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# NEWARI AS A LANGUAGE WITHOUT VOWEL SYSTEMS

## A Firthian approach to the Bhaktapur and Kathmandu Newari verb

R. K. SPRIGG

If the syllabic and non-syllabic vowels of Newari verb lexical items are examined not in accordance with a phoneme theory but with a more 'chunky' approach, in which each is studied in its syntagmatic setting as part of a 'syllable-final' piece (nasal, vowel, lateral, or stop) and as part of 'syllable-initial' pieces based, firstly, on lip-action differences (y, w, ə) and secondly, on aperture differences (close, medium, open), it becomes impossible to distinguish systems of vowels; and vocalic phonetic features are supplied by the types of piece by which each verb lexical item is classified. This approach seems to be in close agreement with the traditional orthography.

I. INTRODUCTORY The first issue of *Nepalese Linguistics* drew attention to non-syllabic vowels ('glides') as an important feature of spoken Newari: 'the status of Glides may be one of the most difficult single questions in the phonological description of Newari' (Kansakar 1980: 9). While discussing this problem Kansakar mentions that Hale had earlier analysed Newari in terms of 'a system of only four contrasting vowels' (1970: 313), later increased to five (Hale and Shresthacharya 1972: 4), before himself deciding in favour of 'six vowel phonemes' (1980: 9). A phonological analysis in accordance with the theory of J. R. Firth, a 'prosodic analysis', is all but certain to differ from these three analyses in that respect, because one of the main principles of this type of analysis is that it is polysystemic, and designed to produce not a single inventory of vowel phonemes but a number of closed systems of vowels, or single vowels, each appropriate to different context or environment.<sup>1</sup> A further characteristic of prosodic analysis is that it is designed to be congruent with other levels of analysis, notably the grammatical; accordingly, my analysis is limited to verbs. As a consequence of this limitation retroflex post-alveolar sounds do not occur in any of my examples, though they would have done so if this analysis had included nouns, e. g. [ THu: ] dhah [ a measure of weight ].<sup>2</sup>

In this study I have analysed the spoken Newari of Bhaktapur in parallel with that of Kathmandu, specifying forms as belonging to the Bhaktapur dialect (B) only where they differ from the Kathmandu, and occasionally, as Kathmandu dialect (K) where they differ from the Bhaktapur. For the Kathmandu dialect it is a pleasure to acknowledge the help that I received from K. L. Manandhar, Research Assistant in Newari at the School of Oriental and African Studies, University of London, during the session 1954-5; for the Bhaktapur dialect I had the good fortune to have S. B. Piwa, of Trichandra College, to work with me in Kathmandu in 1955 and 1956, and to him too I am

duly grateful.

II. 'Nasal-final-piece' verbs

Perhaps the most straight forward introduction to the problem of vowels in Newari verb lexical items is to limit the analysis, to begin with, to the 'nasal-final-piece' type, and resort to the other types of final only when they afford examples of features that happen to be missing from the 'nasal-final-piece' type.

A. Criteria

The 'nasal-final' type has either (1) nasality or (2) nasalization as a final feature of all forms of all verb lexical items (apart from the two grammatical forms of a very few verbs in the Bhaktapur dialect discussed later in this section).

1. NASALITY

Where it is nasality that is the final feature, the nasality is (a) dental in contexts in which a vowel follows (but (b) velar in the last-person present/past form in the Bhaktapur dialect) and (c) velar in velar contexts, in which a velar plosive follows, e. g.

1. a. [ ton<sub>ɛ</sub> ], tone / twane<sup>3</sup>  
 b. [ tona ], B [ toNa ] tona / twana<sup>4</sup>  
 c. [ toNka ], B [ toNka ] (st) [ twa<sup>h</sup>Nka ] tomka / twamka<sup>5</sup>  
 (a) '(I) shall drink', (b) '(I) drink/drank', (c) '(I) make/made drink'.

2. NASALIZATION

The nasalization feature is associated with word-final position, and therefore with (a) imperative forms and (b) 2nd/3rd-person present forms (in -wa), e. g.

2. a. [ t(w)ō̃ (:)], B [ tō̃ (:)]; [ tSū̃ (:)]<sup>6</sup>  
 b. [ t(w)ō̃̃ ], B [ tō̃̃ ]; [ tSū̃̃ ] B. [ tSī̃̃ ]  
 (a) tom 'drink!'; cyūm B cium 'befriend!';  
 (b) tomwa '(he) drinks'; cimwa '(he) befriends'.

FINAL ORALITY

The lexical items of the nasal-final type that were mentioned above as being exceptional in the Bhaktapur dialect have an oral articulation in the final, presumably developed from an earlier (i) nasalization or (ii) nasality, in (i) the last-person future form and (ii) the 3rd - person past form, e. g.

- i. [ tSe ] ciye 'shall befriend', [ je ] iye 'shall distribute';  
 ii. [ tSĩta ] cĩta 'befriended', [ ? Ita ] it̃a 'distributed'.<sup>7</sup>

They belong to a prosodic class distinguished as 'y' and as 'close' in sections (B.1)



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and (C.1) below. Apart from these two forms verbs such as these conform to the criterion stated above, e. g.

1. a. [tʃInɪ] *ciɪi* '(he) will make friends'
- b. [INa] *ina* '(I) distribute/distributed'
- c. [INKo] *imku* '(he) makes distribute'

2. [tʃi:] *ciɪ* '(he) makes friends'; there is, therefore, no difficulty in treating them as a slightly aberrant sub-category of 'nasal-final'.

In a phonological analysis limited to the nasal-final type of verb lexical item five syllabic vowel units need to be distinguished, e. g. (the examples are of the 1st-person present/past form, in phonetic transcription; [the vowel in question is in the first syllable])

- i. [tʃina], B [tʃina] *ciɪna* 'befriend'
- ii. [ʃɛna], B [ʃɛna] *seɪna* / *syana* 'teach'
- iii. [kuna], B (kuna) *kuna* 'imprison'
- iv. [tona], B [tona] *tona* / *twana* 'drink'
- v. [gona], B [gana] *gana* 'prohibit'.<sup>8</sup>

These examples of the five phonologically distinct syllabic-vowel units also serve as examples of one of the principles of prosodic analysis already referred, the syntagmatic principle, which requires the phonetic context to be taken into account. In their case the context comprises the syllabic vowel of the verb and its following (lexical-item - final) consonant, in complementary distribution with the nasalization exemplified at (2) above (apart from the exceptions in the Bhaktapur dialect in which orality is the final feature), and extending to initial features of a following lexical item, which is, in these examples, the verbal-particle lexical item *-a*. This type of 'piece', extending, here, over part of two syllables, contrasts with three other types, the 'vowel-final' (III), the 'lateral-final' (IV), and the 'stop-final' (distinguished in Joshi 1076 N. S. by *-ne* versus *-ye*, *-le*, and *-te*, e. g. (tusutusu) *wane* v. (teja) *laye*, *tule*, and *sote*; p. 114) but before passing to those types there are other features of nasal-final verbs to be considered: 'syllable-initial-piece' features (B.-C.). the 'syllable-initial-piece' is taken to comprise the syllabic vowel and whatever consonant and non-syllabic-vowel sounds can precede it within the syllable.

B. 'Syllable-initial piece' and lip - action system

The justification for distinguishing this type of syllable-initial piece is that certain syllable-initial consonant and non-syllabic-vowel sounds, and sequences of both these types of sounds will combine with certain of the syllabic vowel sounds but not with others, and vice versa. The syllable-initial [tʃ]

of example (i) above, for example, combines with the syllabic vowel [i] B [I] in that example, and will also combine with [s], but not with [U], [o] or [ɔ] B [a]; and the same is true of the initial [S], as in example (ii) (but for these two initials in combination with [a] in the 'vowel-final piece' see (III. B) below); and syllable-initial [k] combines with [U], as in example (iii), and will combine with [ɔ] B [a]; but not with [i] or [s]. These and other syllable-initial-piece syntagmatic relations are shown, for the nasal-final type of syllable, in the following table, in which there is a column for each of the five types of vowel sound, with provision for variation by dialect; and each column contains whatever syllable-initial consonant sounds have been observed in my data as combining with vowel shown at the head of the column, together with the appropriate non-syllabic vowel sounds, and sequences of both of these, as they appear in the last-person present/past form (containing the verbal particle -ā):

| <u>[-i-]</u>     |              |                    |                      | <u>[-ɔ-]<sup>9</sup></u>      |
|------------------|--------------|--------------------|----------------------|-------------------------------|
| <u>[-I-] (B)</u> | <u>[-ɛ-]</u> | <u>[-U-]</u>       | <u>[o-]</u>          | <u>[-a-] (B)<sup>10</sup></u> |
| [tS-             |              |                    | ts-                  |                               |
|                  |              |                    | [dz-]                |                               |
|                  |              |                    | ] dz(w)-] (B)        |                               |
| [S-              | S-           |                    | s- (K) <sup>11</sup> | s-                            |
|                  | [nj-         | n- ] <sup>12</sup> |                      |                               |
|                  | [kj-         | k-                 |                      | k-                            |
| [khj-            |              | kh-                |                      | kh-] <sup>13</sup>            |
|                  |              | [khw-] (B)         |                      |                               |
|                  |              |                    |                      | [g-]                          |
|                  |              |                    | [t-                  | t-                            |
|                  |              |                    | [t(w)-] (B)          |                               |
| [tH-             | [thj-        | th-                |                      | th-                           |
|                  | [dj-         | d-                 |                      | d-                            |
|                  | tHj-         | tH- ]              |                      |                               |
|                  |              | [f- (K)            | f-                   | p-]                           |
|                  |              |                    | [fw-] (B)            |                               |
|                  | [phj-        |                    | fh-                  |                               |
|                  | [bj-         |                    | v-                   |                               |
| [pH-]            |              |                    | [v v-] (B)           |                               |
|                  |              | [m-                |                      | m-]                           |
|                  | [lj-         |                    |                      | l-]                           |
|                  |              |                    | [lw-] (B)            |                               |
| [H-              |              |                    | Hw-                  | H-] <sup>14</sup>             |
| [(?)-            | j-           |                    |                      | w-] <sup>15</sup>             |

Table 1. Syntagmatic relations; 'syllable-initial-piece'



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From the point of view of syntagmatic relations between syllabic vowels and preceding non-syllabic sounds this table suggests that [i] and [ɛ] should be grouped together in one type of 'syllable-initial piece', and [U] similarly with [o] the result that three types of 'syllable-initial piece' need to be distinguished. To the syllable-initial piece, then, a three-term system can be applied, the terms of which might be named, from their phonetic characteristics, 'spread', 'rounded', and 'natural'; but I have used the more convenient symbols 'y', 'w', and 'ə'. The criteria for distinguishing each of the three terms of this prosodic system are as follows:

1. y

a. Absolute criteria

- |                                  |   |                                |
|----------------------------------|---|--------------------------------|
| i. palato-alveolarity + friction | } | frontness and<br>lip-spreading |
| ii. palatalization + velarity    |   |                                |

|                   |                   |
|-------------------|-------------------|
| [ S- khj- ]       | [ -i- ] B [ -I- ] |
| [ S-        kj- ] | [ -ɛ- ], e; g     |

[ Sina, khjina ] B [ SINA, khjINA ]

[ Sɛna, kjɛna ] B [ SɛNa, kjɛNa ] (ft [ Sāː, kjaː ])

Sina, khina; 'wear',<sup>16</sup> 'scatter'; syana, kena, /kyana; 'teach', 'show'.

Further syllable-initial features, which combine with one or other of these two types of vowel sound but not with both (in my data, at least), comprise:

iii. palatality-alveolarity + affrication [ tS- -i- ]

iv. palatality + nasality [ nj- -ɛ- ]

e. g.

[ tSINA ] B [ tSINA ] cina 'befriend'

[ njɛna ] B [ njɛNa ] (ft [ njāː ]) nyana 'hear'.

I assume that it is a matter of chance that one or other type of vowel sound should be absent from these two criteria: this assumption is supported by the fact that syllable-initial-piece combinations such as these occur in lexical items belonging to the lateral-final type of piece, e. g.

[ tSɛla, dzɛla ]<sup>17</sup> chela/chyala, jela/jyala 'bring into use', 'wear out'

[ njila ] B [ njela ] nila B nyala 'twist'.



There are two other criteria of the *y* term: but these, unlike the four criteria stated above, are limited to occurring with the half-open vowel [ɛ];

v. non-syllabic front spread vowel [j-]

vi. palatalization +  $\left\{ \begin{array}{l} \text{dentality} \\ \text{labiality} \\ \text{laterality} \end{array} \right. \left[ \begin{array}{l} [\text{thj-dj tHj-}] \\ [\text{phj- bj-}] \\ [\text{lj-}], \text{ e. g.} \end{array} \right]$

[jɛNka] yamka<sup>18</sup>

[tHjɛna] B [tHjɛNa] (ft [tHja:]) dhyana<sup>s</sup>

[phjɛna] B [phjɛNa] (ft [phja:]) phyana<sup>s</sup>

[ljɛno] B [ljɛna] (3rd-person past) lyana

'take away with', 'cut', 'untie', 'was left over'.

#### Partial criteria

The above are absolute criteria: they distinguish the *y* piece from both the *w* and the *ə* types of piece: but there are also two partial criteria. One of these, (vii) glottal plosion alternating with syllable-initial syllabic vowel, serves to distinguish the *y* term from the *ə* but not from the *w* (and, further, this criterion applies only to the closer of the two *y*-piece vowels), e. g. [ ?ina ] B [ INa ] ina<sup>s</sup> 'distribute'; the other, (viii) bilabiality, serves to distinguish the *y* piece from the *w* piece but not from the *ə*; and it too occurs only in association with the closer of the two vowel sounds (and, further, only in the 'vowel-final' type of lexical item (III), e. g., [ bia ], [ phina ] B [ phINa ], biya, phina<sup>s</sup>, 'give', 'wear').

#### 2. w

Table I also gives syntagmatic grounds for associating the two types of rounded vowel unit, close and half-close, with each other in the type of syllable-initial piece here termed 'w'. The criteria of the 'w' initial piece are the following:

##### a. Absolute criteria

i. labio-dentality  $\left\{ \begin{array}{l} \text{backness +} \\ \text{lip-rounding} \end{array} \right. + \left\{ \begin{array}{l} \text{closeness} \\ \text{half-closeness} \end{array} \right.$

[f-] [-U- -o-]

[fh- v-] [-o-]; e. g.

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[fUna] (no Bhaktapur cognate) punā 'wear'

[fona] B [foNa] ponā B pwanā 'visit without invitation'

[fhona, vona] B [fhoNa, voNa] phonā/phwanā, bonā/bwanā 'beg', 'read'.

Two further criteria apply only to the more open of the two types of w-piece vowel, the half-close vowel:

ii. labio-velarization + glottal friction; [Hwo-] B  
[HwΛ-]<sup>10</sup>

e. g. [HwoNka] B [HwΛNka] hwamkā 'join' (causative)

A further criterion, also limited to this vowel, and further limited to the Bhaktapur dialect (and possibly also restricted to slow-tempo utterances), is:

iii. apicality + labio-velarization: [two- dzwo-], e. g. B [twoNa, dzwona] twanā, jwanā, 'drink', 'catch': and, with a difference in vowel sound ([Λ]) appropriate to the velar-final-piece sub-category (cf. (A. I. c) above), it also applies to causative forms such as [twΛNka] twamkā 'make drink' (K [toNka]).

In causative forms in the Bhaktapur dialect labio-velarization also combines with labio-dentality and laterality: [fw- vw- lw-], e. g.

iv. [vwaNka, lwaNka] bwamkā; wankā 'make read' or 'teach', 'have surfeit of' (cf. K[voNka])

In velar-initial syllables labio-velarization applies to both dialects:

v. velarity + labio-velarization: [khwo-] B [khwa-], but examples have to be sought from the vowel-final type of lexical item (iii), e. g.

[khwoja] B [khwaja] khoya/khwayā 'weep'

[gwoja] B [gwaja] goyā 'shut',

In the Bhaktapur dialect velarity + labio-velarization commonly combines with the [U] vowel too:

vi. velarity + labio-velarization: [khwU-], e. g.

[khwUNa] khunā 'cook'.

vii. In the Kathmandu dialect labio-velarization does not combine with apical consonants in syllables in which the vowel is half-close; but it may combine with this type of consonant in syllables containing the half-open type, as in imperative forms and 3rd-person forms, perhaps as a slow-tempo alternative, e. g.

[t(w)<sup>o</sup>] (:), two (:), tswō:] tom, to, co, 'drink!' 'take off!' 'rinse!';

[t(w)<sup>o</sup>] (:), twō:, tswō:] tomwa, towa, cowa, 'drinks' 'takes off', 'rinses'

(the second and third in each of these two sets of examples is, respectively, 'vowel-final - piece' and 'lateral-final-piece' (III, IV).

b. Partial criteria

viii Lexical items of the lateral-final and the vowel - final types provide a further criterion for the w piece, but shared with the y piece, in the association of an initial glottal plosive (alternating with initial syllabic vowel) with the closer of the two types of vowel: [ (?) U- ], e. g.

[ Ula ], [ ?Una ] B [ ?UNa ] ulā, unā, 'open', 'cremate'

There are several criteria that the w term shares with the ə term as against the y:

ix. alveolarity : [ ts- dz- s- ], e. g.

[ tsona, dzona ] B [ tsoNa, dzwoNa ] conā/cwanā, jonā/jwanā 'stay' (B also 'live'), 'catch'; K [ sona ] sona 'establish' (the B cognate is 'vowel-final' : [ swaNa, swA: ]).

For examples containing the closer of the two vowels it is necessary to go to the lateral-final and the vowel-final types of piece, e. g.

lateral-final: [ tsUla ] cula 'grate'

vowel-final : [ syia ] (st [ suja ]) suya 'sew'.

x. dentality +nasality : [ n- ], e. g.

[ nuna ], B [ nuNa ] nuna 'swallow'.

xi. velarity : [ k- kh- g- ], e. g.

[ kUna ] B [ kUNa ] kuna 'imprison', and the vowel-final example [ khwoja ] B [ khwaja ] khoya/khwaya 'weep'

3.

a. Absolute criteria

For the ə term, the last term of the three-term lip-action system applicable to the syllable-initial piece only one absolute criterion can be stated:

i. { labio-velar } K half-open rounded back  
 { non-syllabic vowel } B open non-rounded "front  
 [ w- ] { K [ -ɔ- ] (centralized)  
 { B [ -2- ], e. g.

[ wna ] (st [ wana ]) B [ waNa ] (ft [ wa ]) wanā 'go'



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### b. Partial criteria

Bilabiality was stated in section (1) (viii) above as being a criterion shared with the y piece as against the w:

ii. bilabiality [p-], e. g.

[pɔna] B [paNa] (ft [p̣ ạː]) panā 'prevent'; cf. also the following example drawn from the vowel-final type of lexical item, whence the closer vowel ([ʌ]) in the Bhaktapur form:

[phɔja] B [phaJa] phayā 'take in one's hand'.

Three partial criteria (viii-x) were stated in section (2) as having features common to both the w piece and the ə piece:

iii. alveolarity [ts- dz- s-], e. g.

[sɔna] B [saNa] sanā 'move', to which may be added, from the plosive-final type of lexical item,

[so:ta] B [sa:ta] sahtā (formerly saltā 'call',<sup>19</sup> and, from the vowel-final type,

[dʒɛja] jayā 'graze' (the Bhaktapur cognate is w-piece: [dʒwɔja] jwaya).

iv. dentality+nasality: [n-] e. g. (from the vowel-final type) [noja] B [naJa] nayā 'eat'

v. velarity: [k- kh- g-], e. g.

[kɔna] B [kaNa] (ft [ḳ ạː]) kana 'tell'

[gɔna] B [gaNa] (ft [g̣ ạː]) gana 'prohibit'.

Phonetic exponents other than criteria.

The remaining type of sound symbolized in table I, glottal friction ([H]), dentality+plosion ([t th d tH]), labiality+nasality ([m mH]), and laterality ([l]), are common to the y, the w, and the ə terms, and do not, therefore, provide criteria for distinguishing the y, w, and ə types of piece, e. g. (3rd-person past)

y: [Hino] B [hIna] hina 'tied round'

w: [HUɔ] B [HUɔa] hula 'wiped away' (vowel-final piece)

ə: [Hɔno] B [Hana] hana 'threaded'.

With these three different types of prosodic piece distinguished one would expect three different vowel systems, a two-term vowel system for the y piece, with [-i-]/[-I-] and [-ɛ-] representing the prosodically comparable units of that type of piece, a two-term system, correspondingly, for the w piece, [-U-] and [-o-], and their variants as given

above, and a single vowel unit for the ə piece, [-ɔ-] B [-a-/-a-]. The two terms of the y-piece vowel system, which have so far been symbolized phonetically, could be given a phonological symbolization, as 'I' and 'E', and the two terms of the w-piece system as 'U' and 'O', while the ə-piece vowel needs no phonological symbol because no vowel units are distinguished in the ə piece, so the symbol ə itself specifies both piece and vowel. In other words, the ə piece implies [-ɔ](ts[-ʌ-]) for the Kathmandu dialect, and [-a-/-a-] for the Bhaktapur dialect.

However, this solution to the problem of vowels in nasal-final verb lexical items does not go far enough; for there are other syntagmatically associated features of the syllable initial to take into account that have the effect of (i) separating the [-i-/-I-] vowel from [-ɛ-] vowel and associating it with the [-U-], and (ii) separating the [-o-] vowel from the [-U-] and associating it with the [-ɛ-]. These syntagmatic relations have already been foreshadowed; for the phonetic criteria were stated for y in section (1) above that applied to the half-open vowel but not to the closer vowel, and vice versa; and the same is true of the two w-piece vowels in section (2). These relationships mean that a further prosodic system, based on differences in the degree of openness of the vowel and its associated syllable-initial-consonant and non-syllabic-vowel features is needed.

### C. Syllable-initial piece and aperture system

As far as the nasal-final type of lexical item is concerned, only two of the three distinctions in openness, or aperture, apply; so it might seem that these two types of syllable-initial piece should be termed 'close' and 'open'; but this system needs to be applied to lexical items belonging to the vowel-final class (III) and the lateral-final class as well as to the nasal-final; and for those two classes the distinction is threefold, whence the choice of the three terms 'close', 'medium', and 'open', though only the two former can be exemplified from nasal-final lexical items.

The phonetic criteria for distinguishing the 'close' and the 'medium' terms, then, for nasal-final lexical items are the following:

#### 1. 'close' ('c')

glottal plosion, alternating with initial vowel:

[(?)i-] B [(?)I-], [(?)U-], e. g.

[(?)ina] B [IN<sub>1</sub>] inā 'distribute'; for an example of this criterion from the w-initial type of piece it is necessary to have recourse to the vowel-final type of lexical item, e. g.

[?Una] B [?UNa] unā 'cremate' 20

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2 'medium' ('m')

No single criterion can be given for the medium syllable-initial piece; and criteria have to be stated separately for the y, the w, and ə types of piece distinguished in section (B) above:

a. y

For the y medium piece the following two criteria can be stated:

i. non-syllabic front spread vowel: [j-], e. g.

[ɟNka] *yamka* 'take away with';

ii. palatalization { + dentality, labiality  
+ laterality

[nj- thj- dj- tHj-phj-bj- lj-], e. g.

[tHjɟna, phjɟna], [ljɟno] (3rd-person past) B [tHjɟNa, phjɟNa] (ft [tHj<sup>̃</sup> aː, phj aː])  
[ljɟna] (3rd-person past), *dhyana*, *phyana*, *lyana* 'cut', 'untie', 'was left over',

b. w

For the w medium piece the only criterion in my data that can be stated for both Kathmandu and Bhaktapur dialects is:

iii. labio-velarization+glottal friction: [Hw-], e. g.

[Hwona] B [HwaNa] *hona/hwana* 'thread', 'join together'

A further criterion can be stated for the Bhaktapur dialect, though possibly slow-tempo only:

iv. labio-velarization+apicality: [two- dzwo-], e. g.

[twoNa, dzwoNa] *twana*, *jwana* 'drink', 'catch.

c. ə

The sole medium criterion that can be stated for the ə piece is:

v. non-syllabic back rounded vowel: [w-], e. g.

[wona] B [waNa] (ft [w aː]) *wana* 'go'.

Phonetic exponents other than criteria.

All the remaining initial-consonant sounds are common to both terms, close and medium, and do not, therefore, provide criteria of either, e. g. [tS ts S s nj n kj k th f b m l H].



Combined classification, lip-action and aperture

When the two syllable-initial-piece prosodic systems, lip-action and aperture, are applied jointly to nasal-final verb lexical items, they provide the following five categories of combined terms:

|   |  |   |
|---|--|---|
| <p style="text-align: center;">yc<br/>ym</p> <p>[(?) ina] B [INa]<br/>[phjɕna] B [phjɕNa]</p> | <p style="text-align: center;">əm</p> <p>[gɔna] B [gaNa]</p> | <p style="text-align: center;">wc<br/>wm e. g.</p> <p>[khUna] B [khwUNa]<br/>[tona] B [t(w)ɔNa]</p> |
|---|--|---|

yc: ina; wc: khuna ym: phena/phyana; əm: gaṅa; wm: toṅa/twāṅa;

'distribute', 'cook', 'untie', 'prohibit,' 'drink'.

Table 2: lip-action terms and combined only one syllabic vowel unit is possible for each of these five categories; so one has only to specify which member of each of the two prosodic classes, y, w, or ə and c or m, is appropriate to a given nasal-final lexical item, and the syllabic and non-syllabic vowel sounds follow automatically from this, with due allowance for differences in dialect and in tempo.

iii. 'vowel-final-piece' verbs

A. 'Close' piece and 'medium' piece

The fivefold classification that result from applying the syllable-initial-piece prosodic systems (II.B-C) can be seen equally clearly in verb lexical items belonging to the 'vowel-final' prosodic class; indeed the aperture system (II.C) is an important means of accounting for the vowel harmony that is a prominent feature of 1st-person future forms and 3rd-person present terms in verbs of this prosodic class.

Just as the nasal-final class of verb has nasality or nasalization as a final feature of the root for all forms of the verb (apart from the Bhaktapur forms mentioned as exceptional in (II. A. 2), so the 'vowel-final' prosodic class has orality as a root-final feature of all forms.

For the vowel-final type it is more interesting to illustrate the analysis from the 1st-person future form and the 3rd-person present form. For the nasal-final type of verb the former of these two forms is disyllabic while the latter is monosyllabic, e. g. [Sɕŋɕ] syane '(I) shall teach', [S<sup>o</sup>ɔ:] B [S<sup>o</sup>Δ:] syamwa 'learns'; for the vowel-final type both are monosyllabic, e. g. [bi:] B [bjɕ] biye '(I) shall give', [bjɔ:] biwa 'gives'. if, then, one leaves out of account for the moment the syllable-initial consonant, the final syllabic vowel

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or sequence of non-syllabic and syllabic vowel will be as follows, according to prosodic class, c versus m, and y versus w versus ə:

| 1st-person future                         | 3rd-person present                   |
|---|--------------------------------------|
| c y: [-i:]    B [-jɕ]                     | [-ju:]                               |
| w: [-ɥ/wi:]    [-ɥ/wɕ]                    | [-u:]                                |
| m y: [-jɕ:]                               | [-jɔ:]    B [-jʌ:]                   |
| w: [-ɥ/wɕ:]                               | [-(w)ɔ:] <sup>21</sup>               |
| ə: [-ɛ:]                                  | [-ɔ:]    B [-ʌ:],                    |
| e. g.                                     |                                      |
| c y: [bi:]    B [bjɕ]    biye             | [bjɔ:]    biwa                       |
| w: [vɥi:]    B [vwɕ]    buye              | [vu:]    buwa                        |
| m y: [gjɕ:]                    geye/gyaye | [gjo:]    B [gʌ:]    gewa/gyawa      |
| w: [gwɕ:]                    goye/gwaye   | [gwɔ:]                    gowa/gwawa |
| ə: [gɛ:]                    gaye          | [gɔ:]    B [gʌ:]    gawa             |
| gloss                                     |                                      |

'give', 'oil', 'exchange', 'shut', ride'.

Table 3: 'vowel-final' piece; lip-action and aperture

All the forms in table 3 are monosyllabic; in this respect the 1st-person future forms among them differ from the corresponding forms of verbs belonging to (i) the nasal-final, (ii) the lateral-final, and (iii) the stop-final types, which are disyllabic, e. g.

- i. [tonɕ]    B [t(w)onɕ]    tone/twane 'shall drink'
- ii. [folɕ]    B [folɕ]    pole/pwale 'shall peel'
- iii. [mHitjɕ]    B [mHɕtɕ]    hmite, mhyate 'shall play'<sup>22</sup>

In these three forms the stem and the suffix are easy to delimit:

stem: [ton-]    B [t(w)on-], [fol-]    B [fol-]; [mHit-]    B [mHɕt-] (iton- / twan-, and the like);

suffix: [-ɕ]; but [-jɕ] in the p'osive-final type of piece in the Kathmandu dialect.

In the vowel-final piece, on the other hand, it is difficult to delimit the particle lexical item; it is, therefore, preferable simply to state that the syllabic vowel sound concerned ([-i: -ɛ:]), or the sequence of non-syllabic vowel and syllabic vowel, e. g. [-ɥwi:]    B [-ɥ/wɕ], [-jɕ:], are the phonetic exponents of the vowel-final piece as a whole, compri-



ring the final part of the verb lexical item and the whole of the particle lexical item, which is entirely vocalic.

This sort of analysis will mean that the [-i:] and the [-jɛ] of, for example, [bi:] B [bjɛ] *biya* 'shall give' can be treated as symbolizing alternative Kathmandu and Bhaktapur phonetic exponents of the same y piece and c piece, taken from the vowel-final-piece verb *bi-* 'give' and verbal-particle lexical item *-(y) e*, with the final vowel of the verb and the vowel of the particle having an unspecified share of the vocalic sounds [-i:] B [-jɛ]. In the same way the vocalic finals of the remaining 1st-person-future examples in table 3, and those of the 3rd-person-present forms too, can be treated as exponents of part of the verb lexical item and the whole of the particle lexical item, with variation, in some cases, for difference in dialect; and the particles *-(y) e* and *-wa* (sometimes also spelt *-u*) take their pronunciation from the type of lip-action piece in which they occur, y, w, or ə and from the type of aperture piece in which they occur c or m, as examples of vowel harmony, with some degree of variation by dialect.

B. 'Open' (o) piece

In section (A) above examples of the vowel-final-piece word were analysed in terms of close and medium (c and m) aperture piece, in parallel with the analysis applied earlier to the nasal-final-piece word (II. C); it is now necessary to illustrate the remaining term of the aperture system, the 'open' (o) term, and, with it, the y, w, and ə terms of the lip-action system again; for the o syllable-initial piece shows threefold phonetic variation according as it is also analysable into y, w, or ə; and, conversely, the phonetic exponents of the y, w and e terms are somewhat different in the o piece from those which have already been stated for them in the m piece and (for the y and w terms) the c piece. These differences will appear if table 1 is compared with table 4 below. In table 4 the range of initial consonant and non-syllabic-vowel appropriate to the oy, ow, and oə types of piece is plotted against their matching vowel sounds; and the type of grammatical form chosen for this display is, again, 1st-person present/past.

|         |         |          |
|---------|---------|----------|
| y [-a ] | w [-a-] | e [-a-]  |
| [tS-    | tsw-    | ts-]     |
| [tSh-]  |         |          |
| [dZ-    |         | dz-]     |
| [S-     | rw-]    | [tsH-]•• |



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|         |          |         |
|---------|----------|---------|
| nj-     | nw-]     |         |
| K [nj-] |          | B [N-]  |
|         | B [kw-]  | B [k-]  |
|         | B [khw-] | kh-]    |
| [g]-    |          | g-]     |
|         | [kHw-    | kH-]    |
| [tj-    |          | t-]     |
| [thj-   | thw-     | th-]    |
| [dj-    |          | d-]     |
|         |          | B [tH-] |
|         |          | [p-]    |
| [phj-]  | B [fhw-  | ph-]    |
|         | B [vw-   | b-]     |
|         | [lw-     | l-]     |
|         | [lH      |         |
|         | [Hw-     | H-]     |
| [j-     | w-]      |         |

Table 4: Syntagmatic relations

‘open’ syllable-initial piece

In table 4 the y column contains the same types of initial-consonant sound as have already been stated as exponents of y for the medium (m) piece: alveolopalatal consonants, palatalized velar, dental, and labial consonants, and the front spread non-syllabic vowel, combined with an open front syllabic vowel. The w column contain labiovelarized consonants, alveolar, velar, dental, and labio-dental, and the back rounded non-syllabic vowel, combined with an open back spread syllabic vowel. The labio-velarized velars and labio-velarized [H] have already been associated with the w term of the system in m-piece examples (II. B. 2) for both dialects; and so have the labio-velarized alveolars, dentals, labio-dentals, and laterals, though only for the Bhakta-

pur dialect (II. B. 2 iii-iv); so only the following are new to the w type of syllable-initial piece:

|                 |                        |
|-----------------|------------------------|
| (both dialects) | [nw-]                  |
| (Kathmandu)     | [tw-, fhw-, vw-, lw-]. |

For the phonetic exponency of the ə term with regard to the o piece the same types of syllable-initial consonant can stand as were stated for the ə term in relation to the m piece (II. B. 3) with the addition of velarity+nasality ([N-]), confined to the Bhaktapur dialect, e. g. [NaNa] nyānā 'bite', for with the Kathmandu cognate has the y- piece initial [ny-] e. g. [nyana]; the type of syllabic vowel sound that these ə-piece initial consonants combine with is the open front ([a]), but more retracted than for the y piece.

The following are examples of the o type of aperture syllable-initial piece, sub-divided into y, w, and ə according to which of the lip-action types of syllable-initial piece they also serve to exemplify, from the 1st-person present/past from:

oy: [jana, Sana] yānā, syānā 'do' 'kill'

w: [wana, kHwana] wānā, ghwānā 'throw away', 'push'

ə. [gaLa, lHana] gayā, lhānā 'pass by', 'bury'

(I have given the Kathmandu forms of these examples; the Bhaktapur forms differ from them only in having velarity ([N]) where the Kathmandu have dentality ([n]).

It is interesting to note that although the oy and ow examples above can be provided to be of the vowel-final type from their 1st-person future forms, e. g. [jA:, wA:] (not \* [jane, wanɕ], their 1st-person present/past forms do not have a vocalic junction feature between stem and inflection like the oo-piece example [gala, analysable into (stem) [ga-] and inflection [-a] with [-I-] as an intervocalic junction feature, but nasality ([-n] B [-N-]). As an English-speaker this use of nasality as a junction feature to link stem-final vowel and inflection-initial vowel reminds me of the somewhat similar use of nasality in vowel-vowel junction in English, e. g. an aim, as opposed to vowel-consonant junction, e. g. a name. In Newari this junction use of nasality is not to be identified, except phonetically, with the stem-final nasality (alternating with nasalization) of nasal-final-piece verb lexical items, e. g. [tonɕ] tone/twane 'shall drink', [tw<sup>o</sup>:] tomwa 'drinks' (II. A).

Junction nasality applies to all verb lexical items of types oy and ow, e. g. [jana] B [jaNa] yānā 'do', [wana] B [waNa] wānā 'throw away'. In this respect they

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·differ from the oə type, of which about half (eleven in my data) have nasality as a junction feature, e. g. [lHana] B [lHana] lhana 'bury'; for the rest the junction is purely vocalic, e. g.

[gaŋa] gāya 'pass by from above', as it is for all medium-piece vowel-final verbs too, e. g. [noja] B [naja] '(I) eat/ate' naya.

To the c-piece and m-piece examples of vowel-final verbs given in table 3 can now be added examples of the o-piece. Table 5 gives the final vowel or the final non-syllabic vowel and vowel sequence of all three aperture terms as they appear in the 1st person future form of the verb:

| y         | w      | ə     |                     |
|-----------|--------|-------|---------------------|
| c: [-i:]  | -wi:]  |       |                     |
| m: [-jɛ:] | -wɛ:]  | -ɛ:]  |                     |
| o: [-jA:] | -wA:]  | -A:]  |                     |
| e. g.     |        |       |                     |
| c: [bi:]  | vɥi:]  |       | biye, buye          |
| m: [gɟɛ:] | gwɛ:]  | gɛ:]  | gyaye, gwaye, gaye  |
| o: [jA:]  | kHwA:] | lHA:] | yāye, ghwaye, lhāye |

(c) 'give', 'wear'; (m) 'exchange', 'shut', 'ride'; (o) 'do', 'push', 'bury'

Table 5: 'vowel-final' piece; aperture system complete (for the Bhaktapur close-piece alternatives see table 3)

The same prosodic statement can be made for all forms of a vowel-final verb; the following are examples of the 2nd/3rd-person present:

| y  | w      | ə              |  |
|--|--------|----------------|--|
| c: [bjɥ:]  | vu:]   |                |  |
| m: [gɟɔ:] B [gɟA:]                                 | gwɔ:]  | gɔ:] B [gA:]   |  |
| o: [ja:] B [jA:]                                   | kHwA:] | lHA:] B [lHA:] |  |
| cy: biwa; cw: buwa; my: gyawa; mw: gwawa; mə:gawa; |        |                |  |
| oy: yāwa ow: ghāwawa; oc: lhāwa                    |        |                |  |

'gives', 'wears', 'exchanges', 'shuts', 'rides', 'does', 'pushes', 'buries'.

Table 6: 'aperture' and 'lip-action'; 3rd-person present.

Verb lexical items almost always draw their forms from a single 'aperture'-type; thus, the following two vowel-final lexical items are exceptional: they have (i) a m-piece form for the 1st-person present/past form, but (ii) an o-piece form for the 1st-person future and all other forms, e. g. (Kathmandu)



i. m-piece: [tHɔja] dhayā 'say' [kɔja] kayā 'take'

ii. o-piece: [tHA:] dhaye [kA:] kaye.

IV. 'Lateral-final piece'

The same sort of statement as for the vowel-final piece (tables 5-6) to some extent fits the lateral-final type of lexical item, e. g. (Kathmandu)

| 1st-person future |       |        | 3rd-person present |      |       |
|-------------------|-------|--------|--------------------|------|-------|
| y                 | w     | ə      | y                  | w    | ə     |
| c: [Hilɕ          | vUlɕ  |        | Hju:               | vu:] |       |
| m: [tjɛ lɕ        | fo lɕ | tho lɕ | tjo:               | fɔ:  | tha:] |
| o:                |       | [Halɕ  |                    |      | Ha:]  |

hile, hiwa, bule, buwa; tele, tewa; pole, powa; thale, thawa; hale, hawa. 'exchange', 'oil', 'squeeze', 'peel', 'cut in two', 'show'.

Table 7: lateral-final piece; lip-action and aperture

The examples in table 7 show that the close and medium types of lateral-final piece example correspond to the nasal-final and vowel-final examples (table 2, tables 5-6) in having the five combined lip-action and aperture categories cy, cw, my, mw, and mə; but the open type differs from the vowel-final examples in being limited to the ə term of the lip-action system.

V. Conclusion

This analysis of Newari, based on the final-piece system ('nasal' (II), 'vowel' (III), 'lateral' (IV), and, though not systematically stated here, 'plosive') and on the two initial-piece systems, lip-action (y, w, ə) and aperture (close, medium, open) disposes of the need to recognize syllabic vowel systems; for, once a verb lexical item has been identified with the appropriate term of each of the three systems, the appropriate syllabic vowel sound (and non-syllabic vowel sound, if any) has also been specified, provided that due allowance is made for some variation in phonetic features according to difference in dialect and in tempo, e. g. n (syllable-final) mə (syllable-initial): [-o-] B [-a-]ft [-a:̄:]), as in the 1st-person present/past form [wɔna] B [waNa] ft ([w a:̄:]) [wanā 'go'/'went', and, [-ɔ:̄:] B [-a:̄:] as in the 2nd/3rd person present form [wɔ:̄] B [wa:̄:] wamwa 'go'/'goes'. For vowel-final lexical items, especially, this analysis provides an apt means of dealing with the vowel harmony that is such a prominent feature of the language [(w) i:], [(j/w) ɕ:], [(j/wA:)] (table 5).

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Finally, my examples appear to me to show that the basis of Newari orthography, especially in the form preferred by S. B. Piwa, is more prosodic than phonemic.

#### NOTES

<sup>1</sup>Cf. Palmer 1970, x-xiv.

<sup>2</sup>Cf. Nepali dhak 'a measure of weight' (Turner 1931/1980, 263).

There are two entries with initial *t* and *d* that have been classified as verbs (*kriya*) in Joshi 1076 N. S.: *tucituciwaye* and *dambokaye* (102, 13); but it is only *-waye* and *-kaye* that meet the criteria for classification as verbs; so these two entries are not in conflict with my generalization.

I have used the symbol [ʈ] for the phonetic value voiceless retroflex post-alveolar plosive, and [ɦ] for voiced glottal fricative, the 'voiced arytenoidal clear phonation' of Sprigg 1978 (12-15, 16). The preceding sound shares the arytenoidal posture of the glottis with [ɦ]; consequently, the [ʈ] in this example is not breathed but whispered. Further, Newari syllables containing [ɦ] are commonly distinguished by a pitch difference from other syllables: e. g. where the latter have a fall in pitch the former have a rise-fall.

<sup>3</sup>Although my examples are single words, they have generally been checked, and tape-recorded, in short sentences, e. g. *jim lah tone* 'I shall (just) drink water', *jim thwam tona* 'I drink beer'.

For some words K. L. Manandar and S. B. Piwa preferred different spellings; and in such cases I have given the variants. In particular, K. L. M. preferred spellings with *e* and *o* where S. B. P. used *ya* and *wa* respectively, perhaps influenced by phonetic differences between the two dialects, e. g. [o] B (st) [wa] in example (c) below. That the variation *o* versus *wa* is of long standing appears from Malla 1980: 'In the Newari portions *o* and *wa*, *na* and *na* are used as interchangeables . . . . . ' (47, where he is referring to Amritananda's usage one hundred and fifty years ago (1831). I have compared the spelling with those given by Joshi 1076 N. S., Tuladhar 1069 N. S., for Bhaktapur, Hashimoto 1977.

<sup>4</sup>I have used [N] to symbolize a voiced velar nasal.

<sup>5</sup>I have distinguished some phonetic forms as slow-tempo (st) and others as fast-tempo (ft).

<sup>6</sup>I have used [ʈʃ] to symbolize a voiceless palato-alveolar affricate.



7 I have used [ɪ] to symbolize a somewhat centralized front spread vowel, between close and half-close (as in *big* in British English) and [ʔ] glottal plosive

8 I have used [ʃ] to symbolize a voiceless palato-alveolar fricative, and [ʊ] to symbolize a somewhat centralized back rounded vowel between close and half-close (as in *good* in British English). The vowel sound symbolized by [ɔ] here is centralized, and in a more detailed phonetic transcription, would have a subscript plus sign to symbolize this; it reminds me of the French vowel *homme* (Armstrong 1932, 50-2), the degree of lip-rounding being sufficiently slight for it to be difficult, sometimes, to decide whether [ɔ] or [ʌ] is the more appropriate symbol for it.

9 In the Kathmandu dialect [-i-] seems to be complementarily distributed in relation to [-I-], the latter being peculiar to velar-plosive-initial syllables, e.g. [khɪna] *khina* 'move'; also, in both dialects [-u-] seems to be complementarily distributed with [-U-], the former being peculiar to nasal-initial syllables, e.g. [nuna] B [nuNa] *nunā* 'swallow'.

10 Some degree of variation in vowel sound from [-o-] has been noted in the Bhaktapur dialect e.g. [-ɔ-] in [fhoNa] *phwana* 'beg', and [-wɔ-] in [HwɔNa] *hwana* 'join together' [vwaNka] *bwanka* 'make read' 'reach'; possibly the greater latitude enjoyed by the Bhaktapur dialect in this respect is due to its having to distinguish only two lip-rounded units, [o/ɔ/wɔ] versus [U], as against the three in the Kathmandu dialect, [o] versus [U] versus [ɔ].

The open vowel symbolized here as [a] varies in frontness-backness being notably retracted in labio-velar and velar-initial syllables, as well as in labial-nasal-initial syllables, to the point where I have sometimes symbolized it as [ɑ] e.g. [waNa] *wanā* '(I) went' [kaŋ] *kane* 'shall tell', [maNa] *manā* 'roasted'.

11 The initial piece [so-] is supported by [sona] *sonā* '(I) established (ed)' in the Kathmandu dialect, cf. also the future form [sonɕ] *sone*, as in *mohanī sone*; but the Bhaktapur cognate [swaNa] belongs not to the nasal-final but to the vowel-final-prosodic class, as is proved by its 1st-person future form [swa:] *swāe* 'shall establish' (not \*[sonɕ]) (the symbol [A] here has the value of front spread vowel between half-open and open, for which the corresponding symbol in the International Phonetic Alphabet is 'ash'; cf. the vowel sound of *bad* in British English).

12 I have used the digraph [ny] to symbolize voiced palatal nasal,

13 I have used [h] to symbolize aspiration, and, therefore, voicelessness and



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breath as features of any non-syllabic vowel ([j] or [w]) following the plosive or affricate.

<sup>14</sup> S. B. Piwa's usage seems to vary between [H] and [ h].

<sup>15</sup> The supporting Kathmandu example for initial [w], [wona] wana 'go', has been observed to have a slow-tempo variant [wana].

<sup>16</sup> For the Bhaktapur dialect, also 'gather'; but Joshi 1076 N. S. would require this to be classified as a 'vowel-final' lexical item: 'siye' (258).

<sup>17</sup> I have used [dZ] to symbolize a voiced palato-alveolar affricate [cf. [tS], note 6].

<sup>18</sup> Only the causative forms of this verb appear in my data; but Joshi 1076 N. S. gives 'yane' (220) 'set up a loom', 'take away'.

<sup>19</sup> Hashimoto 1977 gives *sataygu* (120); but *sat-* fails to symbolize the length of vowel.

<sup>20</sup> But there is an example that is clearly of the nasal-final type in Joshi 1076 N. S.: 'une (kri.) *gāmsnu, māla ādi unnu*' (16).

<sup>21</sup> Velar initials are labio-velarized in both dialects, but apical initials only in the Kathmandu, e.g. [two:] *towa* 'takes off'.

<sup>22</sup> In addition to the nasal-final, lateral-final, stop-final, and vowel-final types I had originally included in my analysis a velar-final piece and a velar-cluster final piece, e.g. (1st-person future) [tSi:kjɛ] *ciike* 'shall make move', 'shall shift'; [fUNkjɛ] *pumke* 'shall make wear', 'shall dress' (K only), and possibly a labial-final piece, e.g. [to:pjɛ] *tope* 'shall hide' but decided that the [-pjɛ] type was not stylistically comparable with the rest of the data as being purely literary. After much hesitation I decided that the [-kjɛ] and [-Nkjɛ] forms were not comparable either, but were best treated as causative forms, the [-kjɛ] forms as causatives of vowel-final and lateral-final verbs, and the [-Nkjɛ] forms as causatives of nasal-final verbs.

My main reason for classifying these verbs with root-final [k] and [Nk] as causative is that they have no causative forms of their own, and are obliged to bring an auxiliary verb into use, *bi-*, in order to make a causative, e.g. [tSi:kI bi:] B [tSi:ke bjɛ:] *ciike biye* 'shall make..... shift'.

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A further reason is that these forms have an imperative in [-i], e. g. [tSi:ki] **ciiki** 'move (it)!' cf. [tSu (ɜ:)] **ciu** 'move!'; [fUNki] **pumki** 'make ..... wear' cf. [fU:] **pum** 'wear (it)!'

I also note that there are very few examples of verb with root-final -k and -mk in Tuladhar 1948 (pp. 50-8) and Joshi 1076 N. S., seven in the former and three in the latter (pp 13, 168, 274).

\*<sup>3</sup> The supporting example for [tsH-], [tsHaIa], would be possible only in a humorous utterance; for this verb is honorific, and therefore, incompatible with the 1st person: but [tsHa:] **jhawa** 'goes' will serve instead.

**References**

- Armstrong, L. E. 1932. **The phonetics of French**, London, G. Bell and Sons, Ltd.
- Hale, A. 1970. 'Newari segmental synopsis', **Occasional Papers of the Wolfenden Society on Tibeto-Burman Linguistics**, 3, 1, 300-7
- Hale A. and I. Shresthacharya 1972 'Towards a revision of Hale's Roman Newari orthography', Kathmandu, Summer Institute of Linguistics.
- Hashimoto, M. J. 1977. **The Newari language**, Tokyo, Institute for the Study of Languages and Cultures of Asia and Africa
- Joshi, V. P. 1076 N. S. **Samksipta Nepala bhasa sabda-kosa**, Kathmandu, Nepal Press
- Kansakar T. R. 1980. 'The treatment of glides in Newari phonology', **Nepalese Linguistics**, 9-16, Linguistic Society of Nepal, Kirtipur, Kathmandu
- Mulla, K. P. 1980. 'Amritanand's Grammar A. D. 1831', **Nepalese Linguistics**, 41-9, Linguistic Society of Nepal, Kirtipur, Kathmandu
- Palmer, F. R 1970 'Introduction', in F. R. Palmer (ed.), **Prosodic Analysis**, xi-xvi, London, Oxford University Press
- Sprigg, R. K. 1978. 'Phonation types: a re-appraisal', **Journal of the International Phonetic Association**, 8, 1-2, 2-17
- Tuladhar, S. 1069 N. S. **Nepala bhasa sabda-samgraha, bhiksu amrtananda**, Saranath, Benares
- Turner. R. L. 1931/1980. **Dictionary of the Nepali language**, New Delhi, Allied Publishers Private, Ltd.



## Patterns of Pronominalization in the Tibeto-Burman Area

R. C. Caughley

One of the characteristics of the North Indian linguistic area (by North Indian I mean the Northern part of the Indian subcontinent), is the occurrence of a number of languages possessing the feature known as '(verbal) pronominalization'. Briefly this feature involves the presence of pronominal forms as verbal affixes and may be found in at least three (and possibly all four) of the language families represented in the area-Tibeto-Burman, Munda, Indo-Aryan and Dravidian, though the extent of course depends on just how the term pronominalization is defined.

Before attempting a more exact definition however we can ask the question: Can a study of pronominal affixation teach us something more than simply facts about certain languages of the area? In answer to this I believe that such a study does indeed have a wider sphere of application than simply a language or family specific one.

For one thing an examination of the feature of pronominalization in the area leads to a consideration of just which morphological and syntactic features are likely to be subject to borrowing or innovation, and which are more likely to indicate genetic relationships. Following from this are two other points of more general interest-namely what might be possible mechanisms of innovation? and how might these operate in a linguistic area.

To go back, however to the definition of the term 'pronominalization', in relation to a type of verbal affixation, the first clearly documented use seems to have been by B. Hodgson who described it as a feature of Tibeto-Burman, Munda and Dravidian as for instance in his article, 'Aborigines of the Nilgiris, with remarks on their affinities, JASB, 1856. He was followed by Sten Konow, the editor of the Tibeto-Burman section of the 'Linguistic Survey of India', who used pronominalization as one of his criteria for subgrouping and defined it as the presence, in the verb, of pronominal affixes representing the subject, and sometimes the object. Languages from both the Tibeto-Burman and Munda families comply with this definition and Konow regarded the presence of the feature in Tibeto-Burman as the result of a Munda substratum influence.

This view was challenged by Bauman (1975) also in Maspero, H. 1947, in a detailed examination which included a partial reconstruction of the pronominal system



and forms for both the free pronouns and the bound affixes in Tibeto-Burman, Bauman defined pronominal languages as those which show Person and Number agreement for the subject of the sentence and in some languages, also for the object. (p8)

A little consideration will show that this, and earlier definitions are inadequate since any language with some agreement system, even possibly English, would fit this definition. A better definition would be one which defined the agreement affixes as being clearly related to the free pronoun system. This would exclude English and also Hindi and Nepali, though in the last two languages the free and bound forms do show some common formal characteristics, such as the feature of nasalisation for 1st person. Many of the Dravidian languages however would be included in the category of pronominalized. This would mean that the feature of pronominalisation would have a wide distribution, especially over the Northern and Eastern part of the subcontinent.

Another problem with the definition concerns the question of just what can be represented by the verbal affixes. A definition in terms of grammatical functions (Subject, Object) assumes that these can be defined for the language in question. The term 'object' particularly does not prove to be efficient since sometimes it is the Direct Object, sometimes the Indirect Object (but never both) that is encoded. I prefer to use semantic terms to describe the participants represented in the verb. In this case the pronominal affixes may represent the Actor (the initially involved Participant) for active clauses, the Stantant (participant described) for non-active clauses (or else they represent a Patient, Recipient or Benefactee. These last three are an ordered set with patient and Benefactee highest, so that if any two occur in a clause the highest only may be represented pronominally in the verb.

A few pronominalized languages, such as Chepang and Jingphaw in Tibeto-Burman, and Santali in Munda, can even represent the possessor of a clause participant in the verb (ex 4,16).

The use of the term 'agreement', to specify the relation between the free and bound forms, is not entirely satisfactory either. In many instances there is no overt NP or free pronoun with which the affixes agree. It can, of course, be argued that in the underlying representation such an NP exists, with subsequent deletion. A term suggested by Grimes (1978) is 'cross-reference' implying that the verb provides a second reference to one participant.

A more satisfactory definition would be then : A pronominalized language is one in which one (possibly more than one) participant in a clausal situation is referred

### *Patterns or Pronominalization*

in the verb structure by forms derived from the pronominal system.

Typology of pronominalization (see ex 1-16 and chart)

What are the general characteristics of Pronominalized languages? One well-known characteristic of the linguistic area as a whole is that all the languages, Pronominalized and Non-pronominalized are verb-final (Khasi is only exception?). The three language families that do exhibit pronominalization, Tibeto-Burman, Munda and Dravidian, are noteworthy in that they all possess the pronominal distinction of inclusive versus Exclusive for First Person, though not all individual languages show this category, even some pronominalized ones. This is a category which I suspect, is strongly resistant to borrowing. Note that IndoAryan, while it has borrowed other features, such as Numeral Classifiers, has proved resistant to the Inclusive-Exclusive distinction. Two of [the language families possessing pronominalization also have the category of Dual Number, these being Tibeto-Burman and Munda. The pronominal systems then of many Tibeto-Burman and Munda languages are remarkably similar and it was this similarity, together with the feature of pronominalization, which lead Konow to posit a Munda substratum in Tibeto-Burman. In seeking to refute this suggestion Bauman (1975) repeated Maspero's (1946) point that in Munda object pronouns are directly incorporated into the verb-they are 'not agreement markers' but are the only surface manifestation of the underlying semantics. (p53), whereas in Tibeto-Burman the free pronouns are optionally present. Bauman also suggested that Munda lacks a true morphological system of case marking, in contrast to TB. He also pointed out that Munda has an Animate-Inanimate distinction in 3rd Person that is absent in TB, whereas languages of the latter family sometime mark reflexive in the verb-this is not true of the Munda languages. In stating these differences Bauman seems to be relying on the findings of Maspero and others as far as Munda is concerned for the evidence would seem to show that some of observations do not hold strictly (exx 15, 16). More importantly perhaps, the contrast between Munda pronoun incorporation and Tibeto-Burman 'agreement' is just what one might expect if one language had borrowed a system of pronominal affixation from another since the borrowing language would probably continue to use free pronouns along with the affixes. Also the distinction between Animate and Inanimate in 3rd Person is perhaps not as basic as it might seem at first, possibly arising from the deictic system.

Probably the most important argument against a Tibeto-Burman borrowing of the feature from Munda is the widespread geographical occurrence in Tibeto-Burman. Borrowing in the opposite direction is perhaps more likely. Certainly the pronominal affixes in Munda are syntactically freer than those in TB, the latter being relatively frozen with



fewer possibilities of constructive variation.

Before I discuss further the question of origins of the pronominal affix system there is one other characteristic of some pronominalized languages that I want to mention. This is the presence of what Bauman called an 'evidential' system in these languages. Though the system, or traces of it, are found in only seven or so languages (on present data) it is also geographically widespread, from Magar in west Nepal to Gyarong on the Eastern border of Tibet, leading Bauman to suggest that it was present as a feature at an early stage in Tibeto-Burman. (exx 3, 4, 8, 9). I discussed the present day system for Chepang in a paper intended to have been presented at the Linguistic Conference last year. The important point about this system for the present discussion concerns one of the affixes, indicating that the situation described by the clause involves the hearer. This functions very much like a second person pronoun, and is indeed the present 2nd Person marker in the pronominal affixes for languages such as Tiddim Chin and Chepang. This fact, taken together with a proposal by T. Givon (1976) for a general process of development of pronominal affixation, lead to the conclusion that this affixation had indeed developed within Tibeto-Burman itself. Briefly Givon's proposal involved two processes, which he called 'Topic Shift,' and 'Afterthought' which could lead to former free pronouns becoming attached to the verb as affixes. He also suggested that these processes are likely to occur in situations of 'communication stress' such as occur at language boundaries.

If the proposals are valid then we can see how, especially in a linguistic area containing two or three language families, pronominal affixation could arise in each family in a sense independently, yet at the same time the process would be stimulated by the interlanguage contact. The proposals would also provide an explanation for the wide variation of affix within a single language family, and even within subgroups of a family.

In summary then, what I am suggesting is firstly, that not all grammatical features which are common to languages of different families in a linguistic area, arise from borrowing. Rather it is that common processes, operating in a common environment, produce more or less independently these features.

Secondly, it should be obvious from the previous discussion that the feature of pronominalization cannot be used to classify or subclassify languages.

✓ Givon, T. 1976 Topic, Pronoun and Grammatical Agreement.

In Li (ed) Subject and Topic, Academic Press, New York

Bauman, G 1975 Pronouns and pronominal Morphology in Tibeto-Burman Ph D. Thesis University of Michigan.

Maspero, H. 1947 Notes sur la morphologie du Tibeto-Burman et du Munda. Bulletin de la societe de Linguistique de Paris 44.

*Patterns of Pronominalization*

EXAMPLES OF PRONOMINALIZATION

A. TIBETO-BURMAN (Shafer's Classification)  
BODIC DIVISION

**Northwest Himalayish**

- |            |  |   |
|------------|--|---|
| 1. Kanauri | NonPast gə V-t-əg<br>I NP-1E                     | nina V-t-in <sup>50</sup><br>we -NP-1PE                         |
|            | Past gə V-əg<br>I -1E                            | nina V--ec<br>we -1PE (Pt)                                      |
| 2. Kham    | nən nə-syah-ke<br>you 2S-dance-Pt<br>you danced. | na: nən-lay na-poh-ni-ke<br>I you-Gl 1S-hit-2S-Pt<br>I hit you. |

**West-Central Himalayish**

- |                    |   |  |
|--------------------|---|--|
| 3. Magar (Western) | na-i zya-la-n<br>I -Ag eat-NP-I<br>I ate.<br>Past na-i na-zyn-n<br>IS-eat-1S<br>I ate.  | nan-i zya-da-1<br>you-Ag eat-2 -NP<br>You eat.<br>nan-i na-zya<br>2S-eat<br>You ate.   |
| 4. Chepang         | ni-ci-?i je?-na-n -c-u<br>we-D1-Ag eat-NP-1E-D1-Ag<br>We two eat.<br>?ow-?i ni-ci-ko? ?amh<br>that-Ag we-D1-of grain<br>It is eating our grain. | ?ow?-?i ni-ni-kay bəy?-na-n-cə<br>he -Ag we-D1-Gl give-NP-1E-D1<br>He gives to us two.<br>je?-na-bət-ta-n -cə<br>eat-NP-Pos-G1-1E-D1 |
| 5. Vayu            | mi-ha gu puk-no<br>he-Ag I rouse-1E<br>He rouses me.  | Past mi-ha gu puk-sun<br>rouse-1E (Past)<br>He roused me.  |

**East Himalayish**

- |            |   |
|------------|---|
| 6. Khaling | un- a bəy-ham send-u-nu<br>I -Ag cow-Pl watch-1-Pl<br>I watch the cows. |
| 7. Limbu   | khen-ci əna a-k -hip -si<br>you -D1 I 1E-2S-hit -D1<br>You two hit me.  |

*NP - nonpast*



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**BURMIC DIVISION**

**Nungish**

8 Rawang            **na-mer na-hka e-zi -n a e**  
                          you-Ag I -G1    2-give-1 S Ind  
                          He/You give to me.

**Kachinish**

9. Kachin            **nai kala-nai**                            **nan kalaw -ndai**  
                          I do -1S                                    you do -2S  
                          I do.                                        You (Sing.) do.

**Kukish**

10 Lusei            **kei ka-in -e**                            **min-ti**  
                          I 1S-drink-Pt                            1SG-tell (Past)  
                          I drank                                     (He) told me

11 Tiddim Chin    **Formal kei ka-pai-hi Coll,**            **kei khawh-n-in**  
                          I 1S-go -Pt                                I dig -NP-1S  
                          I went.                                     I will dig;

12 Aimol            **an-ren an-che- yoi**  
                          **he-P1 3P-depart-Pt**  
                          They departed.

12 Sema            **pa-na i- pi- ke ni un-tsun-de**  
                          **he-Ag 1G-say-Pt I 2G-give-NP**  
                          He told me.                                I will give you.

**BARIC**

**Nagish**

14 Nocte            **na V-an**  
                          I 1S

**NORTH MUNDA**

15 Mundari            **hen hōrō-ko harm-ke sap ?-idi-ke-d-i-a-ko**  
                          those man P1 old man-G1catch-v-As-G1-3S-Ind-3P take-  
                          Those men caught and took the old man.  
                          **raja budha-ke maljal im -a - d - i - a - e**  
                          king oldman-G1 thing give-As-G1-3S-Ind-3s  
                          The king gave the old man property.

16 Santali            **hōpōn-in-e dal-ke?-d -ta-ko-t -in<sup>s</sup> -a**  
                          son -1S-3S hit-As-G1-Po-3P-Po-1S-Ind  
                          My son hit theirs  
                          **in<sup>s</sup>-ge utu -a -n<sup>s</sup>-fa**

Patterns of Pronominalization

I -G1 curry -G1-1S-Imp  
 Make curry for me !

NORTH MUNDA (Cont)

17 Korku

am in<sup>5</sup>-khe ? jom-ya-khi-n<sup>5</sup>-ba  
 you I -G1 eat-Dr-Emp- 1S-NP  
 You there will eat me up !

SOUTH MUNDA

18 Kharia

u -je? ol -tu-si ?d-in<sup>5</sup>  
 he-G1 bring-Em-As-1s

I brought him.

19 Parengi

en-ben min ne-zum--t -i -ben  
 G1-YouP I 1S-eat --Fu-Lk-2P

I will eat you.

bontel e-nom ne --ta?y -t -om  
 buffalo G1-you 1S -given-Fu-2S

I will give you a buffalo

DRAVIDIAN

20 Tamil

nan jey-d -en  
 I do -Pt-1S  
 I did.

21 Kolami NP

aan tun-l at  
 I run-NP-1S  
 I run  
 Past  
 aan tuu-t an  
 I run-Pt-1S

avr vall endap-t -er  
 they rice plant-Pt-3 PM  
 They planted rice.

22 Khurukh

een ciix-k -an  
 I weep-Pt-1S  
 I wept.

eem bicc-k am  
 we play-Pt-1P  
 We play.



## Patterns of Pronominalization in the Tibeto-Burman Area

Typology (Adapted from Bauman, 1975)

|                     | Nonprefixing                         |  | Prefixing                                   |  |
|---------------------|--------------------------------------|--|---|--|
|                     | No Object Aff<br>Manchati<br>Khaling | Object Aff<br>Chepang ✓<br>Mundari<br>Santali                              | No Object Aff.<br>T, Chin (formal)<br>Aimol | Object Aff.<br>Kam<br>Sema<br>Parengi<br>Khurukh ? |
| No Tense<br>Concord |                                      |  |   |  |
| Tense<br>Concord    | T. Chin (Coll)<br>Kanauri<br>Bunnan  | Vayu<br>Kulung<br>Thulung<br>Sunwar<br>Bahing<br>Kachin<br>Nocte<br>Kolami | Magar (West)                                | Gyarong<br>Lushei<br>Rawang<br>Limbu               |

### Evidential Systems

Distribution of Rawang e, T. Chin -te?. Gyarong t k -  
Limbu k -, Chepang -te?. Magar and Kachin -da

| Goal           | 1   | 1+2                                   | 2                                     | 3                                     | 0                                     |
|----------------|---|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|
| Agent<br>1(+2) | t- Gya  |                                       |                                       |                                       |                                       |
| 2              | (Raw) e- ..<br>(TC) -te? ..<br>(Gya) k- -<br>(Lim) k- -<br>(Ch) -te? -<br>(Mg) -da ..<br>(Kn) | e-<br>-te?<br>t-<br>k-<br>-te?<br>-da | e-<br>-te?<br>t-<br>k-<br>-te?<br>-da | e-<br>-te?<br>t-<br>k-<br>-te?<br>-da | e-<br>-te?<br>t-<br>k-<br>-te?<br>-da |
| 3              | (Raw) e ..<br>(TC) -te? ..<br>(Gya)<br>(Lim)<br>(Ch) -<br>(Kn)                                | e-<br>-te?<br>k-<br>-te?<br>-da       | -te?                                  | -te?<br>k-                            | -te?<br>k-                            |

..language does not distinguish between Inclusive and Exclusive for the Goal - the distinction exists but the evidential form is not used.

## Some Issues in Communicology

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In the West even in the early sixties the Theory of Human Communication remained an academic territory waiting to be defined, let alone explored. Only in the last twenty years there has been a rapid growth of theory and research under various levels like 'Communicology', 'Sociology of Language', 'Sociolinguistics', etc. The aim of this paper is to present a cursory survey of the theories and models of communication, from Aristotle's to contemporary communication theories like Shannon and Weaver's, the Transactional Model, the linguistic theories of Malinowski, J. R. Firth, Fishman, Dell Hymes, etc. and to compare them with the theory of communication proposed by Tolkaappiyar in his grammar of Tamil, Tolkaappiyam.

### Tolkaappiyam:

Tolkaappiyam, written, perhaps, during the early Sang period and Sangam literature (500 B. C. or even earlier extending upto 200 A. D.) are full of information on, among other things, ancient Dravidian linguistic theories and theories of communication. The Sangam literary works were, in olden times, known by the collective implication of the terms 'Paattu' and 'Tokai' (Songs and Anthologies) and ten works of the former category and eight of the latter represent the core of the Sangam classics. Tolkaappiyam, which is the logical outgrowth of the literary spurt during the Sangam period, is the of the Grammar song and anthology group and must have been written not later than the third century B. C. Tolkaappiyam is divided into three major sections—Phonology and Graphology, Morphology and syntax, and Semantics. The section on Semantics, called Porulatikaram, has a lot of information on communication theory.

### Western Definitions of Communication

'Communication' has been defined in a number of ways by several Western scholars some of which are given below:

- i. "Communication means that information is passed from one place to another" (Miller, 1951)
- ii It is "a word that describes the process of transferring meaning from one individual to another." (Cathcart '66)



### *Newari without Vowel Systems*

iii. It is "a process involving the selection, production, and transmission of signs in such a way as to help a receiver perceive a meaning similar to that in the communicator." (Fotheringham, 1968)

iv. It is "the discriminatory response of an organism to a stimulus." (Stevens, 1950)

v. "All behaviour in an interactional situation has message value, i. e. is communication." (Watzlawick, 1967)

vi. "A process whereby a source elicits a response in receiver through the transmission of a message, be it sign or symbol, verbal or non-verbal." (Rich, 1974)

vii. "Communication is a dynamic process in which man consciously affects the cognitions of another through materials or agencies used in symbolic ways." (Andersen, 1972)

viii. "Communication is a social relation." (Britton, 1970)

iv. It is "the intentional transmission of information by means of some established signalling - system." (Lyons, '77)

### **Western Models of Communication**

Models are visualizations of a given process. They are representations of the elements, their operations and interactions. Some of the important models are given below:

a) Aristotle's model:

|         |          |          |        |
|---------|----------|----------|--------|
| Speaker | Speech   | Audience | Effect |
|         | Occasion |          |        |

This model is applicable only to public speaking.

b) Lasswell's model (Lasswell, 1948):

Who / says what / in what channel / to whom / with what effect.

c) Gerbner's model (Gerbner, 1956):

Someone / perceives / an event / and reacts / in a situation / through some means / to make available materials / in some form / and context / conveying content / of some consequence.

*Issues in Communicology*

d) Berlo's model (Berlo, 1960).

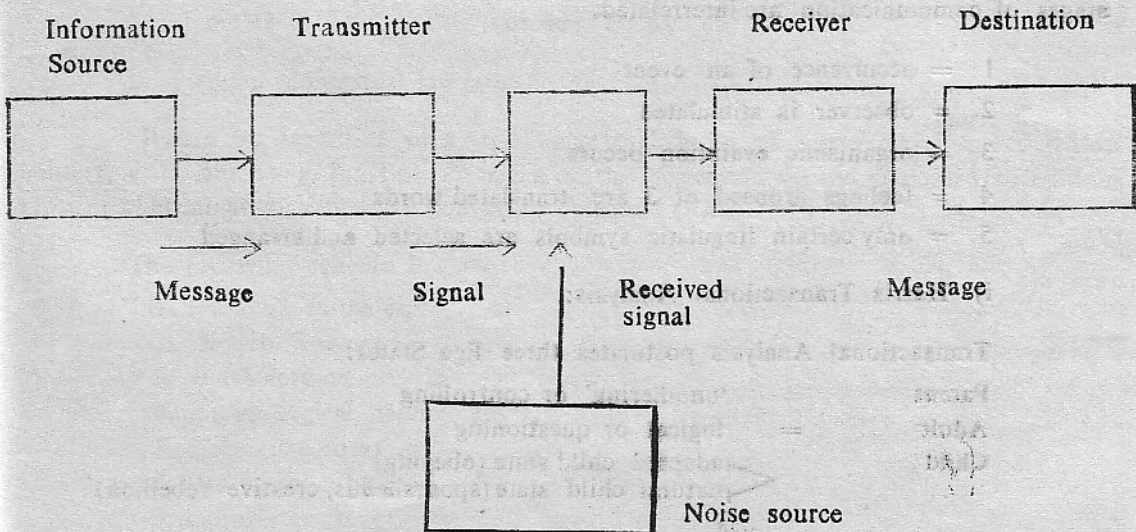
| Source               | Message   | Channel  | Receiver             |
|----------------------|-----------|----------|----------------------|
| Communication skills | Elements  | Seeing   | Communication skills |
| Attitudes            | Structure | Hearing  | Attitudes            |
| Knowledge            | Content   | Touching | Knowledge            |
| Social system        | Treatment | Smelling | Social system        |
| Culture              | Code      | Tasting  | Culture              |

e) Dance's model (Dance 1957,):



The spiral continues indefinitely and no communication transaction has fixed boundaries.

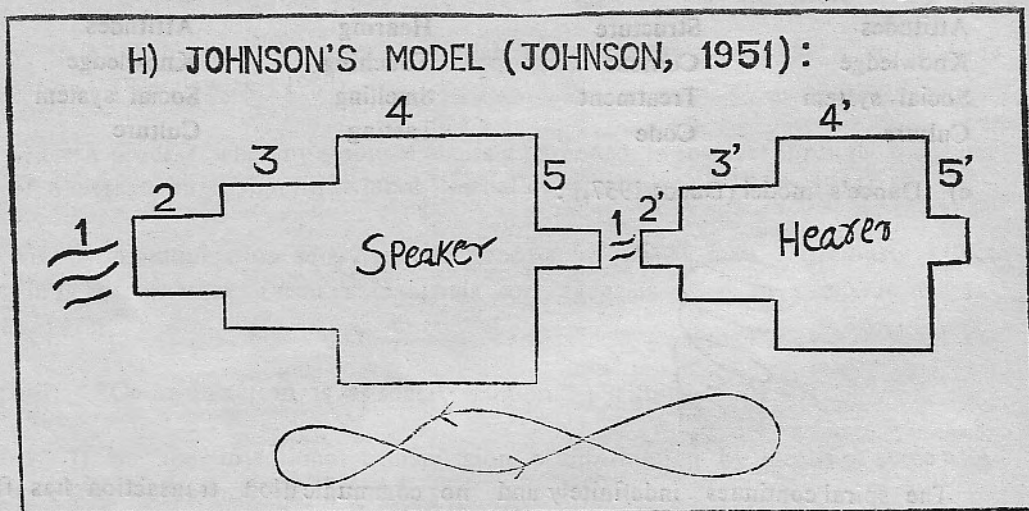
f) Shanon and Weaver model (Shannon and Weaver, 1949):





g) Barnlund's Transactional model (Barnlund, 1970):

This model is based on six communication postulates: Communication is dynamic continuous, circular, unrepeatable, irreversible, and complex. Processes like encoding and decoding with the help of verbal and non-verbal cues, and public and private cues are described in a communicative act between two persons.



The surrounding rectangles that communication takes place in a context, which is external to both speaker and listener. The curved loop indicates that the various stages of communication are interrelated.

- 1 = occurrence of an event
- 2 = observer is stimulated
- 3 = organismic evaluation occurs
- 4 = feelings aroused at 3 are translated words
- 5 = only certain linguistic symbols are selected and arranged

i) Harris Transactional Analysis:

Transactional Analysis postulates three Ego States:

- Parent = 'unothering' or controlling
- Adult = logical or questioning
- Child
  - ↳ adapted child state (obeying)
  - ↳ natural child state (spontaneous, creative rebellion)

## Issues in Communicology

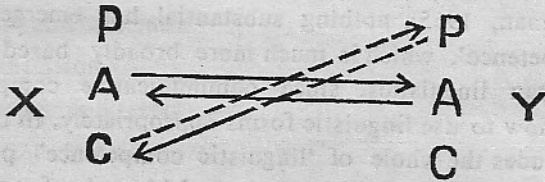
Each individual is in one Ego State at any given point.

Three transactions are postulated:

Complementary : a) the same ego state communicating with each other. b) different ego states but each addressing his or her messages to the other appropriate ego state.

Crossed = trouble arises when an individual slips out of his or her ego state into one that creates crossed transactions

Ulterior = more than two ego states are involved at the same time of which one carries the hidden message



These result in four basic life positions:

I am not O. K. ; you are O. K.

I am not O. K. ; you are not O. K.

I am O. K. ; you are not O. K.

I am O. K. ; you are O. K.

j) Firthian Contextual Hierarchy:

"It can be described as a serial contextualization of our facts, context within context, each one being function, an organ of the bigger context and all contexts finding a place in what might be called the context of culture." (Firth, '57')

The following scheme is given:

1. Phonetic terms in
2. Phonetic context in
3. vocabulary context in
4. morphological context in
5. syntactic context in
6. situational context in
7. cultural context



**k) Sociolinguistic models:**

Though Malinowski noted that "in its primitive uses, language functions as a link in concerted human activity, as a piece of human behaviour. It is a mode of action and not an instrument of reflection" (Malinowski, 1923), the centrality of the question of linguistic function was not dealt with in depth until the more recent work of Jakobson (1960) and more specifically of Hymes (1962 ; 1970). They have attempted a systematic discussion of the components or factors in communicative events. Based broadly on the factors suggested by Jakobson and Hymes a number of lists of types of factors which influence speech behaviour have been proposed and they usually include such factors as participants, topic, setting or context, channel, message form, mode or tone, and intentions and effects. Despite the hope expressed by some that a careful study of the factors in speech events might lead to the ability to predict or state rules specifying 'who speaks what language to who and when' (Fishman, 1965), nothing substantial has emerged except the notion of 'Communicative competence', which is much more broadly based than the 'linguistic competence' of Chomskyan linguistics, since communicative competence includes our knowledge (or ability) of how to use linguistic forms appropriately. In other words, communicative competence includes the whole of 'linguistic competence' plus the whole of the amorphous range of facts included under 'pragmatics' (the rules for using linguistic items in context) and attitudes, values and motivations. This even today appears to be over-ambitious and a proper integration of the basic factors .. grammatical (formally possible) socio-cultural (contextually appropriate), and de-facto (actually occurring) of the speaker-learner's knowledge and ability to use his communicative competence is yet to be attempted.

**Summary:**

In summation, we can say that all Western theories of communication list the following elements and factors:

**A. Source and Receiver factors:**

- i. Knowledge, ideas, and experiences
- ii. Attitudes, beliefs, and values
- iii. Needs, wants, and goals
- iv. Interests
- v. Group and role memberships
- vi. Communication abilities
- vii. Perception of other elements

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### **B. Channel Elements:**

- i. Nature of media
- ii. Limits on audience
  - a. Target audience
  - b. Mass audience
- iii. Selectivity in transmission of stimuli
  - a. Sound
  - b. Sight
  - c. Others

### **C. Message Elements:**

- i. Ideas and content
- ii. Organization
- iii. Language and style
- iv. Delivery elements
  - a. Spoken
  - b. Written
  - c. Other

### **D. Specific Setting: Situation and General Environment:**

- i. State of things generally
- ii. State of topic
- iii. Immediate environment
- iv. Audience Size
- v. Availability of media channels
- vi. Interaction of other elements affecting setting
- vii. Public or private

### **E. Communication - binding context:**

- i. Interaction of all the elements
- ii. Effect of time
- iii. Process nature of communication



- iv, Complexities due to nature of process involved in communication
  - a. Multiple or institutional sources
  - b. Translations or other intermediaries
  - c. Mass media

(Adapted from Andersen, (1971)

The following allied and overlapping areas may be added to the list given above:

- i. Kinesics: The study of visual aspects of non-verbal, interpersonal communication. It may be the closing and the opening of the lids of the eye, movement of the hands-winking, blinking, the way one looks, etc. This is the 'body language.'
- ii. Proxemics: The study of the ways in which space is handled in human communication since spatial changes give a 'tone' to communication.
- iii. Gestures and how they may vary from community to community.
- iv. The role of silence in communication since silences have as many shades of significance as uttered words. It is yet to be studied.

**Tolkaappiyar's Theory of Communication:**

Tolkaappiyar treats communication as complex phenomenon that includes several factors like the flora and fauna, the seasons of the year, the time of the day, natural objects and forces like the sun, the moon and the wind, cultural aspects and conventions, emotional states, and psychological forces.

The Tamil Nadu of the Sangam period spread from the Arabian Sea, around the Indian Ocean to the Bay of Bengal and extended upto the Tiruppathi Hills. In order to make the theory of communication meaningful, Tolkaappiyar, divides the linguistic area into 'Kurinci' (the hills and their environs), 'Mullai' (the forests or the pastoral tract), 'Marutam' (the plains studded with wet fields), 'Neytal' (the coastal tract), and 'Paalai' (the arid desert). The fifth zone 'Paalai' is not a separate physiographic division but a state of aridity, scrub vegetation and generally hot climate. This state could be an extension of the Mullai or Kurinci lands in some cases. The most significant aspect of such a classification seems to be the notion that specific ecological factors are in harmony with the patterns of communication of the people inhabiting the various zones. They may be called the geophysical context of communication or, more appropriately, the norms on which the cultural spectra of the entire Tamil country have been differentiated in the Sangam classics. Each region is specified on the basis of the eight-fold elements: God, staple food, fauna, flora, birds, folk-habits, occupations and musical instruments.

The following tabular form sums up the classification found in **Tokkaappiyam**

| Tract/Culture                      | Kurichi<br>(Hills)                          | Mullai<br>(Forests)            | Marutam<br>(Plains)                | Neytal<br>(Costal)                 | Paalai<br>(Desert)                       |
|------------------------------------|---|--------------------------------|------------------------------------|------------------------------------|--|
| <b>God</b>                         | Murugan                                     | Vishnu                         | Indra                              | Varuna                             | Durga                                    |
| <b>Food</b>                        | milletts and bamboo rice                    | ragi                           | red and white rice                 | fish and salt                      | the collections from waylaying           |
| <b>Flora</b>                       | incense, teak, Ashoka, Cassia               | konrai, tulari flower          | Arjuna. lily and lotus             | Punnaga, vendal                    | dry Iruppai<br>Paatali flower            |
| <b>Birds</b>                       | parrots and peacocks                        | wild cocks and hens            | ducks, owls, cranes, geese         | larks and geese                    | eagles and vultures                      |
| <b>Occupation</b>                  | honey collection digging edible roots, etc. | tending sheep and cattle       | agriculture                        | fishing and salt-panning           | waylaying                                |
| <b>Water source</b>                | water falls and springs                     | wild streams                   | rivers, wells and ponds            | sand-wells                         | fresh water                              |
| <b>Musical instrument and Raga</b> | Kurinci yaal (lyre) and pan                 | Tullai yaal and pan            | Maruta yaal and pan (morning raga) | Neytal yaal and pan (evening raga) | wells and springs<br>Paalai yaal and pan |
| <b>Season</b>                      | Late winter and the early dewy season       | early winter and rainy season  | all seasons                        | all seasons                        | hot summer and the season of late dew    |
| <b>Time of the day</b>             | mid-night                                   | late evening                   | early morning                      | afternoon                          | noon                                     |
| <b>Predominant human emotion</b>   | secret meeting and falling in love          | waiing                         | lovers anger                       | and the time of sun-set pining     | separation                               |
| <b>People</b>                      | hillmen and hunters                         | shepherds cowherds and milkmen | peasants                           | fishermen                          | 'Maravar'                                |



The Sangam literature and Tolkaappiyam classify all social etiquette and sophistication .. may also be called communicative acts or tinai into two great divisions, Akattinai and Purattinai, the inner and outer aspects. The characters of all Akam poems are those who have something to do with the love affairs of the hero and the heroine, Tolkkappiyar states that the maid, the foster-mother, the male .. companion of the hero, the brahmin the hero and the heroine are the six main characters; the actors, the dancing girl, the harlot, the learned and the on-lookers are the secondary characters. These are also references to the people of the village, neighbours, the sooth-sayers, the heroine's father and elder brother.

Tolkaappiyar's 'rules' of communication can be better understood by asking a question like this : Why is it that poems relating to the secret meeting of lovers are to be in Kurincittinai (in the hilly region)? A careful study of the Kurinci poems reveal that not only the contents of the poems are based on the actual life of the hill folk but also the conventions specified are the 'rules' of communication. During the Sangam period, millet was the main food of the people living in the hilly areas and on the hill tops they used to raise the millet crop, birds came and ate the millet sheaves when they were ripe for harvest. The young girls were sent to guard the millet fields and the boys went out hunting. The mountain region became the natural rendezvous for secret meetings. Tokkaappiyam says that late winter and the two months following late winter are the season for Kurinci since it is during this period the millet crop is to be protected. Naccinaarkkiniyar, one of the commentators on Tolkaappiyam, says that 'the dreadful hour of midnight with the constant showers of late winter with its attendant discomforts would render the union of lovers most difficult and thereby serve to heighten their longing (Tol. Por. 6. Nac)

The detailed descriptions of the landscape, its flora and fauna, season and the hour of the day, the appropriate raga that evokes and reflects a particular emotion and such other details are given not just to foreground man in the background of nature but to project nature as an emotional cognate .. to nature as an active participator in the act of communication. To put it in different words, in the absence of the specified elements a given human emotion cannot be communicated.

The maritime region in the evening, the sun 'going home' and sinking into the west and birds flying to their nests seeking their mates contribute to the love aspect of the coastal region .. the lady's bewailing over the long absence of her lovers. (Tol. Por. 8.)

The arid desert tract [which became dry on account of continued absence of showers and hot burning rays of the sun, the noon day hour of hot summer profoundly subscribing to loneliness and solitude (Tol. Por. 9), the scorching summer in a desert tract without shady trees where not a single beast is free from suffering, and the fancied dangers...all these are participators in the aspect of love that is depicted the parting of lovers and their pining in separation (Tol. Por. 9. Nac).

Even the similes that are used in Sangam literature for comparing the feelings and passions show this. For example, the heroine pining in separation says...the tender leaves of the tree on the bank of a stream shiver when its roots have been nearly washed off by the flood dashing against it and smashing the banks; my heart trembles like that; how can I bear this pain? (Nar. 381)

After quarrelling with her husband the heroine feels his kindness, gradually comes towards him, and accepts him. When questioned about the quarrel, she explains... have you seen the red soil of the field getting soft and dissolving in rain water? My heart too dissolved like that. (Aka. 26)

Tolkaappiyar, being a grammarian, must have codified the communicative conventions of his days. In the section called 'Marapiyal', the great grammarian has outlined the conventions used in Tinai poetry, the language to be used by the different characters in their speech, the words and other details to be used in a description. Thereby he shows how the use of language is related to ecology, ethnography and psychology. He says that in each land there are four classes of people... the chieftains and upper class people (Talaimakkal), the people of the soil (Nilamakkal), the attendants (atiyaar), and the worker (vinaivaalar) (Tol. 166-970).

The figures of speech, the allegory (ullurai), the suggestion (iraicci), the names of people, the language they use, the landscape, the season, etc. can help the reader to identify the tinai of any poem. The convention is that a poem should be so written that the reader must be able to specify the context and who said to whom (Tol. 1442). This, in other words, is the predictive capacity of the theory of communication or what Fishman calls rules specifying 'who speaks what language to whom and when' or Lasswell's notion of 'who says what in what channel to whom with what effect'.

Those who follow the Western line of thinking will say a human being's interpretation of the signs round him in nature is nothing but some sort of earned response to natural events and nothing has been communicated since'



no other person who deliberately or intentionally manipulates nature in order to promote an inference or an emotion in the receiver. All Western theories point out that the sign must certainly come from a person who is capable of intentions. This is because the West has assumed that communication is a social function. Since the Western theorists are caught up in their definitions, they are unable to accept that nature and culture can communicate and participate in the act of communication.

But the oriental mind that is more mystical sees the metaphysical communion in every physical act of communication. In Indian classical music, certain ragas are to be sung only in the morning, certain ragas in the evening, and some during certain seasons; it is because the mood of a given raga can be communicated only at a specific time. The landscape of the heart is in harmony with the landscape outside in any effective process of communication. The human elements are so fused with the non-human elements that they become inseparable. This sort of treatment of nature and culture may be due to the ways of life, the range of vision, the sensitivity of the people, their intimacy with nature, the accuracy of observation, the eagerness to animate, and the community's outlook towards life.

Tolkaappiyar's theory is not only different from the theories of West but also more comprehensive than the others. His framework gives a very detailed picture of all the essential elements, processes, relevant relationships and interactions in the communicative act. What has been outlined in this paper has to be studied in greater detail to give a fuller version of Tolkaappiyar's model and, may be, with suitable modifications used in the present-day context for answering questions concerning communication.

#### References

- Miller, G. A. : Language and Communication, New York: McGraw Hill, 1951, p. 6.
- Cathcart, R. S. : Post Communication Criticism and Evaluation, Indianapolis: Bobbs-Merril, 1966, p. 1.
- Fotheringham, W. C. : Perceptives on Persuasion, Boston Allyn & Bacon, 1968. p. 254.
- Stevens, S. S. : "Introduction : A Definition of Communication," Journal of the Acoustical Society of America, 22, 1950, p. 689.

*Issues in Communicology*

- Watzlawick, P. Beavin & Jackson: Pragmatics of Human Communication, New York: Norton, 1967, p. 48.
- Rich, L. A.: International Communication, New York: Harper & Row, 1974, p. 4.
- Andersen, E. K.: Introduction to Communication Theory and Practice, California: Cunnings Publishing Co. 1972.
- Andersen, E. K.: Persuasion Theory and Practice, Boston: Allyn & Bacon, 1971 p. 24.
- Britton, K.: Communication—A Philosophical Study of Language, Maryland: McGraw Publishing Co., 1970, p. 2.
- Lasswell, D. H.: "The Structure and function of Communication in Society." in Lyman Bryson, ed, The Communication of Ideas, New York: Harper & Row, 1948 p. 37.
- Gerbner, G.: "Toward a General Model of Communication" Audio-visual Communication Review, 4, 1956, p. 173:
- Berlo, D.: The process of Communication, New York; Holt, Rinehart & Winston, 1960. p. 72.
- Dance, E. X. F.: "Toward a Theory of Human Communication", in Human Communication Theory- -Original Essays (F. E. X. Dance, Ed.) New York: Holt, Rinehart & Winston, 1957, p. 296.
- Shannon, E and Weaver, W.: The Mathematical Theory of Communication". Urbana, Ill: University of Illinois Press, 1949 p. 4.
- Barnlund, C. D.: "A Transactional Model of Communication". Language Behaviour : A Book of Reading in Communication (J. Akin et al), The Hague: Mouton, 1970 p. 59.
- Johnson. W.: "The Spoken word and the Great Unsaid," Quarterly Journal of Speech, 37, 1951, p 421.
- Harris, T.: I'm O.K.—You're O.K.



*Nepalese Linguistics, Vol. 2 (1983)*

18. Malinowski, B. "The Problem of meaning in Primitive Language" in Ogden & Richards: *The Meaning of Meaning*, London: Rowledge & Kegan, 1972, p: 109.
19. Lyons, J. : *Semantics 1*, Cambridge : Cambridge University Press, 1977, p. 32.
20. Fishman, J. A. 'Who speaks what language to whom and when ?' *La Linguistique* 2, 1966, pp. 67-88; also in *Pride & Holmes, Sociolinguistics*.
21. Tol, Tolkaappiyam : (Kazhakam Edition), Madras: The south Indian Saina Siddlantha Words Publishing Society, 1969.
22. Sastri, K. A. N. : *Sangam Literature : Its Cults and cultures*, Madras: Swathi Publications, 1972;

## PRESERVATION OF OLD INDO-ARYAN DIALECTS IN THE MID-HIMALAYAS

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The Himalayas have many surprises for the world in its stores. It has preserved not only the fossils of Anthropological importance but also of the historical and linguistic importance which have, from time to time, thrown new light on various aspects of the human race as a whole and on the history and culture of different races inhabiting these unaccessible regions in the hoary past in particular. The evidences obtained from the repositories of these regions are so concrete as these are strong enough, in many cases, to revolutionise many old theories held about the history and the culture of the people of the Indian sub-continent as a whole.

Linguistically, there are many islands in the interiors of the great Himalayas which have still preserved the forms and frame-work of many ancient languages which have become now extinct or had become obsolete in the main-land of the Indian sub-continent even in the first millennium of the Christian Era. In these Himalayan linguistic islands we find not only the relics of old Indo-Aryan Language which otherwise had ceased to be the language of masses even when Buddhism and Jainism came into existence, but also the relics of Austro-Asiatic (Munda etc) and Dravidian languages which have no trace of their prevalence in the plains of northern India. The author of these lines has discovered during his recent linguistic expedition to the Himalayan region that there are pockets in Lahaul, Ladakh, Malana, and Lower Kinnaur regions which have still preserved dialectal elements which are directly related to the Sanskrit, Greek and Munda languages of ancient India. Besides, we also find in these regions a number of linguistic elements which can be helpful in reconstructing the original or proto-forms of many extinct Kinnar-Kirata dialects which were prevalent in these regions in pre-historic days.

Here, in this paper, an attempt has been made to throw some light on a dialect, directly descending from the OIA languages, recently discovered by the author of these lines in the predominantly Tibeto-Himalayan speaking area of the Lahaul and Spiti sub-division of Himachal Pradesh. The discovery of this OIA dialect in this snow-bound mid-Himalayan



region is something astounding for the orientalists of the world, particularly for those who have been holding the view that Sanskrit was never a spoken language in this country.

Though the author of this paper has prepared detailed descriptive and historical analysis of this dialect, yet here he would like to confine himself to its few salient features only to prove that this dialect is a direct descendent of OIA and has not passed the normal historical process of the development attested in the case of New Indo-Aryan languages of this sub-continent, i. e. it has not passed through the stages of Pali, Prakrit and Apabhramsa, etc.

The members of this linguistic community, locally known as Chahans or Chinalas are confined to one of the four valleys of Lahaul, viz. to the Pattan Valley. Socially, they are treated as scheduled castes by the other two communities of the valley, viz. the Mongoloid Bodhis and the Aryan Swanglas, for whom they render various kinds of social as well as agricultural services.

Though they have no memory of their earlier abodes and of the period of their migration to this snow bound Himalayan region, predominantly inhabited by the people of the Mongoloid race and Buddhist religion, yet the linguistic heritage, still preserved by them, is a convincing indicator that their forefathers, having crossed the great divide, the Rohtang Pass, reached there at a time when Sanskrit was still a spoken language on this side of the Pass. But it is an astounding fact that the present descendents of those Aryans have, inspite of their social position and linguistic environment, preserved the salient features of the Old Indo-Aryan (OIA) language. Besides, they have also maintained their Aryan features and have preserved various Aryan traditions in their religious and social customs and rituals.

But, as mentioned above, the most striking feature of the cultural heritage of this community is its language, which definitely is a continuation of that dialect of the Old Indo-Aryan which was in vogue in the North-West parts of India at the time of migration of the dialect to this Tibeto-Himalayan speaking area. Innumerable forms of the age old linguistic behaviour are still current and are attestable at all levels of linguistic behaviour of these people even after a period of more than a millennium. At present, the male members of this community are trilinguals, i. e. while communicating with their 'ghyats' (land lords) they speak the local form of Tibeto-Himalayan dialect spoken by them and while communicating with outsiders they use Hindi or Hindustani, but in their private

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or domestic communication they use their own dialect which is quite akin to the Sanskrit language in its content and frame-work.

In the following paragraphs a brief outline is being presented to substantiate the statement made above by way of giving a few phonological and syntactic peculiarities clearly noticeable in this dialect.

#### **Absence of the Influence of MIA Dialects**

Moreover many development forms, in this dialect betray that it, like Kashmir did not pass through various stages of MIA, i. e. these forms have developed directly from their Sanskrit stems, belonging to the dialects of their forefathers. Some of the notable non-Prakrit features of this dialect are:

(1) Unlike MIA most of OIA consonant clusters are maintained in all positions, i. e. have not undergone assimilation, for instance, initial position: *trai*, 'three' *drad* 'to beat'; *trut* 'to break' (intrans.); *trod* 'to break' (trans.) *swad* 'taste'; *griz:gradhra* 'vulture'; *bragh:vyaghra* 'leopard'; *prased:prasveda* 'perspiration'; *tris:trisa* 'thirst'; etc. medial position: *astas* 'is'; *asti* 'are'; *nistar* : *nis+tr* 'to flow out'; *kartas* 'does', *rakta* 'red'; *amla* 'sour', *agre* 'ahead'; *chetra* : *ksetra* 'field'; *gachtas* 'goes'; *bastas* 'dwells'; *jamatra* 'son-in-law'; etc.; final position: *bisurt:vi+smrta* 'to forget'; *nark* 'hell'; *svarg* 'heaven'; *murkh* 'idiot'; etc.

(2) Normally, most of medial voiced consonants do not show elision as we find in MIA forms, e. g.: *nagar* 'village'; *kadi* 'when?' *akhur:asru* 'tears', etc

(3) The Prakrit tendency of retroflexion before -r is also not attested, e. g. *vat*: *vartman* 'path'.

(4) Inter-vocalic semi-consonants are also maintained considerably, as in *tava*, 'thy', yours; *bhyas:abhyas* 'habit', *dehi* 'give' (Imp.) etc.

#### **Preservations:**

Some of the notable preservations of this dialect are as under: *prased:prasveda* 'perspiration'; *mehi:mahisi* 'buffalo'; *makkur:markata* 'monkey'; *rakta:rakta* 'red'; *kamar*: *kandhara* 'shoulder'; *haldur:haridra* 'turmeric'; *raupa:raupiya* 'silver'; *janu:janu* 'knee'; *amla:amla* 'sour'; *dar:daru* 'wood for building'; *grij:grdhra* 'vulture'; *pipi:pippali* 'long pepper'; *megha*: *megha* 'snow'; *gatri:gatrika* 'bodice'; *jamatra:jamatr* 'son-in law'; *behiran:bahir* 'outside'; *dure:dure* 'away'; *karatru:karapatram* 'a saw'; *osit:ausadhi:ausadham* 'medicine'; *buka*:



**bukka** 'kidney'; **gerka:garuka** 'heavy, load'; **bun:budhna** 'downward'; **doten:dosante** 'morning';  
**pautha:prahasta** 'palm'; **hyud:hemanta** 'winter'; **kane:kankati** 'comb'; **tarku:tarkuti** 'a spindle';  
**cak:kicaka** 'bamboo'; **kal:khalina** 'rein of horse'; **gappa:galpa** 'a talk'; **ghai:ghatika** 'pitcher';  
**dhori** : **dhumrika** 'fog'; **kutur** : **kukuraputra** 'dog'; **badil:balivarda** 'ox'; **dugha:dirgha** 'deep';  
**dal:vidara**; 'flood'.

Apart from preserving the phonological frame-work and typical vocabulary items of Old Indo-Aryan, it has wonderfully preserved to a great extent, its synthetic grammatical structure as well. From among seven cases of nominal and pronominal inflection it has still preserved the synthetic character of OIA in the Nominative, Accusative, Agentive, Dative and Genitive cases. Besides, in nominal declension, though the forms of dual and plural have been amalgamated, yet in pronominal declensions the distinction for all the three numbers has been maintained, e. g. **se** 'he' : **sendui** 'they two'; **sene** 'they'.

Here it may be particularly noted that prevalence of **sa** stem in all the three forms of the nominative case is a pointer to the fact that there was a period in the history of evolution of the Sanskrit language, prior to its codification of Panini in 500, B. C. when this stem had a full inflection for all the forms of the third person pronoun, and there was no amalgamation of the forms of **tad** with the forms of **sa**, i. e. both were inflected independently for all the cases. But much before the emergence of Panini, perhaps owing to their wider use or higher frequency, the forms of **tad** got supremacy and replaced all the forms of **sa**, except the Nom. Sg. This phenomenon of development seems to have already taken place when the actual usage in the language were recorded for **Astadhyayi**. In this dialect, too, it seems to have lost its independent declension and the Nom. Sg. forms are the remnant of the earlier fuller declension of this stem.

In pronominal roots replacement of **as** : **asmad** (1st person) and of **sa** : **tad** (3rd person) by **ta** in singular forms of non-nominative cases is another faithful preservation of the OIA structure by this dialect, e. g. first person Nom. **hau** (sg) **audi** (du) **ase** (pl); Acc. -**mū**: **andui**: **ena**; Ag.-**mi**; **audi**: **ase**: 3rd person. Nom. **se** (sg.). **sendui** (du.), **sene** (pl.), Agentive - **tene:tendui:tene**, etc.

In verbal conjugation, though the distinction of number is, at present, attested in the singular and plural numbers only, yet the distinction of all the three persons is maintained in many cases. For instance, all the forms of the present tense of the verbal root **as** 'to be' are as follows:

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|              | Singular          | Dual              | Plural            |
|--------------|-------------------|-------------------|-------------------|
| 3rd person - | astas/as          | astes/asti        | astes/asti        |
| 2nd person - | as                | astesu            | astesu            |
| 1st person - | bhau <sup>s</sup> | bhau <sup>s</sup> | bhau <sup>s</sup> |

Here in the first person the root as- 'to be' is replaced by the root bhū-'to become', to exist. Similarly, in the future tense forms also the root as-is replaced by the root bhū- as we find in Sanskrit.

Another notable peculiarity about the verbal conjugation of this dialect is generalization of second person singular suffix-hi of the imperative mood in all vowel ending stems, as in nihi (sg.), nehe (pl.)ni 'to lead' to carry; pihi: pi- 'drink'. This is done apparently on the analogy of dehi 'give': de 'to give'.

**Linguistic change:s**

However, under the circumstances, both linguistic and social, in which the speakers of this dialect were placed, the super-structure of the language could not remain undisturbed and consequently a gap has been created between the forms of OIA and Chinali at various levels, i. e. in the absence of literary tradition among the speakers of this dialect, and social position given to them, it was hardly possible for them to preserve the purity of the language for many generations. On the other hand, they not only lost their contact with the speakers of the standard form of the Sanskrit language, but also were constantly exposed to the influence of non-Aryan languages which they had to communicate with their gyats (lords). In such an environment linguistic mixture and consequent changes were bound to occur. As a result of this, Chinali, in the long history of its survival, has developed certain linguistic phenomena which have led to structural changes in the original language.

A detailed analysis of these developed forms show that some of the dimensions of these developments seem to coincide with those of the tendencies attested in MIA dialects, but this fallacy disappears when we further analyse the phonetic environments under which these changes have occurred, e. g. words like hyū<sup>s</sup> : hemanta 'winter'; cinda:cinta 'anxiety'; cunju:cancu 'beak; sangura:samkirna 'narrow'; band:vant 'to distribute'; etc. indicate the Prakrit tendency of voicing an inter-vocalic unvoiced plosive, but here the phenomenon of voicing can better be attributed to nasality diffusing from the preceding nasal consonant, this being a common phenomenon of this dialect.



Besides this, some of the notable sound changes attested in vocables in this dialect are as follows: **krith:kr̥ṇa** 'black'; **ruttha:varistha** 'superior'; **makkar:markata** 'monkey'; **maduka:manduka** 'frog'; **authi:angusthika** 'a ring'; **haldur:haridra** 'turmeric'; **chetra:ksetra** 'field'; **bandu:vata** 'wind'; **beget:bhakta** 'cooked rice'; **puncha:puccha** 'tail'; **osit:ausadhi** 'medicine'; **sate:sardhem** 'with'; **hitro:hirto:hirdo:hrdaya** 'heart'; **bhau: vadhuti** 'bride'; **ghit:gith:gitam** 'song'; etc. Such changes, however, in the absence of proper training for correct pronunciation, were bound to occur and successive generations helped widening the gap between the original forms and their developed forms.

The same factors seem to have contributed to the loss of certain grammatical forms as well, for instance, in verbal conjugations forms of the dual and plural, or in certain cases forms of second and first persons have been amalgamated. Similarly, in nominal declension, there is a loss of distinctive suffixes in the dual forms, and the numeral **dui:dvi** has taken its place.

Though the dialect has undergone various types of phonological and morphological changes during the course of a long history of its development and isolation from the main stream of the parent language, yet it still bears an unmistakable stamp of the fact that in the past the mother tongue of these people was Sanskrit and it was a language of masses when their fore-fathers migrated to these mid-Himalayan regions of Lahaul. These speakers of Sanskrit language, since then, perhaps for many centuries could not have any contact with the people living on the other sides of the Passes, and as mentioned above, the language in the absence of proper methods of preservation of its purity of pronunciation deviated from and this difference went on increasing with the coming generations. The form of the language that we get today is a skeleton of the magnificent infra-structure of the OIA which was prevalent in the North-west India some two thousand years ago.

Its syntactic structure, too, is very close to that of the Sanskrit language. A few typical sentences from this language, along with their Sanskrit equivalents will make the point clear.

1. Chinli: Site bahira<sup>s</sup> ma gacha.  
Sanskrit: Site bahir ma gaccha.  
'Don't go out in the cold'
- 2, me sukul bathur me dehi:  
me suklam vastram me dehi,  
'give my white cloth to me';

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3. mū<sup>u</sup> prasēda na aīdis:  
mam prasveda na ayati.  
'I don't perspire'.
4. tēser ropēr ā<sup>u</sup>thi truti | gēi:  
tasya raupyasya angusthika trūṭitam gatavati.  
'his silver ring is broken'.
5. tramer bhand dudh amla bhondas (bhu+as):  
tamrasya bhande dugdham amlam bhavati (+asti):  
'milk turns sour in a copper pot'.
6. B<sup>u</sup>hiti haldur kenī chati ?:  
bhittau haridra ken kṣipta?  
'who applied turmeric on the wall'.
7. se bhara<sup>u</sup> beis:  
sah bharam vahati.  
'he carries the load'.
8. se agre nagari bastas:  
sah agra-nagaryam vasati.  
'he lives in the next village'.
9. hau<sup>u</sup> chetrari gachta (gasta) bhau<sup>u</sup>  
aham ksetre genta bhavami.  
'I have to go to the field'.



## Bound Roots in Meitei

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1. Meitei (Manipuri) is the language spoken by the predominant group of people of Manipur State (India) and it is also the official language of the State. This language is referred to by the native speakers as 'Meiteiron or Meitei Lon' and they call themselves Meitei or Meetei. The meaning of 'Lon or ron' is language. So Meiteiron means the language of the Meitei. Here I refer to Meitei in the sense of language,

2. There are three types of bound root (BR) in Meitei. They can be grouped into types as given below;

I. BR in kinship terms.

II. BR in inanimate words

III. BR which gives the meaning of action, motion, state, quality, colour etc.

The above three types of BRs are marked by different affixes. The first type of BR invariably occurs with pronominal prefixes i-, nə-, mə-' which indicate first, second and third person respectively. The second type of BR occurs with prefix 'mə-' meaning 'its' and third type occurs either with a prefix or a suffix. The affixes are the followings:

### I. Prefixes:

- |                   |           |
|-------------------|-----------|
| i) mə-            | } nominal |
| ii) kh u ∞ k hut- |           |

### II Suffixes:

- |                                       |               |
|---------------------------------------|---------------|
| a) - pə ∞ bə                          | (nominal)     |
| b) - nə                               | (adverbial)   |
| c) - i ∞ y ∞ wi ∞ mi ∞ Ni ∞ pi ∞ li ∞ | (present)     |
| d) - i ∞ mi ∞ Ni ∞ pi ∞ ri ∞ li       | (progressive) |
| e) - e ∞ mə ∞ Ne ∞ pe ∞ re ∞ le       | (perfect)     |

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Some examples of the first type of BR with prefix  
(only the first person pronominal prefix is used here)

|      |                               |      |                               |
|------|-------------------------------|------|-------------------------------|
| ipa  | 'father'                      | ice  | 'elder sister'                |
| ima  | 'mother'                      | icəl | 'younger sister'              |
| iləl | 'father's elder<br>brother'   | ibay | 'elder sister's<br>husband'   |
| iton | 'father's younger<br>brother' | isen | 'younger sister's<br>husband' |
| ipu  | 'grandfather'                 | ica  | 'child'                       |
| iben | 'grandmother'                 | isu  | 'grandchild'                  |
| ibok |                               |      |                               |
| iku  | 'father-in law'               | ibuN | 'female's elder brother'      |
| in m | 'mother-in law'               | ipwa | 'female's younger brother'    |

Some examples of the second type of BR with prefix 'mə-

|       |                      |        |                           |
|-------|----------------------|--------|---------------------------|
| məməy | 'tail of animal, etc | məpum  | 'whole'                   |
| mətu  | 'fur'                | məcet  | 'piece'                   |
| məsoN | 'mane'               | məpəN  | 'solid'                   |
| mətha | 'breast'             | məhi   | 'liquid'                  |
| məun  | 'skin'               | məru   | 'bone'                    |
| məci  | 'horn of animal'     | məna   | 'leave of tree'           |
| mətoN | 'flesh'              | məku   | 'bark of tree'            |
| məyuN | 'length'             | mək ul | 'hole'                    |
| mərak | 'breadth'            | məkhok | 'handle of some<br>thing' |
| mərum | 'egg'                | məcak  | 'material'                |

Some examples of the third type of BR without affixes

|                  |         |     |            |
|------------------|---------|-----|------------|
| a)               |         | b)  |            |
| p <sub>h</sub> ə | 'good'  | i   | 'write'    |
| mu               | 'black' | pa  | 'read'     |
| ken              | 'hard'  | cət | 'go, walk' |
| saw              | 'anger' | ləw | 'take'     |
| ki               | 'fear'  | pi  | 'give'     |
| waN              | 'tell'  | ləN | 'throw'    |
| nem              | 'low'   | ka  | 'ascend'   |
| ʒaN              | 'long'  | kum | 'descend'  |



*Bound Roots in Meitei*

|      |          |     |          |
|------|----------|-----|----------|
| ten  | 'short'  | nok | 'laugh'  |
| Nəw  | 'white'  | kəp | 'weep'   |
| NaN  | 'red'    | tum | 'sleep'  |
| k a  | 'bitter' | pay | 'hold'   |
| sa   | 'hot'    | pay | 'to fly' |
| iN   | 'cold'   | law | 'shout'  |
| thum | 'sweet'  | kəw | 'call'   |

3. The third type of BR is the most important one because it can take a number of affixes and the group (b) on the right side above has been treated as 'Verbal roots' by well known grammarians like Kalachand (1964), Dwijamani, (1969), Narayan (1970), etc. and by those who write grammar of Meitei. Madhubala (1979) in her thesis on 'Manipuri Grammar' also treated it as 'verbal root'. The BRs both (a) and (b) above can take all the affixes and can be used in the same grammatical status; none of the writers treat (a) as 'verbal root'. It appears that the term so-called verbal root-has been used freely by imitation from the grammar of other language (Sanskrit ?) This leads to the division of groups (a) and (b) which is not correct. Let us take up two examples of sa 'hot' and ca 'eat' using with all the affixes.

**With prefixes :**

|  |                     |                              |                  |
|--|---------------------|------------------------------|------------------|
| (nominal) məsa/<br>k <sup>h</sup> usa) | (state of being hot | məca/<br>k <sup>h</sup> utca | 'mode of eating' |
|--|---------------------|------------------------------|------------------|

**With suffixes:**

|               |      |                    |      |                 |
|---------------|------|--------------------|------|-----------------|
| (nominal)     | sabə | state of being hot | cabə | 'act of eating' |
| (adverb)      | sənə | 'hotly (?)         | cənə | 'by eating (?)  |
| (present)     | say  | 'hot'              | cay  | 'eat'           |
| (progressive) | sari | 'has been hot (?)' | cari | 'is eating'     |
| (prefect)     | sare | 'has hot (?)'      | care | 'has eaten'     |

Since the BRs themselves have no grammatical status, unless they are used with an affix, it is unfair to treat certain BRs as verbal and certain others as non-verbal; instead I suggest BR, as it is and assign grammatical name or status according to the type of affixal association it has. The term BR is therefore very important for Meitei grammar though it has been ignored so far by other grammarians or linguists.

References

- Amusana, N - Anawba Meiteirongi Vyakaran, Second edition, 1978  
 Bhagya Singh, Y - Kaibaron, 1971  
 ChandraSing, M - Longi Pathap, First part, 1954  
 Dwijamani, D. S. - Manipuri Vyakaran, 1969  
 Kalachand, S. - Manipuri Vyakaran Kaumudi, 1964  
 Khelchandra, N - Manipuri to Manipuri & English Dictionary, First edition, 1964  
 Madhubala, P - Manipuri Grammar, Unpublished Ph. D. thesis, Poona University, 1979  
 Musuksana, R. K - Meiteirongi Bound Rut, Unpublished M. A. disertation, 1980  
 Nandala, S - Meiteilon 1965  
 Narayan, S. L. - Manipuri-Hindi Shabdakosh, 1963  
 Narayan, S - Meiteilol Vyakaran, Part IV, 1970  
 Ningomba, M. S. - Meitieronda tense (Tense in Meiteiron), Sahitya Vol 11 No. 44, 1980 published by Manipuri Sahitya Parishad, Imphal  
 Sharma, D. D - The Anglo-Manipuri Dictionary, 1960  
 Tombasingh, N - Meitei Lonmit, 1969

List of Bound Roots

This is not an exhaustive list and has been arranged in the order of consonants and vowels given below.

Consonants:

p t c k p<sup>h</sup> t<sup>h</sup> k<sup>h</sup> s h m n N l w y

Vowels :

i u o

|   |     |  |                     |              |
|---|-----|--|---------------------|--------------|
| p | pək | 'to stick'                                   | pay                 | 'to fly'     |
|   | pəN | 'idiot'                                      | pak                 | 'broad'      |
|   | pət | 'to fade'                                    | pak <sup>h</sup> et | 'nervous'    |
|   | pən | 'to mention'                                 | paN                 | 'to help'    |
|   | pən | 'to delay'                                   | paN                 | 'to perform' |
|   | pəm | 'to carry or to take<br>someone by the hand' | pat                 | 'ulcer'      |
|   | pay | 'to take/to hold'                            | pan                 | 'to hit'     |
|   |     |  | pa                  | 'to read'    |



*Bound Roots in Meitei*

|     |                             |     |                            |
|-----|-----------------------------|-----|----------------------------|
| pa  | 'thin'                      | tiN | 'to soak'                  |
| pam | 'to like'                   | tu  | 'to fall down'             |
| pan | 'to live'                   | tum | 'to destroy'               |
| pik | 'small'                     | tuN | 'to save'                  |
| pi  | 'to give'                   | tup | 'to cut or to nibble'      |
| pun | 'to tie'                    | tum | 'to sleep'                 |
| pu  | 'to carry'                  | tek | 'brittle'                  |
| pum | 'rotten'                    | teN | 'to clear'                 |
| pun | 'to entangle'               | ten | 'short'                    |
| pu  | 'to borrow'                 | te  | 'tame'                     |
| pek | 'to scoop'                  | tem | 'to level'                 |
| peN | 'to weed'                   | tøy | 'to smear'                 |
| pen | 'to satisfy'                | c   |                            |
| pe  | 'about to weep'             | cəp | 'to press'                 |
| pəy | 'to slant'                  | cəm | 'to get fire'              |
| pok | 'born'                      | cay | 'to scatter'               |
| pɔ  | 'proud'                     | caw | 'big'                      |
| pop | 'to be soft'                | cak | 'to burn'                  |
| po  | 'to lose game in the match' | can | 'to favour'                |
| pom | 'boil, swelling'            | ca  | 'to eat'                   |
| pəm | 'bud'                       | ca  | to show face'              |
| tək | 'to grind'                  | cam | 'to wash'                  |
| təN | 'to taste'                  | cam | 'to have spot'             |
| təN | car'                        | cik | 'pain, to bite'            |
| tət | 'to break'                  | ciN | 'to draw'                  |
| tən | 'idle'                      | ci  | 'to drain'                 |
| təp | 'to add'                    | cup | 'to kiss'                  |
| təm | 'to learn'                  | cu  | 'to rain'                  |
| tay | 'to stitch'                 | cum | 'to be correct, to filter' |
| taw | 'to float'                  | cu  | 'to put to fire'           |
| tak | 'to teach'                  | ceN | 'to constrict'             |
| taN | 'to depend'                 | cet | 'stead-fast'               |
| ta  | 'to fall from above'        | cen | 'to run'                   |
| ta  | 'to hear'                   | cen | 'to order/to carry away'   |
| taN | 'to drive out'              | cep | 'to sleep'                 |
| tik | 'to purchase'               | cey | 'to rebuke'                |
| tiN |                             | cok | 'to be tired'              |
| tin | 'to add'                    | coN | 'to jump'                  |

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k

|     |                       |
|-----|-----------------------|
| cot | 'to be wet'           |
| con | 'to be full of'       |
| cop | 'to get insult'       |
| kək | 'to cut'              |
| keN | 'to dry'              |
| kət | 'offer'               |
| kən | 'heard'               |
| kən | 'to save'             |
| kəp | 'to weep'             |
| kem | 'to decay'            |
| kəm | 'to cut with a sword' |
| kay | 'to allot'            |
| kaw | 'to forget'           |
| kaw | 'to kick'             |
| kak | 'to open'             |
| ka  | 'to climb'            |
| kap | 'to shoot'            |
| ka  | 'to be burnt'         |
| kam | 'to swell or to hiss' |
| kay | 'to break'            |
| ki  | 'fear'                |
| kuy | 'to be long'          |
| kut | 'low'                 |
| kuN | 'dense'               |
| kun | 'to sit down'         |
| kup | 'to cover'            |
| ku  | 'rough'               |
| ke  | 'affectation'         |
| ken | 'to fall'             |
| koy | 'to look after'       |
| kok | 'to clear'            |
| kot | 'to lift up'          |
| kon | 'late'                |
| kon | 'bent'                |
| kop | 'marked'              |
| koy | 'to walk'             |
| kem | 'to perish'           |

|      |                        |
|------|------------------------|
| kəw  | 'to call'              |
| kəw  | 'short'                |
| ph   |                        |
| phək | 'to remove'            |
| phə  | 'good'                 |
| peŋN | 'to be had/to receive' |
| phən | 'to spread'            |
| phəm | 'to sit'               |
| phay | 'to twine'             |
| phaw | 'to press through'     |
| phak | 'to open'              |
| pha  | 'to arrest'            |
| phaN | 'to diverse'           |
| phat | 'to open'              |
| phan | 'to clear'             |
| phan | 'to drink'             |
| phiN | 'light temper'         |
| phuk | 'to pull up'           |
| phun | 'to fill with earth'   |
| phum | 'to bury'              |
| phut | 'to boil'              |
| phu  | 'to beat'              |
| pheN | 'to scrub'             |
| phəy | 'to put cross wise'    |
| phoN | 'to publsih'           |
| phot | 'to stitch'            |
| phoy | 'to uproot'            |
| phəw | 'to make dry'          |
| th   |                        |
| thən | 'full'                 |
| thak | 'to put in/to rear'    |
| tha  | 'to send'              |
| thaN | 'to carry'             |
| tha  | 'to plant'             |
| than | 'to light'             |
| thap | 'to far'               |
| thi  | 'to search'            |
| thiN | 'to shut'              |



*Bound Roots in Meitei*

th

kh

|      |   |
|------|---|
| thit | 'to soak' into a liquid substance'            |
| thin | 'to pierce'                                   |
| thin | 'to be late'                                  |
| thi  | 'to count/ugly'                               |
| truk | 'to trill'                                    |
| thuN | 'to reach'                                    |
| thup | 'to fold'                                     |
| th u | 'ta catch' in a trap'                         |
| thum | 'sweet'                                       |
| thum | 'to overflow'                                 |
| thek | 'to bend'                                     |
| theN | 'to clash'                                    |
| theN | 'to be late'                                  |
| thet | 'to insert'                                   |
| then | 'shallow'                                     |
| then | 'to display'                                  |
| them | 'to entice'                                   |
| thəy | 'to keep someone at another's house secretly' |
| thoy | 'to be proud'                                 |
| thoy | 'to win'                                      |
| thok | 'to come out'                                 |
| thot | 'tender'                                      |
| thəw | 'to drive'                                    |

|      |                           |
|------|---------------------------|
| khaN | 'to offer food and drink' |
| kha  | 'to make wall'            |
| kham | 'to intervene'            |
| khay | 'to cut lengthwise'       |
| khik | 'to sprinkle'             |
| khin | 'to place'                |
| khiN | 'to ring'                 |
| khi  | 'stified'                 |
| khuy | 'to fade'                 |
| khum | 'to hide/to cover'        |
| khun | 'to pick up something'    |
| khom | 'to collect'              |
| khu  | 'narrow'                  |
| khet | to erase'                 |
| khe  | 'to amuse'                |
| khəy | 'to winnow'               |
| khoy | 'to plough'               |
| khok | 'to peel'                 |
| khoN | 'to sound'                |
| khot | 'to scratch'              |
| khop | 'to acquire'              |

s

kh

|      |                                   |
|------|-----------------------------------|
| khək | 'to stop'                         |
| khəN | 'to start up in fear'             |
| khən | 'to know'                         |
| khət | 'to parry'                        |
| khən | 'to screen'                       |
| khən | 'to ponder/seelet/<br>'to winnow' |
| khəm | 'to stop'                         |
| khay | 'to subtract'                     |
| khay | 'to part with'                    |
| khaw | 'to mow'                          |

|     |  |
|-----|--|
| sək | 'to sing'  |
| sən | 'to dye'   |
| sən | to put a thing from a 'certain place to another' |
| sən | 'green'  |
| sət | 'to take out'                                    |
| sən | 'to spread'                                      |
| səm | 'to fasten'                                      |
| səm | 'to go a short-cut way'                          |
| saw | 'angry'  |
| saN | 'long'   |
| sat | 'to bloom'                                       |
| san | 'to lend'  |
| san | to depart'                                       |

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|          |                                       |          |                        |
|----------|---------------------------------------|----------|------------------------|
| <b>s</b> |                                       | <b>h</b> |                        |
| sa       | 'hot'                                 | huk      | to take up for eating' |
| say      | 'to chew'                             | hut      | 'to bore'              |
| siN      | 'to repay'                            | hun      | 'to throw'             |
| sit      | 'to blow'                             | hup      | 'whole'                |
| sin      | 'to change'                           | hu       | 'to steal'             |
| si       | 'to die'                              | hek      | 'to pluck'             |
| sinN     | 'to contract'                         | hen      | 'too much'             |
| sin      | 'sour'                                | høy      | 'to be skilful'        |
| sum      | 'to squeeze'                          | hoy      | 'to drive'             |
| suk      | 'dense'                               | hoN      | 'to change'            |
| sup      | 'to shorten'                          | haN      | 'abundant'             |
| su       | 'to wash cloth'                       | hot      | 'to scratch'           |
| seN      | 'clear'                               | hon      | 'to sail'              |
| set      | 'to wear'                             | hop      | 'spongy'               |
| sem      | 'to form'                             | ho       | 'to leak'              |
| soy      | 'to cut'                              | hom      | 'juicy'                |
| sok      | 'to touch'                            | həw      | 'to begin'             |
| soN      | 'to be dense'                         | həw      | 'loudly'               |
| sot      | 'to purchase on credit'               | <b>m</b> |                        |
| son      | 'to be weak'                          | mək      | 'to contaminate'       |
| son      | 'to utter the price by the<br>setter' | məN      | 'to dream'             |
| son      | 'to utter'                            | mət      | 'to confiscate'        |
| soy      | 'wrong'                               | mən      | 'to become old'        |
| <b>h</b> |                                       | maN      | 'lost'                 |
| haN      | 'to open'                             | maN      | 'imure'                |
| haN      | 'to be empty'                         | man      | 'to be alike'          |
| hat      | to kill'                              | ma       | 'to grope'             |
| han      | to keep in'                           | mun      | 'to take by force'     |
| hap      | 'to add'                              | mu       | 'black'                |
| ha       | 'to hawk'                             | mu       | 'to put in the fire'   |
| ham      | 'to wash'                             | met      | 'to crush'             |
| ham      | 'to be empty'                         | mon      | 'soft'                 |
| hay      | 'to say'                              | met      | 'dirty'                |
| hiN      | 'to be alive'                         | <b>n</b> |                        |
| hip      | 'to sleep'                            | nəm      | 'to squeeze'           |
| hik      | 'to loose'                            | nəm      | 'to smell'             |
|          |                                       | man      | 'to rub'               |



Bound Roots in Meitei

|     |                             |     |  |
|-----|-----------------------------|-----|--|
| n   |                             | l   |  |
| nan | 'clear/slippery'            | lem | 'remainder'                                |
| na  | 'to suffer from a disease'  | ləy | 'to turn'                                  |
| nik | 'to shake'                  | loy | 'to conclude'                              |
| nin | 'to make noise'             | loN | 'to diverse'                               |
| ni  | 'to beg'                    | lot | 'to hide'                                  |
| niN | 'to hope'                   | lon | 'to embroider'                             |
| nin | 'to reclaim'                | lo  | 'to be ripe'                               |
| nok | 'to laugh'                  | ləw | 'to take possession of'                    |
| not | 'to add more'               | w   |  |
| non | 'to bend'                   | way | 'to gore'                                  |
| nom | 'to work'                   | wat | 'to run short'                             |
| noy | 'fat'                       | wan | 'to purchase'                              |
| nəw | 'fresh/new'                 | wa  | 'to suffer'                                |
| Nay | 'to wait'                   | way | 'to hire'                                  |
| Naw | 'mad'                       | y   |  |
| Na  | 'to loan'                   | yay | 'to tease'                                 |
| Nam | 'to slant'                  | yaw | 'to participate'                           |
| Nəw | 'to fry'                    | yak | 'saltish'                                  |
|     |                             | yat | 'to cut or to slit'                        |
| lək | 'to catch'                  | yan | 'to cut'                                   |
| lət | 'to pluck'                  | ya  | 'to approve'                               |
| law | 'to shout'                  | yam | 'to be many'                               |
| lak | 'to rob'                    | yu  | 'to leak'                                  |
| lat | 'to worship'                | yek | 'to sketch or to draw'                     |
| lan | 'to cross'                  | yet | 'to argue'                                 |
| lam | 'hungry'                    | yen | 'to divide'                                |
| lay | 'easy'                      | yep | 'to add'                                   |
| lit | 'to put on a shirt or coat' | yok | 'to bring up'                              |
| lik | 'stingy'                    | yot | 'to swallow'                               |
| li  | 'to season'                 | yon | 'to sell/to vend'                          |
| lup | 'to immerse'                | yom | 'to wrap'                                  |
| lu  | 'to bathe'                  | yəw | 'to arrive/to reach'                       |
| lum | 'to lay in wait'            | i   |  |
| lek | 'to halt for the night'     | ik  | 'to put to fire'                           |
| le  | 'to cloy'                   | it  | 'to hew, to cut to required shape/to mend' |
| len | 'to while away time'        | in  | 'to follow/to feed'                        |
| lep | 'to stand'                  |     |  |

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|    |                            |    |                      |
|----|----------------------------|----|----------------------|
| iN | 'chilly/cold'              | uy | 'hard'               |
| in | 'to push/to shove'         | o  |                      |
| uy | 'to doze, to feel sleepy'  | oy | 'to be, to become'   |
| un | 'to give as dowry'         | ck | 'to greet'           |
| up | 'to lie on the face'       | ot | 'to torture/to stir' |
| u  | 'to see'                   | on | 'to weigh'           |
| um | 'to keep inside the mouth' | o  | 'to vomit'           |
|    |                            | om | 'to make warm'       |



## Syllable Structure in Newari

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An important methodological principle involved in the phonological description of Newari is whether the syllable should take priority over the morpheme or vice-versa. Earlier works on Newari phonology such as that of Modi (1967) and Hale and Hale (1969) have failed to make explicit reference to the syllable. The basic view that we [shall adopt here is that some languages cannot] be described adequately without primary reference to its syllable structure. In line with this approach we propose to examine the intrinsic structure of Newari syllable together with the constraints on that structure, and formulate a system of phonological rules that are built on phonological motivations rather than on morphological considerations. We also attempt, to arrive at a principled conclusion as to the relationship between morpheme - structure rules and phonological syllabification rules in the language.

### 1. Introduction

In a brief paper on the treatment of Glides (w, y) in Newari Phonology (Kansakar, 1980:9-16), we had characterized the intrinsic structure of Newari syllables and the distribution of glides within its constituent structure. The paper had also served to specify the sequential constraints that determine possible syllable shapes in the language. In the present paper we wish to examine the segments or features that belong to the syllable and the phonological rules that derive the surface structure of Newari syllables. For the purpose of the present analysis, we assume that the syllable takes priority over the morpheme as the descriptive unit in Newari phonology and not vice-versa. The current view on the subject implicitly recognizes syllable structure and morpheme structure as two distinct but inter-related modes of description, and while some syllable boundaries coincide with the morpheme boundaries, it is by no means the case that morpheme boundaries coincide with syllable boundaries in every instance in Newari. The syllable in this sense must be treated as an independent phonological unit, and its boundaries specified by its own rules rather than by rules of other units. Our motivation for taking the syllable as the basic starting point in Newari phonology will be made explicit, as against the morpho-phonemic approach such as that of Hale and Hale (1969) which we feel obscures certain crucial facts of its phonology (see Kansakar, 1980: 9).

## 2. Structure of Newari syllables

Prior to our analysis of the major phonological rules that apply to syllable structure, it might be in order to provide a brief sketch of the segment structure of Newari syllables and the features which may belong to the syllable as a whole. ✓

**2. 1. Basic syllable patterns.** Matisoff (1973:1) observes that "in Lahu, as in all languages of the Sino-Tibetan family, the most fruitful point of departure for phonological analysis is the syllable". The present analysis tends to support Matisoff's views and takes the syllable as the primary unit in phonology. The most frequent syllable type in running

text has the form  $C(C)V \left\{ \begin{array}{l} +V \\ +\text{long} \end{array} \right\}$  where the initial C- or CC is followed by V, VV

or a [+long] vowel, giving us an open syllable. In Newari a CC clustering pattern is very restricted, and the glides /w/ and /y/ are the only segments that can cluster with the initial C. The glide, if present, is followed by an obligatory vowel nucleus and optionally a final C. The most common syllable patterns in non-loan words are thus CV, CVV, or CCV, and minor patterns such as VC or V. The closed syllable forms such as CVC and CCVC frequently occur in spoken Newari, and these can be interpreted in at least three ways:

- (1) as loan patterns, e. g. /biikh/ 'poison', /mec/ 'chair', /khwood/ 'cage', /raches/ 'giant' etc;
- (2) the result of careful and rapid speech variations, e. g. /bhəu-məca/ - [bhəm.tsa] 'bride', /cidhi-mā/ - [tsirh. mā] 'step-mother' etc; and
- (3) in morphological case forms, as in /lakā a/ 'shoes' - [lak.mĕ:] 'in the shoes' /pasə/ 'shop' - [pəs. lə:] 'by/from the shop' etc.

The segmentation problems involved in the representation of morphological and syllable structure of Newari nouns will be discussed and illustrated in (3.2) below on syllable structure rules.

**2. 2 Characteristics of Newari syllables.** The occurrence of initial consonants and final consonants around the nucleus relate directly to syllable structure, and the features attributable to the syllable such as (a) voice quality, (b) nasality, and (c) syllable length.



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(a) Voice quality involves the contrast between clear or breathy syllable and this is determined in all cases by the initial C and not by a breathy syllable-final C which is extremely rare in the language. This seems to indicate that syllable-initial position is relatively stronger than syllable-final position, i. e. the contrast of breathy vs clear is limited to the initial C although it is true that clear syllables are far more numerous than breathy ones, and breathiness tends to be lost in rapid speech. This fact can be interpreted as a weakness of the breathy consonants as compared to the aspirated or non-aspirated consonants. In this respect it is the consonants and not the position they can occupy that are weak in this particular case.

(b) The nasality feature has the effect of distinguishing oral and nasal syllables. The contrast between oral and nasal syllables however is determined entirely by the syllabic nucleus (vowel) rather than the nasal consonant. Historically, however, it is quite probable that nasal vowels came to contrast with oral vowels as a result of the loss of word-final syllables with a nasal C. In the following examples we may note the clear contrasts of oral and nasal in syllables with nasal consonants:

|            |         |             |
|------------|---------|-------------|
| /m̥ ḁ ḁ/ | [m̥a:]  | -mother     |
| /m̥ ḁ ḁ/ | [ma:]   | -garland    |
| /n̥ ḁ ḁ/ | [n̥a:]  | -name       |
| /n̥ ḁ ḁ/ | [na:]   | -sewage     |
| /m̥e/      | [m̥e]   | -song       |
| /me/       | [me]    | -tongue     |
| /m̥ə̃/     | [m̥ə̃:] | -is swollen |
| /m̥ə̃/     | [m̥ə̃:] | -glue       |

There are also isolated examples of nasal vowels in closed syllables with nasal or non-nasal final C, e- g. [heN. gwa] 'charcoal', [bhan. ta] 'egg plant', [gəm. la] 'flower pot' etc, but there is no evidence of oral vs nasal contrasts in these environments. Although oral syllables far outnumber nasal syllables, many noun and verb case endings in Newari are marked with nasal syllables and this tends to raise the relative frequency of nasal syllables in a particular text.

(c) Syllable length is to be distinguished from vowel length, and although a syllable may be long due to the length of a vowel nucleus, a syllable may also be long for other reasons. For example, stress and breathiness tend to lengthen a syllable phonetically, while nasalization tends to shorten a syllable, all else being equal. Thus the vowel [u:] in [sa. 'pu:] 'cowherd' and

[sə. 'phu:] 'book' are both long, but the presence of [ph] induces extra-length to the final vowel in the second word. Similarly, a contrastively long nasal vowel as in [kə:<sup>̃</sup>] 'thorn' will tend to be phonetically shorter than a corresponding oral vowel [kə:] 'sediment of liquor' of the same vowel quality. It is also possible that vowel quality itself affects length, i. e. [a] (low front) is likely to be phonetically longer than [i] or [u], given the same contrastive phonological length. So the parts of the syllable contributing to the length of the whole is of considerable importance in the analysis of syllabic nuclei.

### 3. Phonological Rules and Syllable Structure

The primary reason for introducing phonological rules (P-rules) is to describe alternations in the shape of syllables and morphemes in various environments. Such alternations implicitly involve P-rules which can be stated in a descriptive form or in formal notation. Our choice of rules and the technique of representing these rules will depend largely on the kinds of processes which take place in Newari phonology. As indicated above, one important methodological principle involved in the formulation of rules is whether the syllable should take priority over the morpheme or vice-versa. If the syllable rather than the morpheme can account for the major phonotactic possibilities in the language, then it can claim true generalizations about how the system operates.

But it will be necessary in the first place to say how syllable relates to morpheme within a grammar. In a grammar that takes semantics or syntax to be the generative base, the input to the phonological component is likely to be morpheme-oriented. In such a grammar the rules map a morphemic representation onto a phonological (syllabic) representation. A syllable is related more to the word, while a morpheme can be seen in most cases as a part of the syllable, sometimes coinciding with and in other environments forming only a part of it. In the examples /bu<sup>̃</sup>/ 'field' and /bu - i<sup>̃</sup> i<sup>̃</sup>/ [bwi:<sup>̃</sup>] 'in the field', the locative forms a part of the syllable, and this may be true for most locatives in the language. On the other hand, when stem-final syllables (which were lost as a historical process) re-appear in locative formations, e. g. /bhoə/ 'feast' and /bho. jae/ 'at the feast', the syllable /ja/ should probably belong to the stem rather than to the locative suffix, i. e. 'at the feast' is phonologically /bho.jae/ (where the dot stands for syllable break), but it is morphologically /bhoja-e/ (where the hyphen here stands for the morpheme break). The syllable within this framework can be an important construct in the output of the phonology, but will be absent from the input. A part of the interpretive task of the phonology, then is to predict syllable breaks, given the segmental and



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morphological information.

In this section we propose to consider three types of rules: (a) Feature changing rules, including assimilation; (b) Syllable structure rules, where we consider various alternations in the composition of syllable structure, and (c) Syllable boundary insertion rules which some phonologists such as Fudge (1969) and Hooper (1972) regard as basic to an adequate description of the syllable structure.

3. 1. Feature changing rules. In Newari, as in many other languages, the features of a vowel may be superimposed on a consonant, i. e. a consonant can take on secondary modifications from the following vowel; Such processes commonly involve palatalization and labialization which in Newari can be illustrated as follows:

- |     |           |                          |            |
|-----|-----------|--------------------------|------------|
| (1) | /den-e/   | [ <sup>ˈ</sup> dje. ne]  | -to sleep  |
|     | /nen-e/   | [ <sup>ˈ</sup> nje. ne]  | -to ask    |
|     | /ge-ye/   | [ <sup>ˈ</sup> gje. je]  | -to barter |
|     | /nhil-e/  | [ <sup>ˈ</sup> nhji. le] | -to laugh  |
|     | /bæə-nhi/ | [ <sup>ˈ</sup> bæ:.nhi]  | -evening   |

Although we would expect an initial C to be palatalized before /i. e./, notice that the examples in (1) are not palatalized in the second syllable. This is an indication that the rule applies only in the strong or stressed syllables and not in unstressed positions. The assimilatory fact in (1) can be expressed in the following rule:

$$(2) \quad [+cons] \xrightarrow{V} \left[ \begin{array}{l} +high \\ -back \end{array} \right] / \text{---} \left[ \begin{array}{l} -low \\ -back \end{array} \right] \quad (PR)$$

This rule however is subject to the restriction that it only applies to those syllables which are strong and prominently stressed.

While consonants are palatalized before front vowels, they are labialized before rounded ones in syllable-final positions:

- |     |          |             |                      |
|-----|----------|-------------|----------------------|
| (3) | /chuii/  | [tshwu. i:] | -grandchild          |
|     | /kun-e/  | [kwu. ne]   | -to imprison         |
|     | /con-e/  | [tswu. ne]  | -to stay             |
|     | /juu-gu/ | [dzwu. gu]  | -that which happened |
|     | /la-go/  | [la. gwo]   | -meat ball           |
|     | /mhoo/   | [mhwo. oh]  | -half-rupee coin     |

Notice that while the word for 'meat ball' /la-go/ has labialization in the second syllable, this is not the case with /juu-gu/. The reason for this is that both /la/ 'meat' and /go/ 'ball' are morphemes in their own right, and hence fall within the phonology of compounding rather than with the phonology of single morphemes. The second syllable of a disyllabic morpheme is generally weak, but the compound morphemes are not necessarily weak in this way.

The labialization process in (3) can be represented in the form of the following rule:

$$(4) [+cons] \rightarrow \left[ \begin{array}{l} +high \\ +round \end{array} \right] / \text{---} \text{ V } \left[ \begin{array}{l} \text{---} \\ +round \end{array} \right] \quad (\text{LR})$$

In Newari most syllable-final nasals before consonants are homorganic, i.e. the nasal and the following consonant have the same place of articulation. This generalization however is true only within a morpheme, and with the exception of causative formations involving -kala as in /dhun-kala/ 'has completed', the assimilation of the nasal to the adjacent C does not apply across morpheme or word boundaries.

|              |           |                 |
|--------------|-----------|-----------------|
| (5) /khəmpa/ | [khəm.pa] | -thigh          |
| /bhanta/     | [bhan.ta] | -egg plant      |
| /səNga/      | [səN.ga]  | -woolen blanket |

The nasals in these examples do not alternate and there is no change in their features. Notice that the same rule is required for cases like the causative cited above, where the assimilation occurs across morpheme boundaries. Since the nasals are predictable in the above cases, it is a lexical redundancy rule and not a P-rule. This gives us a situation vaguely analogous to that used by Chomsky and Halle (1968) to argue against phonemic representations of Russian, which forced the double statement of a rule, once as a rule of phonetic variation and second as a rule of morphophonemic alternation. But the examples in (5) do not imply assimilation. If the rule applies between morphemes, that is, across morpheme boundaries, then we could speak of assimilation with full justification, as in /dhun-kala/ mentioned above. These can thus be seen simply as constraints upon sequences of segment types, and could be "listed in the lexicon with their nasal consonants unspecified for point of articulation features" (Hooper, 1976:182). This allows us to formulate a following type of rule which applies to the forms in (5):

$$(6) [+nasal] \rightarrow \left[ \begin{array}{l} \text{< anterior} \\ \text{B coronal} \end{array} \right] / \text{---} \text{ C } \left[ \begin{array}{l} \text{< ant} \\ \text{< cor} \end{array} \right]$$

⋮



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Notice that a syllable boundary is not really needed here, since nasals plus consonant sequence occurs only across syllable boundaries. But if Rule (6) applies across morpheme or word boundary, the syllable boundary will be replaced by boundaries of other units. A rule with a morpheme boundary would state that it is the morpheme-final nasal that assimilates to the following morpheme-initial C, and not the other way round.

**3.2. Syllable Structure Rules.** Syllable structure rules have to do with the distribution of consonants and vowels within the word. Such rules delete or insert segments and account for various alternations in the composition of syllable structure. In Newari, we shall consider CV or CGV syllable structure to be the basic pattern and any alternations which produce more complex structures will be described in terms of specific P-rules.

As mentioned in (2.1) above, the preferred syllable patterns are CV, CCV or CVV but there also seems to be consistent alternation between CV and CVC patterns which correspond to careful and rapid speech variation. The vowel in an unstressed position is subject to deletion, which besides deleting a syllable boundary has the effect of converting an open syllable into a closed syllable. The resulting syllable boundary may or may not coincide with the morpheme boundary, as can be seen in the two sets of examples given below:

(7a) Alternation within a morpheme

|            |            |                 |
|------------|------------|-----------------|
| /timila/   | [tim.la]   | -moonlight      |
| /səcika/   | [səts.ka]  | -ribbon         |
| /nəkhətya/ | [nəkh.tja] | -festival feast |
| /gəbəlæ/   | [gəb.lɛ:]  | -when ?         |
| /dhukuti/  | [dhuk.ti]  | -store-room     |

In these examples the underlying /CV.CV.CV/ form has the normal phoretic realization of [CVC.CV], i. e. a reduction from the 'clarity norm' to a 'frequency norm' (Hockett, 1955:220). Hooper (1976:112) also observes that "the careful forms contain more information than the casual forms. These facts, which hold for all languages, suggest that the most careful style of speech should be taken as the basis for the phonological shape of underlying forms, and the more casual forms derived from this by variable rules". This evidence allows us to posit a vowel /i/, /a/, or /u/ in the second syllable of the word in its phonological representation.

(7b) Alternation across a morpheme boundary.

Schane (1974) calls this "a syllable restructuring rule", and the steps for deriving the individual forms would be as follows:

|                |       |              |       |              |                   |
|----------------|-------|--------------|-------|--------------|-------------------|
| /dugu-ca/      | ----> | du.gu.ca     | ----> | [dug.tsa]    | 'a small goat'    |
| /məca-tə/      | ----> | mə.ca.tə     | ----> | [mes.tə]     | 'children'        |
| /chə-phuti/    | ----> | chə.phu.ti   | ----> | [tshəp.ti]   | 'one drop'        |
| /ni-nhu-nhyəə/ | ----> | ni.nhu.nhyəə | ----> | [njin.nhjo:] | 'two days before' |
| /so-məna/      | ----> | so.mə.na     | ----> | [som. na]    | 'three manas'     |

The vowel deletion process in (7b) can thus be stated in terms of the following general rule:

$$(8) \quad V \rightarrow \emptyset / \# \text{CVC} \text{ --- } \left\{ \begin{array}{c} \$ \\ + \end{array} \right\} \text{CV} \#$$

where '\$' stands for syllable break, and '+' stands for morpheme break.

This rule states that a vowel in the second syllable of a tri-syllabic word is deleted when followed by another syllable or morpheme of a CV type. Notice that morpheme boundaries may not always be relevant to this rule, but they are relevant in the case of compound forms, as is evident in (7b). The vowel deletion rule (8) shows that syllable structure is modified whenever such a rule applies to individual phonetic forms.

Below we examine two V epenthesis rules that apply only to loan words, and try to indicate how such insertions are related to the constraints on syllable structure in the language. Suppose we have epenthesis rules of the following type in Newari:

$$(9a) \quad \emptyset \text{ ---> } \begin{array}{c} V \\ \left\{ \begin{array}{l} +\text{high} \\ -\text{back} \end{array} \right\} \end{array} / \# \text{---s} \text{ (-son)} \quad C$$

$$(9b) \quad \emptyset \text{ ---> } v / \# \text{C---C.}$$

These rules then can be supported by such loan words as:

|       |          |           |                   |
|-------|----------|-----------|-------------------|
| (10a) | /iskuul/ | [is.ku:l] | -school           |
|       | /ispaat/ | [is.pa:t] | -steel            |
|       | /isthan/ | [is.than] | -place of worship |



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|       |           |             |              |
|-------|-----------|-------------|--------------|
|       | /iskout/  | [is.kwot]   | -waist-coat  |
| (10b) | /krishnə/ | [ki.ris.nə] | -proper name |
|       | /boks/    | [ba.kəs]    | -box         |
|       | /grəhək/  | [ga.ha]     | -customer    |
|       | /glas/    | [gi.las]    | -glass       |
|       | /brəsh/   | [bu.rus]    | -brush       |

The fact described in Rule (9a) and exemplified in (10a) is generally true for all sequences of /s/ + obstruent, and frequently occur in a Newari speaker's pronunciation of such loan words. A vowel can also be inserted to break up unnatural CC-clusters as in (10b). The result is a partial nativization of loan words, and the rules required to generate the epenthetic vowel are language-specific rules that apply to unacceptable syllable shapes. We saw above that the vowel deletion process is also motivated by syllable structure condition (SSC), so that synchronic rules of deletion cannot operate unless there is also surface alternations between careful and rapid speech variation of a given lexical form. Hooper (1976:235) in this connection claims that "all vowels that are inserted in purely phonetic environments are predictable on the basis of universal principles". Such predictability however may be based on whether a language is a stress language, a tone language or a vowel harmony language. Elsewhere (Kansakar, 1977:1-14) we had taken the view that Newari is a distinct stress-timed language, and stress language as a rule have vowel reduction or glide reduction (see Hale, 1969:34-35; Hale, 1970:314-15 for details) besides the insertion of vowels. So the constraints that require the addition of a V or a deletion of a V are not ad hoc rules but form an integral part of syllabification in the language.

Another interesting process is that of stem variation in Newari nouns. For historical reasons a large number of nouns have lost their stem-final syllables which however are still retained in the oblique case forms of these nouns. This development resulted in the open syllable as the major syllable pattern in the language. This loss also had the effect of lengthening or diphthongizing the vowels of the word-final syllable.

In the word-final position the following development may be noted:

(11)

|         |   |       |   |                                 |   |                  |            |
|---------|---|-------|---|---------------------------------|---|------------------|------------|
| /kōcə/  | → | kōye  | → | kwō <sup>s</sup> e <sup>s</sup> | → | kwē <sup>s</sup> | -bone      |
| /nhasə/ | → | nhaye | → | nhæ                             | → | nhx:             | -nose      |
| /bhojə/ | → | bhoye | → | bhwoe                           | → | bhwē             | -feast     |
| /gwacə/ | → | gwaye | → | gwæc                            | → | gwɔx:            | -moustache |

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These developments however did not occur in word non-final positions, and the following kinds of alternations can be seen in contemporary Newari:

(12)

| Underlying Form | Nominative   | Ablative   | Locative                                   |
|-----------------|--|--|--|
| /dhikə/         | dhii<br>[dhi:]<br>'clod, lump'                       | dhikə <sup>s</sup> -ə <sup>s</sup><br>[dhi.kə:]<br>'by/from the clod'      | dhikə-e<br>[dhi.kE]<br>'in the clod'       |
| /səphuli/       | səphuu<br>[sə.phu:]<br>'book'                        | səphuli <sup>s</sup><br>[sə.phuli:]<br>'by/from the book'                  | səphuli-i<br>[sə.phu.li:]<br>'in the book' |
| /ləkhə/         | ləə<br>[lə:]<br>'water'                              | ləkhə <sup>s</sup> -ə <sup>s</sup><br>[lə.khə:]<br>'by/from the water'     | ləkhə-e<br>[lə.khE:]<br>'in the water'     |
| /gamə/          | gā <sup>s</sup> a <sup>s</sup><br>[gā:]<br>'village' | gamə <sup>s</sup> -ə <sup>s</sup><br>[ga.mə:]<br>'by/from the village'     | gamə-e<br>[ga.mE:]<br>'in the village'     |
| /basə/          | bae<br>[bx:]<br>'shelter'                            | basə <sup>s</sup> -ə <sup>s</sup><br>[ba.sə:]<br>'by/from the shelter'     | basa-e<br>[ba.sE:]<br>'in the shelter'     |
| /həsə/          | hāe <sup>s</sup><br>[hE:]<br>'goose'                 | həsə <sup>s</sup> -ə <sup>s</sup><br>[hə.sə:]<br>'by/from the goose'       | --   |
| /pwathə/        | pwaā<br>[pwa:]<br>'stomach'                          | pwathə <sup>s</sup> -ə <sup>s</sup><br>[pwa.thə:]<br>'by/from the stomach' | pwathə-e<br>[pwa.thE:]<br>'in the stomach' |

The form of morphemes, then is often CV.CV or CGV.CV underlyingly, but when the



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phonology interprets them, the nominative forms will often surface as CV:, CV: or CGV: This also has the effect of removing morpheme boundaries and inserting syllable boundaries. As can be seen from (12), syllable boundaries are often inserted at points other than those from which morpheme boundaries were deleted. These alternations then serve to clarify two points:

- (a) A deletion of a stem-final syllable induced a lengthening of the vowel, so that the underlying vowel may be taken as short rather than long; and
- (b) the initial C of the suffix provides evidence as to the underlying form of the lexical item. This is the situation for all Newari nouns which have lost the old stem-final syllables.

3.3. **Syllable boundary insertion rules.** The syllable boundary is an integral part of syllabification rules so far discussed in the previous sections on syllable structure. These rules assign syllable boundaries to the phonological string but are specified in purely phonetic terms. In this section, we shall take the view that a descriptively adequate account of the syllable must be based on syllable boundary insertion rules. The following are some of the criteria required to formulate such rules:

- (13) Insert a '\$' between two syllables of CV shape:

|          |           |                      |
|----------|-----------|----------------------|
| /kɪpə/   | [ki.pi]   | -picture, photograph |
| /misa/   | [mi.sa]   | -woman               |
| /jəkə/   | [dʒə.kə]  | -only                |
| /lukhə/  | [lu.khə]  | -door                |
| /punhii/ | [pu.nhi:] | -full moon day       |

- (14) If there is only one non-syllabic segment between two syllabic segments the '\$' occurs before the non-syllabic segment:

|           |         |                      |
|-----------|---------|----------------------|
| /i-p̣ ị/ | [i.pi:] | -they                |
| /əse/     | [a.sje] | -wait!               |
| /u-ye/    | [u.je]  | -to bark             |
| /iwọ̄ ọ/ | [i.wo:] | -the year after next |
| /ilə-e/   | [i.lE:] | -on time             |

- (15) When there are two but not more than two non-syllabic segments, if one is an obstruent other than /s/, and the following segment is a liquid, the '\$'

occurs before the obstruent. In Newari, however, this sequence is normally confined to loan words:

|          |           |                          |
|----------|-----------|--------------------------|
| /patro/  | [pa.tro]  | -lunar calendar          |
| /matra/  | [ma.tra]  | -quantity, measured dose |
| /khudra/ | [khu.dra] | -small change (coins)    |
| /tukra/  | [tu.kra]  | -piece                   |

(16) If the second non-syllabic segment is a glide, the '\$' occurs before the first segment:

|          |           |                     |
|----------|-----------|---------------------|
| /əpwoo/  | [ə.pwo:]  | -too much           |
| /ii-byə/ | [ii.bjə:] | -any odd time       |
| /hulyaa/ | [hu.lja:] | -a frivolous person |

(17) Otherwise, the '\$' occurs between two non-syllabic segments:

|         |           |                 |
|---------|-----------|-----------------|
| /təsla/ | [tə.s.la] | -cooking vessel |
| /melta/ | [mə.l.ta] | -chilli         |
| /əlsi/  | [əl.sji]  | -lazy           |
| /əppa/  | [əp.pa]   | -brick          |

(18) If a word ends in a vowel cluster, the '\$' will occur in between the two vowels, thus breaking the vowel sequence into two syllables. This rule, however, only applies to-VV clusters such as /ai/, /ui/, and /ua/, and excludes /oi/, /əu/, /ei/ and /oi/ which are normally pronounced as single syllables. Note also that the vowels /əe/ and /ae/ are phonemically diphthongs and reduced to single long vowels [E:] [x:] in normal speech.

|         |         |             |
|---------|---------|-------------|
| /ya-ii/ | [ja.i:] | -will do    |
| /ku-ii/ | [ku.i:] | -will cover |
| /duii/  | [du.i:] | -two (loan) |
| /khuə/  | [khu.a] | -milk cream |

#### 4. Conclusion

In our analysis we have attempted to show that many P-rules in Newari depend on the composition of the syllable, i.e. its permitted sequence and the placement of syllable boundaries. Although we recognize the relation between MS-rules and P-rules, we have not allowed our morphological analysis to dictate entirely what forms our P-rules should take. The analysis of Hale and Hale (1969), as already noted, provides an approach where morphological considerations were given priority over syllabification rules. Contrary to this, we believe that P-rules should be built on phonological rather than on morphological motivations. Hooper (1976:188) in this respect maintains that constraints



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on phonological structure are best stated in terms of the syllable, and not in terms of a unit of syntax, the morpheme. Our present analysis tends to support this view.

**References**

- Chomsky, N. and M. Halle. 1968. **The Sound Pattern of English**. New York: Harper and Row.
- Fudge, Eric C. 1969. Syllables. **Journal of Linguistics** 5, 253-86.
- Hale, Austin and Margrit Hale. 1969. **Newari Phonemic Summary**. Tibeto-Burman Phonemic Summaries-V. Summer Institute of Linguistics, Tribhuvan University, Mimeo. Pp 47.
- Hale, Austin 1970. **Newari Segmental Synopsis**. In F. K. Lehman (ed.) **Occasional Papers of the Wolfenden Society on Tibeto-Burman Linguistics**, Vol. 3:1 300-27. Urbana: Department of Linguistics, University of Illinois.
- Hockett, Charles F. 1955. **A Manual of Phonology**. Indiana University Publications in Anthropology and Linguistics, Memoir 11. Baltimore: Waverly Press.
- Hooper, Joan B. 1972. The syllable in phonological theory. **Language** 48:3, 525-40
- ..... 1976. **An Introduction to Natural Generative Phonology**. New York; Academic Press.
- Kansakar, Tej R. 1977. Rhythm and Intonation in Colloquial Newari. **Contributions to Nepalese Studies**, 5: 1, 1-14.
- ..... 1979. **A Generative Phonology of Kathmandu Newari**. Ph. D. dissertation. Tribhuvan University: Kathmandu.
- ..... 1980 **The Treatment of Glides in Newari Phonology**. **Nepalese Linguistics** 1, 9-16. Kathmandu: Linguistic Society of Nepal
- ..... 1982. **Morphophonemics of the Newari verb**. **Occasional Papers in Nepalese Linguistics**. T. R. Kansakar (ed), 1, 12-29, Kathmandu: Linguistic Society of Nepal.
- Matisoff, James A, 1973. **The Grammar of Lahu** California: University of California Publications in Linguistics Nr 75.
- Modi, Bharati V. 1967 **The phonemes of Newari**. **Journal of the Maharaja Sayajirao University of Baroda** 16: 1, 103-134.
- Schane, Sanford A. 1974. **How abstract is abstract**. **Papers from the Natural Phonology Parasession**, 297-317. Chicago: Chicago Linguistic Society.

## Sir Ralph Lilley Turner: 1888-1983

Sir Ralph Lilley Turner, Emeritus Professor of Sanskrit in the University of London died on 22 April 1983 at the age of 95. Prof. Turner was an Honorary Life Member of the Linguistic Society of Nepal. In his letter accepting this status Prof. Turner wrote to the Society on 27 March, 1981, "I feel greatly honoured by the invitation of the Linguistic Society of Nepal to be one of its Honorary Life Member. In a long life, now in its 93rd year, devoted to the study of Indo-aryan languages, none in that family has been more dear to me than Nepali, the speakers of which in youth were my comrades through four years of war. The Dictionary of the Nepali Language in 1931 was followed 40 years later by the completion of the Comparative Dictionary of the Indo-Aryan Languages in which, of course, Nepali has its place; even then I have been fortunate in being able, despite my age, still to work at collecting Addenda for that book".

Prof. Sir Ralph Turner was first introduced to Indian languages by his headmaster at Perse Grammar School, W. H. D. Rouse. After graduating with first class honours at Cambridge in both Classical and Oriental Languages, he joined the Indian Educational Service and, after serving with the Queen Alexandra's own Gurkha Rifles during the first world war, became Professor of Indian Linguistics at Benaras Hindu University in 1920. In 1922 he was appointed to the first full-time Chair of Sanskrit in the University of London, at the recently founded School of Oriental Studies, an appointment which he held until 1954. From 1937 to 1957 he was Director of the School of African and Oriental Studies. Both during his University career and after his formal retirement he produced a number of major works of scholarship, foremost being his **Comparative and Etymological Dictionary of Nepali Language** (1931) and the **Comparative Dictionary of the Indo-aryan Language** (1966). He contributed frequent articles to learned journals on various aspect of Indo-aryan linguistics. A compilation of these was published in 1975 under the title **Collected Papers 1912-73**.

In the case of Nepali Prof. Turner's knowledge was based not only on thorough study of written materials but on intimate acquaintance with the speakers of the language. In the preface to his Nepali Dictionary he recalls his comrades who provided "the first collection of words under the wall of the old Gurkha fort in Almora and later in the fortified camp of Thal on the North - West Frontier, during four ocean voyages between



Bombay and Suez on the banks of the Canal and the southern shores of the Gulf of Suez and among the stony Judaeen Hills where so many Gurkhas found their graves." He also mentions the cooperation he received from Bodh Bikram Adhikari and Badakaji Marichi Man Singh and above all from Dharnidhar Sharma Koirala of Government High School, Darjeeling, who examined "everyone of the 26000 entries in the Dictionary.

As he himself put it, the Nepali dictionary was an attempt "to indicate with some degree of scientific accuracy the etymologies of an Indo-aryan language as a whole." His success in this endeavour not only secured final recognition for Nepali as a fully independent language but also, gained it a permanent place in subsequent comparative Indo-aryan studies. In addition, the dictionary has, of course, helped many practical language users-translators, grammarians and applied linguists.

Great as was the intellectual achievement represented by Prof Turner's work on Nepali, it is perhaps appropriate at this moment that we should remember above all the personal bonds with the Nepalese which were forged during a formative part of his life. His tribute to the Gurkha troops he served with has been quoted many times before but it will bear one more repetition: "... my thoughts return to you who were my comrades, the stubborn and indomitable peasants of Nepal. Once more I hear the laughter with which you greeted every hardship. Once more I see you in your bivouacs or about your fires, on forced march or in the trenches, now shivering with wet and cold, now scorched by a pitiless and burning sun. Uncomplaining you endure hunger and thirst and wounds; and at the last your unwavering lines disappear into the smoke and wrath of the battle. Bravest of the brave, most generous, never had country more faithful friends than you."

Nepal in turn has recognised Sir Ralph Turner as a true friend and it is as such that we will remember him. The Linguistic Society of Nepal expresses sorrow at his death and extends deep condolences to his family.

19 May 1983  
Kathmandu.

## THE NEPALESE LINGUISTICS STYLE SHEET

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Write the title, the name of the author, and the institutional affiliation on a separate sheet of paper.

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Lindau, M. 1978. 'Vowel Features' *Language* 34:3, 541-553.

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