(C^g) (C₂) V (C^f)

in which V is any vowel, oral, nasal, short or long
C is any consonant

C₂ is the second of a consonant cluster, usually
/l/ or /r/, occurring only in loan words.

C^f is a syllable final consonant and can be any
consonant except /h, y, w/

g is the glide /y/ or /w/ and is restricted in that:

a. /y/ glide in Cy does not occur before the
Vowels /i/, /ii/, /i/, /ee/, although palatalisation is always present before these
high front vowels. /ye/ occurs, but not
/yi/ in CV structure.

b. /w/ glide does not occur before the vowels /u/, /uu/

Examples of the syllable structure are:

V / $\bar{a}y\bar{a}$ /

CV / $p\bar{a}p\bar{a}$ /

C_gV / $Kw\bar{a}kw\bar{a}$ /

These structures are found most frequently.

CC₂VC^f / $kl\bar{a}s$ /, / $prem$ /

These occur less frequently

II.3 *Problems in the Phonology*

/ɛ, /æ/

The vowel /ɛ/ (orthographic 'ae') is a half-open front vowel, usually of constant quality ɛ but occasionally with a central off-glide. It is long and has no short parallel. Similarly, /æ/ (orthographic 'āe'), which is more open and fully front. But from a morphophonemic point of view they can be interpreted as 'ae' and 'āe' respectively.

The short vowel /a/ is a half open vowel (the phonetic exponent varies considerably, see below p.13) and /e/ a half close front vowel, and these two vowels never occur in sequence within a syllable, that is, there is no diphthong which starts with a half open back tongue position and ends with a front half close tongue position. Similarly, /ā/ is a front fully open vowel and there is no diphthong starting in that position and ending in a front half close tongue position.

The reason for interpreting the ɛ and æ vowel qualities as 'ae' and 'āe' lies in the following:

There is a locative marker 'in', on, at' of which the exponent is /i/ following /i/ and /u/, and /e/ following /e/. e.g. tuti 'leg', mutui 'mouth', chee 'house', tutii 'on the leg', mutui 'on the mouth', chee 'in the house'; but when the word ends with /a/ the whole vowel changes to /ɛ/. This is clearly morphophonemically /a/ followed by /e/.

mata	lamp
/matɛ/	'on the lamp', or morphophonemically 'matae'

Similarly, a word ending in /ā/ is /æ/ in the locative

/lāsā/	'bed'
/lāsæ/	'on the bed', or morphophonemically 'lasae'

The phonetic quality of many vowels in Newar have a wide and often unstable and unpredictable range², and this is the case with these vowels also. The vowels /a/ and /aa/ themselves are mostly half open, but range from a back to a central tongue position, and when back, often have slight lip rounding. /wa/ and /waa/ are justified phonetically by many examples in which there is a clear /w/ glide after the consonant and preceding the vowel and in which the vowel itself glides from a high back rounded position to a half open central unrounded position, e.g. in the word 'kwaa' 'a crow',

There is also justification for /wa/ and /was/ from a morphophonemic point of view as above.

'top' could be interpreted as /cwa/ and 'on the top' could be /cwɛ/ or /cwæ/, according to whichever interpretation is made following the discussion above. It is obviously more satisfactory to relate 'cwa' 'top' to 'cwaε' 'on the top'.

2 See 'The Vowels of Newār' by Lindsay Criper Friedman and Austin Hale (forthcoming.)

II.4 Transcription and Orthography

There is no discrepancy with the consonants between the symbols used for the phonological transcription and those of the orthography. With the vowels there is some discrepancy, as explained in II.3 above, in that /o/ and /oo/ appear in the transcription whereas 'wa' and 'waa' appear in the orthography, and /ɛ/ and /æ/ appear in the transcription whereas 'āe' appear in the orthography.

A further comment should be made on the vowel symbols 'ā' and 'a' which appear both in the transcription and the orthography. International Phonetic Alphabet is, of course, based on the roman alphabet³ and the choice of symbol may be more or less roman, that is, more or less 'simple', according to the reasons and circumstances of the transcription. For example, in this transcription the symbols 'ɛ' and 'æ' are less roman than 'ae' and 'āe' and show something about the phonetic quality of the realisation of these phonemes, whereas 'ae' and 'āe' which are roman and 'simple', are remote from the actual phonetic realisation.

In the case of /a/ and /aa/ and /ā/ and /āā/, although the symbols are slightly confusing phonetically, they have been used here for two reasons, one of which results from the other. The main reason they have been kept is because they are the symbols most frequently used in previous Roman transcriptions and orthographies of Newār⁴ and it is desirable not to complicate discussions of Newar phonology with too many types of transcription. And they were originally selected for typographical simplicity, which is a valid criterion for making a transcription more 'simple', that is, more roman and less phonetically explicit. /a/ and /aa/ are realised phonetically by a wide range of vowel qualities. /a/ is half open, ranging from a completely central vowel unrounded to a fully back vowel with slight lip rounding. The long vowel /aa/ is usually fairly back and open and sometimes has a fully central off-glide, and may have slight lip rounding. A 'comparative', that is, less roman and more phonetic, symbol could be any of 'ə', or 'ɐ', or 'ɔ', but for simplicity and typographical ease the symbol 'a' was used. This 'a' symbol is used by the IPA to represent Cardinal Vowel⁵ number 4, [a], and since Newār /a/ is phonetically realised by vowel qualities rather far from Cardinal Vowel number 4, this may lead to initial confusion.

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3. See *The Principles of the International Phonetic Association*, University College, London, 1949.
 4. See *Toward a Revision of Hale's Roman Newar Orthography*, Summer Institute of Linguistics, Tribhuvan University Press, 1972 pp. 3 - 4 .
 5. The IPA uses the Cardinal Vowel system of Daniel Jones. For a clear description of this system see David Abercrombie, *Elements of General Phonetics*, Edinburgh University Press, 1967.

Because the symbol 'a' has already been used for Newār /a/, the superscript '-' has had to be used to distinguish Newār /ā/. The qualities of the phonetic realisations of /ā/ and /āā/ are close to Cardinal Vowel number 4.

This then results in /a/, /aa/, /ā/ and /āā/ and the diphthongs that start with them: /ae, āi, au, āu/ being a little confusing to these accustomed to deriving their symbols for a phonemic transcription as closely as possible from the Cardinal Vowel system of the IPA.

A list of the vowel symbols is given below, showing the orthography, the phonemic transcription where different, and the main phonetic variants:

Orthography	Phonemic Symbol	Main Phonetic variants
i	-	i i ^r
ii	-	i: i ^r :
e	-	e e ^l
ee	-	e: e ^l :
ae	ɛ	ɛ ɛ ^ə
āe	æ	æ
ā	-	a
āā	-	a:
a	-	ə v o
aa	-	ə: v: v ^ə : o ^ə :
wa	o	o u ^o u ^ə
waa	oo	o ^h n ^e
u	-	u u ^u
uu	-	u: u ^r :

III SPECIAL FEATURES OF THE PHONOLOGY OF CHILD VOCABULARY

III.1 Word Structure:

The predominant feature of the word is the large number of reduplicated syllables or pairs of syllables found in both C and AC items. These occur in all sets except Set IV, and they contrast totally with A items which contain no reduplications.

The second feature of the word is a general tendency to shorten the number of syllables in comparison with the A items, reduplications and diminutive 'cā' excluded.

III.2 Syllable Structure:

The syllable structure of C items, and to a lesser extent of AC items, is simplified from the adult Newār syllable structure. The simplification occurs in the following ways:

(a) In C items there is no example of a syllable final consonant, that is, there is no C^f. All are open syllables without a final or arresting consonant. The two A items in Set 1 which are CVC^f are modified in the C form to CV, i.e. A 'tarkāri' is (1) kākā and (62) katāli, and A 'cuppā' is (49) cu.

(b) Consonant clusters do not occur at all, neither in C nor in AC items. That is, C₂ does not occur at all. Furthermore it does not occur in any of the A items of the five sets.

(c) In C items the 'g' of C_gV occurs minimally. The /y/ glide does not occur at all and the /w/ glide in one item only.

In AC items there are many examples of C_gV, e.g. (125) kwāā kwāā (cā) dyaadyaa (121) jhyāi, and their frequency is impressionistically similar to their frequency in A Newār.

(d) In C items there are only 6 that contain a consonant with /h/ and none of these is followed by a glide: (23) phu (181) phu (79) phii phii (165) āchi (233) bhābā

It should be noted that three of the five 'h' items are /ph/. This is significant since phonetically /ph/ is not an aspirated stop but fricative or affricate with light closure and strong friction, bi-labial or labio-dental.

In fact of the total number of Ch occurrences, which is 29, all except one, /ph/, are voiced, i.e. /bh/ occurs 10 times, /gh/ 7 times, /dh/ 5 times, /jh/ 4 times and /hw/ 2 times. This is significant since aspirated voiced and voiceless stops occur with more or less equal frequency in A Newār. Voiced aspirates are clearly a kind of device in onomatopoeic items in AC phonology.

Since /th/, /ch/, /kh/, /mh/, /nh/, /rh/, /lh/ do not occur there is a total of 22 consonants in AC phonology.

(e) Summary of syllable structure.

A separate C syllable structure can be set up which contrasts with the A syllable structure in being simplified. It can be set out as:

(C) V C_gV

V represents oral, nasal, short and long vowels.

C represents 16 consonants (instead of the 28 for A

Newar, 12 of which are 'h' consonants), the details of which appear in IV.3 below. g represents /w/, /h/ glides.

The underlining of (C) V indicates that it is the most frequent as opposed to C_gV which is infrequent, structure, occurring specifically 14 items, and in which g is /w/ glide six times, and /h/ glide 3, /c/ in 2 and /b/, /d/, /s/ once each.

III.3 Consonants:

In C items there is a clear tendency to increase the frequency of certain consonants and decrease others. And the most striking parameter involved in phonation. As shown in III.2 above, the 'h' element of consonants is almost excluded from the consonant system, such that /th, kh, dh, jh, gh, mh, nh, lh, rh/ do not occur at all, /ch, bh/ once each, and /ph/ three times. Furthermore that voicing contrast within the stop-aspirate sub-system almost disappears also, since /j/ and /g/ occur once each only, and /b/ and /d/ each three times. The stop-aspirate sub-system then is:

P	(b)	t	(d)	c	(j)	k	(g)
(ph)	(bh)			(ch)		(kh)	

(the consonants in brackets are 'marginal', i.e. occur infrequently)

To summarize the consonants, the system could be set out as follows, with the most frequent consonants underlined and 'marginal' consonants in brackets:

If the syllable structure as described in III.2 above is used, and the 'h' element treated as a glide, then the consonant system is further reduced to:

<u>P</u>	(b)	t	(d)	<u>c</u>	(j)	<u>k</u>	(g)
(ph)	(bh)		(ch)		(kh)		
	m		(r) <u>n</u> l				
	(w)		s		(y)		h

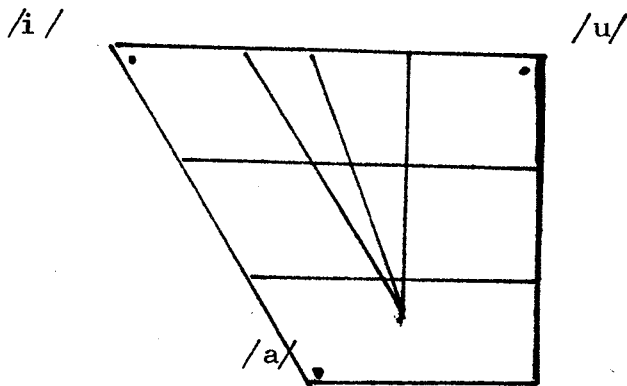
If the syllable structure as described in III.2 above is used, and the 'h' element treated as a glide, then the consonant system is further reduced to:

5 principal consonants:	4 voiceless stop-aspirates
	1 nasal
4 minor consonants:	1 nasal, 1 lateral, 1 fricative
	1 approximant
7 marginal consonants:	4 voiced stop aspirates,
	3 approximaants,

making a total of 16 consonants.

III.4 Vowels

In C items there is a strong bias towards certain vowels and total omission of others. The vowel quality is the crucial factor, since length and nasalisation appear regularly. The three vowel qualities which occur overwhelmingly are /ā/, /i/ and /u/ (long and nasalised also), all of which are the most phonetically, i.e. articulatorily and auditorily, distinct from each other, appearing at the points of a triangle:



The vowels /ā/, /i/ and /u/ shown in the Cardinal Vowel chart of Daniel Jones.

In Set V, New Words, /ā/ occurs 17 times, /i/ 9 times, /u/ 8 times, and /a/, /e/ occur once each; no other vowels are found in this set. In Set I.4 where there is a change of vowel from the A item to the C item, /a/ is changed to /ā/ four times, /i/ to /ā/ once and the only other change is from /i/ to /a/. Of the syllables selected for reduplication from the A items, 14 are /ā/, 10 are /i/, 8 are /u/, 4 are /o/, 3 are /a/ and there is one each of /e/, /ɛ/, /āi/, /ui/; and where the item reduplicated is disyllabic the selection is /uCi/, /aCi/, /iCe/. In other words there is a clear preference for /ā/, /i/ and /u/ with particular preference for /ā/.

The following shows the frequency of occurrence of the vowels in the corpus of C items.

Vowel	No. of occurrences	Vowel	No. of occurrences
/a/	68	/a/	7
/u/	38	/o/	5
/i/	30	/ui/	2
/au/	9	/ɛ/	2
/ai/	9	/e/	1
		/ai/	1
		/æ/	0

Eight ninths of all vowels are /ā/, /i/, /u/ and, phonetically similar /āu/, /ai/, and, of these, half are /ā/.

In AC items there is also strong preference for /ā/, /i/ and /u/, but it is less marked than in C items. The following shows the frequency of occurrence of the vowels in AC items:

<i>Vowel</i>	<i>No. of occurrences</i>	<i>Vowel</i>	<i>No. of occurrences</i>
-----	-----	-----	-----
/ā/	45	/āi/	9
/u/	38	/āu/	8
/i/	30	/o/	7
/a/	16	/ɔ/	4
/æ/	14	/ui/	2
		/e/	0
		/ai/	0

Without any data from A Newār, and with such a small number of items, it is impossible to deduce anything very significant from the AC vowel count. All that can be said is there is a preference for /ā/, /u/, /i/, but how far this is characteristic of AC Newari and how far it is characteristic of all Newār is not known. Impressionistically it is not characteristic of A Newār. It should be noted that /æ/ tends to occur in onomatopoeic words.

III.5 Summary

There is a marked difference between C phonology and A phonology and a much less marked difference between AC and A phonology.

III.5.1 The difference between C and A phonology

Word: There is reduplication of syllables or pairs of syllables in C words, and there are fewer numbers of syllables in C words.

Syllable: The syllable structure in C phonology differs from A syllable structure in being much simpler: In C phonology there are no consonant clusters (C₂), no syllable final consonants (C^f), and glides (C_g) occur only rarely, whereas in A phonology glides occur frequently, there are syllable final consonants and, less frequently, consonant clusters. The two may be set out as (_ means frequent and unmarked means infrequent):

A syllable structure:

(C (g)V(C^f) C (g)C₂V(C^f)

C syllable structure:

CV C_gV

Consonants: In C phonology there are fewer consonants than in A phonology (16 as opposed to 28), and there is marked simplification in phonation. 'h' occurs only with 4 consonants (and is treated as an /h/ glide, see above), and voicelessness predominates markedly. A consonants may be set out according to frequency as follows:

Principal consonants:	p, t, c, k, n
minor consonants:	m, l, s, h
marginal consonants:	b, d, j, g, r, w, y

Glides: In C phonology the glides are /w/ and /h/, but /w/ glide occurs once only and /h/ glide five times only, so that the structure C_gV occurs only 6 times in all. This contrasts with A phonology where the glides are /y/ and /w/ and the structure C_gV occurs very frequently.

Vowels: In C phonology there is a marked preference for /a/, which occurs in four ninths of all V places, and /u/ and /i/, which together occur in four ninths of V places. The remaining vowels, /e/, /ɛ/, /ai/, /ui/, /e/, /a/, are marginal and together occur in only one ninth of V places. /æ/ does not occur at all.

III.5.2 The difference between AC and A phonology

Word: In AC phonology there is reduplication and there are otherwise fewer syllables in the AC word.

Syllable structure: The only difference is the absence of C₂ in AC phonology, so that the syllable structures are:

A syllable structure:

(C_(g))V(C^f) C_(g)C₂V(C^f)

AC syllable structure:

CV C_gV

Consonants: There are 20 consonants as opposed to the 28 of A phonology. The 8 'missing' consonants are all of the aspirated series. The system is as follows:

Set 1

p	b	t	d	c	j	k	g
	m		n				
		t	r				
ph*	bh		dh		jh		gh

Set 2

s	h
---	---

Set 3

y	w
---	---

* indicates that /ph/ occurs in one item only and is not considered as part of the system.

The voiced stop-affricates occur with relatively high frequency, especially with glides, and are a device in onomatopoeic words which occur frequently in AC vocabulary.

Glides: There is no difference from A phonology.

Vowels: There is a preference for /ā/, /u/, and /i/, but it is not nearly so marked as in C phonology, /æ/ occurs with relative high frequency as another device in onomatopoeic words.

III.5.3 General

The simplicity which features in all child language is manifested in Newari at all phonological levels of its institutionalised child vocabulary. In items taught to the child to use itself, that is, in *C* items, there is reduplication, the word is shortened, the syllable structure simplified and the consonant and vowel systems simplified. Phonation is the main area for the simplification of consonants. Within the consonant sub-system of adult Newari where phonation is a phonetically four way contrasting feature (see Set 1 on page above of voicelessness, voice, aspiration and breathy voice, in *C* items breathy voice is absent (one isolated example of /bh/ only), aspiration of voiceless consonants occurs rarely /th/ and /kh/ not at all, /ch/ once, and /ph/, which is anyway usually a fricative, three times), and voicing rarely (/j/ and /g/ once each and /b/ and /d/ three times each), so that phonation almost disappears as a contrasting feature. There are voiced continuants and voiceless stop-affricates, with only a few examples of voiced, breathy voiced and aspirated contrasts of stop-affricates. Vowel preference is markedly towards the three most articulatorily and auditorily separate vowel qualities: /ā/ four ninths of occurrences, /i/ and /u/ together four ninths.

In the items that adults use to children but which the children are not expected to use themselves, that is, in *AC* items, there is also reduplication and the word is shortened. The syllable structure is not much simplified except that there are no clusters; there is a preference for the vowels /ā/, /i/ and /u/ but it is not nearly as marked as in *C* items. Phonation as a contrasting feature is simplified but not so much as with *C* items. That is, there are voiced continuants and no contrasting breathy voiced continuants, but there are voiced, voiceless and breathy voiced stop-affricates with only aspiration absent as a contrasting feature. And breathy voiced consonants occur with particularly high frequency, mainly in onomatopoeic items.

APPENDIX: NEWARI CHILD VOCABULARY

* Means AC item

unmarked means A item

o means onomatopoeic

Set I. Modification to Adult Item

I.1 Reduplicated syllable or pair of syllables (of adult item)

	<i>Child</i>	<i>Adult</i>	<i>glossary</i>
1.	kākā (see same item in)	tarkāri	green vegetable curry
2.	kiki	kii (kila-)	insect
3.	gāgā	gā	shawl
4.	caca	cakhuṇṇā	sparrow
5.	cācā	cāku	sweets
6.	pwa pwa yā-ye	pwal-e	to peel, strip
7.	pwaa pwaa yā-ye	pwaa cin-e	to bundle, pack
8.	bubu (see also 220, 221, 222)	bubaa (bala-)	grain
9.	ulā ulā yā-ye	ul-e	to apply mascara
10.	bhwaa bhwaa yā-ye	bhwa su-ye back)	to lean on (someone's back)
11.	hacāā (hacāā) yā-ye	hacāā gā-ye	to leap over, to jump

I.2 Reduplicated syllable(s) with last vowel long and nasalized.

*12.	ilāā ilāā yā-ye	ilea	to smear
*13.	pujāā pujāā or pujyāā pujyāā yā-ye	pu jyā-ye	to worship
*14.	pwalāā pwalāā yā-ye	pwal-e	to peel
*15.	silāā silāā yā-ye	sil-e	to rinse, to wash
*16.	hijāā hijāā or hijyā hijyā yā-ye	hijyā yā-ye or hijyā hi-ye	to wash clothes
*17.	huyāā huyāā yā-ye	hu-ye	wipe out
*18.	bulāā bulāā yā-ye	bul-e	to blend together, to mix up
*19.	hwalāā hwalāā yā-ye	hwal-e	to hurl

I.3 Change of vowel or consonant

20.	pānu	pālu	spicy, pungent
21.	tātā	tatā	elder sister
22.	tutu	duru	1/milk 2/breast
23.	phṭ	khṭ	thief
24.	lanāi	latāi	bobbin
25.	lediwā	rediwā	radio
26.	cwa-ye	swaye	to look
27.	cwāā	swāā	flower
28.	nāsi	māsi	vagina
29.	cipu	ciku	cold
30.	paurwatā	pāurwati	loaf of bread, cake

31.	kai	kaani	maize
32.	phaci	phasi	pumpkin
33.	nasā	lasā	bed, mattress
34.	nana	laa (lana-)	clothes
35.	nānā	laa (lana-)	clothes
*36.	deḡ yā-ye	den-e	to sleep
*37.	gulu (gulu) cā	guccā or gurcā	marble
*38.	phwau	khwau	cold
*39.	dhaci (see also 28)	māsi	vagina
*40.	matu	mhutu	mouth
*41.	mutu	mhutu	mouth

I.4 Dropping of initial syllable or consonant:

42.	ākāā	lākāā	shoes
43.	ākāā ya-ye	lākāā cwa-ye	to kick
44.	āā yā-ye	wāā khā-ye	to open wide (of mouth)
45.	tā (see same item in 21)	tatā	elder sister

I.5 Dropping of last syllable

46.	kāu	kāule	cauliflower
47.	dā	dāju	elder brother
48.	pā	pāju	mother's brother, maternal uncle
49.	cu	cuppā	kiss
50.	cu yā-ye	cuppā na-ye	to kiss

I.6 Dropping of mid-consonant or syllable

51.	āu, āi	ālu	potato
52.	pāu	pāju	maternal uncle
53.	pāu	palu	ginger, spicy(of food)
54.	cāu, (cāi)	cāku	sweets
55.	niī	nini	father's sister
*56.	gāā da-ye	gyāā da-ye	to be or become nice,
		well behaved	
*57.	pāā wan-e	pyāā wan-e	to go outside
*58.	cāū cwa-e	cāku-ye	to become sweet
*59.	bae	bajee	grandmother

I.7 Addition of initial or mid-consonant

60.	māmāasi	āmāāsi	guava
61.	māmā	māā (māma)	mother

I.8 Interchange of segments

62.	katāli	tarkāri	green vegetable curry
63.	lipāki	rikāpi	plate
*64.	ler	rel	train
*65.	lumār	rumāl	handkerchief

I.9 Miscellaneous

*66.	hawāijāp	hawāijāj	aeroplane
*67.	huj̄ phuj̄	husluj̄ pu-ye	to swing
*68.	pāci yā-ye	pā cin-e (pā prefix, cine verb)	to embrace
*70	hākuḹ yā-ye	hāku tin-e	to throw away

Set II. Child Item Derived from Adult Verb Form

II.1 Child noun derived from adult non-past verb form

	<i>child</i>	<i>adult</i>	<i>glossary</i>	<i>non-past form</i>
71.	kwii	kusā	umbrella	ku-ye, to open an umbrella; non-past form: <i>kwii</i>
72.	pwii	tuphi	broom	pu-ye, to sweep the floor; non-past form: <i>pwii</i>
73.	suii	mulu	needle	su-ye, to sew; non past form: <i>swii</i>
74.	nyāi (nyāi) cā	hā, imuu kii	be, ant, insect	nya-ye, to bite, to sting; non-past form <i>nyai</i>
75.	tiku	sinhaa	tika (vermillion mark)	lik-e, to put tika on someone's forehead: stative form: <i>tiku</i>

II.2 Child verb derived from non-past verb form of adult verb

76.	pii pii (yā-ye)	(wa) pi-ye	to plant of paddy	pii
77.	pwii pwii (yā-ye)	(ba) pu-ye	to sweep	pwii
78.	pwii pwii (yā-ye)	(bae) pu-ye	to play the flute	pwii
79.	phii phii	(laa) phi-ye	to put on (a shirt)	phii
80.	sile sile (yā-ye)	sil-e	to rinse, to wash	sile
81.	kwii kwii (yā-ye)	ku-ye	to open an umbrella	kwii
82.	lii lii (yā-ye)	li-ye	to uproot	lii
83.	hii hii (yā-ye)	hi-ye	to wash (clothes)	hii
84.	tae tae (yā-ye)	ta-ye	to put	tae
85.	bwii bwii (yā-ye)	bu-ye	to carry a child on the back	bwii
*86.	bwii bwii yā-ye	bu-ye	to massage	bwii
*87.	swii swii yā-ye	su-ye	to sew	swii
*88.	hwii hwii yā-ye	hu-ye	to wipe out	hwii
*89.	nvai nvai yā-ye	nva-ye	to bite	nvai

Set III. Item Derived from Semantically Associated Adult Item
(Sometimes reduplicated and often onomatopoeic)

	<i>Child</i>	<i>Adult</i>	<i>Glossary</i>	<i>S.A. Word</i>	<i>Meaning</i>
90.	nānā	bājāḷ	musical instrument	nā	drum sound (produced on right hand side of drum)
91.	wāwā (cā)	bakhūḷ jhangās	pigeon or any bird	wāwā	call for a bird especially pigeon
92.	tuu wā	khā	fowl	truu wa	call for a fowl
93.	kuku (ca)	khicā	dog	kur kur	call for a dog
94.	kuti kuti	khica	dog	kur kur	call for a dog
95.	pula	mata	lamp	pulu	classifier for a lamp or light
96.	nana	ākhaa (ākhalā-)	1/alphabet 2/learning	na	first letter of the alphabet taught to a child
97.	nana (ya-ye)	ākhaa bwan-e	1/learn 2/to read	na	first letter of the alphabet taught to a child
98.	nām̄, maḷ	katāām̄ari	doll	nāḷ, or maḷ fast saying of nāni, or maḷ	girl
99.	cae(yā-ye)	khipalāā hu-ye	to clean the buttocks and anus after defecating by sliding on the ground	sae	act of sliding on the ground
100.	pāpā	mari	bread, any sweets or tasty things	pā	classifier for bread
101.	tāā (yā-ye)	dā-ye	to him	tāā	act of hitting
102.	pāā or pāi (yā-ye)	(lāpā) dā-ye or Thā-ye	to hit, to clap	pāā/pāi	act of hitting or clapping
103.	nāni	ṣacikā	ribbon	nāni	girl or little girl
104.	tuku	sinhaa	tikā (vermillion mark)	tuku	classifier for sinhala (vermillion mark on the forehead)

°105	nāu	shaw	cat	nāu	mewling of a cat
°106	cui ₂ (yā-ye)	1/chu-ye 2/thu-ye	1/to cook (or griddle 2/to cook (rice)	cui ₂	sound that is produced while putting dough on to griddle or while frying in ghee or oil
107	mumu (yā-ye)	nu or nwa sil-e	to rinse mouth	mumu	act of rinsing mouth
108	āi ₂ (yā-ye)	wāā nyā-ye	to bite	āi ₂	act of biting
°109	ci ₂ (ci ₂) yā-ye	sā pu-ye	to pull hair	ci ₂	sound that is produced while pulling hair
110	munu munu (yā-ye)	nhikāā yā-ye	to mutter while performing	munu munu	act of muttering
111	hāmu or hām	na-ye	to eat	hāmu or hām	act of eating
°*112	dhāmpāā (yā-ye)	pwākalāā phi-ye	to put on a child's under garment	dhāmpāā	sound of diving into water
*113	bunāā ₂	pwākalāā	vest (worn after child is oiled)	bunāā ₂	act of oiling
*114	bunāā or bunāe yā-ye	cikāā by-ye	to oil	bunāā, bunāe	act of oiling
*115	nāe nāe	cikāā bu-ye	to oil	nāe nāe	act of oiling
*116	kur kurcā	khicā	dog	kur kur	call for a dog
*117	bwal bwal (cā)	ghangaa	bird	bwal bwal	call for a singing bird
*118	ghasi yā-ye	kipalāā hu-ye	to clean the buttocks and anus after defecating by sliding on the ground	ghasi	embrace
*119	sae yā-ye	kipalāā hu-ye	to clean the buttocks and anus after defecating by sliding on the ground	sae	act of sliding
*120	ghae or ghasi yā-ye	ghae pu-ye	to embrace	gae/ghasi	embrace

0*121	jhyāṭ	jātrā	jatra festival	jhyāṭ	jungling sound produced by cymbals
*122	nee yā-ye	mwāe chik-e	to slap someone's face	nee	movement of hand in front of someone's face to indicate negative sense
*123	nāṅkāe mā-tyaamha	sarpa	snake	nāṅkāe matyaamha	some animal or other (after lighting a lamp in the evening snake should not be named)
*124	mām yā-ye	1/nhe-he 2/yelāā nak-e	1/to chew 2/to feed something after chewing	mām mām	act of chewing
0*125	kwāā (cā)	kwāā	crow	kwāā	crowing of crow
*126	nānā yā-ye	cici lāpā thā-ye	to clap hands	nānā cici	act of clapping hands
*127	hāṭ yā-ye	dan-e	to stand	hāṭ	act of standing up
*128	pwapwaacā	cwāphwaacā	balloon	pwaā	bundle, pack
*129	tāhāā	sarpa	snake	tāhāā	long
0*130	bhāṭ yā-ye	syā-ye, pāl-e	to kill	bhāṭ	sound of cutting
0*131	suuhāā yā-ye	curwas twan-e	to smoke a cigarette	suuhāā	act of smoking cigarette, act of puffing
0*132	suuli (cā)	bhau	cat	surri	call for a kitten
0*133	munu (cā)	mani phaicā	lamb, goat	muni muni	call for a lamb, goat
*134	dyaa yā-ye	dyaa puṅyā-ye	to worship	dyaa	god
0*135	hwāucā	khicā	dog	hwāu	barking of a dog
0*136	hwāu yā-ye	(hwāu) u-ye	to bark	hwāu	act of barking
0*137	nyāucā	bhau	cat	nyāu	mewing of a cat
*138	ābhwaacā	dhwaha	bull	ābhwaā	bellowing of a bull
*139	cilāe yā-ye	cilāe gaa ki-ye syā-ye	to kill, to cut throat little by little	cilāe cilāe	act of cutting with a sawing motion

0*140	kulāe kulāe yā-ye	lakhae chyaḥ thun-e	to dip child's head in water	kulāe kulāe	sound of encouragement to a child having a bath or act of dipping a child's head in order to rinse it
0*141	kui kui yā-ye	(tu) cāā lhā-ye	to cut round (of sugar cane)	kui kui	sound that is produced while cutting round sugar cane
0*142	kunu kunu (yā-ye)	nhāepaḥ kul-e	to appease (ear itching)	kunu kunu	act of poking in side the ear with a little finger or feather
0*143	kulla yā-ye	pwank-e	to pour out	kulla	sound that is produced while hubble bubble is smoke.
0*144	kwārra or kwalla yā-ye	bajhāā twan-e	to smoke a hubble bubble	kwārra,	sound that is produced while hubble bubble is smoked
0*145	bhyāi yā-ye (var.of 130)	syā-ye pal-e	to cut with a sword	bhyāi	sound of cutting
*146	māe māe yā-ye	lhe-ye	to crawl	māe māe	act of crawling
*147	nu nu yā-ye	nu or nwa sil-e	to rinse mouth	nu	mouth
*148	hākuḥ yā-ye (see also 70)	hāku tin-e	to throw	hākuḥ away	act of throwing
0*149	ghāe ghāe yā-ye (var.ghwāe ghwae)	cāsu wa-ye	to scratch	ghāe ghāe	sound that is produced while someone is scratching his body
0*150	cwāe yā-ye (see also 106)	thu-ye,hwā-ye	to cook (rice) to fry	cwāe	sound that is produced when vegetables are fried in oil
0*151	jhwāe yā-ye	nwā-ye	to fry	jhwāe	sound that is produced when vegetables are fried in oil
*152	dhini dhini yā-ye (see also 109)	ṣa pu-ye	to pull hair	dhini dhini	act of pulling hair
*153	huunā kā-ye (huunā kayāā tāā yā-ye)	heek-e	to cause to stop weeping of a child	huunā	relieving a child of its frustration by offering to spank the person who has caused it.

Set IV. Child Item Derived from Exclamation
of Associated Sensation

	<i>child</i>	<i>adult</i>	<i>glossary</i>	<i>exclamation</i>
°154	āpā	kwāā	hot	āpā 'hot
°155	āpu	kwāā	hot	āpu 'hot
°156	āpā ju-ye	pu-ye	to burn	āpā 'on being burnt'
°157	āpu ju-ye	pu-ye	to burn	āpu 'on being burnt'
°158	āpuu/puu	mi	fire	āpuu/puu 'on being burnt'
°159	āyāā ju-ye	syā-ye	to have pain	āyāā 'on being hurt'
°160	āyāā ju-ye	mapha-ye	to be unwell	āyāā 'on being hurt'
°161	āyāā ju-ye	ghaa ju-ye	to be injured	āyāā 'on being hurt'
°162	hāā pāu	malta	red pepper	hāā pāu 'on eating hot pepper'
°163	hāā pāu	pālu	ginger	hāā pāu 'on eating ginger'

Set V. New Items

V.1 Onomatopoeic (some reduplicated)

	<i>child</i>	<i>adult</i>	<i>glossary</i>
°164	nāu (see also 105)	si	louse
°165	āchi	1/phwahar 2/khi	1/dirt 2/feceas
°166	āchi yā-ye	khi phā-ye	to defecate
°167	pṣṣ yā-ye	khi phā-ye	to defecate
°168	kākācā	makha, kha	mother hen, fowl
°169	kaa kaa	kwaa	crow
°170	cili cili (cā)	cakhuuca	sparrow
°171	cui cui (cā)	chṣ	mouse, rat
°172	tṣ tṣ	mwatar	car
°173	tṣ tṣ yā-ye	nyāek-e	to harm
°174	bāe bāe	manta, phuta	has finished, nothing left or remaining

°175	susu	cwa	urine
°176	susu yā-ye	cwa phā-ye	to urinate
°177	hāuḥcā	khicā	dog
°178	hāu yā-ye (see also 36)	u-ye	to bark
°179	āā ju-ye	si-ye	to die
°180	āe ju-ye	si-ye	to die
°181	phu	ti (ikha-)	spittle
°182	hāḥ-hāḥcā	hāḥ	duck, goose
°183	kili-kilicā	culiḥbuicā	a cricket, grasshopper
°184	āḥ (cā)	mee (mesa-)	buffalo
°185	māe māe (cā)	pasu	four footed animal
*°186	bāe bāe yā-ye	phuta yānāā ken-a	to show by moving hands there is nothing left or remain
*°187	bhyāecā	phai (phaisa-)	sheep, lamb, nannygoat
*°188	ghwāḥ ghwāḥcā	phā	pig
*°189	lyāp lyāp yā-ye	phe-ye	to lick
*°190	ghwāḥ ghwāḥcā	hāḥ	duck, goose
*°191	ghaliḥ ghaliḥ	ghangalā	bells, set of bells
*°192	ghalla	mwater	car
*°193	ghurkuucā	bakhūḥ	pigeon
*°194	āchi puḥ yā-ye	khi phā-ye	to defecate
*°195	bharkuucā	bakhūḥ	pigeon
*°196	ghat-ghatcā	sala	horse
*°197	ghat ghat yā-ye	sala	to ride (a horse)
*°198	ghat ghat yā-ye	laa hā-ye	to swig
*°199	dhāmpāḥ yā-ye or dhāmpūḥ yā-ye	1/dhar bwa-ye 2/pwakāḥḥ phi-ye	to dive to put on an under garment (to a child)
*°200	tihuucā	dhwāḥ(dheana-) jackle	
*°201	tii huu yā-ye	dhwāḥ hāl-e	to howl
*°202	hāḥhāḥ yā-ye	khwa-ye	to weep
*°203	tyākucā, tyāucā	guccā, gurcā	marble

* ⁰ 204	kukulyāā	gwaāgaa(gala-)	rooster
* ⁰ 205	sussa	cwa	urine
* ⁰ 206	sussa yā-ye	cwa phā-ye	to urinate
* ⁰ 207	ghulla	mwatar	car
* ⁰ 208	hui	mwatar	car
* ⁰ 209	pwaā pwaācā	mwatar	car
* ⁰ 210	bhusuū bhusuū ya-ye	mwaa lhu-ye	to have a bath
* ⁰ 211	bhuū bhuū yā-ye	mwaa lhu-ye	to have a bath
* ⁰ 212	tikka yā-ye	1/nyā-ye	to sting
		2/su-ye	to stitch
* ⁰ 213	pwaā yā-ye	sankha pu-ye	to blow a shell
* ⁰ 214	susu kulla yā-ye	cwa phā-ye	to urinate
* ⁰ 215	chiū yā-ye	nhi kā-ye	to sniff up nasal discharge
* ⁰ 216	sii yā-ye	nhi kā-ye	to sniff up nasal discharge
* ⁰ 217	dhwaā baji yā-ye	baji lhi-ye	to bite rice
* ⁰ 218	tii (tī) wan-e	mwatarae wan-e	to go by a car
* ⁰ 219	pwāā pwāā wan-e	mwatarae wan-e	to go by a car

V.2 Not onomatopoeic, reduplicated

220	bubu	duru	milk
221	bubu	tutu māā	watnurse
222	bubu (cā)	si	louse
223	kuku	thwa	beer
224	cici	lā	meat
225	cici pāpā	lā	meat
226	tutucā	mikhūucā, khā	chick, fowl
227	tā titi	nyāsi	stepping, walking
228	cāi cāi	cākumari	bread
229	cāi pāpā	cākumari	bread
*230	nāyaa nāyaa yā-ye	then-e	to put to sleep a child

V.3 Not onomatopoeic and not reduplicated

231	pacni yā-ye	phe tu-ye	to sit down
232	pachi yā-ye	b̄y-ye	to carry a child on the back
233	bhābā	bāālāā	any thing looking nice
234	bhābā	saci-kā	ribbon
235	dāi/dāu	dhebā	money
236	hāpu	jā	cooked rice
237	āku	laa (lakha-)	water
238	yāi	imuu (imuli-)	ant
239	tāi/tāāti	nyāsi	stepping, walking
240	tāi bhābā	timilā	moon
*241	tāeti/tāecni	nyāsi	stepping, walking
*242	dāmi	dhebā	money
*243	bhābā ta-ye	bāā lāk-e	to beautify
*244	bhābā dyaa	dyaa	god
*245	dhukuu yā-ye	den-e	to sleep

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