

Verb Citation in the Classical Newari Dictionary

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1. Theoretical Assumptions

A dictionary entry of any lexical item represents a native speaker's knowledge of the lexical organization of that entry. This could be referred to as a "macro-entry" which includes its basic form, syntactic coding, various definable senses (and subsenses), collocational properties and patterning of examples to illustrate its possible usage(s) in specific contexts. An entry in this sense would not only define the ordering of the parts but also make explicit the syntactic-semantic potentials of the entry. This inter-dependency between syntax and semantics is difficult to code in a bilingual dictionary such as that of the Classical Newari (CN) where the attested morphological form and the usage label given to a particular entry are necessarily restricted to the orthographic representations in the original source materials. Historically, the Classical Newari as recorded in the old written documents and manuscripts differs from contemporary Newari in syllable structure, morphology and syntax. It is difficult to decide, for instance, on the structure of the verb root, what word class(es) a verb belongs to or what syntactic uses or constraints it is subject to. Further, it is often difficult to decide what could be its general or specific meaning and what kinds of semantic alternations are possible with this verb. Ideally, we would expect our linguistic data to be verifiable in terms of structure and usage, but this is often not the case with a purely documented form of the language. In this sense, it may be unreliable and arbitrary to deduce the morphological structure of words purely from the script. We notice a large number of inconsistent orthographic variants which may not correctly reflect the phonological / morphological changes in the language. The source materials we have chosen to compile from also represent various stages in the evolution of the language. While this may throw some light on certain obscure areas of form and meaning, we are basically handicapped by the absence of any in-depth diachronic studies of Newari. Apart from Jorgensen (1936, 1941) and Kolvers (1978), there is to date no sound description available of Classical Newari verb morphology. The task of editing such a dictionary is indeed formidable and challenging, and many hard decisions need to be taken on problems related to the form of the head entry, variant forms, grammatical usage, etymology etc. We shall however focus our attention in this paper on the criteria for representation of verb roots, citation forms and marginally on organisation of subentries, including the derived form of verbs attested in the source materials.

2. The Corpus and its Problems

The dictionary phase of the Project is based on a total corpus of some 30,000 attested Newari words compiled from 38 different source manuscripts including literary genres such as drama, narrative texts, didactic and legal texts, poetry and songs, chronicles and historical diaries, covering a period of over 600 years (1115–1770 A.D.). The earlier lexicon phase on Classical Newari consisted of some 20,000 recorded Newari words drawn from twelve Bilingual Sanskrit-Newari *Amarakosas* dated between 1381–1900 A.D. From the editorial point of view the lexical material as attested in the *Amarakosas* presents fewer problems in two respects: one, the support from Sanskrit equivalence has given the data greater transparency and authenticity especially in assigning grammatical code and gloss; and second, the majority of Newari words recorded are nominals. In the case of verbs the picture tends to be entirely different because the problems one encounters with this material are vexing and puzzling, to say the least. The

problem has also been compounded by the initial editorial decision to compile all attested verb forms as separate entries without any attempt to relate a verb root to its derived/inflected forms. This has obviously inflated the corpus to several thousand verb forms while we have so far identified only 475 verb roots. The glaring gap in our corpus is clearly apparent when we consider that contemporary (colloquial) Newari has not more than 457 root verbs (Shresthacarya, 1981). Notwithstanding the size of verb roots in our chosen corpus, we are currently faced with three basic problems in representing verb citations with some degree of accuracy and elegance:

1. What form should the head entry take?
 - a) verb root only
 - b) verb infinitive as the citation form
 - c) full verb form, i.e., verb root with inflected forms.

2. What is the morphological composition of the verb root or its infinitive form, and what developments are evident in Earlier and Later CN verbal morphology?
 - a) oral vs nasal root-vowel (**kaye** / **kane**)
 - b) vowel-final vs. consonant-final root (**bi-** / **bil-**)
 - c) evolution and assimilation rules of earlier CN infinitives
(**-sa** > **-r/-l**; **-ja** > **-ñ/-ñ/-n**; **-ca** > **-ya/-ye/-e**).

3. Given a citation form as the head entry, what should be its proper morphemic segmentation?

(**yāca** > **yā-ta/yāt-a**; **sica** > **si-le/sil-e**; **jvamja** > **jvam-ja/jvaj-a/jvan-e**).

Each of these problems needs to be reviewed and analyzed carefully before we can go on to determine the relationship between a head entry and subentries, and which verb entry model is appropriate for a historical dictionary of this kind.

2.1 The Form of the Head Entry

As stated earlier, the question of what form the head entry should take has posed some problems in the editing process of the dictionary. In the first place, all the attested forms of the verb have been compiled as head entries (e.g., **boya** 'to fly', 'exhibit'; **boyā** 'flew, exhibited'; **boyakā** 'caused to fly', etc.). Secondly, both verb phrases and phrasal verbs have been entered besides finite lexical verbs (e.g. **mi tuno** 'lit a fire, set a fire'; **tā cone** 'to last long'; **likāse biyā** 'was restored' etc.). Thirdly, Newari auxiliary verbs and many verbalizing suffixes can often be used as finite lexical verbs with independent meanings (e.g., **kāye** 'to take', **dhandā kāaye** 'to be worried'; **puye** 'to wear, to blow', **ghasa puye** 'to embrace'; **cone** 'to stay, to feel', **khinesem cone** 'to become dark', etc.). Fourthly, there is a good deal of uncertainty about the verbal status of particular lexical items, i.e., are they pure verbs or verbal nouns or adjectival in function? (E.g., **lhonake** 'cause to get fat'; **hyānakam** 'to make red'; **ko-kāya** 'to take down', **tha-kāya** 'to take up', **kutu-vane** 'to drop, fall down'). One would, of course, expect the context to disambiguate these problems, but there is often no one-to-one correlation between morphological form, grammatical function and meaning of a verb root. For example, **dhā-ya** can be glossed as 'will say', 'may say', 'something to be said', 'to be said', thus carrying future, optative, relative participle, verbal participle functions, and it is difficult to establish the syntactic environments which signal the change in meaning.

Faced with these problems, our first task is to decide on the verb root as an identifiable morphological unit and consider the merits and disadvantages of taking the root as a head entry. On the merit side the following points can be mentioned:

- a) The dictionary is being compiled and edited on historical principles, showing developments in the etymology of words and their derived forms. The root is a useful frame of reference for this purpose.
- b) The dictionary is intended primarily for scholars and research workers and not for the general public. The identification of the root with information on the roots in cognate languages would, for this reason, be useful for comparative and diachronic studies of T-B languages.
- c) The root is the base to which all the inflectional suffixes can be attached. If we take the root as the head entry, the morphological distinctions in verb inflections would have greater clarity and definition.

There are however two valid reasons why the root form of a verb is not appropriate for a dictionary entry :

- a) A verb root is the head morpheme of a word but is never attested as a single lexical unit. A root morpheme by itself is not definable unless it is a part of a larger unit. A dictionary of root verbs (if not attested as such) may also be difficult to use.
- b) It has been found to be difficult or at least arbitrary to extract root verbs from ancient records and manuscripts written entirely in Newari or Devanagari scripts. The root form of the verb is by no means transparent in the original script.

On the other hand, the infinitive or citation form of the verb is the logical and most commonly used as the head entry. It is, in a way, an underlying form of a word to which the inflectional/derivational morphology is affixed. An infinitive has very restricted uses colloquially, but as a dictionary entry it has the advantage of structural similarity across a class of words defined in terms of its basic meaning. One possible disadvantage of using the infinitive form of CN verb is that there are alternative forms **kamja/kanya** 'to tell', **hlāca/hlāya** 'to speak', **seja/seya** 'to know', and it is difficult to say if these forms were in free variation at a particular point in history or when one form evolved into another.

The third alternative to use the inflected verb forms as head entries can be ruled out immediately on two grounds: one, the use of all attested verbs as head entries would render the dictionary unnecessarily complex, and two, the conjugation of old Newari verbs as a whole may not emerge as a consistent system of verbal relationships. We have therefore considered it sensible to organize all the attested inflected forms as subentries under a basic head entry to show their specific uses in the original manuscripts.

2.2 Morphology of the Root Verb

The question of what constitutes a root in CN is itself a difficult decision. Jorgensen (1941:47) refers to the roots as primary verbs or primary roots which "have monosyllabic roots with a final consonant, which is most verbs appears in some of the forms only, whereas in the others it has been amalgamated with the suffix that follows." He divides the primary verbs into four classes, the first three having "an unstable consonant, the fourth retaining its consonant through all forms" (i.e., **kan-n**, **yā-t**, **na-l** vs. **hil-**, **hnel-**). Jorgensen regards preverbs plus primary root (**ghas pu-n** 'to embrace', **lu ma-n** 'to remember', **lol ma-n** 'to forget') as verbal phrases, and causative derivatives as the fifth class of verbs. His five classes of verb roots and infinitive forms can be summarized as follows :

A-Form	I	II	III	IV	V
Root	ka-n	yā-t	bi-l	māl-	naka-l
Infinitive	-ne -nja	-ya -ca	-ya -ja	-le	-ke

Table 1 : Jorgensen's A-form roots and citation form of verbs.

Jorgensen's representation of the roots and citation form of these verbs is largely ambiguous for two reasons : one, the morpheme structure of the root is not transparent, and two, the status of the final consonants **-n**, **-t**, **-l** and **l** in the five classes is not definitive, i.e., whether "the unstable consonants" in Classes I, II and III are an integral part of the root or belong properly to derived bases. This problem of what constitutes the base for the inflectional system is further complicated when he assigns the forms derived from the "verbal roots" to two separate bases, a shorter and a longer one, which can be summarized as follows:

Class	I	II	III	IV	V
Root	ka-	yā-	bi-	māl-	naka-
Short base	ka-n-	yā-t-	bi-l-	māl-	naka-l-
Long base	kana-	yāta-	bila-	māla-	nakala-

Table 2 : Verbal bases (Jorgensen, 1941)

A comparison of the forms in Table 1 and Table 2 reveals a basic confusion about what constitutes a root (**ka-**, **yā-**, **bi-**; or **ka-n**, **yā-t**, **bi-l**). If we take **ka-**, **yā-**, **bi-** as the roots in the first three classes, **-n-**, **-t-**, and **-l-** of the short base can be interpreted in two ways: (a) as unstable consonants which participate in stem alternations in the same way as modern Newari nouns, i.e.

/lakha/ > la:	'water'	→	lakha-e	'in the water'
			lakha-am̄	'by/from the water'
/phasa/ > phae	'wind'	→	phasa-e	'in the wind'
			phasa-am̄	'by/from the wind'

where the final **-kha** and **-sa** are historically a part of the stem, or (b) as part of the suffix which then turns out to be a highly complex system involving a large number of consonant-initial suffixes (**ka-na**, **yā-ta**, **bi-la**) that are morphologically unpredictable. The first option here appears to be plausible if we assume that verb inflections behave in the same way as noun inflections, i.e., the final consonants lost as a historical process are recoverable in certain case forms. This alternation may also be seen in the reformulation of Table 2, as proposed by the Kolvers (1978:276):

Class	I	II	III	V
Short base	kan-	yāt-	bil-	nakal-
Root	kaṃ < *kan #	yā < *yat#	bi < *bil #	naka < *nakal #

Table 3 : Alternate grouping of 'root' and 'short base'.

This re-statement, among other things, recognizes **yāt-** of Class II and **bil-** of Class III as underlying base forms which alternate with **yā-** and **bi-** (i.e., **yā-ya**, **yāt-a**; **bi-ya**, **bil-a**). In line with this view, the proper infinitive forms of the four verb classes in old and modern Newari can be represented as :

I	kana-ya	>	kan-ya (Stable -n)
II	yāta-ya	>	yā-ya (Unstable -t)
III	bila-ya	>	bi-ya (Unstable -l)
IV	māla-ya	>	māl-ya (Stable -l)

Table 4 : Stable and Unstable root consonants.

This would, of course, imply that Class III and Class IV final -l's are no longer distinct since the earlier infinitival forms of these two classes are similar. The only justification for retaining the distinction would be that the final -l of Class III is unstable while that of Class IV is stable in all inflected forms.

The verb-stem alternation argument, however, does not hold in the case of the earlier infinitival suffixes **-da/-ja** and **-ca/-sa** found in the ancient manuscripts. In words such as **lvāca** (modern **lvāye**) 'to fight' or **jomja** (**jone**) 'to catch', **lvā-** and **jom-** are distinct roots, and **-ca/-ja** can be interpreted as infinitive suffixes which later developed into **-ya/-ye/-e** (from **-ca**) and **-n-e** (from **-ja**). On the basis of the evidence from data so far available to us, we can formulate some tentative rules to show morphophonemic developments in the first four classes of CN verb forms:

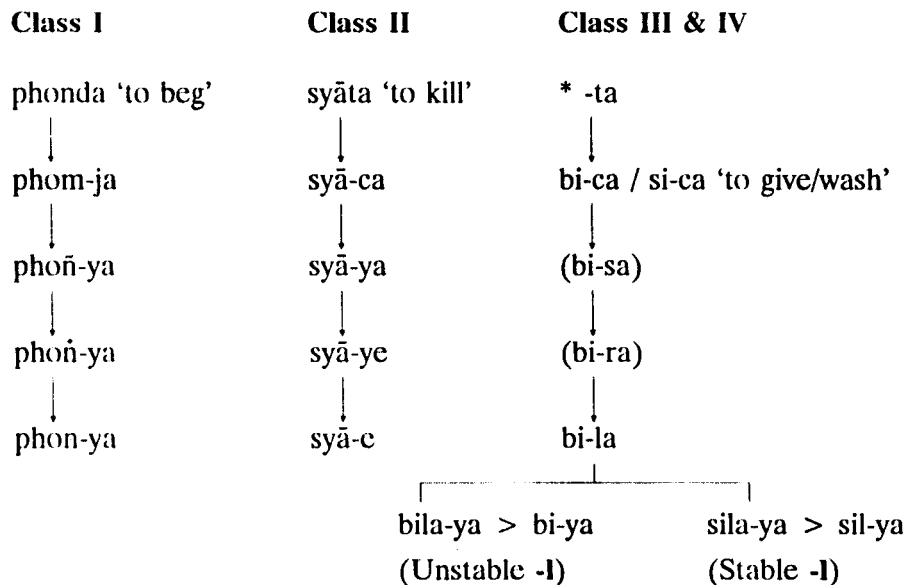


Table 5 : Verb morphology developments in Classical Newari

The rules which cover Class III and Class IV indicate a common historical origin but probably a split into two classes at a later stage, although the earlier ***-ta** postulated here is

hypothetical and is not attested in our present corpus. It is, however, evident from Table 5 that the development of *-ca* to *-ya/-ye/-e* or *-sa* to *-r/-l* is plausible in historical phonology, but that of *-ca* to *-la* (as in *sica* > *sile*) has remained a problem, as the two consonants differ in articulatory and voicing features. Obviously there is a gap in our data and we need more evidence before we can establish a possible line of development (e.g. *-ca* > *-sa* > *-ra* > *-la*).

The ancient infinitival forms seen in this light can be interpreted as having CV- roots which later acquired final consonants by a process of rhotacism (*c/s* > *r* > *l*; or to palatal *-y*) and a “samdhi” or assimilation rule (*j* > *ñ* > *ṅ* > *n*). The evidence of this finds support in the collection of CN verb stems (Tamot, 1988), cited in the listing as T-B roots:

T-B roots	Modern Citation forms	Meaning
om (j)	wan-e	‘to go’
kam (j)	kan-e	‘to tell’
com (j)	cvan-e	‘to stay’
kvā (c)	kvā-ye	‘to dig’
ghvā (c)	ghvā-ye	‘to push’
ñā (c)	nyā-ye	‘to bite’
no (c)	nva-ye	‘to be red hot’
nyā (c)	nyā-ye	‘to collide’
si (c)	sil-e	‘to wash’
sā (c)	sāl-e	‘to pull’
hi (c)	hil-e	‘to change/to dry’
ho (c)	hval-e	‘to scatter’
ci (s/r)	cil-e	‘to move aside’
nu (s/r)	nur-e / -le	‘to be exhausted’

Table 6 : T-B verbal roots

Although the above examples do not cover all classes of verbs we can see clear cases of rhotacism and “samdhi” rules referred to above. On examining all the attested forms of *-n* final (in all 733) and *-l* final verb stems (116 in total) available in our corpus, we find that they all have *n* and *l* as inflected morphology. Our perception of what the root is composed of in CN or what the citation form (or its segmentation) ought to be for all classes of verbs may therefore depend largely on the historical period to which a body of data can be assigned. On this assumption we can perhaps propose a dual-class membership of verbs, using the Earlier Classical (ECN) and Later Classical Newari (LCN) distinction made by Tamot (1989: 32–36) as a tentative framework :

Class	I		II		III	
	ECN	LCN	ENC	LCN	ECN	LCN
root	hvam-	hvan-	syā-	syāt-	bi-	bil-
infinitive	hvam-ja	hvan-ya	syā-ca	syā-ya	bi-ca	bi-ya
	'to unite'		'to kill'		'to give'	
Class	IV		V			
	ECN	LCN	ECN	LCN		
root	si-	sil-	naka-	nakal-		
infinitive	si-ca	sil-ya	naka-la	naka-ya		
	'to wash'		'cause to eat'			

Table 7 : Earlier and Later Classical Newari Verb Classes.

The comparative data provided in Table 7 serve to indicate a historical development in the form of root verbs and infinitive suffixes. The two periods in question are distinguished by the earlier infinitival suffixes **-ja**, **-ca** which later changed to final consonants **-n**, **-l** (stable for Classes I and IV) and **-t**, **-l** (unstable for Classes II, III and V). The stable final C's participate in inflectional forms : **kan-e**, **kan-a**, **kan-ā**, **kan-i**; or **māl-e**, **māl-a**, **māl-ā**, **māl-i**; while the unstable ones occur only in past disjunct forms **yāt-a**, **bil-a**. Hargreaves and Tamot (1985) in this connection suggest the possibility of a historical development in verb classes itself. They cite examples which illustrate an alternation between Class I and Class III verbs:

Class I	Class III	PT-B root
wan-e 'to go'	wa-ye 'to come'	*(s-)wa 'to be in motion'
tan-e 'to add, pile'	ta-ye 'to put, place'	* ta 'to put, place'
cin-e 'to compose'	ci-ye 'to tie, bind'	
ten-e 'to be going to do something'	te-ye 'to be time for'	
dan-e 'to stand'	da-ye 'to be located'	

Table 8 : Alternations between Class I & Class III verbs, Hargreaves and Tamot (1985)

The verb-stem alternations in Table 8 suggest an earlier morphological role for some cases of final **-n**, and Hargreaves and Tamot (10) go on to hypothesize that "Class I verbs must now be viewed as having developed from at least two distinct sources, a proto-TB final nasal and an earlier nasal suffix." Our interpretation of this development would be to trace the final **-n** not to its hypothetical proto-TB root but to earlier infinitival suffixes attested in our corpus. We have stated a "samdhi" rule which account for the oral-nasal alternation and nasalization of the root vowel. Jorgensen's (1941:13) observation that (final nasals become an "anusvara" (e.g. **svān** > **svām**) also supports this basic tendency in Newari nouns and verbs. We also recognized the earlier morphological role of final **-t** (in Class II verbs), final **-l** (in Classes III & IV verbs) and final **-k** (Class V) which were lost in word-final positions. We saw in Table 3 that **yā-** can be derived from **yāt-**, **bi-** from **bil-**, and **naka-** from **nakal-**. We can, on this basis, assume that a

word boundary must have existed between the root and a set of suffixes. In the case of nominals, the Kolvers (279) distinguish two types of junctures:

- a) **kalāt + am** > **kalāt-am** 'by the wife'
 b) **kalā-yā** < **kalāt + yā** 'of the wife'

Presumably, juncture type (b) showing a loss of the final **-t** is a later development, resulting in the compensatory lengthening of the stem vowel. By the same token we would expect the verb form **kana-ā** to alternate with **kam-ā** which originally can be traced back to **kana-ā** < **kam-ja**. Historical changes of this kind may also have implications in the development of verb classes, but such correlations are not yet very clear. Jorgensen (1936) for instance has two parallel entries **hmuya (-t)** and **hmoya (-l)** with the same gloss 'to dig', indicating a change from Class II to Class III (assuming that **-t** is earlier than **-l**). In any case, the system of verb classes as formulated by Jorgensen (1941) onward is still problematic in some respects and will remain so until all the facts of diachronic phonology and morphology are fully explored. Our proposed verb classes (in Table 7) incorporating a diachronic perspective may have some relevance, if only to bring some kind of order to the system.

2.3 Problems of Morphological Segmentation

The presentation of the verb corpus in the CN dictionary, as we saw, poses several problems of morphology. Part of this problem is related to the morphological segmentation of data that span a period of over 600 years. The segmentation problem arises mainly from seemingly arbitrary (?) orthographic variations in spelling. These variations, as is well known, are not strictly relevant to the facts of Newari phonology. We are also not in a position to make any valid judgements on orthographic variants in relation to phonological changes that have taken place in the language. The identification of discrete morphemes (root, citation form and inflections) in over 30,000 entries in draft files has therefore been a formidable problem, one that requires a consistent procedure as a matter of editorial policy.

In our discussion of CN verbal morphology in 2.2 above we laid stress on the identification of the root and proper citation form of each verb. We have, in this connection, encountered three basic problems: one, most verbs do not have attested infinitives and we have had to devise hypothetical forms; two, several alternate uses of infinitive verbs have been found in the same text, e.g. **demja** 'to cut', **cimja** 'to compose', along with **kolāye** 'to bless, to wish well', **thyane** 'to reach' or **jwanhāye** 'to capture'; and three, there are several variations in spellings, e.g. **jonahay/jvamnahay** 'to bring in captivity', or **yāna/yānāna/yānaya/yānava/yānavam** 'doing' which cause problems in transliteration and correct segmentation. It is not helpful in most cases to refer to the original script to resolve these problems. We have obviously to take into account the historical changes in morphology to enable us to identify the root in each case and determine what its citation form ought to be for a head entry. We assume that Table 7 provides such a frame of reference.

The representation of inflected/derived forms too has its own problems. Several parallel forms representing similar tense and gloss have been found in some of the manuscripts, e.g. **hyamgva/thyamnā/thyananam** 'reached'; **syikva/syikvama** 'died'; **syācakā/syācakam** 'caused to kill' etc. As a rule of thumb, Malla (1985:XX) refers to the verb in the earliest manuscripts such as *Gopālarājā Vamsāvali* (1057-1389 A.D.) as having "three simplex allomorphic forms ending in low vowel (ā), central vowel (a) or back vowel (o) mostly used for simple past, and variations of the causative form **-cake/-take/-sake**." He goes on to note that "the gerundive (**svam/syam**)

and participial (va/o) functions are hardly differentiated.” A partial conjugation of the verb *jvanhāya* ‘to capture’ provided in the glossary has the following forms: *jvanhā* ‘captured’, *jvanana/jvamnā* ‘capturing’, *jvamnāva* ‘having captured’, *jvamnahāva* ‘brought in captivity’, etc. It might be a sensible idea to summarize the inflectional morphology of CN verbs in conjugation tables in the manner of Kolver and Kolver (1978:307–311, Appendix II) or Jorgensen (1941:55–56) for all classes of verbs. Following Jorgensen (1941) we can divide CN verbs into 3 categories: A, B and C forms, with allomorphic verbal suffixes. The conjugation of Class I verbs, for example, can be tabulated as follows :

Class I Verbs

A-forms from the short base

Grammatical function

Root: kan- ‘to tell’

kaṃ-ja

Infinitive

kan-ya/-ë

kan-aṃ/-no/-na

Finite Past

kan-o/-wo

Imperative

kan-i/-yu/-nayu/-niwo

Future (Stative)

kan-añ/-ā/-kwo

Relative participle

kan-an/-nd/-ṃḍ

Infinitive of purpose

kan-ñaṃ/-laṃ

Adverbial participle

kan-syaṃ/-seṃ

Adverbial participle

kan-le/-len

Conjunctive participle (as, when)

kan-kaṃ/-naṃ

Conjunctive participle(after, while)
(Reduplicative)

B-forms from the longer base

kana-sā

Conditional (if)

kana-sā-nwoṃ/-sā-naṃ/-sāṃ

Concessive (even if, even though)

kana-ña-sem

Adverbial (when, at the time, at the moment)

kana-ñā-sa / -ñā-wo

Conjunctive participle (when, as since, if only)

kana-ñā-ñān

Causal (because)

C-forms : Compound

kana-hune /-hñān/-ñān

Imperative

nana-sane

Polite Imperative

kana-tole/-tale/-tolen/-talen/

Adverbial (until, as long as, while)

-toleṃ/-tolenom/-toleyā

kana-tunum/-tunaṃ

Adverbial (as soon as, immediately after)

kana-kāle

Adverbial (when, if)

kana-wola/-vala

Adverbial (while, as long as)

kana-tu/-tuṃ

Intensives

Table 9 : Conjugation of Class I A, B, and C verb forms, after Jorgensen (1941).

3. Verb Entry Model

The choice of an appropriate verb entry model for a historical dictionary of this kind has been a subject of much discussion among the editorial staff. We have assumed that once the morphological form, grammatical function and meaning of each inflectional form is determined, we will have a firm basis for deciding the best entry model. In the meanwhile, several procedures have been suggested and we reproduce here three such models and their principal components for comparison and assessment.

Model 1

Based on the nesting/embedding principle of verb entry, Malla (1990) proposed a specimen verb entry model with the following components:

- a) The verb root **KHU-** in capital letters with all etymological/ historical notes and T-B cognate forms given as part of the root, not the citation form. The cognate words should be attested and not be reconstructed forms.
- b) The root and citation form **khū-ya** with grammatical label, gloss, manuscript citations and one illustrative sentence per attested form.
- c) All attested inflected forms of the verb listed as subentries with manuscript references, but without grammatical labels, meaning or illustrative sentences.
- d) The inflectional/derivational suffixes arranged in chronological order with a maximum of four different manuscript attestations.
- e) Malla reasons that "instead of giving grammatical label and gloss for each of the so-called 'inflected forms' of the verb root, we can give the inflectional endings for each verb class in a table and define the grammatical functions and the meaning of each of these in the introduction." This, he claims, will be elegant and economical in the organization of the verb corpus.

Model 2

Tuladhar (1990) has proposed a more simplified verb entry model with the following components:

- a) The verb root in capital letters as the head entry with orthographic variants of the root.
- b) The infinitive form of the verb entered as the citation form, even if it is not attested in our corpus. Most verbs will require hypothetical citation forms since these are not usually attested in old manuscripts. The citation form is given a grammatical label, gloss and a maximum of four manuscript references.
- c) All attested inflections entered as subentries in a chronological order without grammatical information.
- d) Each subentry is given a gloss and manuscript attestations.

Model 3

Tuladhar (1991) proposed another verb entry format with the aim of providing a context for each verbal form, without which manuscript references are meaningless. The principles of the entry are as follows:

- a) The head entry consists of the verb root with etymological information (Sanskrit/T-B origin), and orthographic variations given in parenthesis.

- b) The infinitive verb entered as the citation form with manuscript attestations, followed by an illustrative sentence and full gloss.
- c) All attested forms of a verb are listed as subentries in the following order: First, the principal parts of the verb such as tense, aspect, imperative, stative; second, derivatives such as causatives, relativizers, nominalizers; third, adverbial suffixes; fourth, negatives; fifth, emphatics and classifiers; and lastly, verbal phrases.
- d) Each subentry is provided with an illustrative phrase/sentence and English translation so as to give each verbal form an attested use in a specific context.

Model 1: A Specimen Entry for the Verb Root KHU- 'to steal'

KHU- (cf. Tibetan *rku-ba*, Brumese *khui*, Nung *kh*, Bahing *ku*, Thakali *kh*-*la*, Khaling *kh*-*nyā* Sherpa *khuy-pācā*, Chepang *ku ? sa*, Kagate *khe-ne*, Kachin *lequ*)

Khu-ye vt. (-ra/-la) to steal

N (98a:2), 12b:1); A2 (150a:4)

khuye padārtha dvātam svamtā je. (N98a:2)

There are three kinds of objects to steal.

-yā	N (115a:2); (123a:1); A2 (143b:2); G (56b:4); A3 (101b:3); A6 (106b:3)
-va	N (99b:1,2), (119a:1,4), 121b:1)
-ram	N (124a:2)
-ramnāsa	N (43a:2), (99a:1)
-ramnāva	N (122a:4)
-ra vane	N (17a:2) +
-rasano	N (99a:1)
-yāyā	N (59a:3), (122b:1), (123a:1,2,3) ++
-yāsa	N (122b:1,4) ++
-syam	N (14b:2), (15a:4), (43a:1)
-syam yamko	N (121b:1) +
-syam hā	N (44a:5) +

+ These are actually verb phrases, not inflected forms of the verb

++ **kh**-*yā-yā* is a genitive form of **kh**-*yā*.

kh-*yā-sa* is a locative form of **kh**-*yā*.

Both are nominal formations from the -*yā* form of the verb.

Model 2: Sample Verb Entry for NA / ÑE . . .

na-ya	vt.	to eat	R (10b.3), Y(33b.3)
-e			N (21b.4), SV1(134a.1)
-ñe			N(35b.1)
-ra			T(18a.3), H (44a.2)
-raṃ		ate	H (19b.5)
-sena		eating	NG (42b.2)
-yāva		having eaten	L (2b.5)
-yuva		will eat	H (16b.3)
-yā		eaten, has eaten	C (28b.4)
-ku		to feed	D (28b.3)
-kā		fed	GV (58b.3), D (24a.2)
-kaṃ		feeding	T (41b.7)
-kakāle		if fed	N (57b.2)
-kayu		will feed	T (13b.4)
-karesāṃ		even if feed	SV1 (129a.1)
-le/-lena		while eating	T (34a.4), G1 (67b.10)
-rañāva		when one eats	C (43a.1)
-rasāṃ		even if one eats	SV1 (49b.2)
-vamha		one who eats	H (40b.5)
-o / -va		eat !	R (14b.2)
-ya yāña		for eating	H (36b.2)
-ra vañāva		going to eat	H (44a.4)
-sya cone		to live by eating	M (24a.1)

Model 3: Sample Verb Entry for KYAī {Etym. Origin} (o.v. KYEī/KEī/KE/KYA)
(Incomplete illus. and glosses)

kyam-ñe	vt.	to show	N(44b,5), C(46a,2), M2(c2a,4), R(40b,6) yāya belasa, kemñe madu, nisphala It is useless if anything is not ready to show when needed
-na			H(16a,1) byāgrahana lāhātha thaṃlhāñāva kaṃkana kena Stretching Forth its paw, the tiger showed the bracelet
-ña			N(29b,1), H(44a,2), C(46a,2)
-ñā			T(8b,1), GV(30b,4), NG(40b,5), D(6b,1);
-no			SV(29a,1) nindrā yāñāya pāpana keno makhā The sin of disrespecting others showed its mark
-ñā-o			R(32a,2) jasa dhana lāya thana karama kenao

-ñā-va	N(46b5);H(44a,2);h1(14b,5), V(Sa,5) suvarnna kaṃkana kyanāva having shown a gold bracelet
-saṃ/se	M(9b,6), NG(59b,5) aneka ratna keṃseṃ vāseṃ dhana thvala (I) earn money showing and selecting many jewels
-na-ka	D(5a,4)
-ño	M2(e5a,3)
-ñu-nu	T(ba,5)
-na-ñā-o	L(3a,2)
-ña-tā-va	N(44a,2)
-ñā-guli	NG(47b,2)
-ña vane	V(22a,1) ji Bikramāditya thava guṇayā prabhāva keṇa vane I, Bikramaditya, go to show the effect of my qualities/virtues
-da van-e	N(45b,4) rājatvaṃ kyamda vane mālvā kha (one) had to go to show to the king
-ne yan-e	M(45a,4) kene yane nu Let us take to show
-yan-e	M(45a,3) āva anaṅgasena keyāne Let us go to show Anangasena now

4. Conclusions

4.1 Form of the Head Entry

The question of what form the head entry should take has been our primary concern. We examined the merits and drawbacks of using the root verb only, the root plus infinitive suffix (hypothetized if not attested) and inflected verb forms. After assessing these various possibilities we decided to include the root as the head entry and the infinitive as the citation form of the verb, and to enter all the attested inflected forms as subentries. Since most attested verbs are inflected, we would need to identify the root in each case and provide the appropriate citation form **-da**, **-ca**, **-ja**, **-ya**, etc. depending on the usage in particular source material. We have also accepted a possible division of CN data into earlier and later periods (See Table 7) to distinguish one set of citation forms from another.

4.2 Morphology of the Root Verb

Our basic argument on the morphology of the root verb has followed two lines of reasoning: one, the case for and against the recognition of the so-called stem-final consonants (**-n**, **-t**, **-l**, **-k**) of various verb classes, and two, the need to take into account the morphological development in verb forms in Earlier and Later CN. On the first point we argued that Jorgensen's analysis of the root and verbal bases, although a good starting point, is largely ambiguous in morpheme structure and segmentation. We have attempted to show that the stem-final Cs which are stable and unstable have evolved from earlier infinitival suffixes **-ca**, **-ja** through rhotacization (**-ca** > **(-s)** > **r/l**; **-ca** > **-ya**) and assimilation of final nasal **-n** (**-ja** > **-ñ** > **-ṅ**). These processes have resulted in a set of final Cs, some of which surface only in certain inflected forms (e.g. **yāt-a** of Class II and **bil-a** of Class III). We have called the behaviour of

these unstable Cs as verb-stem alternations similar to oblique case formations in Newari nouns (**manukha** 'man' > **manu:** → **manukha-am** 'by/from the man'). We have for this reason retained both **-t** and **-l** in representing the verbal roots belonging to LCN data.

On the second point we took the view that ECN and LCN could be useful labels to show development in the infinitival form of verbs. The changes that took place in verb forms over the six centuries are morphologically significant, involving modifications both in the composition of the root and verbal bases. Jorgensen's root **ka-** for instance had to be re-stated as **kan-**, **yā-** as **yāt-**, **bi-** as **bil-**, and **naka-** as **nakal-**. These final Cs have also been the basis for the five classes of verbs in later and modern Newari. In our proposed verb classes however we provided a comparative morphology of the root and verb infinitive as they would appear in earlier and later periods. Table 7 thus can be seen as a summary of our solution to the whole issue of stem-final Cs and class membership of verbs.

4.3 Morphological Segmentation

The problems of morphological segmentation arise mainly from arbitrary variations in orthography and the attestations of several alternate forms of verb root, infinitive and inflected verbs. While such problems may be inevitable in a body of data that spans a period of over 600 years, we attempted to establish a basis for unambiguous interpretation of each class of morphemes. We argued that alternate segmentations such as **kam-ja** / **kamj-a**, **yā-ta** / **yāt-a**, **bi-la** / **bil-a**, **na-ke** / **nak-e**, etc. can be resolved by identification of the verb root, its infinitive suffix and inflected forms in a historical context. Thus if **kam-**, **yāt-**, **bil-**, **nakal-**, etc. can be recognized as authentic CN roots, the suffixes that follow will be either consonant-initial (**j-**, **c-**, **y-**) or vowel-initial (**e-**, **a-**, **am-**, etc.). We decided that the subentries should consist of attested inflected verbs, and these can be modelled on Jorgensen's Conjugation Table for A,B and C verbs (see Table 9) where inflections are represented as allomorphic verbal suffixes. This approach has the advantage of relating a morphological form to its grammatical function and meaning.

4.4 Verb Entry Model

The choice of a verb entry model for a historical dictionary of this kind is by no means an easy task. The model we eventually adopt will depend largely on clear decisions about the morphological form, grammatical function and meaning of all CN verbal forms. The three models that have been proposed are therefore tentative and subject to change in the light of further discussions. The decisions that we take will however determine not only the final form of the CN dictionary but also set the standard for future lexicographic practice in Nepal. There are, after all, many more Nepalese languages which need to be analysed and for which dictionaries need to be written.

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